Environmental Scan and Gap Analysis of Behavioral Health Promotion and Prevention Initiatives in Colorado

Prepared for the

Colorado State Innovation Model (SIM) Office

By

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I. Executive Summary

In 2015, mental disorders and substance use disorders together represented the leading cause of disease burden in the U.S., surpassing cancer and cardiovascular disease.[1] Nearly 18 percent of adults in the U.S. reported having a mental, behavioral or emotional disorder.[2] In 2014, 22.5 million individuals aged 12 and older self-reported needing treatment for alcohol or illicit drug use.[3] In Colorado alone, one in five people need mental health services[4] and the state consistently ranks among the top ten states for suicide rates.

Across the nation and within the state of Colorado, there is growing recognition that mental health is a critical component of a person's overall health and wellbeing. There is an understanding that physical health concerns, like chronic disease, tobacco use and obesity, often occur together with poor mental health and substance abuse. In 2015, Colorado received a $65 million-dollar four-year grant funded by the Center for Medicare and Medicaid Innovation (CMMI). This initiative, the Colorado State Innovation Model (SIM), is primarily focused on the integration of behavioral and physical health in primary care settings, and helping SIM practice sites succeed with alternative payment models. The Affordable Care Act and opportunities like SIM have driven widespread adoption of the Quadruple AIM-improving patient experience of care, improving clinician experience, reducing the cost of care, and improving the health of the population. This focus on population health includes greater attention to the determinants of mental health and prevention strategies. SIM includes a goal to improve population health in partnership with public health partners and under the guidance of the SIM Population Health Work Group.

In the spring of 2017, the Colorado Department of Public Health and Environment (CDPHE) contracted with Health Management Associates (HMA) to assist the SIM Office and the SIM Population Health Work Group in conducting a statewide environmental scan and gap analysis of population based behavioral health initiatives focused on promotion and prevention in Colorado. The scan and gap analysis will inform preparation of a Call to Action (Phase II of the project to be funded by SIM). The Call to Action will recommend strategies and actions for Colorado public and behavioral health stakeholders to consider for population based behavioral health promotion and prevention.

A. Methodology

For this project, HMA is using a commonly applied definition of behavioral health that includes the promotion of mental health, and prevention and intervention activities targeting mental illness and substance use disorders.

Between March and July 2017, HMA completed an environmental scan, literature review and an analysis of gaps in Colorado's efforts to address behavioral health promotion and prevention. The environmental scan included key informant interviews, and the collection and review of relevant documents and

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[1] Rabah Kamal et al. Journal of the American Medical Association. Costs and Outcomes of Mental Health and Substance Use Disorders in the U.S. 2017; 318 (5):415

[2] Ibid

[3] "Prevention", Substance Abuse and Mental Health Services Administration (SAMHSA), https://www.samhsa.gov/prevention

[4] Advancing Colorado's Mental Health Care, *The Status of Behavioral Health Care in Colorado: 2011 Update* (Denver: 2011).

websites. HMA conducted a brief literature review of best practices in preventing mental illness and substance abuse to identify effective principles and examples of effective programs. Finally, HMA analyzed all information collected to identify gaps and opportunities for consideration by the SIM Population Health Work Group.

When considering behavioral health promotion and prevention initiatives, HMA used two conceptual frameworks from public health: The Three Buckets of Prevention (see Figure 1) and the traditional Public Health Model (see Figure 2). Additionally, HMA considered the goals and targets set forth by the SIM Population Health Work Group.

B. Population Based Behavioral Health Promotion and Prevention

Programs and initiatives of interest for the environmental scan included screening and early intervention programs for universal or selective populations; primary and secondary prevention programs and initiatives that increase protective factors and decrease risk factors associated with behavioral health.

All people have biological and psychological characteristics that make them vulnerable to, or resilient to, potential behavioral health issues. These characteristics exist in multiple contexts like relationships, communities and society, and need to be addressed in these multiple contexts. For example, increasing parent-infant bonding, changing norms in the business sector to support self-care and help-seeking, or supporting anti-discrimination laws or policies. The development of interventions must consider that risk and protective factors have influence throughout the lifespan and have influence across contexts.[5]

In addition to a consideration of the biological and relationship level psycho-social factors that influence mental and substance use disorders, there must also be consideration for the social determinants of health that influence behavioral health issues. The social determinants of mental health include discrimination and social exclusion, poor education, unemployment or underemployment, lack of job security, poverty, food insecurity, lack of quality or affordable housing, lack of access to healthcare, and adverse childhood experiences.[6] The social determinants of mental health are the conditions in which people are born, live, work and age. These conditions are shaped by economic status, access to education, health care and safe environments, and social power or capital.[7]

Adverse Childhood Experiences (ACEs) include experiences of child maltreatment, parental substance abuse, divorce, domestic violence, among others. A large body of research confirms the devastating affect ACEs can have on the health and wellbeing of individuals. Children exposed to four or more ACEs are at four to 12 times greater risk for substance abuse, depression and suicide.[8]

Largely these determinants stem from unequal distribution of opportunity, and are therefore a social justice issue.[9] Effective population based behavioral health promotion should include strategies to address the determinants of mental health at the community and societal levels of the social ecology.

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[5] "Risk and Protective Factors", SAMHSA, last modified October 2, 2015, https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/risk-protective-factors
[6] Michael Compton and Ruth Shim, "The Social Determinants of Mental Health", *Focus*, 13(2015).
[7] Lloyd Sederer, "The Social Determinants of Mental Health", P*sychiatric Services,* 67(2016).
[8] Sederer "The Social Determinants of Mental Health"
[9] Compton and Shim, "The Social Determinants of Mental Health"

C. Behavioral Health Promotion and Prevention Programs and Initiatives in Colorado

There are many programs targeted towards behavioral health promotion and prevention, but not all programs are created equally. There are those that have an evidence-base showing an impact on increasing mental health and/or reducing substance abuse risk. Those that are often more effective share common principles that cut across the program's design, the program's coordination, the program's preparation of implementers, and the program's evaluation. Common characteristics include comprehensiveness, sufficient dosage, varied teaching methods, and appropriate timing (i.e. early enough to be considered prevention rather than intervention). When looking specifically at behavioral health promotion and prevention programs in Colorado, these principles are important to keep in mind when considering gaps and opportunities within the state.

There is a large body of programs and initiatives that are targeted specifically towards very young children and adolescents. In large part, this is due to the easy access to large populations of children in school settings, in addition to the fact that many behavioral health issues present themselves at an early age and so prevention during childhood years is of great importance. Early childhood programs are often focused on children between birth and 8 years, along with parents, guardians, and other caregivers. Across the state there is more attention being put on social and emotional wellness to increase protective factors for mental health later in a child's life. Other initiatives focused on this age group include increasing access to early screenings and interventions, preventing adverse childhood experiences by working with parents and families, training and educating providers, caregivers, and parents/guardians, integrating behavioral health into physical health, and coordinating systems across providers, schools, community organizations, and other invested parties. Program examples in the state include Project LAUNCH, LAUNCH Together, Pyramid Plus (from the Colorado Center for Social Emotional Competence and Inclusion), and other initiatives from the Office of Early Childhood and the Early Childhood Colorado Framework.

Behavioral health initiatives and programs geared towards children and adolescents are largely implemented in school settings, but can also be employed in community centers or faith-based settings, as these locations are where it is easier to target large populations of children. Often there is a bigger focus on tertiary interventions, where the focus is on those who are already displaying behavioral health issues, but there are broader initiatives that are focused on building school community and cohesion and preventing bullying (which shares risk and protective factors with mental health and substance abuse). As was seen in early childhood programs, there is a lot of attention on social and emotional learning, through programs such as PBIS, Project Aware, Caring Schools, and Thriving Schools. Many programs also emphasize the adequate training of educators and other school personnel on how to monitor for behavioral health issues among students, as well as how to work with those who already have shown signs or symptoms. There are also many programs that work to build infrastructure by connecting schools to behavioral health systems or mental health centers. The other significant areas of focus, particularly with adolescents are substance abuse prevention and suicide prevention. There are over 40 community programs and initiatives funded by either the Substance Abuse and Mental Health Services Administration (SAMHSA) or the Drug Free Communities Program. Sources of Strength, a program known for suicide prevention, is addressing multiple issues, including mental health and violence prevention.

Looking beyond children and adolescents, there are unfortunately fewer behavioral health promotion and prevention programs targeting adults and seniors. For adults, the big areas of focus in Colorado are pregnant women and men. For pregnant women, there are a few initiatives that work to increase awareness and screening, and reduce stigma around pregnancy related depression and substance misuse among pregnant women. These efforts are driven by CDPHE and partners across the public and private sector. For men, the main initiative is Man Therapy, created and managed as a partnership between CDPHE and Cactus Marketing and Communications. Man Therapy targets white, heterosexual men ages 25 to 54 by reducing stigma around help-seeking behaviors and encouraging social connections and the use of mental health resources.

Other novel initiatives focused on adults are reaching people in their place of work. These programs focus on increasing access to mental health resources, encouraging the implementation of company policies regarding behavioral health, increasing community awareness, and increasing access to screening and counseling services to prevent the occurrence or impact of behavioral health issues. Examples include AllHealth Network's CEO Pledge and Rotary Mental Health Initiatives, which focuses on increasing community awareness about behavioral health. For older adults, mainly those 65 and older, the options are limited beyond a few community programs that look at increasing access to screenings or interventions and building social connections, such as Senior Reach and Senior Focus at Jefferson Center.

Colorado has a multitude of mental health promotion and substance abuse prevention programs targeted towards the general population. Many of these are locally driven efforts stemming from local public health departments. CDPHE funds population health grantees implementing a variety of programs that serve a diversity of communities across the state. An example is the "Let's Talk Colorado" stigma reduction campaign from the Metro Public Health Collaboration, led by Tri County Health Department. There are also independent local efforts that are focused on promoting mental health such as the Valley Settlement Project in the Roaring Fork Valley. Colorado is doing a lot of work in substance abuse prevention with efforts coordinated by the Colorado Consortium for Prescription Drug Abuse Prevention and the Colorado Substance Abuse Trend and Response Task Force, public/private partnerships.

At the national level, SAMHSA and the Centers for Disease Control (CDC) provide resources and leadership the behavioral health promotion and prevention. The U.S. Department of Health and Human Services which oversees SAMHSA and CDC convened a cross agency National Prevention Council responsible for implementing the National Prevention Strategy (NPS). The NPS includes mental and emotional wellbeing and preventing drug abuse and excessive alcohol abuse as priorities.

D. Gap Analysis and Conclusion

Colorado is fortunate to be on the forefront of seeing mental health and substance abuse as public health issues. Some of the best minds and hearts are working in prevention in this state. The breadth, quality and innovation of many of the programs and initiatives identified in the environmental scan reflect the talent and dedication of Colorado's prevention professionals. As the SIM Population Health Work Group, CDPHE and the Colorado SIM Office seek to expand the work Colorado is doing in behavioral health promotion and prevention, there are gaps to be addressed. Gaps in the existing system allow for opportunities in the following areas:

- Better coordination of initiatives and programs across agencies and sectors.
- Increased efforts focused on older adults and on elementary school aged children (primary prevention programs).
- Innovative and promising initiatives taken to scale (i.e., Man Therapy or initiatives for the workforce).
- Clearer and more consistent expectations for the use of research informed or evidenced based approaches and for evaluation.
- Better and more strategic communication and advocacy about the social determinants of mental health.
- More programs or initiatives focused on environmental and/or policy changes.
- Greater sustainability planning for grant funded initiatives.
- Better integration of behavioral health promotion and prevention in planning and communication around other public health priorities like obesity, tobacco and chronic disease.

Phase II of this effort will result in a Call to Action with recommended strategies and actions for improving population based behavioral health promotion and prevention using these areas of opportunity.

II. Introduction

Poor mental health, mental illness and substance abuse exact a large toll at every level of the social ecology. Mental disorders represent four of the ten leading causes of disability worldwide.[10] Nearly 18 percent of adults in the U.S. reported having a mental, behavioral or emotional disorder.[11] In 2014, an estimated 22.5 million Americans aged 12 and older self-reported needing treatment for alcohol or illicit drug use, and 11.8 million adults self-reported needing mental health treatment or counseling in the past year. By 2020, mental and substance use disorders will surpass all physical diseases as a major cause of disability worldwide.[12] In Colorado, one in five people need mental health services.[13] Colorado is seeing an upward trend in indicators for methamphetamine, heroin and prescription opiate abuse.[14] Colorado consistently ranks in the top ten states for suicide rates.

There is a growing understanding that mental health is as important as physical health, as well as a growing exploration of the public health role in mental health, including understanding the associated risk and protective factors, the health disparities associated with mental and substance use disorders, and the relationship between mental health and other public health concerns like obesity and chronic disease. In 2015 Colorado received a $65 million-dollar four-year grant funded by the Center for Medicare and Medicaid Innovation (CMMI). This initiative, the Colorado State Innovation Model (SIM), is

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[10] World Health Organization, *The world health report 2001 – Mental Health: New Understanding, New Hope*, (Geneva: 2001).

[11] Rabah Kamal et al. Journal of the American Medical Association. Costs and Outcomes of Mental Health and Substance Use Disorders in the U.S. 2017; 318 (5):415

[12] "Prevention" Substance Abuse and Mental Health Services Administration (SAMHSA), https://www.samhsa.gov/prevention

[13] Advancing Colorado's Mental Health Care, *The Status of Behavioral Health Care in Colorado: 2011 Update* (Denver: 2011).

[14] Bruce Mendelson, *Drug Abuse Patterns and Trends in Colorado and the Denver/Boulder Metropolitan Area* (Washington D.C.: National Institute on Drug Abuse, 2014)

primarily focused on the integration of behavioral health and primary care, and alternative payment models focused on value. SIM and other opportunities have driven widespread adoption of the Triple AIM-improving patient experience of care, reducing the cost of care, and improving the health of the population. This focus on population health includes greater attention to the determinants of mental health and prevention strategies. SIM includes a goal to improve population health in partnership with public health partners and under the guidance of the SIM Population Health Work Group.

In the spring of 2017, the Colorado Department of Public Health and Environment (CDPHE) contracted with Health Management Associates (HMA) to assist the Colorado SIM Office and the SIM Population Health Work Group in conducting a statewide environmental scan and gap analysis of population based behavioral health initiatives focused on promotion and prevention in Colorado. The scan and gap analysis will inform preparation of a Call to Action (Phase II of the project to be funded by SIM). The Call to Action will recommend strategies and actions for Colorado public and behavioral health stakeholder to consider for population based behavioral health promotion and prevention.

III. Methodology

For this project, HMA is using a commonly applied definition of behavioral health that includes the promotion of mental health, and prevention and intervention activities targeting mental illness and substance use disorders.

Between March and July 2017, HMA completed an environmental scan, literature review and an analysis of gaps in Colorado's efforts to address behavioral health promotion and prevention. The environmental scan included key informant interviews with members of the SIM Population Health Work Group and key stakeholders or content experts identified by the Work Group, and the collection and review of relevant documents and websites. A brief literature review of best practices in behavioral health promotion and preventing mental illness and substance abuse was conducted to identify effective principles and examples of effective programs at the national and state level. Finally, HMA analyzed all information collected to identify gaps and opportunities for consideration by the SIM Population Health Work Group. Appendix A provides detailed information regarding the methodology for the environmental scan.

A. Guiding Framework

In identifying and assessing initiatives, HMA used two conceptual frameworks from public health: The Three Buckets of Prevention and the traditional Public Health Model. Additionally, HMA considered the goals set forth by the SIM Population Health Work Group.

1. The Three Buckets of Prevention

With the changing healthcare landscape, public health practitioners created useful ways to frame the public health role. One framework is known as the Three Buckets of Prevention. This conceptual framework describes three categories of heath interventions necessary for positive health outcomes (see Figure 1).[15]

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[15] John Auerbach, "The 3 Buckets of Prevention", *Journal of Public Health Management & Practice*, 22 (2016): 215-218

The "Buckets" of Prevention Framework
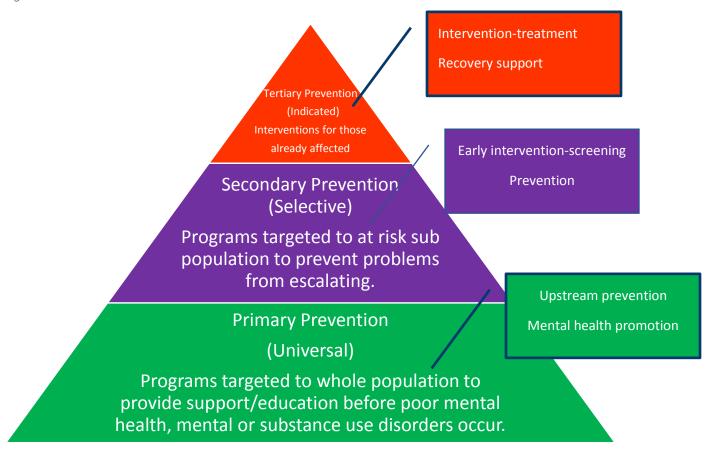
Screening and early intervention for a mental or substance use disorder can prevent progression of the disorder and promote mental health and wellness. Clinical prevention interventions identified in the environmental scan include screening for pregnancy-related depression and substance abuse. Across the state there are community based preventive interventions like Nurse Family Partnership that build protective factors to prevent adverse childhood experiences (a risk factor for mental and substance use disorders). The environmental scan focused on programs in this bucket that address behavioral health promotion or prevention directly and found examples mainly targeting the early childhood and youth population. Total population or community wide prevention efforts identified in the environmental scan included environmental changes, public education and stigma reduction campaigns.

2. The Public Health Model

The Public Health Model is a framework that looks at prevention at three levels: primary, secondary and tertiary with population health approaches that are universal, selective or indicated (see Figure 2).

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[16]"Health Impact in 5 Years Slides", Center for Disease Control, last modified August 22, 2016, https://www.cdc.gov/policy/hst/hi5/slides/index.html

Figure 2: The Public Health Model

The public health model also includes the Spectrum of Prevention. The spectrum identifies different levels of prevention strategies:[17]

- Strengthening Individual Knowledge and Skills
- Promoting Community Education
- Educating Providers

- Fostering Coalitions and Networks
- Changing Organizational Practices
- Influencing Policy and Legislation

The environmental scan focused on programs and initiatives at the primary and secondary levels of prevention. There are examples of strategies across the spectrum of prevention, however examples of legislative strategies focused on prevention rather than on treatment are sparse. Legislative actions that would serve as primary prevention or mental health promotion strategies are often not seen as such. For example, there have been attempts at legislative action to address determinants of mental health, like raising the minimum wage to a living wage. However, advocacy related to these actions often do not include education about how the action, or lack of action, affect mental health.

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[17] "Spectrum of Prevention", Prevention Institute, last modified May 2017, https://www.preventioninstitute.org/tools/spectrum-prevention

3. Goals of the SIM Population Health Work Group

The SIM Population Health Work Group identified four overarching goals on which to focus, and mid to long term targets. The environmental scan identified many initiatives that align with these goals and the associated indicators of success in achieving these goals.

Goals

1. Increase community engagement in behavioral health and wellness

2. Reduce the stigma associated with behavioral health and wellness

3. Increase access to behavioral health and wellness

4. Create sustainability and a bridge to the future for behavioral health and wellness

Targets

- Reduce suicide rates in Colorado

- Increase depression screening rates in Colorado

- Reduce prescription drug misuse and overdose

- Identify goals for youth and adolescents related to reducing adverse childhood experiences

- Align efforts with other SIM funded, state funded and partner agency work

IV. Literature Review and Environmental Scan

A. Population Based Behavioral Health Promotion and Prevention

The World Health Organization describes mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."[18] In an article published in World Psychiatry, the authors present a further refined definition of mental health as *"a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express and modulate one's own emotions, as well as empathize with others; flexibility and ability to cope with adverse life events and function in social roles; and harmonious relationship between body and mind represent important components of mental health which contribute, to varying degrees, to the state of internal equilibrium."[19]* This captures the importance of thinking of behavioral health on a dual axis or spectrum (see Figure 3), with dynamic states of being influenced by a number of risk and protective factors. Thinking of behavioral health in this way best captures the promise of prevention and promotion.

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[18] World Health Organization, *Promoting mental health: concepts, emerging evidence, practice (Summary Report)*, (Geneva: World Health Organization; 2014).

[19] Silvana Galderisi et al, "Toward a new definition of mental health", *World Psychiatry* 14 (2015): 231-233.

Figure 3: Dual Axis Model of Mental Health

1. Risk and Protective Factors

Effective prevention focuses on reducing the risk factors, and strengthening protective factors, that are most closely related to developing a mental and/or substance use disorder. All people have biological and psychological characteristics that make them vulnerable to, or resilient to, potential behavioral health issues. These characteristics exist in multiple contexts like relationships, communities and society, and need to be addressed in these multiple contexts. For example, increasing parent-infant bonding, changing norms in the business sector to support self-care and help-seeking, or supporting anti-discrimination laws or policies. The development of interventions must take into account that risk and protective factors have influence throughout the lifespan and have influence across contexts.[21]
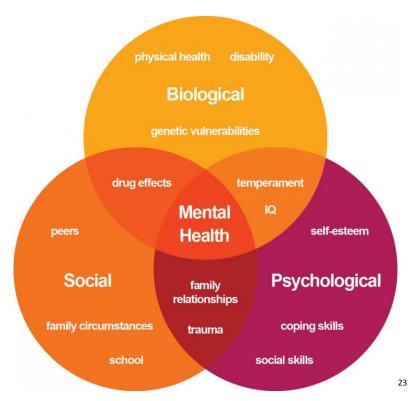
There are multiple models and much research on the risk and protective factors associated with behavioral health. Exploring risk and protective factors is complex, as many mental disorders have factors that are unique. Likewise, with substance use disorders. However, across mental illness and substance use disorders there are shared risk and protective factors.[22] One easy way to understand risk and protective factors associated with behavioral health is to consider them as those that are biological, social and psychological in nature (see Figure 4).

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[20]Chris O'Sullivan, "Perspectives on Mental Health and Well Being", (Scottish Development Centre for Mental Health: 2009)

[21] "Risk and Protective Factors", SAMHSA, last modified October 2, 2015, https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/risk-protective-factors

[22] Ibid.

Figure 4: Factors Influencing Mental Health

physical health   disability
Biological
genetic vulnerabilities
drug effects   temperament
Mental Health   IQ
peers   self-esteem
Social   **Psychological**
family relationships
family circumstances   coping skills
trauma
school   social skills

[23]

2. Determinants of Mental Health

In addition to a consideration of the biological and relationship level psycho-social factors that influence mental and substance use disorders, there must also be consideration for the social determinants of health that influence behavioral health issues. The social determinants of mental health are the conditions in which people are born, live, work and age. These conditions are shaped by economic status, access to education, health care and safe environments, and social power or capital.[24]

The social determinants of mental health include discrimination and social exclusion, poor education, unemployment or underemployment, lack of job security, poverty, food insecurity, lack of quality or affordable housing, lack of access to healthcare, and adverse childhood experiences.[25] Adverse Childhood Experiences (ACEs) include experiences of child maltreatment, parental substance abuse, divorce, domestic violence, among others. A large body of research confirms the devastating affect ACEs can have on the health and wellbeing of individuals. Children exposed to four or more ACEs are at four to 12 times greater risk for substance abuse, depression and suicide.[26]

Largely these determinants stem from unequal distribution of opportunity, and are therefore a social justice issue.[27] Effective population based behavioral health promotion should include strategies to address the determinants of mental health at the community and societal levels of the social ecology. At

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[23] "How mental health difficulties affect older children", Kids Matter, https://www.kidsmatter.edu.au/mental-health-matters/should-i-be-concerned/how-mental-health-difficulties-affect-older-children

[24] Lloyd Sederer, "The Social Determinants of Mental Health", P*sychiatric Services,* 67(2016).

[25] Michael Compton and Ruth Shim, "The Social Determinants of Mental Health", *Focus*, 13(2015).

[26] Sederer "The Social Determinants of Mental Health"

[27] Compton and Shim, "The Social Determinants of Mental Health"

the community level, interventions that improve social cohesion and improve the built environment; or organizational practices that support employees and families; school policies that encourage school engagement and support differences in learner profiles, are likely to promote mental health and mitigate the risks for mental illness and substance abuse.

At the societal level, an important strategy is the concept of health in all policies. Public policies at all levels of government that address the unequal distribution of opportunity such as ensuring affordable and safe housing; ensuring a minimum wage that is a healthy living wage to protect against poverty; ensuring affordable and equitable access to quality preschool and kindergarten are likely to have long term benefits to mental health.

It was outside the scope of this project to assess all the activities and initiatives in Colorado that address the social determinants of mental health discussed above. However, in the spring of 2017 CDPHE contracted with HMA to complete 12 research papers and accompanying briefs on the impact of strategies to address identified social determinants of health on violence, chronic disease, mental health and substance abuse. The briefs are included in Appendix B and the full research papers can be accessed through the Violence and Injury Prevention—Mental Health Promotion Branch at CDPHE.

What follows is a summary of behavioral health promotion and prevention activities and initiatives in Colorado across the lifespan and within the spectrum of prevention described above.

B. Best Practices in Preventing Mental and Substance Use Disorders

1. General Effective Principles

Through the multitude of studies that have been done around prevention, there have been quite a few summary studies done on common features across effective prevention programming. While the targets of the programs range from drug abuse, violence, high-risk sexual behaviors, and mental health promotion, the interventions promoted to address the variety of risk behaviors have many features in common. It is important to think about the most effective techniques and features of interventions to better evaluate possible programs and to help stakeholders navigate through the multitude of programs available in the field of substance abuse prevention and mental health promotion.

One study used a review-of-reviews approach to determine nine characteristics that were consistently associated with effective prevention programs:[28]

1. Comprehensive: A program needs to address multiple domains, at multiple levels (i.e. individual, relational, societal, etc.), that help perpetuate risk behaviors.

2. Varied teaching methods: A program should utilize multiple teaching methods that focus on increasing awareness and understanding of risk behaviors or focus on teaching protective skills.

3. Sufficient dosage: A program needs to last long enough to produce the desired results, along with providing a follow-up mechanism as needed.

4. Theory driven: A program should have a theoretical justification that is supported by empirical research.

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[28] M. Nation et al., "What Works in Prevention: Principles of Effective Prevention Programs", *American Psychologist,* 58(2003): 449-456

5. Positive relationships: A program should help to build relationships between peers and with adults, which can help support and perpetuate positive results.

6. Appropriately timed: A program needs to be initiated early enough to influence the development of the problem behavior, while being sensitive to the developmental needs of the individuals.

7. Socio-culturally relevant: A program needs to be tailored to the norms of the community in which the program is being implemented, which could be done via inclusion of target populations.

8. Outcome evaluation: A program should have clear goals and objectives to best evaluate the results.

9. Well-trained staff: A program should have adequate staff to support the program, with appropriate training and skills regarding implementation of the program.

Not all nine characteristics need to be met, as indicated in the study, as some may play a more important role than others (i.e. comprehensiveness, dosage, teaching methods, and timing were found to be more critical), but they offer a guideline of how to think about prevention programs.

A similar study looked more specifically at promoting mental health and reducing risk behaviors in youth. They created a list of key social and emotional learning competencies and program features and identified 17 key competencies which were organized into four categories: (1) awareness of self and others; (2) positive attitudes and values; (3) responsible decision making; and (4) social interaction skills.[29] The competencies listed are ones that the study suggests are key in crafting an effective intervention, such as teaching individuals active listening or helping them create a constructive sense of self.

They also highlight key features of quality programs: (1) program design; (2) program coordination; (3) educator preparation and support; and (4) program evaluation. These features are very similar to the ones listed above, but include creating solid school-family and school-community partnerships. The program features and competencies are a useful tool through which to view interventions and can help guide interested parties towards choosing an effective program.[30]

The National Institute on Drug Abuse (NIDA), a department within the National Institutes of Health, has also compiled a list of common elements for effective prevention programs for substance abuse interventions. The focus was on programs geared towards children, adolescents, and young adults, but reiterates many of the characteristics and competencies already mentioned. NIDA's review included combining two or more effective programs, ideally ones that operate at different levels (i.e. family-based and school-based), putting more focus on interactive techniques (i.e. role-playing or discussion groups), and cost-effectiveness.[31] Research has shown, based on NIDA's research, that "for each dollar

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[29] J.W. Payton et al., "Social and Emotional Learning: A Framework for Promoting Mental Health and Reducing Risk Behaviors in Children and Youth", *Journal of School Health,* 70(2000); 179-185
[30] Ibid
[31] "Lessons from Prevention Research", National Institute on Drug Abuse (NIDA), last modified in 2014, https://www.drugabuse.gov/publications/drugfacts/lessons-prevention-research

invested in prevention, a savings of up to $10 in treatment for alcohol or other substance abuse can be seen."[32]

Finally, the Substance Abuse and Mental Health Services Administration (SAMHSA) has an approach called Screening, Brief Intervention, and Referral to Treatment (SBIRT), specifically geared towards the delivery of early intervention and treatment to people with substance use disorders and those at-risk of developing a disorder. The approach is broad and provides an outline for how to look at and implement prevention and early intervention strategies. The approach has a broad background of research supporting the model and proving its effectiveness in the areas of alcohol misuse/abuse, illicit drug misuse/abuse, tobacco use, depression, and trauma/anxiety disorders.[33] In brief, the approach is as follows: (1) Screening to quickly asses the severity of substance use and identify the appropriate level of treatment. (2) Brief intervention focuses on increasing insight and awareness regarding substance use and motivation towards behavioral change. (3) Referral to treatment provides those identified as needing more extensive treatment with access to specialty care.[34]

In general, most behavioral health promotion and prevention interventions written about in the literature are targeted towards young people, mainly children and adolescents, particularly since mental illness often presents itself at a younger age (see Figure 5). Likewise, with substance abuse. If children can be prevented from initiating substance abuse at a young age, it is more likely to prevent substance use disorders later in life. For the complete literature review of best practice behavioral health promotion and prevention interventions across the U.S. and internationally, see Appendix C.

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[32] Ibid

[33] Substance Abuse and Mental Health Services Administration (SAMHSA). *Screening, Brief Intervention and Referral to Treatment (SBIRT) in Behavioral Healthcare*. (SAMHSA: 2017).

[34] Ibid
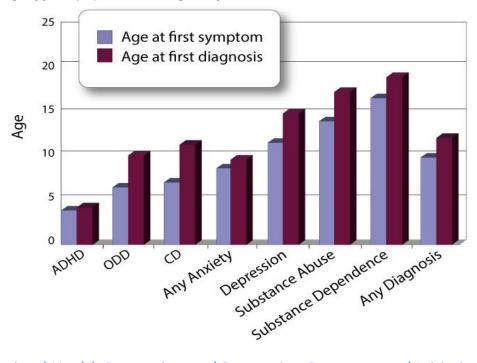
Figure 5: Age of first symptoms and diagnosis for common behavioral health issues

C. Behavioral Health Promotion and Prevention Programs and Initiatives in Colorado

The following is a presentation of the behavioral health promotion and prevention programs and initiatives in Colorado. There is a significant number of programs currently being implemented in Colorado. The information is organized by populations across the lifespan, beginning with early childhood and ending with programs and initiatives targeted to the general population.

It is important to note that the limitations of the scope of this project means there are likely programs and initiatives that have not been captured here. Also, the information available for review varied significantly across and within the different target populations. With these limitations in mind, this scan should be considered a fluid document so that more complete information can be included as the SIM Population Health Work Group considers recommendations for the Call to Action mentioned in the introduction to this report.

1. Early Childhood

a. Early Childhood Colorado Framework

In 2015 the Early Childhood Leadership Commission worked with early childhood stakeholders to update the Early Childhood Colorado Framework to guide planning and mobilize partners in supporting young children and their families. The framework encompasses family support and education, health and well-being, and learning and development-all efforts that could be considered primary prevention in that the strategies support the development of protective factors for ACEs. The framework includes social,

emotional and mental health as priority outcomes with strategies that include screening and early intervention, as well as selective approaches for populations at higher risk.[35]

b. Early Childhood Colorado Partnership

The Early Childhood Colorado Framework is central to the work of the Early Childhood Colorado Partnership (ECCP), a statewide network of partners, including CDPHE's Essentials for Childhood, who are identifying, coordinating, and supporting implementation of cross-sector, system level changes that improve the health and wellbeing of young children and their families.

The ECCP manages Colorado's Early Childhood Shared Message Bank which provides messages for stakeholders around the state to use in addressing early adversity and toxic stress (ACEs) in children and families. The message bank includes the message: *A Strong Foundation for Mental Health Begins Early* with the key message that "positive mental health provides a foundation of stability that supports all other aspects of healthy development. Children's ability to thrive begins to take shape prior to birth and is impacted just as much by their social and emotional development as it is by their physical development. Practices, policies and services that promote positive early childhood mental health help ensure a child's success."[36]

The ECCP created targeted messages for specific audiences, including the business sector, parents and caregivers, educators, healthcare providers, community members, and community resource providers. Additionally, the ECCP maintains an interactive map to show where across the state the shared message campaign platform is being used.[37]

The state's 31 Early Childhood Councils include early childhood mental health as a priority. The Councils are community-based partnerships that are working to build a comprehensive system that connects children, families and resources to quality services in education, health, mental health, and family support.

c. Office of Early Childhood

In 2012, the Colorado Office of Early Childhood (OEC) was created within the Colorado Department of Human Services (CDHS) to improve coordination and collaboration across the many programs and initiatives focused on this population. The OEC provides leadership to the alignment of resources for children, families, and early childhood professionals. The OEC includes quality initiatives, early care and learning programs, and community and family support programs. Among the community and family support programs are prevention programs designed to prevent ACEs and promote healthy social and emotional development, as well as programming to address screening and early intervention including:

- Child Maltreatment Prevention: Services focused on building protective factors among children, families and communities.

- Early Childhood Mental Health: Early childhood mental health prevention, promotion and early identification services.

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[35] "Early Childhood Colorado Framework", Early Childhood Framework, last modified July 2015, http://earlychildhoodframework.org/wp-content/uploads/2015/08/ECLC-FRMWRK-062415-LORES.pdf
[36] "Shared Message Bank", Early Childhood Colorado Partnership, http://eccp.civiccanopy.org/message-platform/
[37] Ibid.

- Early Intervention Colorado: Supports and services for children under three years of age with special developmental needs.

- Head Start State Collaboration: Coordination of efforts among federal, state and local agencies relating to Head Start/Early Head Start.

- Home Visiting: In-home parenting support programs dedicated to improving health and child development.[38]

i. Head Start

The OEC houses Colorado's Head Start Collaboration Office, the office tasked with building partnerships between the head start programs across 38 counties in Colorado, state agencies and community organizations. Head Start prioritizes the promotion of mental health, including social and emotional developmental screening and assessment and the provision of Early Childhood Mental Health Consultation.[39] Head Start programs are required to provide screening and assessment for social and emotional development within 45 days of a child's start date in the program year. Additionally, Head Start program staff and participating parents are provided with mental health educational opportunities. Head start programs support pregnant women with mental health interventions and follow-up, including making appropriate referrals to additional resources.[40]

ii. Early Childhood Mental Health Specialists

The Colorado Early Childhood Mental Health Specialists (ECMH Specialists) program focuses on creating environments and relationships that encourage mental health and well-being among children, families and staff of early care and learning settings. This is a free and voluntary program for parents, guardians and child care providers. The program involves building the knowledge and skills of providers, supporting best practices for social and emotional development, and the provision of timely childhood mental health support, especially for those children at higher risk because of behavioral difficulties and disabilities. This program focuses on prevention and early identification of concerns or problems.[41]

In addition to early childhood mental health consultation, an ECMH Specialist provides services in their community that may include: provider, staff and parent education; consultation to other early childhood systems; and community training on social and emotional development. The ECMH Specialist can also assist in making referrals for additional resources and/or when counseling or therapy is needed.[42]

d. Project LAUNCH and LAUNCH Together

i. Project LAUNCH

Project LAUNCH (Linking Actions for Unmet Needs in Children's Health) is a unique partnership between the following federal agencies: the Substance Abuse and Mental Health Services Administration, the

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[38] "About Us", Colorado Office of Early Childhood, http://coloradoofficeofearlychildhood.force.com/oec/OEC_Resources?p=Resources&s=About-Us&lang=en
[39] "Mental Health", ECLKC, https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/mental-health
[40] "Mental Health & Head Start", ECLKC, https://eclkc.ohs.acf.hhs.gov/hslc/hs/resources/ECLKC_Bookstore/PDFs/MH2009_FINAL%5B1%5D.pdf
[41] "Social-Emotional Development", Colorado Office of Early Childhood, http://coloradoofficeofearlychildhood.force.com/oec/OEC_Families?p=Family&s=Social-Emotional-Development&lang=en
[42] Ibid

Administration for Children and Families, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention (CDC).[43]

The purpose of Project LAUNCH is to promote the wellbeing of children birth to eight by addressing the physical, social, emotional, cognitive, and behavioral aspects of development. Project LAUNCH aims to improve coordination across the systems serving children and families, build infrastructure, and increase access to high-quality prevention and health promotion services. Project LAUNCH uses a public health approach by addressing risk factors that lead to negative health outcomes and promoting protective factors that support resilience and healthy development across the individual, relationship and community levels of the social ecology.[44]

Project LAUNCH grantees are funded for five years to implement five core prevention and promotion strategies: (1) screening and assessment in a variety of child-serving settings, (2) enhanced home visiting through increased focus on social and emotional well-being, (3) mental health consultation in early care and education programs, (4) family strengthening and parent skills training, and (5) integration of behavioral health into primary care settings. The overarching goal for Project LAUNCH is school readiness.[45] In 2010, the North Colorado Health Alliance in Weld County received a Project LAUNCH grant and worked in partnership with North Range Behavioral Health among other partners.[46]

In 2014, CDHS in partnership with CDPHE and the Early Childhood Partnership of Adams County received a Project LAUNCH grant to support work at the state-level in addition to work in South Adams County, with an increased emphasis on children and families with less-equitable health outcomes.[47] The population of focus in Adams County includes Spanish-speaking families and families who identify as Hispanic/Latino (both Spanish and English speaking).

ii. LAUNCH Together

Inspired by the success of Project Launch, eight Colorado based foundations initiated LAUNCH Together. LAUNCH Together funding partners are comprised of The Ben and Lucy Ana Walton Fund of the Walton Family Foundation, Buell Foundation, Caring for Colorado Foundation, Community First Foundation, The Colorado Health Foundation, Kaiser Permanente Colorado, The Piton Foundation at Gary Community Investments and Rose Community Foundation. These funding partners committed 11.2 million dollars to this one-of-a-kind initiative designed to follow the intent and outcomes of Project Launch with a focus on Colorado communities. LAUNCH Together supports communities across the state in enhancing existing evidence-based prevention and health promotion practices while building more coordinated

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[43] "Project Launch", National Resource Center for Mental Health Promotion & Youth Violence Prevention, http://www.healthysafechildren.org/grantee/project-launch

[44] Ibid.

[45] Ibid.

[46] "North Colorado Health Alliance – Weld Systems Navigation Project", Project LAUNCH, http://www.healthysafechildren.org/sites/default/files/NorthCO_WeldSystem_GranteeProfile_0.pdf

[47] "Children's Mental Health Policy Summit: Overview of Proceedings", last modified 2015, http://www.allkidscoveredcolorado.org/wp-content/uploads/2016/03/Childrens-Mental-Health-Policy-Summit-Toolkit-Updated-3.11.16.pdf

community systems. The Butler Institute for Families at DU serves as the lead evaluation partner and Early Milestones is the lead agency for the project.[48] [49]

Seven Colorado communities were each awarded up to $55,000 for a planning grant to support a seven-month strategic planning process to expand evidence-based prevention and promotion practices and enhance coordinated community systems. The seven planning grantees were:[50]

1. Baby Bear Hugs
2. Catholic Charities of the Diocese of Pueblo
3. Denver's Early Childhood Council
4. ECHO & Family Center Early Childhood Council
5. Jefferson Center for Mental Health
6. Mesa County Health Department
7. Tri-County Health Department

At the end of the planning grant, four of the seven grantees were selected for Launch Together implementation grants totaling up to $2 million for each community. These four grantees and their projects are described below.

ECHO & Family Center Early Childhood Council in partnership with Chaffee County Early Childhood Council is focused on more than 3,000 children pre-natal to Kindergarten in Chaffee and Fremont counties. The mission of the initiative is to increase coordination of early childhood systems, and expand prevention and promotion strategies to support the social emotional health and development of children throughout the region. The goals include:

1. Integrated regional system of primary care, early childhood behavioral health, and community service providers.
2. Increase universal screenings by increasing use, accessibility, and availability by medical providers and community partners.
3. Communities will understand and support the importance of social-emotional wellness via effective community outreach activities.
4. Families will utilize high quality, research-based services and supports to promote social-emotional health and well-being.
5. Coordinated, efficient Mental Health Consultation System in the region.[51]

Jefferson Center for Mental Health is focused on children ages prenatal to three years and their families living within the 80214 zip code, encompassing the neighborhoods between 32nd Ave. and 6th Ave. and between Sheridan and Carr Street, including Wheat Ridge, Edgewater, and Lakewood in Jefferson County. The mission of the initiative is to establish community understanding of the benefits of early childhood social emotional health and develop a collaborative infrastructure that creates a lasting impact. The goals include:

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[48] "LAUNCH Together", Early Milestones Colorado, http://earlymilestones.org/launch-together/
[49] "Mental Wellness", Community First Foundation, http://communityfirstfoundation.org/grantmaking/mental-wellness/
[50] "LAUNCH Together Awards", Community First Foundation, http://communityfirstfoundation.org/news/news-releases/colorado-foundations-announce-launch-together-awards/
[51] "Chaffee Fremont", Early Milestones Colorado, http://earlymilestones.org/launch-together/chaffee-fremont/

1. All families of young children have access to culturally and linguistically relevant integrated care (screening and referral process) that is affordable, effective, and readily available.
2. Increase sustainable capacity of child care providers to ensure consistent and sustainable high-quality care for young children.
3. Increase the capacity of home visitation programs by developing a coordinated system of communication and referral and delivering better family support using mental health support and two generation strategies.
4. Increase family protective factors using a family-centered, family-directed, and culturally/linguistically-relevant approach.
5. Appropriate and timely developmental and social emotional screenings are available to all children in the target area.[52]

Denver's Early Childhood Council is focused on young children, their families, and the providers supporting them in nine southwest Denver neighborhoods: Villa Park, Sun Valley, Barnum, Barnum West, Valverde, Westwood, Athmar Park, Mar Lee, and Ruby Hill. The mission of the initiative is to build a resilient, trauma-informed community network of parents, providers, and programs who are responsive to the social-emotional needs of young children, their families, and the champions who serve them. The goals include:

1. Create responsive systems and services that are working together using a trauma-informed approach to be more accessible to families, communities, and professionals.
2. Build a network of organizations and professionals implementing evidence-based, trauma-informed practices in their day-to-day work with each other and the children and families they serve.
3. Enhance the protective factors (from the Strengthening Families Framework) of the neighborhoods and families to strengthen their connections with their children and the resources around them.[53]

Catholic Charities, Diocese of Pueblo is focused on children, prenatal to age 8, and their families living in Pueblo County, with supports focused on the neighborhoods of Bessemer, West Side, and East Side. The mission of the initiative is to unite community partners and families in a collaborative network to serve Pueblo's children. The goals include:

1. Build community engagement around early childhood development with a two-generation social and emotional health focus.
2. Increase access to and use of evidence-based screening, assessment, and referral practices and policies.
3. Build an early childhood workforce development structure using mental health consultants and early childhood specialists to consistently deliver effective programming.
4. Pediatric Primary Care Providers will improve patient/family access to screening and assessments and provide links to appropriate services and coordinate care across systems.
5. Expand and enhance home visitation services.

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[52] "Jefferson", Early Milestones Colorado, http://earlymilestones.org/launch-together/jefferson/
[53] "Southwest Denver", Early Milestones Colorado, http://earlymilestones.org/launch-together/southwest-denver/

6. Support families in developing healthy, safe, and secure environments for the children by teaching enhance parenting strategies and navigation of social services system.[54]

e. The Colorado Center for Social Emotional Competence and Inclusion

The Colorado Center for Social Emotional Competence and Inclusion provides technical assistance and training in the use of the Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children. The Pyramid Model is a tiered framework of evidence based interventions for promoting the social, emotional, and behavioral development of young children. The model describes three tiers of intervention: universal promotion for all children; secondary preventions to address the intervention needs for children at risk of social emotional delays; and tertiary interventions needed for children with persistent challenges. The Pyramid Model describes interventions with infants, toddlers and preschoolers. As of 2015 the Center has trained over 2,500 people in Pyramid Plus Approach. There are four certified programs (Bal Swan Children's Center in Broomfield; Ability Connections Colorado in Denver/Aurora; Primetime Early Learning Center in Norwood; Fremont County Head Start in Canon City). There are seven implementation communities: Summit, Grand, Gunnison, Denver, La Plata, San Luis Valley, El Paso.[55]

Figure 6: Summary of Early Childhood Programs and Initiatives in Colorado

Program	Primary Prevention	Secondary Prevention	Tertiary Prevention
Early Childhood Colorado Partnership	✓		
Office of Early Childhood	✓	✓	
Head Start		✓	✓
Early Childhood Mental Health Specialists		✓	
Project LAUNCH	✓	✓	
Launch Together	✓	✓	
The Colorado Center for Social Emotional Competence & Inclusion	✓	✓	✓

2. Children and Adolescents

a. School Based Behavioral Health Promotion and Prevention

Behavioral health promotion and prevention programming targeting children and adolescents is typically implemented in the school setting. Schools offer a unique ability to access large numbers of children with universal and selective prevention strategies. In Colorado, most of the behavioral health programming for children ages 6-12 is tertiary prevention and indicated approaches to support children identified as having a mental health disorder or significant behavioral issues and who need services to facilitate successful learning outcomes. Coordination between the school system and community based services, trauma-sensitive school systems and restorative practices are examples of this. On the other end of the spectrum, most Colorado schools offer programming or resources to prevent bullying and to

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[54]"Pueblo", Early Milestones Colorado, http://earlymilestones.org/launch-together/pueblo/
[55] "The Colorado Center for Social Emotional Competence and Inclusion", http://www.pyramidplus.org/

foster a sense of community within the school setting. As these efforts mitigate the risk of adverse experiences and strengthen protective factors for mental health, they can be considered primary prevention. Regarding specific behavioral health promotion and prevention initiatives that are outside the realm of treatment services, Colorado does have some limited programming for children ages 6-12, with greater offerings for adolescents.

i. School Based Health Centers

Early identification and intervention can prevent negative health outcomes of mental and substance abuse disorders. In 2017, CDPHE funded 48 school based health center sites. Required on site services at school based health centers include mental health screening and substance abuse screening.[56]

ii. Social and Emotional Learning

The Colorado Department of Education (CDE) encourages school districts to include evidence-based or practice-based social and emotional learning. Research supports integrating skills based social and emotional learning throughout the school day, but if this is not considered feasible by a school district, any opportunity for this kind of learning is impactful to students. Colorado has Emotional and Social Wellness Standards embedded in the Comprehensive Health and Physical Education Standards giving schools more guidance about how to implement social and emotional learning.[57]

iii. Positive Behavioral Intervention and Supports

Positive Behavioral Interventions and Supports (PBIS) is a three-tiered systems approach to create a positive school climate and reinforce positive behavior. The first tier includes a universal approach (school wide) and focuses on the school climate and building pro-social skills and parental engagement. The second tier uses a selective approach targeting at risk students with early intervention and support. The third tier is an indicated approach providing wrap-around intervention services for students identified as having social emotional needs.[58] Since 2009, more than 1000 schools across Colorado have been trained to implement PBIS with support from CDE.[59]

iv. Project Aware

Project Aware is an initiative funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) and administered by CDE and is a good example of work across the "three buckets of prevention." The purpose of Project AWARE is to increase awareness of mental health issues among school-aged youth, increase training for school personnel and other adults who interact with school-aged youth to detect and respond to mental health issues in school aged youth, and refer those with behavioral health issues to appropriate services. CDE Project Aware state goals are:

1. Build infrastructure and capacity for implementing a coordinated, data-driven system for supporting the continuum of children's mental health needs with students, families, and communities
2. Promote social, emotional, and behavioral health while reducing risk factors leading to mental illness and violence by implementing research-based programs, services, and supports based on their population's data

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[56] "School-Based Health Center Program July 1, 2017-June 30, 2018 Award List", CDPHE, https://www.colorado.gov/pacific/sites/default/files/SBHC2_FY2017-18-Grantee-List.pdf
[57] The Colorado Education Initiative, *Colorado Framework for School Behavioral Health Services,* (Denver: 2014)
[58] Colorado Department of Education, *A Guide to School Mental Health Services*, (CDE: Denver, 2014).
[59] "PBIS Implementation", CDE, http://www.cde.state.co.us/mtss/pbisimplementation

3. The State Management Team (SMT) increases awareness across Colorado of mental health issues among school-aged youth, reduce stigma, and promote positive behavioral health as part of overall health and wellness which is essential to learning
4. The SMT develops models that sustainably finance the provision of high impact school and community-based behavioral health promotion and behavioral health services

In addition, Project Aware is being implemented in partnership with three local education agencies in three school districts: Aurora Public Schools, Fountain-Fort Carson School District and Thompson School District through 2019.[60] [61]

Aurora Public Schools(APS) is providing coordinated, data-driven systems for supporting the emotional and behavioral health, wellness, and resilience of students, families, and community with the following activities:

- Course sequence in Behavior as Content that is accessible to all new APS staff.
- Applied Suicide Intervention Skills Training (ASIST) certification process for all mental health and counseling staff.
- PREPaRE certification (Prevent and prepare for psychological trauma, Reaffirm physical health and perceptions of safety, Evaluate psychological trauma risk, Provide interventions and Respond to psychological needs, Examine effectiveness of crisis prevention and intervention) process for all mental health and counseling staff.
- Youth Mental Health First Aid Training (YMHFA) available to all staff, community members, and parents
- Signs of Suicide (SOS) delivered to every 6th and 9th grader in APS
- Social-Emotional Learning built into the Multi-Tiered System of Supports (MTSS) system in all APS schools
- A systematic referral system in place to connect students and families with community-based mental health services

Fountain-Fort Carson School District issues a monthly newsletter outlining tips for students and their families around topics such as test anxiety or how to combat summer boredom, as well as resources available to families.

Thompson School District (TSD) serves students ages 9-21 to decrease youth violence and promote the healthy development of children and youth in partnership with Expelled & At-Risk Youth Student Services (EARSS) and School Health Professionals. TSD is engaged in the following activities:

- Check & Connect Mentorship, a targeted intervention during school hours to support at-risk youth, ages 9-21, to shift from preventing negative outcomes (ex. dropouts, suspensions, referrals) to promoting positive outcomes while enhancing student engagement and learning.
- SOS, SafeTalk, YMHFA training
- Trauma informed practices
- Feeder system where each school feeds into a specific social worker and, subsequently, an advocate

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[60] "Project Aware", CDE, https://www.cde.state.co.us/healthandwellness/projectaware
[61] "Project Aware", APS, http://aware.aurorak12.org/

- Detailed referral process

v. Thriving Schools

In August 2017, five school Districts in Colorado (Boulder Valley School District, the Cherry Creek School District, the Summit School District, the Thompson School District and the Fountain-Fort Carson School District) will receive 1.5 Million in funding ($290,000 each) to improve social and emotional wellness and mental health in schools under a Kaiser Permanente initiative called Thriving Schools. The Thriving Schools initiative targets students, staff and teachers together, uses evidence based practices, encourages innovation and collaboration, and seeks sustainable solutions.[62,63]

Boulder Valley School District is focusing efforts at Fairview High School, Nederland Middle/Senior High School, and Nederland Elementary School. Teachers, staff members, and parents will receive professional learning through the Let's Connect Program, a social and emotional training program for adults and students.[64]

Cherry Creek School District is focused on Prairie Middle School and will support the implementation of the Healthy Environments and Response to Trauma in Schools (HEARTS) program. This program aims to disrupt the school-to-prison pipeline, help educators recognize signs of trauma in students and give them the tools to intervene.[65]

Summit School District is focused on Dillon Valley, Silverthorne, and Upper Blue Elementary School and will support the SAFE KIDS Summit County Project, which provides wellness training for teachers and staff and imparts training to identify potential emotional deficiencies in students.[66]

Thompson School District is focused on Lincoln, Monroe, and Truscott Elementary Schools and will support In Focus, a training program that helps teachers and staff recognize their own emotions and limitations to help their young students manage their emotions, improve their focus and gain self-control.[67]

Fountain-Fort Carson School District is focused on Jordahl Elementary School, Fountain Middle School, and Welte Education Center and will provide teachers and staff with training focused on trauma-informed care and culturally sensitive practices.[68]

vi. Caring Schools Communities

Caring School Communities is a program for schools that implements a social and emotional curriculum where the goal is to create a model that promotes prosocial values, increases academic motivation and achievement, and prevents drug use, violence and delinquency.[69] This is done by making classrooms a

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[62] John Ingold, "Five Colorado school districts receive grants for mental health services", *The Denver Post*, May 1, 2017

[63] "About Us", Thriving Schools, https://thrivingschools.kaiserpermanente.org/about-us/

[64] Amy Bounds, "Boulder Valley to receive Thriving Schools mental health grant", *Daily Camera*, May 1, 2017

[65] "Kaiser Permanente launches 'Find Your Words' campaign to fight stigma around mental health", *Aurora Sentinel*, May 12, 2017

[66] Madison Knapp, May 27, 2017, "Colorado Succeeds Member Profile: Kaiser Permanente", *Colorado Succeeds Blog,* http://www.coloradosucceeds.org/blog/kaiser-permanente-colorado/

[67] Doug Storum, "Kaiser Permanente providing grants to schools to address mental health", *BizWest*, May 1, 2017

[68] Knapp, "Kaiser Permanente"

[69] "Caring School Community", Center for the Collaborative Classroom, https://www.collaborativeclassroom.org/caring-school-community

caring, safe space that can meet all students' needs for emotional and physical safety. The program is aimed at elementary schools (grades K-6) and revolves around four main principles: (1) class meeting lessons; (2) cross-age buddies; (3) home side activities; and (4) schoolwide community-building activities.

In Aurora, Colorado, several public elementary schools implemented a Caring School Communities program that included a behavioral assessment tool for teachers to identify students with behavioral health issues. The screening tool helped to determine which students needed extra help and teachers used problem solving and social skills improvement systems, along with skill streaming from the Caring School Communities curriculum to work with the students who had been identified. Over the course of one academic year, they saw that 50 percent of students in the initial program showed significant behavioral improvement based on pre- and post-assessments. The success at the elementary schools has inspired the district to try and place the program in more schools in the future in Aurora. [70]

vii. Kid Success-Jewish Family Service and Denver Public Schools (DPS)

In 1995, Jewish Family Service (JFS) was called in to provide an anti-bullying program in a DPS middle school and since then, they have expanded the program to provide mental health services for 12 Denver Public Schools through their KidSuccess program. The goal of the intervention is to remove barriers to learning and helping at-risk student populations (i.e. low-income, underinsured, uninsured) succeed in school. Services provided include counseling, case management, educational presentations, staff training, and prevention services. Results from an internal JFS survey showed that students in the program reported having a better ability to cope with problems (83%) and a better ability to deal with others (75%).[71] Giving students earlier access to therapists and other trained staff can help identify and prevent behavioral health challenges, while also treating already existing challenges before they develop into larger issues. An additional benefit is that regular access to therapists can help decrease the stigma of seeking help for behavioral health issues.[72]

b. Suicide Prevention

Given the SIM Population Health Work Group's identified mid to long term target of reducing suicide rates in the state, HMA reviewed suicide prevention programs and initiatives focused on the promotion of mental health by increasing associated protective factors like resilience, connectedness, and problem-solving skills rather than those programs focused on intervention for suicidal individuals.

i. Office of Suicide Prevention

The Office of Suicide Prevention (OSP), created by legislative action in 2000 and housed at CDPHE serves as the lead entity for suicide prevention and intervention efforts in Colorado. The OSP utilizes state and occasional federal funding to address several priorities, including implementing primary prevention strategies designed to reach individuals before a suicidal crisis develops. Additionally, the OSP provides staffing support to the Suicide Prevention Commission of Colorado, created through legislative action in 2014 to provide public/private leadership to suicide prevention efforts. The Commission serves in an advisory capacity to the OSP. Programs and initiatives of the OSP target populations across the lifespan, beginning with youth suicide prevention.

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[70] Ibid.
[71] Colorado Education Initiative, "Colorado Framework"
[72] Ibid.

Sources of Strength

Sources of Strength (Sources) is an assets-based comprehensive wellness program that primarily focuses on preventing suicide but also impacts other issues such as substance abuse and violence. The program is based on a relational connections model that uses a diverse group of peer leaders to impact a wide range of cliques within a school or community. Peer leaders are supported by adult mentors trained in the Sources process of peer leader recruitment and mentoring of peer leader teams. Peer leader teams undergo training that includes some suicide intervention specific content but is much more focused on building strengths.

After the initial training, peer leaders and adult mentors begin ongoing conversations with other trusted adults and their 5-10 closest friends. Peer leaders also create a messaging campaign around the key messages of hope, help and strength for a wider peer group. The program encourages each student to assess and develop strengths meaningful to them. Sources provides a recommended step by step guide peer leader teams can adjust these steps based on the readiness level and what works best in their setting. A pattern of meeting together, planning, problem solving, and then going out and activating a variety of strategies is used in each Sources setting. Sources provides ongoing support and technical assistance, as well as templates and resources to be used to assist peers with connecting with adults and friendship groups using print, texting and social networking.

Sources of Strength is most often implemented as a school-based program in middle school, high school, or college. However, Sources of Strength is also often used in community, faith-based, and cultural settings. It promotes and focuses on connectivity, school bonding, peer-adult partnerships, and help seeking behaviors. In Colorado, there are currently 65 schools actively implementing Sources.

Evaluation results are promising; one study done across eighteen high schools in 2010 found that the program significantly improved youth-adult connectedness and school engagement for peer leaders, increased positive perceptions regarding adult support for suicidal youth behaviors, and increased positive perceptions regarding the acceptability of seeking health. Moreover, peer leaders were four times more likely than other students to refer a suicidal friend to an adult.[73]

c. SIM Population Health Grantees

In the Fall of 2016, CDPHE through the Colorado SIM grant, provided three-year grants to eight local public health agencies and two behavioral health transformation collaborative grantees (a private/public partnership with the Denver Foundation). The funding supports two focus areas:

1. behavioral health promotion, outreach and education, and stigma reduction;
2. coordination of systems that improve integration of behavioral health and primary care.

Three grantees of this initiative focus their work on the children and youth population:

i. El Paso County Public Health

El Paso County Public Health received $96,187 in annual funding to focus on addressing youth suicide in the county by reducing the incidence of depression among youth. Primary strategies include:

- Implementing communication and referral protocols across youth serving agencies.
- Increasing depression screening, referrals and follow up.
- Decreasing the stigma associated with seeking help for depression.

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[73] "Sources of Strength", *Sources of Strength*. https://sourcesofstrength.org/

To date most of the efforts have been focused on a needs assessment and gap analysis of current communication and referral protocols for youth at risk for suicide.[74,75]

ii. Aurora Mental Health Center

Aurora Community Mental Health Center was awarded $169,918 in annual funding to increase screening and access to care for children in the Aurora Public School system in need of treatment of mental health issues and co-occurring substance use disorders.

To date, Aurora Mental Health has implemented Mental Health First Aid Training with staff in Aurora Public Schools. They also implemented the Botvin Life Skills training, an evidenced based substance abuse prevention program. More than 600 Aurora Public Schools students have been screened and referred for appropriate intervention services.[76,77]

iii. Community Mental Health and Substance Abuse Partnership in Larimer County

The Health District of Northern Larimer County serves as the lead agency for a partnership that includes Poudre School District and SummitStone Health Partners. The Community Mental Health and Substance Abuse Partnership (the Partnership) received $171,384 in annual funding to increase the number of children, adolescents and youth adults in Poudre Valley Schools receiving screening for behavioral health needs and referrals for care and parental support. To date, the Partnership has trained individual in Youth Mental Health First Aid and Mental Health First Aid and nearly 500 children have been referred for intervention.[78,79]

d. Substance Abuse Prevention

A significant amount of funding is distributed for substance abuse prevention and is mainly coordinated out of CDHS and CDPHE. CDHS administers a large block grant from SAMHSA, as well as smaller federal and state funding. CDPHE administers the retail marijuana tax fund intended for prevention and education programs, as well as federal funding for alcohol surveillance and the prevention of opioid abuse.

i. Substance Abuse Prevention and Treatment Block Grant-Prevention Component

The Substance Abuse Prevention and Treatment Block Grant (Block Grant) is funded by SAMHSA and administered by CDHS-Office of Behavioral Health (OBH). The Block Grant requires that grantees spend no less than 20 percent of their allotment on substance abuse primary prevention strategies, directed at individuals not in need of treatment. The programs developed must target both the general population and sub-groups that are deemed to be at high-risk for substance abuse. Programs must include:[80]

- Information dissemination – provide knowledge and increase awareness of the nature and extent of substance abuse, as well as prevention and treatment programs and services.

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[74] Colorado Department of Public Health. *SIM LPHA and Population Health Grantee Cohort Report* (provided by CDPHE).
[75] Colorado Department of Public Health. *State Innovation Model Progress Report and Quarterly Reports* (provided by CDPHE).
[76] CDPHE, *Grantee Cohort Report*
[77] CDPHE, *Progress Report and Quarterly Reports*
[78] CDPHE, *Grantee Cohort Report*
[79] Ibid.
[80] "SABG", SAMHSA, https://www.samhsa.gov/grants/block-grants/sabg

- Education – build skills through structured learning processes.

- Alternatives – to provide alternative activities for target populations.

- Problem Identification and Referral – identify individuals who have used an illicit substance and assess if their behavior can be reversed through education.

- Community-based Process – ongoing network activities and technical assistance.

- Environmental – establishes or changes written and unwritten community standards, codes and attitudes.

Funding from the Block Grant supports the following programs:

Peer Assistance Services: Substance Abuse Prevention for Parents and Caregivers has a goal to educate and support parents and caregivers in the state to have stronger voices around substance abuse prevention for their children through their One Step Ahead program.[81]

Peer Assistance Services: Substance Abuse Prevention for Working Adults has a goal to provide Colorado companies with free services and resources, including:[82]

- Employee Education and Resources: provide accurate, up-to-date information regarding substance abuse via workshops.

- Policy Development: assistance to implement or update drug-free workplace policies.

- Supervisor Education: provide education on the impact of substance use in the workplace to help supervisors identify performance issues and signs of substance use on the job.

- Drug Testing Consultations: ensure companies are following current drug testing standards and are using reputable testing sites.

- Employee Assistance Program (EAP) Guidance and Resources: assistance in setting up an EAP, to help employees who are experiencing personal issues or stresses.

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[81] "What We Do", Peer Assistance Services, https://parentsandcaregivers.squarespace.com/what-we-do-1/
[82]https://static1.squarespace.com/static/572b7e21ab48dec3a78cbe4d/t/5772cc789f7456235a18c7e9/146714124 5264/sbirt_brochure8_5x11_Online.pdf

Rise Above Colorado empowers teens to live a life free of drug abuse, that focuses on methamphetamine abuse, along with prescription drugs, by shaping teens' attitudes and perceptions about drugs through education programs. Rise Above Colorado has a Teen Action Council to ensure messages and resources are relevant to teens. [83] #IRiseAbove awareness campaign has been implemented in Steamboat Springs, Lamar, Greeley, Grand Junction, Rifle, Pueblo, Fort Morgan, Mesa County, Canon City, Durango, San Luis Valley and Denver.[84]

Denver RAP (Resource for Awareness and Prevention) focuses on youth drinking and other substance abuse. RAP partners with DPS middle schools and provides information, prevention education, environmental strategies, community based process, alternative activities, problem identification and referral. RAP is currently in nine Denver middle schools, including Hamilton, Henry World, Hill, Morey, Merrill, Skinner, DCIS Montbello, Denver Online High School and Noel Community Arts. [85]

Crossroads' Turning Points, Inc. provides evidence-based alcohol and substance use disorder treatment in fifteen counties in southern Colorado: Alamosa, Baca, Bent, Conejos, Costilla, Crowley, Huerfano, Kiowa, Las Animas, Mineral, Otero, Prowers, Pueblo, Rio Grande and Saguache. Their Office of Prevention provides participating communities with access to culturally appropriate technical assistance, training, and information about programming, grant writing, program evaluation and policy formulation. The following prevention programs are being implemented: [86]

- School Based Prevention Programs – use Life Skills training materials in schools.

- Parenting Classes – uses Partners in Parenting curriculum to parents in inpatient programs using the strategy of parenting as prevention.

- One CommUNITY Pueblo Coalition – promotes positive choices and healthy alternatives to substance use, while also addressing issues of violence, teen pregnancy, and mental health.

- Adolescent Programs - Pueblo, Alamosa and Trinidad collaborative effort to provide intervention and education services to adolescents involved with the legal system due to alcohol and/or dugs over a two-phase program for youths and parents.

[83] "About", Rise Above Colorado, http://www.riseaboveco.org/about.html#drugabuse
[84] "#IRiseAbove, A Statewide Drug Awareness Campaign", Rise Above Colorado, http://www.riseaboveco.org/articles/press06032015.html
[85] "About Denver RAP", Denver RAP, http://denverrap.org/about-denverrap/
[86] "About", Crossroads' Turning Points, http://www.crossroadstp.org/wordpress/

Delta Montrose Youth Services Inc. (Partners of Delta, Montrose, and Ouray) offers one-to-one mentoring for at-risk youth by matching a youth, ages 6 to 17, with a trained adult volunteer and are required to spend an average of three hours per week together for one year. Goals of the program include: [87]

- Promoting youth development
- Building a sense of social responsibility and self-esteem
- Reducing and preventing delinquency and substance abuse by emphasizing volunteer participation and community involvement.
- Helping develop youths' skills and abilities.
- Increasing community awareness of youth issues

Metro Denver Partners is matching at-risk youths, ages 8-17, with adult-volunteer mentors who serve as both an advocate and a friend. Kids are referred through school counselors, social services, juvenile court or other human service agencies in Adams, Denver, and Douglas Counties.[88] Self-reported impacts include: increased decision-making skills, increased bonding with a non-family member adult, increased self-esteem and self-efficacy, increased social and communication skills, and increased commitment to not use alcohol, tobacco, or other drugs.[89]

Full Circle of Lake County, Inc. is a prevention focused organization in Lake County that works to increase family and community protective factors with programs that include:

- Full Circle Mentoring (4th-6th grades)
- High School Programs (DUI prevention, Safe Dates, DJ Club, Boys Council, Students Against Destructive Decisions)
- JUNTOS (program to help students create a post -high school plan and apply to college)
- DARE to be You and Active Parenting[90]

Evaluation has shown increases in bonding, school attachment, use of community resources; increases in perceived risk of harm and disapproving attitudes towards DUIs; reductions in alcohol and marijuana use; JUNTOS participants have a 100 percent rate of enrolling in college.[91]

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[87] "About", Partners West, http://www.partners-west.org/
[88] "Metro Denver Partners", Metro Denver Partnrs, http://www.metrodenverpartners.org/
[89] Metro Denver Partners, *2014-15 Annual Report,* (Denver: 2015).
[90] Full Circle Leadville, *2015-16 Annual Report,* (Denver: 2016)
[91] Full Circle Leadville, *2015-16 Evaluation Report,* (Denver: 2016)

Grand Futures Prevention Coalition builds awareness in Grand, Moffat and Routt counties around alcohol and other drugs (AOD) and empower youth to make positive choices related to AOD use. Programs include: [92]

- Teen Council: youth are educated in substance abuse prevention and help to create and implement alterative activities for their peers.
- Responsible Alcohol Server Training (RAST) and Responsible Retailers: a responsible vendor program to train alcohol servers about serving alcohol responsible and checking IDs.
- N-O-T on Tobacco: 10-session group class for teens to help them quit or reduce their use of tobacco and marijuana.
- #BetterMeYV: Instagram campaign in the Yampa Valley to allow youth to show pictures of themselves living their best lives.

Gunnison Valley Mentors is an organization focused on mentoring, partnering youths between the ages of 6 and 17 with volunteer adult mentors. Through a program called InSpire (In-School Prevention Intervention Resource), mentors work with 12 students (6th-8th grades) each for 2 hours/week in Crested Butte, Gunnison, and Lake City schools to increase academic achievement, increase school bonding, and increase knowledge of the risks of alcohol and drugs[93] Evaluation results showed improvement across a number of factors for those 11 and younger[94] but very few significant changes in measured variables for those 12 and older.[95]

I Have a Dream Foundation of Boulder County is a dropout prevention program for low-income youth and offers each participant a four-year tuition-assistance scholarship for college or vocational school when they complete high school. Evaluation results include higher graduation rates vs. low-income non-participants and higher college graduation rates vs. other low-income students in Colorado. Programs include: [96]

- After-school learning centers
- Tutoring programs and a computer technology program
- Mentoring program
- Family outreach program
- Counseling and life skills program
- Enrichment program
- College preparation

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[92] "Grand Futures", Grand Futures Prevention Coalition, http://www.grandfutures.org/
[93] "Gunnison Mentors", Gunnison Valley Mentors, http://gunnisonmentors.com/home.aspx
[94] OMNI, "PMSEI v4.2 Data Results: 11&Younger Fiscal Year 2010-2015", (Gunnison Valley Mentors: 2015)
[95] OMNI, "PMSEI v4.2 Data Results: 12&Older Fiscal Year 2010-2015", (Gunnison Valley Mentors: 2015)
[96] "I Have a Dream Foundation", I Have a Dream Foundation of Boulder County, http://www.ihadboulder.org/

Partners Mentoring Youth (Larimer County Partners, Inc.) is a mentoring organization in Larimer and Northern Weld Counties that help youths, ages 7 to 17, gain relationship and interpersonal skills, more confidence, improved attitudes about substance abuse, and hope for the future. Their focus is mainly on youth living in poverty with mental health challenges, past victimizations and unstable home environments.[97]

Mi Casa Resource Center is an organization in Denver that provides programs for both Latino youth and adults including career coaching, financial education services, and technology training in Northeast Park Hill. They also have Neighborhood Centers at Lake Middle School and North High School that are based on the Beacon Model to support positive youth development, academic achievement, and social/emotional well-being. [98]

Ouray County Schools Community Resource Consortium offers the Voyager Youth Program that seeks to inspire youth in Ouray County to live health lives through prevention education and experiential activities. Their prevention programs include: [99]

- Study Buddies/Homework Help
- All Stars- substance abuse prevention program for 6th and 7th graders, designed to deter and delay the onset of substance abuse and help increase prosocial behaviors, using structured discussions, small-group activities, art projects, and games taught over 13, 45-minute sessions (for the initial course and booster courses can be added)[100]
- Lunch Groups – addresses social and emotional issues in a supportive environment for 6th through 12th graders
- Young Health Advocates Team – an opportunity for health advocacy and leadership for 6th through 12th graders
- Prevention Week, culminating in the annual Safe & Sober After Prom party
- Also, offers a list of prevention resources and curriculum (Project Toward No Drug Abuse, Botvin Life Skills Training, All Stars) via their website

The Pinon Project is a Family Resource Center in Montezuma and Dolores Counties that provides a wide array of evidence-based family and early childhood programs. Youth programs consist of community-based mentoring, as well as a before and after school program, asset building, restorative justice, and the Strengthening Families Program. [101]

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[97] "Partners Mentoring Youth", Larimer County Partners, https://partnersmentoringyouth.org/
[98] "Neighborhood Centers", Mi Casa Resource Center, http://www.micasaresourcecenter.org/youth-family-development/neighborhood-centers/
[99] "Voyager Youth Program", Community Resource Consortium, http://www.voyageryouthprogram.org
[100] "All Stars", National Registry of Evidence-based Programs and Practices (NREPP), http://nrepp.samhsa.gov/ProgramProfile.aspx?id=120#show1
[101] "Pinon Project", The Pinon Project, http://www.pinonproject.org

Rocky Mountain Center for Health Promotion and Education (RMC Health) conducts trainings for teachers, administrators, school nurses, school counselors, public health professionals, and staff at government agencies and nonprofit organizations to improve knowledge, skills, and competencies to make them more effective around improving the health and well-being of children and youth in their communities. They work with Healthy Schools Colorado, Thriving Schools (Kaiser), Second Chance, School District Policy and Retail Marijuana.[102]

Rocky Mountain Youth Corps engages young people (ages 10 -25) in the outdoors to teach them responsibility for self, community and environment through teamwork, service, and experiential education. They focus on job readiness, resume building, career development, leadership and life-skills, physical fitness, health care, nutrition, environmental education, and civic and social responsibility. [103]

Programs include:[104]

- Service Learning Crew (ages 10-13): youth community service program in Routt County that provides entry-level job skills while enhancing resiliency and personal development.
- Community Development Crew (ages 14-15): paid youth program in Routt County where members work on projects on public lands and learn basic independent living skills.
- Regional High School Crew (ages 16-18): serves youth in northwest county where members work (for wages) for two-weeks working on service projects on public lands.
- Conservation Corps (ages 18-25): members are paid a wage to complete projects on public lands and participate in a service learning education program.
- Yampa Valley Science School (sixth graders).

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[102] "RMC", Rocky Mountain Center for Health Promotion and Education, http://rmc.org
[103] "Rocky Mountain Youth Corps", Rocky Mountain Youth Corps, https://www.rockymountainyouthcorps.org/
[104] Ibid

Southern Ute Community Action Programs, Inc. is a non-profit focused in Ignacio, Colorado and across La Plata County that has six program divisions, including: [105]

- Youth development through outdoor adventure and community service.
- Curiosity Afterschool - academic enrichment program for Ignacio Middle School to improve academic success.
- Club Venture – outdoor-based experiential program targeting asset building and character development.
- Peer Mentorship.
- Helped Ignacio Middle School to implement Character Counts and PBIS.[106]

Family & Intercultural Resource Center (Summit County Family Resource Center) is an organization that focuses on parent education through Families United, Community Support, and Healthy Families (education to support healthy choices, parenting classes, parenting engagement resources, nutrition and cooking classes, life skills classes).[107]

Team Wellness and Prevention (Team Fort Collins, Inc.) provides prevention education to middle and high school students, educates parents, convenes community groups, and provides youth activities in safe, substance-free environments. Programming includes: [108]

- Define Youth: group mentorship program that uses the BrainWise curriculum and other research-informed activities, while also promoting volunteer activities and complete a culminating reflective project.
- Youth Empowered Yoga and Mindfulness.
- Youth Leadership Society.
- Engaging Families Initiative: parent and family skills-building program that uses the BrainWise curriculum to improve parenting skills and parent-child relationships, delay the onset of adolescent substance use, increase social-emotional skills, and reduce youth conduct problems in school.

TEENS, Inc. is a non-profit in rural Nederland/Peak-to-Peak area that provides a safe, drug and alcohol-free environment to help youth socialize, strengthen peer and adult relationships, develop self-esteem, and master leadership and academic skills. They offer a free drop-in center that offers programming for mentoring, recreation, employment, leadership/character building, and substance use prevention. They also offer an after-school climbing program, Girls Wilderness Program, and leadership retreats. [109]

Community Health Initiatives, Inc. is a non-profit organization in Glenwood Springs that offers counseling and prevention programs in the Roaring Fork and Colorado River Valleys. Two current programs focus on underage drinking and drunk driving, that utilize the strategies of information dissemination, education

[105] "Southern Ute Community Action Programs", SUCAP, http://sucap.org/
[106] SUCAP, *2015 Annual Report,* (Ignacio, Colorado: 2015)
[107] "Family & Intercultural Resource Center", Summit County Family Resource Center, http://www.summitfirc.org
[108] "Team Wellness and Prevention", Team Wellness and Prevention, https://www.teamwandp.org/
[109] "TEENS, Inc.", TEENS, Inc., teensinc.org

(ex. preschool ATOD prevention programs), alternatives, problem identification and referral, community-based processes and environmental changes (ex. ATOD school policies). [110]

Mile High Council on Alcoholism and Drug Abuse (Mile High Behavioral Healthcare) is focused on providing behavioral healthcare but offers two prevention programs:[111]

- Keepin' It Real (12-17 years): a multicultural prevention program that encourages critical thinking and effective communication skills; proven to reduce tobacco, alcohol, and other drug use; uses REAL (Refuse, Explain, Avoid and Leave).
- Prime for Life (18-26 years): provides resources to make informed, low-risk choices about alcohol and other drug use that uses motivational techniques to identify, change, and develop beliefs, attitudes, risk perceptions and resolutions.

Young People in Recovery is a national organization with a chapter in Denver that supports young people in seeking recovery by empowering them to obtain stable employment, secure suitable housing, and continue and complete their educations, as well as advocate for easier access to these resources at state and local levels. They offer two programs:[112]

- EPIC: a life-skills curriculum that focuses on improving access to housing education, employment.
- Phoenix: support program offered to criminal justice organizations for transitional aged youth (18-25) who are involved in or at-risk for involvement in the criminal justice system.

National Association of Student Personnel Administrators: Colorado Coalition of Campus Alcohol and Drug Educations (CADE) supports college and university efforts to address collegiate alcohol and other drug abuse prevention by facilitating data collection, creating online professional development opportunities for prevention teams, and providing technical assistance for all campus professionals. They offer an online system for prevention teams to share resources, implement best practices, and learn from each other.[113]

ii. Strategic Prevention Framework -Partnership for Success (SPF-PFS)
The primary goal of the Strategic Prevention Framework-Partnership for Success (SPF-PFS) is to reduce the use of marijuana and alcohol among youth ages 12-20 and reduce the misuse and abuse of prescription drugs among youth ages 12-25. The SPF-PFS, funded by SAMHSA and administered by OBH, represents a five-step, data-driven process used to:[114]

1. Assess needs
2. Build capacity
3. Engage in a strategic planning process
4. Implement a comprehensive, evidence-based prevention approach

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[110] "CHI", Community Health Initiatives, https://www.chi-colorado.org
[111] "Prevention", Mile High Behavioral Healthcare, http://www.milehighbehavioralhealthcare.org/care-we-offer-our-services/prevention/
[112] "Young People in Recovery", Young People in Recovery, http://youngpeopleinrecovery.org
[113] "CADE", NASPA, https://www.naspa.org/focus-areas/aod-abuse-and-violence-prevention/CADE
[114] SAMHSA, *Strategic Prevention Framework Partnerships for Success State and Tribal Initiative RFP",* (Washington, D.C.: 2014)

5. Evaluate implementation and related outcomes

The funding goes out to six Colorado counties (Adams, Arapahoe, Denver, Douglas, Larimer, Pueblo) to support their efforts to implement primary prevention strategies. The SPF-PFS provides the framework and guidelines within which these communities develop, implement and sustain prevention programming. SPF-PFS follows three core principles: (1) adhere to a public heath model (population-based); (2) make data-driven decisions; and, (3) emphasize outcomes-based prevention.[115] The following organizations receive funding:[116]

1. Adams County: Community Reach Center

2. Arapahoe County: Aurora Comprehensive Community Mental Health Center

3. Denver County: Denver Health and Hospital Authority Department of Public Health

4. Douglas County: Tri-County Health Department

5. Larimer County: Team Wellness & Prevention (see above under SABG grantees)

6. Pueblo County: Crossroads' Turning Points, Inc. (see above under SABG grantees)

iii. Speak Now (or Hable Ahora)

Speak Now addresses the use of alcohol and marijuana, along with the misuse of prescription drugs and other drugs by providing resources and tools for parents and caregivers on how to start conversations and keep them going about the risks of substances with their children (ages 9-20).[117] The website breaks down topics among three age groups (9-13, 14-17, and 18-20), and for each group provides tips and tools to parents and caregivers on talking with their children. The site also offers action plans and a way to text their children, to help the conversations begin.[118] It also provides a wide variety of information and facts about substance abuse and underage drinking laws, along with toolkits for statewide partners to help them utilize the Speak Now campaign in their local communities.

The program is supported with research from the 2015 Healthy Kids Colorado Survey which found that youth who can ask a parent, guardian, or other adult for help are 1.5x less likely to binge drink. It also found that youth are three times less likely to binge drink if a parent feels it's wrong.[119]

Speak Now messages have been on Pandora, Facebook, transit advertisements, and large-scale outdoor advertising, with good results seen from each media campaign[120]. Initial evaluations suggest that most people saw Speak Now messages from TV, followed by radio and billboards and a large number saw the message from more than one media source.[121] What people most remembered from the campaign was that parents need to have conversations with their children, as well as information about a variety of

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[115] Colorado Office of Behavioral Health, CDHS. *Strategic Prevention Framework-Partnership for Success. Exhibit F - Toolkit*. (SAMHSA: Washington, D.C., 2016)

[116] "Community Programs', The Evaluation Center", http://www.the-evaluation-center.org/projects/community-programs

[117] "SpeakNow Colorado", SpeakNow Coloraod, https://www.speaknowcolorado.org/

[118] "Prevention Media Campaigns, SAMHSA, https://www.samhsa.gov/capt/tools-learning-resources/prevention-media-campaigns

[119] https://www.colorado.gov/pacific/sites/default/files/PF_Youth_Substance-Infographic-Digital.pdf

[120] SpeakNow, *FY15-16 Final Post-Buy Media Report,* (SpeakNow: Denver, 2015)

[121] SpeakNow, *First Summative Evaluation Report,* (SpeakNow: Denver, 2015)

substances, and brain development.[122] But it remains to be seen if the campaign has an impact on knowledge, attitudes, skills, intentions, and behaviors.

iv. Drug Free Communities (DFC) Support Program

The program was first conceived in 1997 and is a fund that supports community coalitions that are working to reduce substance abuse among youth and to create safer and healthier communities. The program is funded and directed by the Office of National Drug Control Policy (ONDCP), with support from SAMHSA. As of FY 2013, it has awarded over 2,000 grants to community coalitions in all 50 states, D.C. and U.S. territories. Grantees can receive up to $125,000 per year for up to five years, with the maximum of 10 award years. Common strategies include reducing the number of alcohol and tobacco retail outlets, addressing the high rates of alcohol and drug abuse in blighted urban areas, and working to increase fines pertaining to the illegal possession of illicit substances.[123]

Overall, rates of alcohol, tobacco, and marijuana use have all declined significantly in DFC communities over the course of the program. Looking at data from FY 2013 grantees, the prevalence of past 30-day use of alcohol, tobacco, marijuana, and prescription drug all significantly decreased for both middle school and high school students. And when comparing DFC communities to national averages, between 2003 and 2013, prevalence rates for 30-day use among high school students for high school were significantly lower in all six years (the national survey used, the Youth Risk Behavior Survey is given every two years). Prevalence rates for marijuana were significantly lower in three of the six comparison years.

In Colorado, there are currently six grantees in the DFC program:

Gunnison County Substance Abuse Prevention Project (GCSAPP) is a community coalition that uses education programming, and policy to promote healthy youth, families, and communities. They are looking at reducing substance abuse by youth in Gunnison County. One component of the program is the Choice Pass which is offered to students in 6th through 12th grades where they can enjoy discounts on ski passes, recreation center passes, and other local business discounts and all students must do is make a choice to commit to a healthy and substance free lifestyle. For parents, they offer parent education nights, often with free dinners, along with a GCSAPP parent guide. There is also a Crested Butte Youth council to give more power to young adults to impact change on their community by creating their own projects, such as creating coffee sleeves to address issues of cigarette use and poor mental health. Finally, they are using Sources of Strength, an evidence-based program to prevent violence, bullying, substance abuse, and suicide, in Gunnison High School and Middle School.[124]

Eagle River Youth Coalition is a community coalition made up of Eagle River youth-serving organizations to assess prevention needs, coordinate substance abuse reduction efforts, build capacity, and implement programs and policies around the issues facing young people. Their priorities are substance use disorder prevention, wellness and mental health promotion, and academic achievement. They conduct community events, trainings, and "EatChatParent" trainings for community members and parents. They also have a Youth Leaders Council to give students an advisory role on community initiatives with students coming from all Eagle County high schools. The Coalition also supports the

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[122] Ibid

[123] National Prevention Council. *National Prevention Strategy*, (U.S. Department of Health and Human Services, Office of the Surgeon General. Washington, D.C., 2011)

[124] *"Gunnison County Substance Abuse Prevention Project (GCSAPP)",* Gunnison County, http://gunnisoncounty.org/156/Gunnison-County-Substance-Abuse-Prevention

Communities That Care Process in Colorado that uses prevention science to reduce levels of youth alcohol and tobacco use, violence, and delinquent behaviors. Since 2009 Eagle County has seen the percentage of students who use alcohol steadily decrease.[125]

Ute Mountain Ute Tribal Youth Task Force Coalition is located within the Ute Mountain Reservation. The goal of the coalition is to reduce and prevent youth substance use and is designated to bring awareness and collaboration with the community of Towaoc to reduce substance use. The strategies they utilize include reducing barriers for underrepresented individuals to participate in the coalition, train leaders in the Strategic Prevention Framework and Environmental Strategies, provider an easy access point for residents to turn in unwanted medications, and improve local medication safety and prescription drug based monitoring practices.[126]

Weld County Prevention Partners is developing media campaigns to target teens during "high risk" time periods (ex. prom, holidays, homecoming) with messages around the dangers of underage drinking, disseminating information about the health effects of alcohol. As well, the coalition is participating in special events to raise awareness about the dangers of marijuana use and youth, and supporting the efforts of Responsible Alcohol Retailers of Weld County. The coalition consists of educators, law community leaders, faith partners, parents, and teens.[127]

Celebrating Healthy Communities Coalition operates in La Plata County to promote a healthy community to better support youth and families to thrive. Major activities include training youth, adults, and staff of youth-serving organizations in the Developmental Assets, an evidence-based framework that work with youth to help them become thriving, contribution adults. They also hold pro-social, drug-free events, use local data to guide coalition focus and measure progress, and use the Science of the Positive approaches to correct misperceptions and accurately reflect healthy community norms. Since 2007, they have seen large decreases in 30-day substance use of alcohol (40%) and tobacco (59%).[128]

Healthy Futures Coalition in Boulder County, is a group of individuals and organizations dedicated to preventing and reducing youth substance use, adult substance abuse, by mobilizing resources and partnerships to create informed and healthy community attitudes towards drug and alcohol. The coalition has monthly meetings, where they hear from member organizations, such as PFLAG, Boulder Valley School District, El Centro Amistad, and many more, and work to coordinate efforts around common goals. They also work to enact mutually-reinforcing activities and shared measurement systems to create a backbone of support in the community.[129] Compared to previous grantees, this coalition acts more as an organizing body for participating partners, rather than implementing their own programs.

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[125] Eagle River Youth Coalition. *Annual Report 2016,* Eagle River Youth Coalition (Edwards, CO, 2017)

[126] "Tracking Accountability in Government Grants System (TAGGS)", Ute Mountain Ute Tribal Youth Task Force Coalition, https://taggs.hhs.gov/Detail/AwardDetail?arg_AwardNum=SP020333&arg_ProgOfficeCode=85

[127] "Who We Are", Weld County Prevention Partners, http://www.wcpp.info/who-we-are/

[128] "Welcome to Celebrating Healthy Communities", Celebrating Healthy Communities, http://www.ourhealthycommunities.org/

[129] "Healthy Futures Coalition", Boulder County, https://www.bouldercounty.org/families/addiction/healthy-futures-coalition/

v. Retail Marijuana Education and Prevention Program (RMEPP)

RMEPP was created by CDPHE using revenue from the retail marijuana tax fund. RMEPP exists to provide educational information about safe, responsible adult use of marijuana while preventing the use of marijuana among high risk groups like children and youth.[130]

Positive Youth Development Training is a training provided by CDPHE for youth serving professionals and others interested in youth health and well-being. The training focuses on the evidence based strategy of Positive Youth Development, providing participants with a greater understanding of adolescent development and tools for integrating a youth-centered approach in work for with youth. RMEPP incorporated the training into its menu of prevention programming related to retail marijuana.[131]

Protect What's Next is a social media campaign to encourage youth to think about the consequences of marijuana use, as well as offer ideas for other ways to be engaged in physically and mentally stimulating activities. [132] Protect What's Next centers around an interactive website, http://protectwhatsnext.com/.

Good to Know, the adult media campaign, includes information for parents and other adults involved in the lives of young people about how to talk with kids about marijuana. This campaign includes print, television and radio, as well as a website with resources and information[133], https://goodtoknowcolorado.com/youth-prevention/talking-to-youth.

The Spanish-language media campaign, Marihuana En Colorado: Lo Que Debes is designed for Spanish-speaking individuals within Colorado, and also provides information and resources about marijuana.[134]

vi. Communities that Care

CDPHE received additional funding from the marijuana tax cash fund ($7,125,000 in FY 16/17) to support substance abuse prevention among youth using the evidence-based Communities That Care (CTC) model across Colorado. Social Development Strategy is the theoretical foundation of the Communities That Care model. Social Development Strategy emphasizes providing young people with opportunities, skills, and recognition to strengthen their bonds with family, school, and community. The Social Development Strategy organizes information about protective factors into a strategy for action that any adult can use in interactions with young people, and thus, build strong bonds.[135]

CTC is a community-based prevention model that was evaluated across the country with significant results, including preventing youth substance use initiation, youth crime and violence. Communities implement a five-phase change process:[136]

1. Get Started: assess community readiness; identify community leaders/champions; invite diverse stakeholders.

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[130] "Retail Marijuana TA", CDPHE, https://www.colorado.gov/pacific/cdphe/RetailMarijuanaTA

[131] Ibid

[132] "Project What's Next", CDPHE, https://www.colorado.gov/pacific/cdphe/news/protect-whats-next

[133] "Talking to Youth", Good to Know Colorado, https://goodtoknowcolorado.com/youth-prevention/talking-to-youth

[134] "Marijuana", CDPHE, https://www.colorado.gov/marijuana

[135] CDPHE, *Community and Societal-Level Strategies Menu-For the prevention of adolescent substance use in Colorado*, (CDPHE: Denver, 2017).

[136] "Communities that Care", Communities that Care, http://www.communitiesthatcare.net/

2. Get Organized: form coalition; learn about prevention science and identify risk and protective factors; assess community resources and gaps.
3. Create a Community Action Plan: create a prevention plan; define measurable outcomes; select tested and effective policies and programs.
4. Implement and Evaluate: implement, monitor and evaluate programs; measure and track progress.

CDPHE is focusing resources and technical assistance at implementation of strategies at the community and societal levels of the social ecology and offer a menu of potential strategies for communities to employ.[137] CDPHE is funding the CTC model in the following communities:

Alamosa County Public Health Department	Boulder County Public Health	Broomfield County PHA
Chaffee County Public Health	Cheyenne County Public Health	Clear Creek County Public and Environmental Health
Community Health Initiatives (CHI)	Costilla County Public Health Agency	Denver Public Health
Eagle County Government/Eagle County Public Health and Environment	El Paso County Public Health	Fremont County Department of Public Health
Grand County Public Health	Gunnison County Department of Health & Human Services	Silver Thread Public Health District
Jefferson County Public Health	Kit Carson Public Health	Lake County Public Health Agency
Larimer County Health Department	Las Animas- Huerfano Counties District Health Department	Mesa County Health Department
Montezuma County Public Health	Northeast Public Health and Environment	Northwest Colorado Health (Routt & Moffat Counties)
Otero County Health Department	Ouray County Public Health Agency	Pueblo City-County Health Department
Rio Grande County Public Health Agency	Saguache County Public Health Department	San Juan Basin Public Health
Summit County Public Health	Teens Inc	Teller County Public Health
Tri-County Health Department	Tri-County Health Network	Weld County Department of Public Health and Environment (WCDPHE)

Figure 7: Summary of Children and Adolescent Programs and Initiatives in Colorado

Program	Primary Prevention	Secondary Prevention	Tertiary Prevention
School Based Health Centers		✓	✓
Social & Emotional Learning	✓	✓	

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[137] CDPHE, *Community and Societal-Level Strategies*

Positive Behavioral Intervention & Supports	✓	✓	✓
Project Aware	✓	✓	✓
Thriving Schools		✓	
Caring Schools Communities		✓	
Kid Success-Jewish Family Service & Denver Public Schools		✓	
Office of Suicide Prevention	✓		
Source of Strength		✓	
SIM Population Health Grantees	✓	✓	
Substance Abuse Prevention & Treatment Block Grant (SABG) Programs		✓	
Strategic Prevention Framework-Partnership for Success	✓	✓	
Speak Now (or Hable Ahora)	✓		
Drug Free Communities (DFC) Support Program	✓	✓	
Communities that Care	✓	✓	

3. Adults/Older Adults

a. Pregnancy Related Depression

Pregnancy related depression (PRD) can occur during pregnancy and up to one year after giving birth and is the most common complication of pregnancy. PRD impacts bonding between a mother and infant, and subsequently, long term mental health indicators. At the national level, in Colorado, and at the local level PRD has been identified as a priority. CDPHE's Maternal and Child Health program identified PRD as one of eleven priorities and activities related to reducing PRD are highlighted in *Shaping a State of Health, Colorado's Plan for Improving Public Health and the Environment*.[138,139]

i. Screening and Provider Education

Effective August 2014, Postpartum Depression Screening in Pediatric Visits is now reimbursed by Medicaid. The pediatric primary care provider who sees an infant for a well-baby visit can bill for postpartum depression screening on the mother using the Medicaid ID of the infant.[140]

In 2016, CDPHE's Maternal Wellness Program launched the Perinatal Mood and Anxiety Disorder

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[138] Colorado Department of Public Health. *Shaping a State of Health. Colorado's Plan for Improving Public Health and the Environment*. (CDPHE: Denver, 2015).
[139] Colorado Department of Public Health and Environment. *Reimbursement Efforts to Address Depression Among Pregnant and Postpartum Women. A Supplement to the Nationwide Initiatives on Pregnancy-Related Depression*. (CDPHE: Denver, 2013)
[140] Colorado Children's Healthcare Access Program, *Postpartum Depression Screening in the Pediatric Practice*, (CCHAP: Denver, 2014)

Training in alignment with CDPHE's SIM related target areas for provider education. The training includes information about how to assess for pregnancy related depression and anxiety.[141]

ii. Public Awareness and Stigma Reduction

CDPHE's Maternal Wellness Program has an overarching goal is to reduce stigma associated with maternal mental health to increase help-seeking among pregnant and postpartum women. In 2016, CDPHE worked with partners to develop and launch a public education campaign to improve the awareness and knowledge of pregnancy-related depression and anxiety among pregnant and postpartum women and their informal support networks. The campaign was piloted in Adams, Arapahoe, Douglas, Denver, and Larimer counties with plans to expand the campaign in 2017. The campaign includes paid digital and social media advertising, public relations and a community partner extension tool kit, and technical assistance from the marketing contractor, Merritt + Grace.[142]

iii. Northeast Colorado Health Department

As noted above, CDPHE provided funding from the Colorado SIM grant to eight local public health agencies and two behavioral health transformation collaborative grantees. Northeast Colorado Health Department received $136,602 in annual funding for Logan, Morgan, Phillips, Sedgwick, Washington, Yuma Counties. The funding supports two focus areas:

- the promotion of behavioral health, well-being and prevention using evidence-based strategies;
- improving integration of behavioral health services in primary care practices.

Northeast Colorado Health Department is raising awareness about pregnancy related depression and depression in men. They are also working with partners to build integration between behavioral health providers and primary care providers in the six-county region. To date, the health department has engaged in outreach and education about standardized screening to two clinical practices and distributed materials about men and depression to local businesses and organizations.[143,144]

b. Substance Misuse Among Pregnant Women

The Maternal and Child Health program at CDPHE also identified substance misuse among pregnant and postpartum women as a priority in their state action plan. The plan focuses on decreasing the percent of women ages 15-44 who use marijuana (measured by past 30-day use) and decreasing the percent of women ages 15-44 who report non-medical use of prescription drugs (past 30-day use). Efforts have aligned with the work of the RMEPP program, as well as the work of the Colorado Consortium for Prescription Drug Abuse Prevention (described later in this report).

i. Good to Know-Pregnant and Breastfeeding Mothers

RMEPP in partnership with stakeholders and Cactus Marketing and Communications launched an educational marketing campaign targeted to pregnant and breastfeeding mothers. The campaign is rooted in the Good to Know marijuana education campaign and uses print and social media to disseminate information about the health considerations and myths related to marijuana use while

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[141] Center for Medicare and Medicaid Services. *State Innovation Model Progress Report for Colorado.* (CMMS: Washington, D.C., 2017)

[142] "Pregnancy-Related Depression & Anxiety Campaign", CDPHE, https://drive.google.com/drive/folders/0B91a4raZ7fymV3BJazBxektKQWs

[143] CDPHE, *Grantee Cohort Report*

[144] CDPHE, *Progress Report and Quarterly Reports*

pregnant or breastfeeding. The campaign also offers resources to women seeking to quit marijuana use.[145]

c. Men's Behavioral Health

i. Man Therapy

Working aged men (25-54 years of age) account for the largest number of suicide deaths in Colorado and nationally. Yet, men often do not seek help for poor mental health or substance use disorders. Operating from research on gender norms and hyper masculinity, CDPHE, in partnership with the Carson J. Spencer Foundation worked with Cactus Marketing and Communications to develop and manage a campaign to reduce the stigma of seeking help among men. The campaign, entitled, Man Therapy, was created based on significant formative research with men about what contributes to their help-seeking behavior. Humor, irreverence and poking fun at hyper masculinity were identified as important strategies. Of note, the campaign is intentionally very targeted to white, heterosexual men. Partners relied on Colorado data, including data from the state's Violent Death Reporting System, to target campaign development. The goal of Man Therapy is to show men that talking about their problems and getting help is masculine. Although there are resources for those in immediate crisis, the campaign is focused on helping men early by connecting them with social networks and supportive resources. Approaches include taking typical mental health language out of the communication; showing models of recovery and hope; helping men connect the dots between physical symptoms and their poor mental health; and, giving men a chance to assess and "fix" themselves. The campaign includes an interactive website, TV, radio, social media, outdoor advertising and collateral materials to drive traffic to the website. The campaign has grown to include a focus on first responders and men serving or who have served in the military.

d. Behavioral Health in the Work Place

i. AllHealth Network CEO/Leadership Pledge

AllHealth Network offers behavioral health services and is mainly focused on intervention and treatment. However, AllHealth Network has designed a behavioral health promotion initiative to partner with the business community and engage CEOs of businesses across Colorado. Poor quality employment, including job-related stress, are strong risk factors for mental and substance use disorders.[146] AllHealth Network created a CEO/Leadership Pledge that seeks to gain commitment from leaders to ensure access to information about resources for mental health and substance use and company policies that address behavioral health needs.

This approach seeks to changing the work culture to one that fosters support for good mental health and an addiction free lifestyle as primary prevention of suicide. The goals of the initiative include Mental Health First Aid training, information about behavioral health resources and referral to care. AllHealth Network maintains an advisory committee of business leaders to expand the initiative to statewide. Presently the effort is mainly in the south metro area of Denver with eleven CEOs having officially signed the pledge.[147]

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[145] "Pregnant and Breastfeeding Mothers", Good to Know Colorado, http://goodtoknowcolorado.com/health-effects/pregnant-and-breastfeeding-mothers

[146] Compton and Shim "The Social Determinants of Mental Health"

[147] "CEO Pledge", AllHealth Network, http://www.allhealthnetwork.org/ceo-pledge

ii. Rotary Mental Health Initiatives

An additional initiative focused on engaging civic and business leaders in the private sector in behavioral health promotion is being led by the Rotary Clubs of Boulder, Boulder Flatirons, Boulder Valley, Denver Cherry Creek, Denver Mile High and Wheat Ridge. The Mission of the Rotary Mental Health Initiative is to "build stronger communities through involvement and education to raise awareness, foster compassion and develop broad-based support for those affected by mental health and substance use disorders".

The initiative centers around hosting "community conversations" about behavioral health, including encouraging open and transparent communication about mental health and substance use, acknowledgement of the stress and struggle of jobs, self-care techniques and the need to build resilience. Speakers with expertise on behavioral health speak at regular club meetings and for two years in a row the annual meeting of rotary clubs has been focused on mental health.

Rotary clubs have adopted an existing education campaign funded with SIM population health grant funds called, "Let's Talk Colorado" to promote help seeking behavior. They are also promoting Mental Health First Aid training for their members.[148]

e. Older Adult Behavioral Health

i. Senior Reach Program

The Senior Reach Program operates out of the Community Reach Center in the North Denver Metro Area[149] The program works to identify adults who may need -in-home services and/or connection to community services, including depression screening and intervention.[150]

ii. Senior Focus at Jefferson Center

The Senior Focus Program at Jefferson Center provides senior wellness classes to teach skills around creating and maintaining strong relationships, accepting and letting go of painful experiences, and rediscovering strengths and passions. [151]

Figure 8: Summary of Adult and Older Adult Programs and Initiatives in Colorado

Program	Primary Prevention	Secondary Prevention	Tertiary Prevention
Screening & Provider Education		✓	
Public Awareness & Stigma Reduction		✓	
Northeast Colorado Health Department	✓	✓	
Good to Know-Pregnant & Breastfeeding Mothers		✓	
Man Therapy	✓	✓	
AllHealth Network CEO/Leadership Pledge	✓		
Rotary Mental Health Initiatives	✓		

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[148] "Rotary Mental Health Initiatives", RHMI, http://www.mentalhealthforyou.org/

[149] "Senior Reach", Community Reach Center, https://www.communityreachcenter.org/services/adult-and-senior-services/senior-reach/

[150] "JC", Senior Reach, http://www.seniorreach.org/JC/

[151] "Senior Focus", Jefferson Center, http://srfocus.org/

Senior Reach Program		✓	✓
Senior Focus at Jefferson Center		✓	

4. General Population

Colorado many initiatives at the state and local level that are not specifically targeted to a population.

a. State and Local Public Health Plans

i. Shaping a State of Health: Colorado's Plan for Improving Public Health and the Environment

Public health has a critical role in behavioral health promotion and the prevention of mental and substance use disorders. As former U.S. Surgeon General David Satcher pointed out in the first report on mental health ever issued by a Surgeon General, "mental health is fundamental to health."[152] CDPHE has been a leader in recognizing this and named mental health and substance abuse as one of ten 'winnable battles" in 2011. In 2015, CDPHE named mental health and substance abuse a flagship priority in the state's five-year public health improvement plan. This plan outlines population-based efforts to address behavioral health with three priorities:

- advancing policy and community approaches to improve social and emotional health of mother, fathers, caregivers and children;
- improving screening and referral practices and reducing the stigma of seeking help for depression, especially among pregnant women, men of working age and individuals who are obese; and,
- preventing prescription drug abuse.

The plan has goals and strategies for each of these priorities, as well as the partners involved in implementation.[153]

b. Local Public Health Agencies

Local Public Health Agencies(LPHAs) in Colorado engaged in the Colorado Health Assessment and Planning System (CHAPS) process to identify public health priorities for public health improvement plans. Nine LPHAs identified mental Health as a priority; three identified substance abuse as a priority; and, fourteen identified both mental health and substance abuse as priorities. Currently, LPHAs are in the second round of the CHAPS process and it is unknown whether they will identify new priorities and strategies or build upon the existing ones. Brief information about the LPHAs currently working on mental health and/or substance abuse priorities that are focused on mental health promotion or prevention follows.[154]

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[152] David Satcher, M.D. "Mental Health: A Report of the Surgeon General, (Office of the Surgeon General: Washington, D.C., 2000).

[153] CDPHE, *Plan for Improving Public Health and the Environment*

[154] "Local Public Health Priorities and Strategies", CDPHE, https://www.colorado.gov/pacific/cdphe-lpha/local-public-health-priorities-and-strategies

i. Alamosa County Public Health is focused on **promoting childhood social and emotional wellness**, increasing community awareness regarding substance abuse in youth, and reducing access to prescription drugs

ii. Boulder County Public Health is focused on **preventing pregnancy related depression, promoting early childhood social and emotional development, suicide prevention, and reducing risky alcohol and drug use.**

iii. Cheyenne County Public Health is focused on **establishing comprehensive alcohol education programs for youth, providing alcohol-free activities, and implementing a social marketing campaign to address social norms around underage drinking and driving.**

iv. Clear Creek Public Health is focused on **community awareness and education on alcohol and substance abuse, suicide prevention, training first responders, health professionals, and community-based organizations, and expanding community-based services.**

v. Eagle County Public Health Agency is focused on **increasing awareness that mental health disorders are an important public health issue and the importance of mental health promotion. They are also focused on integrating mental health screening into community based settings.**

vi. Fremont County Health Department is focused on **promoting prevention strategies with community partners, law enforcement and HCP, increasing outreach and awareness of mental health and substance abuse issues, and suicide prevention.**

vii. Grand County Public Health Department is focused on **educating youth in schools and church programs, decreasing substance and alcohol abuse, and work with businesses on substance abuse policies.**

viii. Kit Carson County Department of Public Health and Environment is focused on **reducing access, misuse, and abuse of prescription drugs by supporting drug-take-back initiatives and programs.**

ix. Lake County Public Health Department is focused on **decreasing substance abuse using the SBIRT model and reducing bullying in the Lake County school district with a community-wide anti-bullying campaign.**

x. Larimer County Health Department is focused on **promoting early childhood development that includes positive parenting, facilitating social connectedness and community engagement, and providing individuals and families with support to maintain positive mental well-being.**

xi. Las Animas Counties District Health Department is focused on **raising awareness of the harms caused by alcohol, building resources in local communities, such as prescription drug-take-back programs, and promoting school programs that educate and empower youth about resisting substance use.**

xii. Lincoln County Department of Public Health is focused on **developing a more comprehensive approach to prevention by increasing the availability and utilization of preventive services, such as support groups, workplace interventions, and parenting classes.**

xiii. Mesa County Public Health is focused on **increasing resident's knowledge about local mental health resources and developing a system to support optimum mental health by addressing behavioral health risk and protective factors.**

xiv. Mineral County Public Health is focused on increasing educational materials addressing mental health in public areas and increasing awareness of the prevalence of mental health illness.

xv. Moffat and Routt County Health Department is focused on reducing suicide with a social marketing campaign and increasing awareness of mental health issues.

xvi. Northeast Colorado Health Department is focused on creating an advertising and social marketing campaign to increase depression and suicide awareness.

xvii. Park County Public Health Department is focused on promoting suicide prevention resources and increasing awareness of suicide prevention at local community sites.

xviii. Tri County Health Department (Adams, Arapahoe and Douglas County) is focused on reducing stigma by shifting social norms to support mental health issues as being the same as other health issues and increasing the early detection and prevention of mental health issues by promoting the interrelatedness of mental health and physical health.

xix. Weld County Public Health Partnership is focused on increasing the number of community-based organizations available that provide population-based primary prevention programs for mental illness. They also focus on increasing the number of work-site interventions and policies that enhance social and emotional wellness.

c. SIM Population Health Grantees

As previously noted, CDPHE provided three-year funding from the Colorado SIM grant to eight local public health agencies and two behavioral health transformation collaborative grantees. Four of the population health grantees have been described earlier in this report because of their focus on specific populations. The remainder of the grantee initiatives are described below.

i. West Central Public Health Partnership

Ouray County Public Health serves as the lead agency for this project that spans Delta, Gunnison, Hinsdale, Montrose, Ouray and San Miguel Counties. The West Central Public Health Partnership (WCPHP) received $120,227 in funding to support:

- public outreach and education to reduce stigma around seeking help, particularly among populations with low socio-economic status;
- engagement and community development of behavioral health preventive services through systems building and community-clinical linkages.

To date, WCPHP is implementing Mental Health First Aid training and has convened a work group to inform the development of a stigma reduction campaign.[155,156]

ii. Metro Public Health Behavioral Health Collaboration

Tri-County Health Department serves as the lead agency for this seven-county collaboration that includes Denver, Adams, Arapahoe, Douglas, Boulder, Broomfield and Jefferson county health departments. The Metro Public Health Behavioral Health Collaboration (the Collaboration) received $452,818 is annual funding to support

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[155] CDPHE, *Grantee Cohort Report*
[156] CDPHE, *Progress Report and Quarterly Reports*

- Increased access to screening and integrated treatment for behavioral health issues for low-income people;
- Reduction of stigma around behavioral health issues and help-seeking attitudes and behaviors in low-income populations.

The Collaboration launched the "Let's Talk Colorado" campaign in May 2017. The campaign encourages open dialogue about mental health issues and offers a website www.LetsTalkCO.org that provides ideas about how to talk about mental illness as well as a toolkit of resources. Additionally, the Collaboration is developing and piloting a behavioral health assessment tool and protocol for use.[157,158,159]

iii. Southwest Regional Healthy Family Program

San Juan Basin Health Department serves as the lead agency for this project that spans Archuleta, La Plat and San Juan Counties. The Southwest Regional Health Family Program (SRFHP) received $156,462 in annual funding to support:

- improved access to services through increased collaboration and coordination across agencies in the three counties, and the development of referral systems;
- increased community-level awareness of behavioral health issues.

To date, the SRFHP has organized a suicide prevention summit and is participating in training on Collective Impact to enhance suicide prevention efforts. They have also formed a Behavioral Health Working Group in each of the three counties, all have focused on determining a long-term population behavioral health goal centered around decreasing disparities (including regional) in suicidal behavior.[160,161]

iv. Mesa County Health Department

Mesa County Health Department (MCHD) received $151,538 in annual funding to support:

- increased community awareness of risk and protective factors related to suicide;
- decreased stigma associated with seeking behavioral health services and increased awareness of existing resources;
- increased capacity of primary care providers to engage clients in behavioral assessments.

To date, MCHD has hosted two forums with students and parents to identify suicide prevention activities for schools and organized a partnership between the local university and the school district to implement a suicide prevention video series. Additionally, they have hosted community forums which identified needs and gaps in awareness about resources, access to the mental health system, access to peer support services and access to community trainings like suicide prevention gatekeeper trainings.[162,163]

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[157] CDPHE, *Grantee Cohort Report*
[158] CDPHE, *Progress Report and Quarterly Report*
[159] "Let's Talk", Let's Talk Colorado, http://letstalkco.org/
[160] CDPHE, *Grantee Cohort Report*
[161] Ibid.
[162] Ibid.
[163] Ibid.

v. San Luis Valley Integration Project

The Rio Grande Public Health Agency serves as the lead agency for this project that spans Alamosa, Conejos, Costilla, Mineral, Rio Grande and Saguache Counties. The San Luis Valley Integration Project received $139,840 in annual funding to support:

- increased access to preventive services;
- decreased stigma through education and training.

To date, the Integration Project has provided 12 community and provider education opportunities.

vi. Pueblo City-County Health Department

Pueblo City and County Health Department (PCCHD) received $146,337 in annual funding to support:

- increased behavioral health screening in coordinated community systems;
- increased education, outreach and stigma reduction efforts to the public and health care providers.

To date, PCCHD has utilized social media to post education materials addressing stigma on a weekly basis. They hosted a lunch and learn for providers and offered CMEs and they are considering options for a stigma reduction campaign.[164,165]

5. Other Local Efforts

a. Valley Settlement Project

The Valley Settlement Project is focused mainly on low-income Latino immigrants in the Roaring Fork Valley of Colorado. The organization takes a "whole-family approach" to address root causes of multiple issues and therefore support a variety of programs that range from early childhood education to adult education. Recently, the project received a three-year grant that goes through the end of 2017 totaling $1.2 million to support their work from the W.K. Kellogg Foundation.[166] In terms of prevention, two programs of interest are Learning with Love and El Busesito.

Learning with Love is a program for infants to three-year-olds and their parents to attend classes together to learn strategies to promote the healthy development of children. The dual generation approach empowers parents as both caregivers and teachers, while helping to prepare children for pre-kindergarten and kindergarten. The program, which uses Parents as Teachers curriculum, reached 48 toddlers and their parents in 2016 and they meet for 90 minute sessions twice-a-week and participating families also receive two home visits each month.[167] An evaluation done in-house, showed that 90 percent of participating toddlers were on target in terms of personal-social skills and 93% were on target in terms of social-emotional growth.[168] Parents have also reported positive outcomes in terms of engaging in positive parenting behaviors more often and understanding more about child development and age-appropriate activities.[169]

El Busesito is an early childhood education program for three to five-year-olds to address the area of school readiness to low-income children. Early childhood education has shown significant benefits in

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[164] Ibid

[165] Ibid.

[166] Valley Settlement. *Evaluation Highlights Academic Year 2015/2016*, (Carbondale, CO: 2017)

[167] Ibid

[168] Ibid

[169] Ibid

reducing health issues including drug addiction, as well as reducing crime rates and economic racial disparities.[170,171,172] In 2016, the program reached 96 students, providing groups of students (no more than 8) with 5 hours of bi-lingual early childhood education per week. Valley Settlement's in-house evaluation found that for children in the program, they showed score improvements (using TS GOLD scores) in social-emotional skills, language skills, and cognitive skills.[173] Parents also reported reading more to their child (89%), being more involved in school programs (94%), having more quality interactions with their child (96%) and learning new skills (100%).[174]

b. Mental Health First Aid Colorado

Mental Health First Aid (MHFA) is an evidence-based training program that empowers individuals to identify, understand, and respond to people who might be experiencing a mental health or substance abuse crisis. Created in 2001 in Australia, MHFA came to the U.S. in 2008 through the National Council for Behavioral Health. Mental Health First Aid promotes early intervention and prevention by cultivating empathy, understanding, and the ability to identify and intervene in a mental health emergency. This training has increased community dialogue about mental illness and substance use disorders, and in turn destigmatizing help seeking. MHFA training includes information about the signs and symptoms of mental health challenges, what to do to help someone experiencing these challenges and where to get help. There is a training targeted to community members and a training uniquely targeted to parents and adults who interact with youth.[175]

MHFA Colorado is recognized as a national leader and award winning program implementing this training, Housed and administered by the Colorado Behavioral Healthcare Council (CBHC), the program coordinates instructors and trainings all over the state. MHFA and YMHFA has been endorsed and adopted by a number of organizations as part of their efforts in behavioral health promotion and mental and substance use disorder prevention.

c. Find Your Words Campaign by Kaiser Permanente Colorado

In Spring 2017, Kaiser Permanente launched a stigma reduction campaign called *Find Your Words*. The campaign includes TV, radio and online messages that talk about depression in an open and encouraging way. The campaign centers around a website, FindYourWords.org where visitors can find information and resources related to depression. The interactive website invites the public to engage in a conversation about mental health and wellness.[176]

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[170] J.L. Garcia, et al., "The Life-cycle Benefits of an Influential Early Childhood Program", *National Bureau of Economic Research,* (2016)

[171] R. Grunewald and A.J. Rolnick, "An Early Childhood Investment with a High Public Return," *The Regional Economist*, (2010)

[172] President's Council of Economic Providers, *The Economics of Early Childhood Investments*. (Washington, D.C.: 2015)

[173] Valley Settlement, *Evaluation Highlights Academic Year 2015/2016*.

[174] Ibid

[175] "Mental Health First Aid Colroado", Mental Health First Aid Colorado, http://www.mhfaco.org/

[176]"Kaiser Permanente Launches Find Your Words Campaign", Kaiser Permanente, https://share.kaiserpermanente.org/article/kaiser-permanente-launches-find-your-words-campaign-to-fight-stigma-around-mental-health/

d. Substance Abuse Prevention

i. The Colorado Substance Abuse Trend and Response Task Force

The Substance Abuse Trend and Response Task Force (SATRTF) is a network of partners convened by the Attorney General's Office and focused on understanding and responding to substance abuse issues in Colorado. Among the activities of the SATRTF is reviewing information about effective practices for substance abuse prevention, and recommending prevention strategies to communities and partners across the state. The SATRTF serves as a larger coordinating body for a number of committees, including the Colorado Consortium for Prescription Drug Abuse Prevention described below.[177]

ii. Colorado Consortium for Prescription Drug Abuse Prevention

The Colorado Consortium for Prescription Drug Abuse Prevention (CCPDAP) is an interagency/interuniversity collaborative designed to facilitate the implementation of the Colorado Plan to Reduce Prescription Drug Abuse. The Consortium is housed in the University of Colorado (CU) Skaggs School of Pharmacy and Pharmaceutical Sciences at the Anschutz Medical Campus. The Consortium provides a statewide, inter-university/inter-agency network of more than 70 entities, including public health and the behavioral health, medical societies and commercial pharmacies, with active participation from the Governor's Policy Office.[178]

The mission of the Consortium is to reduce the abuse and misuse of prescription drugs in Colorado through improvements in education, public outreach, research, safe disposal, and treatment. The Consortium provides the infrastructure to link the different organizations currently working on this issue.

One initiative under the CCPDAP is the Take Meds Seriously Public Awareness Campaign. The CCPDAP partnered with Webb Communications and Zeto Creative to launch a statewide campaign with messages about safe use, safe storage and safe disposal to prevent the misuse and abuse of prescription drugs. The campaign includes an informational website, http://takemedsseriously.org/ and collateral materials and media to drive traffic to the website.[179]

Additional efforts of the CCPDAP include policy development and advocacy, provider education, and data and research. The CCPDAP operates a number of working groups focused on prevention, including a Heroin Response Work Group developing strategies across law enforcement, treatment and prevention to address the growing heroin epidemic in the state.

iii. Prescription Drug Overdose Prevention for Communities Grants

CDPHE recently created a Prescription Drug Overdose Prevention Unit (PDO Prevention Unit) which currently funds seven local health agencies working across 16 counties to implement provider education activities related to safe opioid prescribing. Grantees are required to work in a multidisciplinary capacity within communities to strengthen local prescriber knowledge and increase uptake of prescribing guidelines set forth by the CDC. Local grantees conduct provider education trainings targeted at medical professionals including physicians, clinical pharmacists, behavioral health providers, dentists, nurse practitioners, physician assistants and public health professionals. Current grantees include:

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[177] "SATRTF", Colorado Attorney General's Office, https://coag.gov/SATF
[178] "COX Consortium", Colorado Consortium for Prescription Drug Abuse, http://www.corxconsortium.org/
[179] "Take Meds Seriously Public Awareness Campaign", Take Meds Seriously, http://takemedsseriously.org/

- Denver Public Health (Denver Health & Hospital Authority)
- Las Animas -Huerfano Counties District Health Department
- Summit County Public Health
- Pueblo City-County Health Department
- Northwest Colorado Community Health Partnership
- Tri-County Health Department
- El Paso County Public Health

The PDO Prevention Unit released an additional request for applications (RFA) to expand the grant funding to 8-10 additional agencies (https://www.colorado.gov/cdphe/pdo-funding). Awards range from $25,000 to $50,000 per contract year. Grant funding is available to address prescription drug overdose prevention in local communities through August 31, 2019.

iv. Peer Assistance Services, Inc.

Peer Assistance Services, Inc. (PAS) is a nonprofit agency focused on substance use disorder prevention and intervention services in workplaces and communities. PAS implements educational programming around the risk and protective factors associated with substance abuse, as well as early identification and referral resources. PAS also provides training and technical assistance to healthcare providers on the implementation of Screening and Brief Intervention, Referral to Treatment (SBIRT) Program through SBIRT Colorado.[180]

PAS receives funding from the Substance Abuse Mental Health Services Administration (SAMHSA) to support implementation of SBIRT in Colorado. SBIRT is an evidence-based practice used for early identification of problematic substance use and brief intervention to prevent abuse and dependence on alcohol and other drugs.[181]

Figure 9: Summary of General Population Programs and Initiatives in Colorado

Program	Primary Prevention	Secondary Prevention	Tertiary Prevention
Shaping a State of Health: Colorado's Plan for Improving Public Health & the Environment	✔		
Local Public Health Agencies		✔	✔
SIM Population Health Grantees	✔	✔	
Valley Settlement Project		✔	
Mental Health First Aid Colorado		✔	✔
Find Your Words Campaign by Kaiser Permanente Colorado	✔		
The Colorado Substance Abuse Trend & Response Task Force	✔		

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[180] "Peer Assistance Services", Peer Assistance Services, http://www.peerassistanceservices.org/
[181] "SBIRT Colorado", SBIRT Colorado, http://www.sbirtcolorado.org/

Colorado Consortium for Prescription Drug Abuse Prevention	✔	✔	
Peer Assistance Services, Inc.		✔	

6. National Initiatives and Resources

a. Movember-Making Connections for Mental Health and Wellbeing Among Boys and Men

In 2015, the Movember Foundation, a foundation focused on men's health, partnered with the Prevention Institute to launch an initiative uniquely targeted to boys and men in the United States. This initiative provides funding in communities across the U.S., including Denver through the Department of Human Services, to implement community-level prevention strategies focused on building resilience to improve mental health.[182] Efforts include building social connections, improving economic and educational opportunities and improving the community physical environment.[183]

b. National Prevention Strategy

As mentioned in the introduction, there is a growing understanding that mental health is health. Perhaps this is most evident in the National Prevention Strategy (NPS). Developed by the U.S. Department of Health and Human Services, Office of the Surgeon General, The NPS presents a vision of "working together to improve the health and quality of life for individuals, families and communities by moving the nation from a focus on sickness and disease to one based on prevention and wellness."[184]

The National Prevention Council developed and governs the NPS and is comprised of 20 different federal departments, agencies and offices, including SAMHSA and the CDC. The Council identified seven priorities on which to focus to improve the nation's health. Among these seven are mental and emotional wellbeing, and preventing drug abuse and excessive alcohol use.

In Region 8, where Colorado is located, the Region 8 NPS Council comprises more than 30 Denver based Federal agencies and is leading the charge in Colorado around the NPS. The Region 8 Council formed a work group specifically focused on mental and emotional well-being. The Mental Health and Emotional Well-being Work Group (MEWB) selected the following goals:

1. Foster emotional well-being at the earliest stages of life and across the lifespan.
2. Provide families and individuals support to maintain positive well-being.
3. Promote early identification of mental health needs.

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[182] "Making Connections for Mental Health and Wellbeing Among Men and Boys Initiative", Movember Foundation, https://us.movember.com/news/9485/making-connections-for-mental-health-and-wellbeing-among-men-and-boys-initiative

[183] "Making Connections for Mental Health and Wellbeing Among Me and Boys", Prevention Institute, https://www.preventioninstitute.org/projects/making-connections-mental-health-and-wellbeing-among-men-and-boys

[184] "National Prevention Strategy", Surgeon General, https://www.surgeongeneral.gov/priorities/prevention/strategy/index.html

V. Gap Analysis

A. A Shift to Prioritizing Behavioral Health Promotion and Prevention

In the course of working on this project, HMA conducted key informant interviews with members of the SIM Population Health Work Group and other key public health and mental health stakeholders. All interviewees expressed a readiness to focus more effort on upstream approaches to protect the mental health and well-being of Coloradans, while preventing mental and substance use disorders from occurring. There is a sense of urgency as stakeholders look for opportunities to do work in the bigger context in which mental disorders and substance abuse occur.

HMA reviewed many documents identified through our research or by stakeholders. Among these documents were multiple assessments looking at mental health and substance abuse treatment services. These assessments looked at a range of issues including accessing services, funding or payment structures for services, service settings, etc. There was a noticeable gap in assessments regarding behavioral health promotion and prevention efforts in Colorado or nationally. Despite a sense of urgency to work in this space, resources are focused on crisis intervention, and those with high needs and high system utilization. The consequences of not focusing efforts in crisis response and treatment are felt more immediately and obviously then the return on investments found in prevention and health promotion.

This assessment conducted by HMA, though limited in scope, represents the commitment the SIM Population Health Work Group has to its overarching aim of population based health promotion. The assessment did reveal areas of strength in Colorado regarding behavioral health promotion and prevention, as well as areas of opportunity.

1. Educating about the Social Determinants of Mental Health and Translating Understanding into Action

There are gaps in understanding the determinants of mental health across state agencies and partners as well as gaps in translating that understanding into action. In many ways, Colorado has prioritized the social determinants of health. Models for conceptualizing determinants of health are incorporated into professional training, and sometimes program planning. Cross agency Initiatives like the Colorado Opportunity Project are facilitating the development of shared strategies. The Affordable Care Act brought the concept of the "health community," which will be a part of Colorado's future Regional Accountable Care Entities (RAEs). RAEs will be responsible for bringing together public health, healthcare and social services as partners in the health of individuals in the context of communities, as well as to build resilient communities.

Public health and behavioral health stakeholders have a responsibility to talk about the determinants of mental health to educate, as well as destigmatize, mental and substance use disorders. Following this ground-laying, stakeholder's need to engage in strategies at the community and societal levels of the social ecology that target the determinants of mental health. CDPHE's work with the Communities That Care model is an example of doing this, however, Colorado lacks an intentional effort to educate on, and activate environmental and policy changes to address determinants of mental health.

Along a similar vein, as there is acceptance that mental health is health, public health professionals working on more traditional, and better resourced, public health issues like obesity prevention, tobacco

cessation and chronic disease, need to integrate language and action about mental health into their vernacular about risk and protective factors and prevention strategies.

2. Strengths and Gaps in Behavioral Health Promotion and Prevention for Sub-Populations

As reflected in the environmental scan, Colorado has many initiatives and programs that can be considered behavioral health promotion and primary and secondary prevention. The most robust offerings were in early childhood and adolescent substance abuse. There are many school based initiatives and programs that focus on social-emotional learning, and on identifying and referring children at risk for social-emotional problems. Innovation was apparent in efforts to address the mental health of men, a typically difficult sub population to reach with mental health messages and programs. There also has been collaborative efforts to prevent pregnancy related depression and substance use under the leadership of CDPHE's Maternal Wellness Program.

a. Coordination of Behavioral Health Promotion and Prevention Efforts

Colorado has a well-coordinated early childhood system that includes initiatives and programs addressing the social and emotional health of young children. State programs are housed under one agency, in an organizational structure focused solely on early childhood. There is a mix of federal, state and foundation funding to support early social and emotional development, and to support families, caregivers and educators to provide safe, stable and nurturing environments. There is a public-private partnership that drives coordinated, strategic decisions and activities. For no other sub population did this level of coordination exist, which is not to say that partners across agencies and sectors are not coordinating, but rather, that there is not a formal structure and process for doing so.

The same level of coordination was not found for any other population subgroup. There is significant programming for which adolescent substance abuse is the outcome of interest. Many of the programs utilize a public health approach, implementing primary prevention programs focused on building protective factors. Most of these programs are administered through community grants by OBH at CDHS. The remainder are implemented by CDPHE. There does not appear to be a formal infrastructure to ensure collaboration or coordination across the programs being implemented. Program staff of CDHS and CDPHE have long done a fine job of collaborating on efforts-sitting on cross agency advisory groups, reviewing grant applications for one another, etc. What is unclear is how programming related to behavioral health promotion and prevention, like adolescent substance abuse prevention, would benefit from the level and scope of system coordination the early childhood programs operate within. What resources could be leveraged? What efficiencies could be realized? These are questions worth asking given the resources and quality of some of the programs currently being implemented.

b. Resources for Behavioral Health Promotion and Prevention for Certain Sub Populations

There are apparent gaps in behavioral health promotion and prevention for certain sub populations. As noted, there are many school based initiatives and programs but most of these efforts are in early childhood education (pre-K through K) and in later grades (middle school and high school). It is not evident how many, or how much some of the programs address the student population with interventions to build social and emotional health versus programs that are targeted to a selected population of students identified as potentially having a social-emotional challenge and in need of additional support.

There are innovative strategies focused on boys and men. However, these efforts have not been taken to scale in proportion to the burden, given that men have a four times greater likelihood of dying by

suicide in Colorado. There is not the same level of stakeholder engagement and cross agency, cross sector engagement around men's mental health as Colorado has seen with pregnancy related depression.

Finally, there is a gap in programming focused on behavioral health promotion or prevention for older adults. There are likely many programs focused on building social connections, but these may not be identified as behavioral health promotion or prevention programs.

Also of note, the scope of the project did not allow for a deeper look at additional sub populations, such as those representing any marginalized groups, however an understanding of gaps related to additional sub populations would be useful in determining actions.

3. Principles of Effective Prevention Programs

It was clear across the sub populations and across programs that some partners are implementing programs according to the general principles of prevention. This was especially true when state agencies were implementing an evidence based framework or model and requiring communities to follow the model. There were many initiatives or programs where the level at which they were following general principles of effective prevention programs was unclear, either because the information was not presented or recorded in program information, or because the approach was not based in effective principles. As such, it is difficult to determine gaps related to implementation of research informed or evidence based programs. At least, there is a gap in how information about programs and outcomes is communicated. This could have an impact on sustainability of efforts.

Along a similar vein, despite research on effective programs and approaches (i.e., stigma reduction or social norms campaigns), it appears that some community organizations are creating initiatives and programs without taking advantage of what is known or what exists. To some extent, funders, including state agencies, are not necessarily requiring or ensuring the use of research informed or evidence based programs and approaches.

What is unknown across both of these issues is whether it is a condition of limited resources, an allowance for innovation or flexibility, or a lack of understanding and knowledge about what programs and approaches are replicable or translatable to a particular audience. Also, unclear across many of the initiatives and programs in the environmental scan is how these efforts are being evaluated, if they are being evaluated, if technical assistance related to evaluation is offered, and whether evaluation outcomes are tied to funding.

4. Investments in Behavioral Health Promotion and Prevention

A discussion about gaps cannot be had without considering the gaps in investments for promotion and prevention, both funding amounts and duration. Adolescent substance abuse prevention appears to be the most well- funded, and also appears to have some initiatives that build off or braid with others. Except for the Marijuana Tax Fund, funding for substance abuse prevention comes from SAMHSA and CDC, while funding for mental health related prevention comes largely from SAMHSA. No state funds are dedicated to these efforts specifically, however state funds do support related programs like those funded by the Tony Grampsas Youth Services Program or the Colorado Children's Trust Fund. How these related programs coordinate with efforts to support behavioral health promotion and prevention programming seems inconsistent and variable depending on the community receiving the funds. Often grants from government agencies as well as philanthropy are short in duration and once the funding ends, the project ends with no plan for long term financial sustainability.

There is a gap in coordination across state and private funding for these types of initiatives and programs. Funding recipients report to different agencies, on different outcomes and yet, likely are attempting to address risk and protective factors that are shared across the topics funded. There is also a gap in supporting long term financial sustainability through technical assistance and funding models. Finally, there is a gap between the importance of behavioral health and prevention activities and the urgency stakeholders feel to address it, and the available resources to do so.

VI. Conclusion

Mental health is health. Understanding and addressing risk and protective factors, and the social determinants of mental health, is imperative to promoting strong families, a healthy workforce, and engaged citizens. Colorado SIM afforded the opportunity for population health experts on the SIM Population Health Work Group to explore existing efforts across the state in population based behavioral health promotion and the prevention of mental and substance use disorders.

Using a public health framework and keeping the SIM Population Health Work Group goals in mind, HMA completed an environmental scan and gap analysis. Colorado is fortunate to be on the forefront of seeing mental health and substance abuse as public health issues. Some of the best minds and hearts are working in prevention in this state. The breadth, quality and innovation of many of the programs and initiatives identified in the environmental scan reflect the talent and dedication of Colorado's prevention professionals. As the SIM Population Health Work Group, CDPHE and the Colorado SIM Office seek to expand the work Colorado is doing in behavioral health promotion and prevention, there are gaps to be addressed.

Gaps were identified by reviewing the environmental scan, considering the information presented in key informant interviews, and conducting a review of the literature on best and promising practices in preventing mental disorders and substance abuse. Gaps in the existing system allow for opportunities in the following areas: better coordination of initiatives and programs across agencies and sectors; increased efforts focused on elementary school aged children, working aged men, and older adults; clearer and more consistent expectations for the use of research informed or evidenced based approaches and for evaluation; greater resources committed to behavioral health promotion and prevention; and, better and more strategic communication and advocacy about the social determinants of mental health.

Phase II of this effort will result in a Call to Action with recommended strategies and actions for improving population based behavioral health promotion and prevention.

VI. Appendix A

Key Informant Interview Subjects

HMA conducted key informant interviews with the following members of the Population Health Work Group:

- Tista Ghosh, Deputy Chief Medical Officer, CDPHE

- John Douglas, Executive Director, Tri County Health Department

- Molly Yost, Technical Assistance and Policy Manager, Launch Together

- Patrick Fox, Chief Medical Officer, Colorado Department of Human Services (CDHS)

- Jacqueline Laundon, Health Systems Specialist, CDPHE

HMA conducted key informant interviews with the following stakeholders:

- Brian Turner, Deputy Director, Colorado Behavioral Healthcare Council

- Peggy Hill, Deputy Director, National Behavioral Health Innovation Center, University of Colorado

- Charlie Smith, Regional Administrator, Substance Abuse and Mental Health Services Administration

- Sharon Liu, Manager, Community Prevention Programs, Office of Behavioral Health, CDHS

- James Gillespie, Community Impact and Government Relations Director, Mile High Behavioral Healthcare

HMA conducted additional brief interviews with various stakeholders as follow up on program information.

Key Informant Interview Questions

Questions for Population Health Work Group Members

1) What are the questions of greatest interest to you and to the SIM Population Health Work Group as it relates to the prevention of mental illness and substance abuse and the promotion of mental health for Colorado?

2) HMA has defined behavioral health promotion as a term that includes promoting well- being by preventing or intervening in mental illness or substance use disorders. Is there any other way that you would define it and what would you include in that definition for the purposes of the project?

3) Please tell us about any resources, including documents, websites and people we should talk with to inform what is known about behavioral health initiatives focused on the prevention of mental illness and substance abuse and the promotion of mental health in Colorado.

   a. How are these initiatives led, resourced, aligned and sustained?

b. Are you aware of any initiatives outside of Colorado that would be important for us to look at?

4) What stakeholders or agencies do you recommend we talk with to inform the environmental scan?

Questions for Population Health Work Group Members

1) What is your role or work as it relates to behavioral health promotion?

2) HMA has defined behavioral health promotion as a term that includes promoting well-being by preventing or intervening in mental illness or substance use disorders. Is there any other way that you would define it and what would you include in that definition for the purposes of the project?

3) Please tell us about any resources, including documents, websites and people we should talk with to inform what is known about behavioral health initiatives focused on the prevention of mental illness and substance abuse and the promotion of mental health in Colorado.

a. How are these initiatives led, resourced, aligned and sustained?

b. Are you aware of any initiatives outside of Colorado that would be important for us to look at?

4) What do you think are the challenges and opportunities for Colorado in population based behavioral health promotion?

Collection and review of relevant documents

HMA reviewed documents and websites provided by members of the SIM Population Health Work Group and the stakeholders interviewed as key informants, as well as those known to us from our own experience. The following types of documents were reviewed:

- Previous environmental scans or assessments related to mental health and substance abuse and identified by CDPHE staff, the SIM Population Health Work Group, key informant interviews or HMA's search of the literature.

- Documents outlining the work of SIM grantees engaged in population based behavioral health promotion or prevention activities.

- Documents or web content related to mental health stigma reduction campaigns or substance abuse prevention campaigns in the state.

- Resources from the Center for Disease Control and the Substance Abuse and Mental Health Services Administration

COLORADO
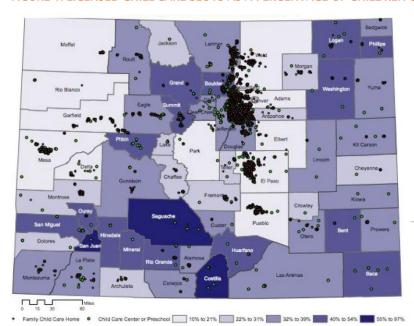Department of Public
Health & Environment

Access to Affordable, High-Quality Childcare

Across the country, about 61 percent of children under age five have one regular source of childcare—42 percent from a relative and 33 percent from a non-relative. In 2011, families with children under age five paid about $179 per week, more than $9,300 a year, for childcare. The median income in 2011 was $50,000, which means childcare for these families took up a large part of their income.[1,2]

Childcare in Colorado

All types of childcare (such as in a center, in a home, or with a relative) cost much more in Colorado than in most other states. There are not many options for good childcare in rural parts of the state or for families who do not make much money. In 2015, 21 counties had no licensed center-based providers for infants, and three had no licensed infant care in a childcare center or a family childcare home at all. In addition, the number of available slots declined from 2014 to 2015, particularly in rural areas.[3]

FIGURE 1: LICENSED CHILDCARE SLOTS AS A PERCENTAGE OF CHILDREN UNDER AGE SIX

Source: *Colorado Department of Public Health and Environment, "State of Childcare in Colorado," Essentials for Childhood Project, 2015. Map data from Qualistar Colorado.*

In 2015, Colorado, among all states, had the highest cost for care for infants in a childcare center — almost 50 percent of median income for a single parent and 16 percent of income for a family. Colorado did not do well with respect to its childcare center rules and control, rating 35 out of 50 states.[4] Families in Colorado urban areas tend to pay more for

childcare than their non-resort area rural counterparts, largely due to differences in the cost of living. Costs can also vary widely within urban areas; in 2013, childcare prices in downtown Denver were 42 percent higher than in neighborhoods just a few miles away.[5]

[1] Lynda Laughlin, "Who's minding the kids? Childcare arrangements: Spring 2011," U.S. Census Bureau, 2013, http://www.census.gov/prod/2013pubs/p70-135.pdf.

[2] "Income, Poverty and Health Insurance Coverage in the United States: 2011," United States Census Bureau, 2012, https://www.census.gov/newsroom/releases/archives/income_wealth/ cb12-172.html.

[3] Colorado Department of Public Health and Environment, "State of Childcare in Colorado," Essentials for Childhood Project, 2015.

[4] "Kids Count in Colorado," 2016.

[5] The Women's Foundation, Qualistar Colorado, Colorado Children's Campaign, "Childcare Affordability in Colorado: An investigation into childcare costs and recommended strategies for improving affordability," December2014.https://www.cp

Improving Access to Affordable, High-Quality Childcare: Promising Models and Strategies

There are many ways to build access to low-cost, high-quality childcare—for example, by making it easier to use existing childcare options, adding more childcare slots, and making the quality of childcare better. Colorado uses all these tools. But measuring and improving quality of childcare is still somewhat new, so there is not yet a lot of evidence about what works best.

NATIONAL PROGRAMS	COLORADO PROGRAMS
Childcare and Development Fund: The Childcare and Development Fund (CCDF) is the major federal program that helps to pay for childcare for low-income families, supporting care for 1.4 million children nationally.[6]	**Colorado Childcare Assistance Program:** Colorado Childcare Assistance Program (CCCAP), which helps to pay for childcare for low-income families who are homeless, working, looking for work, are in the Colorado Works Program, or are in school.[7]
Early Head Start and Early Head Start-Childcare Partnerships: Early Head Start provides many services and supports for low-income families, including child growth and development programs and childcare. Early Head Start programs and providers in the CCDF overlap in their missions and in the families they serve.	**Colorado Shines:** In 2013, Colorado got a $45 million grant to improve early childhood education and link childcare quality ratings to licensing. CCCAP uses the Colorado Shines[8] Quality Rating & Improvement System (QRIS), run by the Colorado-based non-profit Qualistar, to help rate childcare providers.

Evidence of Impact on Health and Social Outcomes

Putting money toward helping young children grow and learn is linked to better outcomes for individuals later in life, such as better jobs, higher income, and better health.[9] The studies of these effects usually focus on income and job outcomes; they do not often look further to measure health and social outcomes or other long-term impacts. But people with better incomes tend to have better health, so because good childcare helps to improve income, it probably also improves health.

[6] Administration for Children and Families, "Overview of 2016 Childcare and Development Fund Final Rule," US Department of Health and Human Services, 2016, https://www.acf.hhs.gov/sites/default/files/occ/ccdf_final_rule_fact_sheet.pdf.

[7] Colorado Office of Early Childhood, "The Colorado Childcare Assistance Program: In- formation for Families," Department of Human Services, 2016, http://www.coloradoofficeofear- lychildhood.com/cccap-parents.

[8] "Colorado Shines," Colorado Department of Human Services, Colorado Department of Education, 2015, http://coloradoshines.force. com/ColoradoShines/home.

[9] Executive Office of the President, Council of Economic Advisers, "Economic Report of the President: Chapter 4: Inequality in Early Child- hood and Effective Public Policy Interventions," 2016,

Overview

It has long been known that education has a significant positive impact on health and wellbeing. Better educated individuals have more positive health outcomes, even when controlling for other factors such as income or family background.[1] People with higher levels of education are less likely to smoke, more likely to exercise, have more opportunities to access health education, and less likely to adopt unhealthy coping behaviors.[2] School environment also plays an important role, because students in supportive and caring school environments are less likely to engage in substance abuse, violence, or other problem behaviors, while also having more positive attitudes about themselves and others.[3]

Similarly, health can have a direct impact on education, with students with poor health having higher probabilities of failing school, being held back grades, and dropping out compared to students with good health. Obese and overweight children have poorer academic performances, such as on standardized math and reading tests, compared to students with normal weights; and obesity can be a predictor of low grade-point averages, placement in special education or remedial classes, and having fewer years of education.[4,5] Additionally, students who are physically active tend to have better grades, school attendance records, classroom behavior, and cognitive performances compared to their less active peers.[6]

There is a two-way link between health and education: good health can improve education performance, and education can improve health. This fact means that there are good reasons to try to improve education at all levels. Efforts to improve the quality of education in and out of the classroom can help to improve the health of students and address things that affect the most at risk students, including hunger, poverty, homelessness, and experience of violence or trauma.

The State of K-12 Education in Colorado

Source: *2016 Kids Count Colorado Report*

Colorado has a high participation in full-day kindergarten	**Students of color make up 46% of all Colorado students**	**Achievement gaps between Hispanic, Black, and American Indian student vs. Asian and White students exist in every subject and across all years**
76% of all kindergartners	Hispanic and Asian populations are growing the fastest	
The average drop-out rate was 2.4%	**Colorado had 24,000 homeless students in 2016**	**24% of Colorado students** (ages 12-17) **reported feeling sad or hopeless almost every day for two weeks or more in a row**
4.7% for American Indian 3.9% Hispanic 3.7% Black	a number likely underreported due to identification	

Over a four-year period, one school in Illinois saw "office referrals and suspensions decrease, test scores climb, and the achievement gap in math shrink to almost nothing." [7]

[1] David M. Cutler and Adriana Lleras-Muney, "National Policy Center, Brief #9," 2007, http://www.npc.umich.edu/publications/policy_briefs/brief9/policy_brief9.pdf

[2] "Emily Zimmerman and Steven Woolf, "Understanding the Relationship Between Education and Health," Institute of Medicine Roundtable on Population Health Improvement, June 5,2014, https://nam.edu/wp-content/uploads/2015/06/BPH-UnderstandingTheRelationship1.pdf

[3] Eric Schaps, "The Role of Supportive School Environments in Promoting Academic Success," Center for the Collaborative Classroom. Accessed May 15, 2017. https://www.collaborativeclassroom.org/research-articles-and-papers-the-role-of-supportive-school-environments-in-promoting-academic-success.

[4] K. J. Tobin, "Fast-food consumption and educational test scores in the USA." Child: Care, Health and Development 39(2011): 118-24. doi:10.1111/j.1365-2214.2011.01349.x.

[5] Ashlesha Datar, Roland Sturm, and Jennifer L. Magnabosco. "Childhood Overweight and Academic Performance: National Study of Kindergartners and First-Graders." Obesity Research 12, no. 1 (2004): 58-68. doi:10.1038/oby.2004.9.

[6] "Healthy Kids Learn Better." Alliance for a Healthier Generation, accessed May 15, 2017. https://www.healthiergeneration.org/about_childhood_obesity/wellness_stories/healthy_kids_learn_better/.

[7] The Wellbeing Effect of Education, Evidence Briefing, Economic and Social Research Council, July 2014, http://www.esrc.ac.uk/news-events-and-publications/evidence-briefings/the-wellbeing-effect-of-education/

[8] Measuring the Impact of School-Based Health Centers on Student Health and Academic Achievement. Report. Colorado Association for School-Based Health Care. Denver, CO, 2011.

Strategies to Improve K-12 Education

A wide variety of strategies can be and are being implemented in schools, school districts, and statewide that can help to increase the quality of K-12 education and positively affect students' physical and mental health, both while they are in school and later in their lives. These strategies, which are outlined below, often have common features that can be used at all age-levels to help create supportive and safe school environments to help students stay in school. They focus on building students' social and emotional capacity and their ability to cope with behavioral health issues that affect not only student's ability to learn but also their fellow students and teachers.

PROGRAM TITLE	PROGRAM DESCRIPTION	EXAMPLE
Live Well Colorado Healthy Schools	Focuses on serving freshly prepared meals, along with educational component around healthy eating habits and life-skills	Academy 360, Denver Public Charter School http://www.coloradoedinitiative.org/wp-content/uploads/2014/03/Colorado-Framework_VCS7small.pdf
Multi-Tiered Systems of Support (MTSS)	Framework to connect families, schools, and communities to affect academic achievement, behavioral issues, and school environment	Kansas School District MTSS Program http://www.coloradoedinitiative.org/wp-content/uploads/2014/03/Colorado-Framework_VCS7small.pdf
Positive Behavior Interventions and Support (PBIS)	Framework focused on helping students achieve social and learning goals to improve academic achievement and reduce behavioral issues	Greenwood Elementary, Cheery Creek School District; Pueblo City School District http://greenwood.cherrycreekschools.org/pages/pbis.aspx http://www.pueblocityschools.us/administration/departments/exceptional-student-services/pbs http://www.educationworld.com/a_admin/admin/admin535.shtml
Caring School Communities	Social and emotional curriculum to promote prosocial values, increase academic motivation, and prevent substance use	Aurora, Colorado Elementary Schools https://www.collaborativeclassroom.org/caring-school-community
Lion's Quest Skills for Adolescence	Builds social and emotional skills to promote positive relationships, academic effort, prosocial behavior, and school safety	Illinois School District https://www.collaborativeclassroom.org/caring-school-community
Mindfulness-based Interventions	Teaches students to be aware of thoughts, emotions, and environment to reduce behavioral issues and anxiety and increase cognitive performances	Denver Public Schools http://www.denverpost.com/2016/11/28/denver-public-schools-mindfulness-class-teaches-gratitude-appreciation-surroundings/
Low-to-No-Cost Prevention Strategies	Low cost, but powerful prevention strategies to improve academic achievement and decrease behavioral issues	Written Praises, Peer Tutoring, Team Competitions http://www.lcjp.org/what-we-do/restorative-practices-in-schools.html
Restorative Practices	Helps students resolve conflicts outside of school or community punishments to improve school and community engagement and improve school environment	Longmont Community Justice Partnership; Leadville Lake Country High School http://www.lcjp.org/what-we-do/restorative-practices-in-schools.html
Project AWARE	Advances wellness and resilience in schools by connecting schools with local authorities for mental health promotion and prevention	CO Department of Education https://www.cde.state.co.us/healthandwellness/projectaware
Positive Action	Educational program that promotes learning and cooperation to reduce behavioral issues and increase academic achievement	CO Department of Education Anti-Bullying Campaigns https://www.cde.state.co.us/mtss/bullying/positiveaction https://www.positiveaction.net/research-outcomes
School-Based Health Centers	Health clinics located within schools that can improve access to care, reduce absenteeism, and improve learning environments	Department of Public Health and Environment https://www.colorado.gov/cdphe/what-is-a-sbhc http://www.casbhc.org/Publications/Policy%20Briefs/Colorado's%20Investment%20in%20SBHCs.pdf
Sources of Strength	Peer leaders are trained to spread strength-based messaging to increase school connectedness and prevent suicidal behaviors in middle and high schools	Pilot program in seven Colorado schools

Benefits of SBHCs include improving access to care, reducing absenteeism from school, reducing ER visits, and improving student immunization rates.[8]

Neighborhood Fabric and Social – Community Connectedness

The neighborhood you live in can impact your health in two main ways: through the physical features and the social connections between people in that neighborhood.

The features of a neighborhood are things like parks and green space, sidewalks and bike lanes, and even things like road quality and how close the houses are to each other.[1] The features can impact health by supporting or stopping people from doing physical activities (like playing, biking, and running), which are an important part of a healthy lifestyle.[2] Well-designed and cared-for features of a neighborhood give people a place where they can be more active.[3] Feeling safe in your neighborhood is also important. Features like good lighting can help people feel safe and encourage them to enjoy the neighborhood.

Levels of social connection in a neighborhood can also impact health. In fact, being a part of a social group can help people make healthier choices, through what is called social influence.[4] A strong social group can also improve mental health and lower levels of violence by boosting a person's feelings of self-worth and importance, which increases the chances that they will get the help they need when they need it.[5] So, while the features give people the space for healthy activity, social connectedness gives them the support to make the healthy choice.[6]

The State of Neighborhood Fabric and Social-Community Connectedness in Colorado

Given the diversity of Colorado communities, it is difficult to understand each neighborhood's own features and social cohesion. Instead, we can look at the state level. State-level data are important because they show that minority, rural, and low-income people have worse health than urban, high-income people. Using that information, we can understand qualities about Colorado communities and the health of Coloradans.[7,8]

Colorado is considered one of the healthiest states in the nation. In Shaping a State of Health, Colorado's Plan for Improving Public Health and the Environment, the Colorado Department of Public Health and Environment (CDPHE) prioritized mental health and the prevention of substance abuse and obesity through systems change.[9] CDPHE together with partners in the private and charity sectors have funded a number of programs focused on creating healthy communities. Many of these programs are focused on healthy eating and active living and on enhancing the built environment. There is no direct evidence that these Colorado efforts have made an impact on mental health, substance abuse, violence or chronic disease outcomes, but research would support the conclusion that positive outcomes are likely.

[1] Shobha Srinivasan, Liam O'Fallon, and Allen Dearry, "Creating Healthy Communities, Healthy Homes, Healthy People: Initiative a Research Agenda on the Built Environment and Public Health," American Journal of Public Health 93, no. 9 (2003), http://courseresources.mit.usf.edu/sgs/ph6934/webpages/CC/module_1/read/1446.pdf

[2] Lawrence Frank, Martin Andresen, and Thomas Schmid, "Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars," American Journal of Preventive Medicine 27, no. 2 (2004); 87-96, http://www.ajpmonline.org/article/S0749-3797(04)00087-X/fulltext#Introduction

[3] James F. Sallis, Myron F. Floyd, Daniel A Rodriguez, and Brian E. Saelens, "The Role of Built Environments in Physical Activity, Obesity, and CVD," Circulation 125, no. 5 (2012): 729-737, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315587/

[4] Ichiro Kawachi and Lisa F. Berkman, "Social Ties and Mental Health," Journal of Urban Health: Bulletin of the New York Academy of Medicine 78, no. 3 (2001): 458-467, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3455910/pdf/11524_2006_Article_44.pdf

[5] Ichiro Kawachi and Lisa F. Berkman, "Social Ties and Mental Health," Journal of Urban Health: Bulletin of the New York Academy of Medicine 78, no. 3 (2001): 458-467, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3455910/pdf/11524_2006_Article_44.pdf

[6] Carl A Latkin and Amy R Knowlton, "Social Network Assessments and Interventions for health Behavior Change: a Critical Review," Journal of Behavioral Medicine 41, no. 3 (2015): 90-97, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4786366/

[7] Kelli Gruber, Amy Anderson Mellies, and Renee Calanan, "Disparities in the Prvalence of Adult Overweight and Obesity by Demographic Characteristics – Colorado BRFSS, 2011-2014," CDPHE Health Watch no. 98 (2016), http://www.chd.dphe.state.co.us/Resources/pubs/AdultOverbeseDisparitiesFinal.pdf

[8] Colorado Department of Public Health and Environment, VISION: Visual Information System for Identifying Opportunities and Needs Tool, https://www.colorado.gov/pacific/cdphe/vision-data-tool

[9] Colorado Department of Public Health and Environment, "Healthy Colorado: Shaping a State of Health Colorado's Plan for Improving Public Health and the Environment," https://www.colorado.gov/pacific/sites/default/files/OPP_2015-CO-State-Plan.pdf

Improving Neighborhood Fabric and Social Connectedness

Because each neighborhood is different, no single approach will fit all circumstances, but there are many ways to make neighborhood features and social connectedness better.[10] The examples below show different ways neighborhoods and states have improved their communities.

Case Study Activities		
KC Healthy Kids Collaborative[11]	**GOAL:** Improve health by building a strong community and improving access to healthy foods	**STRATEGY:** Neighborhood Empowerment Toolkit and changing policy to allow more farmer's markets and the creation of community gardens in unused spaces
PATH Study[12]	**GOAL:** Improve health with more physical activity	**STRATEGY:** Social media to advertise walking groups with police escorts so people feel safe
Santa Monica Wellbeing Project[13]	**GOAL:** Improve wellbeing with more physical activity and social connection	**STRATEGY:** Use a Wellbeing Index to let people know about their overall level of wellbeing and give information on how wellbeing can be improved through exercise and social networking

Outcomes

Studies have shown that physical activity is an important part of a healthy lifestyle and that social support can help people make healthy choices and improve their mental health. We also know that people are more likely to use their neighborhoods for physical activity when the neighborhoods are safe, nice, and well-kept, especially if they also have a strong social network. Strong social connectedness can also improve health by reducing the level of mental health issues, violence, and drug abuse.[14] Efforts that put time and money into making neighborhoods nicer and safer and that offer programs for people to connect with each other can ultimately lead to a happier and healthier community.

[10] Gopal Singh, Mohammad Siahpush, and Michael Kogan, "Neighborhood Socioeco- nomic Conditions, Built Environments, and Childhood Obesity," Health Affairs 29, no. 3 (2010): 503-512, http://content.healthaffairs. org/content/29/3/503.full.html

[11] "About," KC Healthy Kids, https://www. kchealthykids.org/program/about/

[12] Dawn Wilson, M. Lee Van Horn, E. Rebekah Siceloff, Kassandra Alia, Sara M. St. George, Hannah G. Lawman, Nevelyn N. Trumpeter, Sandra M. Coulon, Sarah F. griffin, Abraham Wandersman, Brent Egan, Natalie Colabianchi, Melinda Forthofer, and Barney Gadson, "The Results of the Postive Action of Torday's Health (PATH) Trial for Increasing Walking and Physical Activity in Underserved Af-rican-American Communities," Annals of Behavioral Medicine 49, no. 3 (2015): 398-410, https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC4426390/

[13] "Creating a City for Wellbeing: Key Findings about Wellbeing Perspectives and Assetsin Santa Monica," Santa Monica Wellbeing Project (2015), https://wellbeing.smgov.net/ Media/Default/docs/WellbeingProject-Index- Findings- April2015.pdf

[14] Eva Leslie, Brian Saelens, Lawrence frank, Neville Owen, Adrian Bauman, Neil Coffee, and Graeme Hugo, "Residents' Perceptions of Walkability Attributes in Objectively Different Neighbourhoods: a Pilot Study," Health and Place 11 (2005) https://www. researchgate.net/profile/Brian_Saelens/ publication/7961246_Residents%27_per- ceptions_of_walkability_attributes_in_ob- jectively_different_neighbourhood_A_pilot_study/links/09e 4150d3905dcbd4e000000/ Residents-perceptions-of- walkability-at- tributes-in-objectively-different-neighbour- hood-A-pilot-study.pdf

Overview

Only a small portion of all workers in the United States have paid family medical or sick leave[1], and coverage varies by job type, wages, and where people live.[2] This is a public health issue and a business issue too as studies show that workers who can take paid leave keep their jobs for longer and make more money than workers who do not or cannot take paid or unpaid leave.[3]

Paid and Unpaid Time Off Work: National and Local Programs

The Family Medical Leave Act (FMLA), signed into law by President Clinton in 1993, gives about 60 percent of Americans access to medical leave to care for themselves or a family member.[4] However, although the FMLA guarantees that a person will have a job when they return to work, the time off is unpaid.

A growing number of states and cities have passed paid sick leave laws, but apart from the FMLA, there are no city, county, or state laws that mandate paid or unpaid sick leave in Colorado. Over the past few years, efforts at passing legislation or ballot initiatives providing paid sick leave to Colorado workers have failed. However, Colorado employees who lose more than "three shifts or three days of work" due to an injury or illness may be eligible for temporary total disability if they are completely not able to work, or temporary partial disability if a person can work but can't earn as much due to the injury; this protection is provided through the 2016 Colorado Workers' Compensation Cost Containment Act which provides eligible workers with some compensation for lost wages.[5] This program does not cover paid leave for doctor's visits or taking care of a family member.

Evidence of Impact on Health and Social Outcomes

The employees who need medical and sick leave the most are often the ones who do not have it. Workers in part-time and low-paying jobs are not given leave, even though the nature of their jobs may put these workers at greater risk of getting sick, making their co-workers sick, or even making their customers sick.[6]

More paid leave, family leave, or sick time have been shown to help produce positive health outcomes for child and maternal health (e.g., by giving the mom time off to take the child to the doctor) and help communities by preventing the spread of some diseases like the flu and by helping prevent chronic disease.

Babies whose mothers stay home longer are healthier. When mothers can stay at home because they have leave, babies have higher birth weights and lower death rates, they are breastfed more and for longer periods of time, and they have routine pediatric check-ups, all of which lead to better health outcomes.[7] Because the FMLA does not give mothers paid leave to stay home, many new mothers have to return to work, at least part-time.

People with sick days can use them to go to the doctor and be screened for cancer or other health issues. Women who do not have paid sick, compared with women who do, are less likely to have received a mammogram or Pap tests.[8] These screenings are vital because they can detect cancers and pre-cancers at earlier stages, making treatment and survival more likely. In 2016, approximately 25 million people contracted the flu;[9] there is evidence that some of these illnesses may have been avoided if workers could take sick leave or "flu days."[10] Not having access to paid leave is especially important for restaurant workers because of their close contact with other people; one survey found that 63 percent of these workers cooked or served food while ill.[11]

[1] "U.S. Bureau of Labor Statistics. National Compensation Survey: Employee Benefits in the United States," Bureau of Labor Statistics, March 2016 (Tables 32), https://www.bls.gov/ncs/ebs/benefits/2016/ownership/civilian/table32a.htm

[2] Ibid

[3] "Paid Sick Days: Good for Business, Good for Workers", The National Partnership for Women & Families, August 2012. http://www.nationalpartnership.org/research-library/work-family/psd/paid-sick-days-good-for-business-and-workers.pdf

[4] "National Compensation Survey", 2016.

[5] Margaret Wadsworth, "Permanent and Temporary Workers' Comp Benefits in Colorado", Disability Secrets, 2016, http://www.disabilitysecrets.com/resources/workers-comp-benefits-colorado.htm

[6] Supria Kumar et al., "Policies to Reduce Influenza in the Workplace: Impact Assessments Using an Agent-Based Model", American Journal of Public Heath (2013): 1406-1411

[7] Maya Rossin,"The Effects of Maternity Leave on Children's Birth and Infant Health Outcomes in the United States", Journal of Health Economics (2012): 221-239.

[8] Lucy Peipins et al., "The lack of paid sick leave as a barrier to cancer screening and medical care-seeking: results from the National Health Interview Survey", BMC Public Health (2012): 520.

[9] "Estimated Influenza Illnesses", Center for Disease Control, 2016, https://www.cdc.gov/flu/about/disease/2015-

[10] Supria Kumar et al., "Policies to Reduce Influenza in the Workplace: Impact Assessments Using an Agent-Based Model", American Journal of Public Heath (2013): 1406-1411

[11] "Serving While Sick", The Restaurant Opportunities Centers United, 2010, http://rocunited.org/wp-content/uploads/2013/04/

People with family medical and sick leave keep their jobs longer and eventually make more money. In California and New Jersey, poorer workers who used the state-funded medical leave kept their jobs longer. In California, these workers were paid more after they came back to work.[12] In New Jersey, mothers who were able to take paid leave after the birth of a child were more likely to be employed nine to 12 months later than mothers who did not take leave.[13]
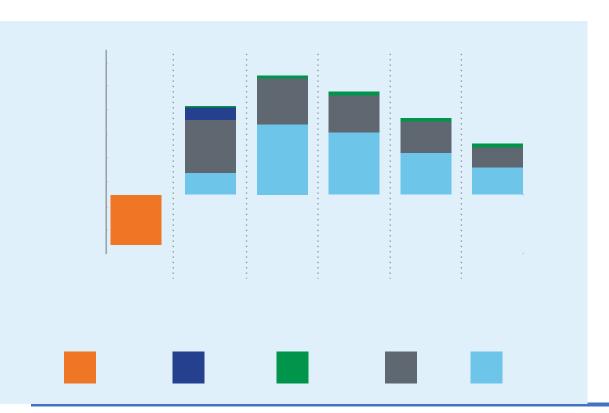
The National Alliance on Mental Illness notes that sometimes people need to take time off to cope with a psychiatric issue.[14] The lack of paid leave frequently prevents people from seeking preventative care, including screening for mental health and substance abuse issues; they are also more likely to go to work when they are ill, including suffering from anxiety or depressive symptoms. One study showed that mothers who took more than 12 weeks of maternity leave reported improvement in their overall mental health, fewer depressive symptoms, and a marked reduction in severe depression.[15]

Conclusion

Increased access to paid leave, whether longer-term family leave or short-term sick time, have clear positive impacts on individual, community, and societal health, such as allowing for individual behaviors that protect communities and populations against communicable illness and chronic diseases. Yet many workers both in Colorado and across the country still do not enjoy the benefits of paid leave.

[12] "Paid Family Leave: Strengthening Families and Our Future", National Center for Children in Poverty, April 2012, http://www.nccp.org/publications/pdf/text_1059.pdf.

[13] Ibid

[14] L. Mather et al., "Job strain linked to increased sick leave due to mental disorders", Journal of Occupational and Environmental Medicine 57 (2015): 858-65

[15] Pinka Chatterji and Sara Markowitz, "Family Leave After Childbirth and the Mental Health of New Mothers", J Ment Health Policy Econ 15 (2012):61-76

Early Childhood Education Programs Have Lifelong Benefits

Learning Benefits

There is much good information that free, full-day pre-school and kindergarten can improve the health of children, their families, communities, and society. High-quality early childhood education (ECE in the form of full-day preschool programs and kindergarten class is a key part of a child's education. Studies document that having children in learning activities early in life can help them develop their thinking ability and help them get ahead in school later.[1] Children who are in ECE programs get many emotional, social, and societal benefits, as well.[2]

Kindergarten programs have been shown to be very good at preparing young children for education by teaching them core educational ideas such as reading, spatial reasoning, motor skills, basic math concepts, and language.[3] Full-day programs are generally better than half-day programs and have been shown to improve initial learning, as well as learning even through high school.[4,5]

Economic Benefits

There are many economic benefits from high-quality ECE programs. A 2015 White House report on the Economics of Early Childhood showed that putting money into high-quality ECE programs created economic returns of eight dollars for every one dollar spent.[6] These gains come from a child's ability to increase his or her income over time. Figure 1 shows the benefits of one ECE program studied over a long period of time. High-quality ECE programs also can help reduce a child's involvement with the criminal justice system.[7] Additionally, ECE can increase a mother's ability to get a job, earn a better income and help her to better manage time between work, family, and childcare.[8]

FIGURE 1: NET BENEFIT PER CHILD OF PERRY PRESCHOOL OVER A CHILD'S LIFETIME

2014 $
$55,000
$45,000
$35,000
$25,000
$15,000
$5,000
-$5,000
-$15,000
-$25,000

| 0-10 | 11-20 | 21-30 | 31-40 | 41-50 | 51+ |

YEARS SINCE START OF PROGRAM

Note: CEA estimates based on Heckman et al. (2010) using a discount rate of 3 percent.
Additional benefits, such as health benefits and maternal earnings, have not be quantified.

| Program Cost | Savings on Education | Savings on Social Program Use | Lower Crime | Earnings |

[1] http://nepc.colorado.edu/blog/high-quality-universal-pre-k

[2] National Institute for Early Education Research: How Much Can High-Quality Universal Pre-K Reduce Achievement Gaps?

[3] The Effects of Universal Pre-K on Cognitive Development, William T. Gormley Jr., Ted Gayer, Deborah Phillips, and Brittany Dawson, Developmental Psychology, American Psychological Association 2005, Vol. 41, No. 6, http://www.iapsych.com/wj3ewok/LinkedDocuments/Gormley2005.pdf

[4] http://www.nea.org/assets/docs/HE/mf_fdk-factsheet.pdf

[5] http://www.ccsd.net/resources/assessment-accountability-research-school-improvement-division/full-day-kindergarten-review-of-literature.pdf

[6] The Economics of Early Childhood Investments, Report of the Executive Office of the President, January 2015, https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf

[7] Ibid.

[8] Ibid.

[9] https://www2.ed.gov/documents/early-learn-

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State of Early Childhood Education in Colorado

There are more than 338,000 children under the age of five living in Colorado.	Attending preschool and kindergarten is not required by Colorado law.	Children must enter school by age six, with a birthday on or by August 1st of the year attending school.
96% of school districts in Colorado offer the Colorado Preschool Program, a half-day program restricted to at-risk 3- and 4-year-olds	82% of Colorado school districts offer some form of preschool program.	66% of 4-year-olds in Colorado are not enrolled in a publicly funded pre-K program.[9]

Types of ECE Programs

There are two basic types of ECE programs — targeted and universal. Targeted programs are for specific groups, such as low-income children. Universal programs are open to all children. There are more examples of targeted programs because universal access programs are costly because of the greater number of children served.

Strategies to Increase Access to Early Childhood Education at Community and Societal Levels

There are a many ECE programs that can offer high-quality education to children under age five. Policies to give access to free, full-day preschool and kindergarten have shown large benefits, such as better school performance, better social and emotional skills, bigger incomes over time, and improved health and wellness over a lifetime. All of these benefits help young children get a jumpstart in their education. They are also examples of new funding approaches that states and local governments can use to support programs that will reach all children.

TITLE	DESCRIPTION	FOR ALL CHILDREN? (3 & 4 year olds)	FUNDING MECHANISM
Colorado Preschool Program (CPP)	A state-funded early childhood education program for at-risk children	NO	State Budget
Denver Preschool Program (DPP)	A program for Denver's 4-year old children that gives tuition credits to families	NO	Sales Tax
National Head Start Program	The only nationally-funded ECE program that is for children from low-income families, and children with disabilities	NO	Federal Funding
Oklahoma's Early Childhood Four-Year-Old Program	A state-funded, full-day, universal preschool program, for all 4-year-olds in the state	YES	State Funding
NJ's Abbott Preschool Program	A state-funded full-day program for 3-and-4-year-olds in 31 of New Jersey's poorest urban school districts	NO	State Funding
NYC "3-K for All" Program	A state-funded, full-day program for all New York City 3-year-olds	YES	State Budget (Not yet Secured)
Georgia Lottery for Education	A full-day program for all children BUT only if schools choose to offer it	NO	State Lottery

Overview

Access to safe, quality, and affordable housing is one of the most pressing health-related issues currently facing Colorado and the nation. When affordable housing is not available, lower income families are forced to use a variety of strategies to respond to high housing costs such as limiting spending for food and other important needs, instead of medical or dental care, and moving multiple times or into unsafe neighborhoods or areas further from jobs and schools. Research has shown that these strategies can have significant negative impacts on health, particularly among children, such as increased behavioral and emotional problems, violence, drug abuse, lack of consistent medical care and preventive services, and increased chronic medical conditions.[1] In addition, lack of affordable housing contributes to poorer health among low-income populations, communities of color, children, disabled individuals, and the elderly.[2]

The State of Affordable Housing in Colorado

As of 2014, over 40 percent of Colorado renters spent more than 30 percent of their income on housing costs,[3] a common standard for defining housing costs that are unaffordable, with an estimated 25 percent of Colorado renters spending more than 50 percent of their income on housing.[4] The percentage of working Coloradans struggling with high housing costs increased by 27 percent between 2005 and 2014, exceeding the 22 percent increase nationwide.[5] The number of Coloradans facing unaffordable housing costs is expected to continue to increase over the next 10 years.

Meanwhile, limited resources for affordable housing are already stressed. Major sources of federal funding for affordable housing have been cut nationwide in recent years by as much as 50 percent. Outside of these federal funding streams, Colorado lacks a permanent source of funding for affordable housing.

Strategies to Increase Affordable Housing

Communities are recognizing that strategies to address affordable housing require a complete approach that preserves and protects existing affordable housing, while also encouraging the development and expansion of new affordable housing. Below are evidence-based, data-driven strategies to improve affordable housing, while also improving health.

Tenant-based Rental Assistance Programs:

Tenant-based rental assistance programs provide vouchers for low-income households to reduce the cost of renting a house or apartment. Research has shown that families using affordable housing vouchers are less likely to suffer from overcrowding and malnutrition due to food insecurity, and live in high-poverty neighborhoods.[6]

[1] Nabihah Maqbool, Janet Viveiros, and Mindy Ault, "The Impacts of Affordable Housing on Health: A Research Summary," Insights from Housing Policy Research, 2015, http://www2.nhc.org/HSGandHealthLitRev_2015_final.pdf

[2] "Evidence Matters: Housing's and Neighborhoods' Role in Shaping Children's Future," U.S. Department of Housing and Urban Development, Fall 2014, https://www.huduser.gov/portal/periodicals/em/fall14/highlight1.html

[3] Emilie Rusch, "40 Percent of Working Colorado Renters Spend More Than A Third Of Income On Housing," Denver Post, September 16 2016, http://www.denverpost.com/2016/05/02/40-percent-of-working-colorado-renters-spend-more-than-a-third-of-income-on-housing/

[4] "Nobody's Home Free: A Closer Look at Colorado's Housing Crisis," Live Affordably Colorado, 2016, http://www.liveaffordably-colorado.org/wp-content/uploads/2016/06/PublicOfficialsGuide.pdf

[5] Rusch, "40 Percent of Working Colorado Renters Spend More Than A Third Of Income On Housing"

[6] Ruth A. Lindberg, Edmond D. Shenassa, Delores Acevedo-Garcia, Susan J. Popkins, Andres Villaveces, and Rebecca Morley, "Housing Interventions at the Neighborhood Level and Health: A Review of Evidence," Journal Public Health Management Practice,

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Health Impact Assessments (HIAs):

HIAs may be used to evaluate a range of housing topics, including affordability, zoning and planning decisions, energy assistance, inspections, building codes, and their potential health impacts. The HIAs use a variety of data sources, including community input, to identify health concerns (positive or negative) related to proposed affordable housing policies or programs.[7]

Comprehensive Strategies:

Communities addressing affordable housing will need a comprehensive strategy that maximizes federal, state, and local programs, funding streams, and policy options to support affordable housing. Experts have highlighted several strategies that communities may consider in developing local solutions to improve affordable housing. These strategies fall into six major policy categories:[8]

1. Preservation of existing affordable rental units.

2. Protection of long-time residents to improve housing stability.

3. Inclusion policies to insure

4. Revenue generation to invest in affordable housing development.

5. Incentives to stimulate building and expansion of affordable housing options.

6. Acquisition of desirable property

[7] "Health Impact Assessment and Housing Opportunities for the Housing Sector," Health Impact Project, March 2016, http://www.pewtrusts.org/~/media/assets/2016/03/opportunities_for_the_housing_sector.pdf

[8] Allison Allbee, Rebecca Johnson and Jeffrey Lubell, "Preserving, Protecting, and Expanding Affordable Housing," ChangeLab Solutions, 2015, http://www.changelabsolutions.org/publications/affordable_housing_toolkit

Criminal Justice: Disrupting the Cradle-to-Prison Pipeline

The cradle-to-prison pipeline is when school policies and practices move children from the public-school system into the juvenile and criminal justice system. Most of the children caught in the pipeline face poverty, racism, abuse, neglect, and disability. Zero tolerance policies, started in the late 1980s, used harsh punishment for minor and major offenses and had a negative impact on kids' performance in school.[1]

Racial Discrimination as a Factor in the Pipeline

Harsh corrective actions related to school behavior have affected youth of color more than other children, starting as early as preschool. Per the U.S. Department of Education Office for Civil Rights, black children represent 18 percent of preschool enrollment, but 48 percent of preschool children receiving more than one out-of-school suspension. In all grades, nearly one in six black students received at least one out-of-school suspension compared to only four percent of white students.[2]

The Cradle-to-Prison Pipeline in Colorado

Colorado mirrors the national pipeline, including differences by race. For example, students of color at Denver Public Schools are over three times more likely to get suspended or expelled than white students.[3] Per state data, there were 3,848 times that students were referred to law enforcement in the 2015-2016 school year.[4] Almost 44 percent of those referrals were for relatively low-level offences such as "detrimental behavior". Figure 1, using data from the Colorado Department of Education, demonstrates the decrease in school referrals to law enforcement over time, likely due to a change in disciplinary policy. For example, Denver Public Schools rewrote its discipline codes in 2013 and saw a drop in the number of suspensions and expulsions.[5]
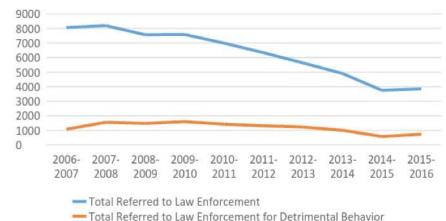
FIGURE 1: COLORADO SCHOOL DISTRICT REFERRALS TO LAW ENFORCEMENT

Legend:
- Total Referred to Law Enforcement
- Total Referred to Law Enforcement for Detrimental Behavior

The Cost of Letting the Pipeline Persist

In 2012, the reported cost per year to house a youth inmate in Colorado was $104,985 or almost $290 per day.[6] Longer-term costs can include lower levels of school and work, less ability to earn a living, pay taxes, and more people relying on public assistance.[7]

[1] American Psychological Association Zero Tolerance Task Force. "Are Zero Tolerance Policies Effective in the Schools? An Evidentiary Review and Recommendations". American Psychologist. 63(2008): 852–862.
[2] U.S. Department of Education Office for Civil Rights. "Civil Rights Data Collection Data Snapshot: School Discipline." March 2014. Accessed June 7, 2017. http://ocrdata.ed.gov/Downloads/CRDC-School-Discipline-Snap- shot.pdf
[3] Padres & Jovenes Unidos. "5th Annual Denver Community Accountability Report Card." 2016. Accessed June 7, 2017. http://padresunidos.org/ wp-content/uploads/2016/08/PJU-REPORT- CARD-04-2016-Final-Compress_0.pd
[4] Colorado Department of Education. "2015-16 State Suspension and Expulsion Rates and Rea- sons" Accessed June 11, 2017. https://www.cde. state.co.us/cdereval/suspend-expelcurrent.
[5] Klein, Rebecca. "Denver Is Leading The Way In Dismantling The School-To-Prison Pipeline. Here's How." Huffington Post. Updated Septem- ber 8, 2015. Accessed June 7, 2017. http://www. huffingtonpost.com/2015/07/15/denver-pub- lic-schools-discipline_n_7715358.html
[6] Justice Policy Institute. "Sticker Shock: Calculat- ing the Full Price Tag for Youth Incarceration". December 2014. http://www.justicepolicy.org/uploads/justicepolicy/documents/sticker_shock_final_v2.pdf. Accessed June 11, 2017.
[7] Ibid.

Potential Strategies to Disrupt the Pipeline

There is not one solution to fixing the pipeline crisis, but evidence shows that the following actions can reduce the number of youth in custody, as well as reduce the racial disparities in punishment:

+ Avoid zero tolerance discipline policies.

+ Shift to prevention rather than punishment by changing what behaviors are viewed as requiring discipline and promoting positive behaviors.

+ Identify children who are at risk early on through screening and assessment.

+ Focus on alternatives to the justice system.

+ Improve the collection and use of data by race to tailor and evaluate interventions.

Below are some of the programs and practices that adopt these elements with promising outcomes.

New York State Promise Zones

Promise zones are communities where local school districts partner with state and local child-serving agencies to improve learning environments and engage students. The program uses an intervention called Positive Behavioral Interventions and Supports, PBIS, a framework for helping schools adopt proven interventions to enhance education and social behavior outcomes for all students.[8]

Juvenile Breaking the Cycle Program (JBTC)

JBTC used assessments to identify, provide and coordinate services for high risk youth with alcohol or other drug problems. Outcomes showed that JBTC participants were much less likely to commit crimes again and had significantly fewer arrests, compared with non-participants.[9]

Denver Public Schools (DPS) and Public Safety Youth Programs

DPS recently announced plans to eliminate most out-of-school suspensions and expulsions for preschool through third grade students.[10] Denver's Public Safety Youth Programs include prevention, intervention and diversion programs aimed at reducing crime and violence in the community such as municipal diversion, attendance mediation and PACE (Promoting Academic & Character Education).[11]

Evidence of Impact on Health and Social Outcomes

Keeping children in school and out of jails and prisons can limit the spread of disease and have positive impacts on community mental health.[12,13] Jails can expose individuals to others with infectious and chronic diseases and substance abuse. Students who obtain school-based prevention can experience reduced aggressive and disruptive behavior, lowering levels of community violence.[14] The Colorado Department of Public Health and Education has developed a toolkit for public health practitioners to strengthen a positive school climate and achieve these outcomes.[15]

[8] OSEP Technical Assistance Center. "PBIS Frequently Asked Questions". Updated November 26, 2010. http://www.pbis.org/common/cms/files/pbisresources/PBIS_Q&A.pdf

[9] National Institute of Justice. "Program Profile: Juvenile Breaking the Cycle (JBTC) Program (Lane County, Oregon)". July 11, 2016. https://www.crimesolutions.gov/ProgramDetails.aspx?ID=478. Accessed June 13, 2017.

[10] Schimke, Ann. "Denver Public Schools takes strong stand against suspension and expulsion in early grades". Chalkbeat. March 15, 2017.

[11] Denver Department of Public Safety. "Intervention & Diversion Programs". https://www.denvergov.org/content/denvergov/en/department-of-safety/intervention-prevention/juvenile-intervention-diversion/intervention-diversion-programs.html. Accessed June 11, 2017.

[12] Binswanger, IA, Krueger PM and Steiner JF. "Prevalence of chronic medical conditions among jail and prison inmates in the USA compared with the general population" Journal of Epidemiology and Community Health 63 (2009): 912-919.

[13] Hatzenbuehler, ML, et. al. "The Collateral Damage of Mass Incarceration: Risk of Psychiatric Morbidity Among Nonincarcerated Residents of High-Incarceration Neighbor- hoods.". American Journal of Public Health. 105(2015): 138-143.

[14] Promising Practices Network. "Seattle Social Development Project". http://www.promisingpractices.net/program.asp?programid=64. Accessed June 11, 2017.

[15] The toolkit is available at: https://drive.google.com/file/d/0B9KxEP26Y-IuSXVhSHFK-d0lSSjA/view

Strategies to Create Jobs
Stable Employment and Health

Stable employment, adequate income, and access to affordable health coverage are key aspects of building financial stability and improving overall health and well-being of Coloradans. There is a strong relationship between income and health. Income affects our access to medical care and has much broader impacts on an individual's physical and mental health.[1]

INCOME AND WEALTH CAN INFLUENCE HEALTH THROUGH MULTIPLE PATHWAYS. THESE INCLUDE:[2]

Access to health-promoting goods and services: Greater economic resources increase people's access to things that help prevent illness, such as nutritious food, exercise friendly environments, safe neighborhoods, and medical care.

Psychosocial effects linked with economic resources and occupation: The work environment is an important psychosocial factor shown to affect health, with significant differences across occupations. Lower-paid workers often experience increased chronic stress and related negative health impacts. Research has found a relationship between factors such as work load demands, workers' perceived sense of control over their performance, safety stressors, work organization, and work atmosphere, and increased risk for high blood pressure, diabetes, back problems, and heart disease.[3]

Increasing effects over time and at critical periods: Health may also be shaped by increasing economic hardships over the course of a person's life. One study that followed individuals over the course of three decades suggested combined financial hardships affect a range of health- related outcomes including physical and cognitive functioning, mental health. There may also be certain periods in life when facing financial hardships can be particularly difficult, such as during pregnancy, or from ages birth to five.

Limited educational opportunities: Children infamilies facing financial hardships grow up with less educational opportunities, which decreases their opportunities for higher paying jobs and good health as adults.

Economic Opportunity in Colorado

As of April 2017, Colorado's unemployment rate reached a record low of 2.3 percent, the lowest rate in the country, and well below the 4.4 percent national unemployment rate.[4] In 2017, Colorado also established a state minimum wage of $9.30 per hour in 2017, or $6.28 an hour if a person gets tips, which will grow ninety cents an hour every year until it reaches $12.00 an hour in 2020.[5]

Although Colorado's unemployment rate is very low, it varies by region of the state and by education level, including significant differences in education levels among people of color.[6] In addition, many jobs in Colorado do not provide a living wage to afford essential needs such as food, housing and medical care. The state estimates that over 70 percent of new jobs in the next 10 years will have starting annual salaries of less than $36,000.[7] Based on the current market rate for a two-bedroom apartment, this salary level requires individuals to spend more than 30 percent of their income on housing, leaving little left for other essential expenses and savings.

Strategies to Promote Economic Opportunity at Community and Societal Levels
Small Business Preservation and Development

Small, locally-owned businesses can play an important role in helping community health. In addition to providing goods and services, these businesses often employ local residents. Small businesses owned by people of color can be an important source of jobs for people of color, providing a key strategy for addressing unemployment differences across racial groups. To support small businesses and local job creation, communities can create policies and programs to businesses in the community and increase opportunities for minority-owned and other small businesses to thrive.[8]

[1] "Income, Wealth, and Health: Exploring the Social Determinants of Health," 2011, Robert Wood Johnson Foundation, Access June 13, 2017, http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2011/rwjf70448

[2] "Income, Wealth, and Health: Exploring the Social Determinants of Health," Robert Wood Johnson Foundation.

[3] "Work Stress and Health and Socioeconomic Status," American Psychology Association, Accessed June 13, 2017, http://www.apa.org/pi/ses/resources/publications/factsheet-wsh.pdf

[4] "Colorado Employment Situation April 2017." Colorado Department of Labor and Employ- ment. Accessed June 13, 2017, https://www.colorado.gov/pacific/cdle/news/colorado-employment-situation-april-2017

[5] "2017 Colorado State Minimum Wage." Colorado Department of Labor and Employment. Accessed June 13, 2017, https://www.colorado.gov/pacific/cdle/minimumwage

[6] "Colorado Talent Pipeline Report." Colorado Workforce Development Council. Accessed June 13, 2017, https://www.colorado.gov/pacific/sites/default/files/17-0109_2016_CO_Talent_Pipeline_Report_1.pdf

[7] "Nobody's Home Free: A Closer Look at Colorado's Housing Crisis," Live Affordably Colorado, 2016, http://www.liveaffordably-colorado.org/wp-content/uploads/2016/06/PublicOfficialsGuide.pdf

[8] "Development Without Displacement, Development with Diversity," 2009, Association of Bay Area Governments, Accessed June 13, 2017, http://community-wealth.org/sites/clone.community-wealth.org/files/downloads/paper-cravens-et-al.pdf

Sector Partnerships

Colorado is supporting numerous industry-led sector partnerships that bring together workforce development efforts with high demand, high growth industries that pay a living wage.

INDIVIDUAL EARNINGS TIER OCCUPATION EXAMPLES[9]

Jobs with a living wage for an individual ($11.33/hour)

Skilled Trades
(e.g. electricians, construction equipment operators, plumbers, carpenters)

Healthcare Support
(e.g. nursing assistants, home health aides, medical assistants, licensed practical nurses)

Office & Administrative Support
(e.g. customer service representatives, receptions and information clerks, medical secretaries, billing and posting clerks)

Education, Social Services
(e.g. teacher assistants, preschool teachers, education, guidance and vocational counselors, mental health counselors)

A sector partnership is an industry-specific regional partnership formed to address specific job growth priorities and needs . Led by businesses, it is done in collaboration with economic and workforce development and education. There are currently 21 sector partnerships that engage over 450 businesses throughout the state.[10] These partnerships represent five major industries and include the following:

Health & Wellness	Advanced Manufacturing	Agriculture	Information Technology	Tourism & Outdoor Recreation

Career Pathways Development

Colorado is developing career pathway programs that align with high growth, high demand and living wage industries across the state. A career pathway program outlines the requirements, as well as support services, that students and jobseekers need to advance to higher levels of education and find employment in high demand occupations.[11] These pathways can also help target differences in education levels among populations of color to create and improve job opportunities for all Coloradans. Some of these steps are:

1. Build a regional, industry-led sector partnership.

2. Build a career pathway support team of non-industry partners.

3. Identify critical occupations based on labor market data and qualitative input from employers.

4. Inventory relevant education, training, and workforce programs.

5. Understand critical competencies required to perform effectively on the job.

6. Build career pathway programs that prepare students and jobseekers with critical competencies.

7. Share career pathway with students and jobseekers.

8. Create a system for continuous improvement.

9 "Colorado Talent Pipeline Report." Colorado Workforce Development Council. Accessed June 13, 2017, https://www.colorado.gov/pacific/sites/default/files/17-0109_2016_CO_Talent_Pipeline_Report_1.pdf

10 "Colorado Talent Pipeline Report." Colorado Workforce Development Council. Accessed June 13, 2017, https://www.colorado.gov/pacific/sites/default/files/17-0109_2016_CO_Talent_Pipeline_Report_1.pdf

11 "Driving Colorado Forward Together: Colorado's Combined Plan for Execution of Workforce Development Activities." 2016. Colorado Workforce Development Council. Accessed June 13, 2017, https://www.colorado.gov/pacific/sites/default/files/17-0321_CO_WIOA_State_Plan.pdf

Family Friendly Business Practices

Today, people work longer hours with more demands.[1] Workplace demands put more stress on workers as they try to balance their work lives with their home lives.[2] This has led to reports of higher financial stress, as well as greater work-life conflict.[3] More attention is being paid to the toll these demands and pressures can take on workers and their families.

Family Friendly Business Practices are options companies can give their workers that let them create a schedule that best fits workers' needs and helps reduce the stress of balancing work and life. The most common are:

Flexible scheduling or allowing for a less strict work day (i.e., not a 9:00 a.m. – 5:00 p.m. shift).[4]	Telecommuting or letting people work outside of their office.[5]	Childcare Benefits (on-site, near-site, subsidized childcare) or letting workers plan around their children, which can include on-site childcare, near-site childcare, childcare subsidies, or any combination of the three.[6]

Many businesses today see the value of offering family-friendly practices that help to support their workers in raising their children and caring for their aging relatives. Reducing employee stress can help employees be healthier overall and make them more productive when they are at work.[7]

Family Friendly Business Practices and Health

Today's workers face more demands on their time from all directions, forcing them to constantly balance their attention between work and their personal lives.[8] This stress can have a harmful impact, as long periods of stress have been shown to cause poor mental health and can negatively affect physical health too. Stress can lead to feelings of worry and sadness, while also upsetting sleep and creating a tense work environment.[9,10] Stress has also been linked to weight gain, obesity, higher blood pressure, and putting more strain on a person's heart.[11] Family friendly business practices are a way for businesses to decrease the impact of stress on their workers by helping to create a more integrated work-life experience. Flexible work schedules and telecommuting policies reduce employee stress by giving workers more time with friends and families, as well as greater flexibility for personal needs, such as scheduling doctor appointments.[12] Employer-sponsored childcare can encourage positive parenting activities (i.e., breastfeeding) and has been shown to reduce stress and have real health benefits for mother and child.[13] By allowing for more worker control, family friendly business practices can directly impact both stress-related physical and mental health issues.[14]

Return on Investment for Family Friendly Business Practices

Family friendly business practices give workers more control over their time and creates company loyalty.[15] Having dedicated and healthy workers also helps companies by lowering the cost of losing workers and missed work days.[16,17] In fact, a 2016 study found that the cost of losing an employee can range from tens of thousands of dollars to nearly two-times the employee's annual salary.[18] Overall, giving workers more control over their time through family friendly business practices does not hurt company success, and in fact, can make workers happier, more engaged, and less likely to leave.

[1] Lawrence Mishel, "Vast Majority of Wage Earners are Working Harder, and for Not Much More: Trends in U.S. Work Hours and Wages over 1979-2007," Economic Policy Institute 348(2013), http://www.epi.org/publication/ ib348-trends-us-work-hours-wages-1979-2007/

[2] Rebecca J. Rosen, "Money-Rich and Time-Poor: Life in Two-Income Households," The Atlantic, November 4, 2015, https://www.theatlantic.com/business/archive/2015/11/work-life-bal- ance-pew-report/414028/

[3] Kim Parker and Eileen Patton, "The Sandwich Generation: Rising Financial burdens for Mid- dle-Aged Americans," Pew Research Center, January 30, 2013, http://www.pewsocialtrends. org/2013/01/30/the-sandwich-generation/

[4] "Flexible Work Arrangements: A Discussion Paper," Employment and Social Development Canada, May 2016

[5] Ibid

[6] Anne Weisberg and Ellen Galinsky, "Family Matters: The Business Case for Investing in the Transition to Parenthood," Families and Work Institute, 2014.

[7] Erin Kelly and Phyllis Moen, "Rethinking the Clockwork of Work: Why Schedule Control May Pay off at Work and at Home," Advances in Developing Human Resources 9:4(2007), https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC4295783/

[8] Rebecca J. Rosen, "Money-Rich and Time-Poor: Life in Two-Income Households," The Atlantic, November 4, 2015, https://www.theatlantic. com/business/archive/2015/11/work-life-bal- ance-pew-report/414028/

[9] Jens Bonde, "Psychological Factors at Work and Risk of Depression: A Systematic Review of the Epidemiological Evidence," Occupational and Environmental Medicine 65(2007), doi: 10.1136/oem.2007.038430

[10] Ulf Lundberg, "Stress Hormones in Health and Illness: The Roles of Work and Gender," Jour- nal of Psychoneuroendocrinology 30 (2005), doi: 10.1016/j.psyneuen.2005.03.014

[11] Ibid

[12] Jennifer Swanber, et al., "Schedule control, Supervisor Support and Work Engagement: A Winning Combination for Workers in Hourly Jobs?" Journal of Vocational Behavior 79 (2011)

[13] Kate Hodal, "Breastfeeding Could Prevent 800,000 Child Deaths, Lancet Says," The Guardian, January 28, 2016

[14] Kerry Joyce, Roman Pabayo, Julia Critchley, and Clare Bambra, "Flexible Working Condi- tions and their Effects on Employee Health and Wellbeing," Cochrane Public Health Group, February 17, 2010, doi: 10.1002/14651858. CD008009.pub2

[15] Phyllis Hope and Fred J. Rayworth, "Meeting Employee's Needs Through On-Site Child Care", Health Manpower Management 18.3 (1992): 15

[16] Jack Altman, "How Much Does Employee Turnover Really Cost?", The Huffington Post, January 19, 2017, http://www.huffingtonpost. com/entry/how-much-does-employee-turn- over-really-cost_us_587fbaf9e4b0474ad- 4874fb7

[17] "Absenteeism: The Bottom-Line Killer", Circadian Information Limited Partnership, Lexington, MA: 2005

[18] Jack Altman, "How Much Does Employee Turnover Really Cost?", The Huffington Post, January 19, 2017, http://www.huffingtonpost. com/entry/how-much-does-employee-turn- over-really-cost_us_587fbaf9e4b0474ad- 4874fb7

State of Family Friendly Business Practices in Colorado

In Colorado, EPIC (Executives Partnering to Invest in Children), Colorado Essentials for Childhood, and Health Links have come together to lead the charge for more family friendly businesses. They recently created a "Family-Friendly Workplace Toolkit" and "Family-Friendly Workplace Assessment" (see table below) to help businesses become more family friendly.[19] The assessment helps get businesses involved by giving them family-friendly scores and access to resources and training. Their goal is to create supportive and successful companies, along with a stronger market throughout Colorado that supports its workers.

Colorado Spotlight: Family Friendly Companies

These companies meet the Family Friendly Workplace Toolkit criteria of a Family Friendly Business, which are:

+ **Flexible Work Hours**

+ **Core Benefits**
(ex. health insurance, retirement savings plan)

+ **Paid Leave**
(ex. maternity leave, sick leave)

+ **Support Services**
(ex. access to counseling)

+ **Career Development** (ex. access to additional job training)

+ **Community Involvement**
(ex. volunteering)

Boulder County
offers paid leave, and an infants-at-work" policy

Children's Hospital Colorado
offers an employee assistance program (EAP) and a Backup Care program

DaVita, Inc
offers employees flexible work schedules, support services, and financial support for employees in need

Pinnacol Assurance
has a paid time off bank instead of separating out earned time- off, flexible work schedules, and core benefits

USAA
offers workers flexible schedules, telecommuting options, and a wellness program

[19] David Shapio and Giorgianna Venetis, "Supporting Family-Friendly Employers in Colorado," Early Childhood Colorado Partnership, November 28, 2016, http://eccp.civiccanopy.org/supporting-family-friend- ly-employers-colorado/

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Overview

Homelessness affects a person's health and puts them at risk for mental illness. When people are forced to live without a stable home, they are exposed to many risk factors for poor health and well-being, including harsh living conditions, violence and unsafe conditions, drug and alcohol use, reduced access to health care services, and physical and behavioral health issues. This paper looks at the current state of homelessness in Colorado and the ties between homelessness and a person's health, and identifies promising strategies that Colorado communities are using or may use to end homelessness, improve the health of their communities, and promote the health of all our residents.

Homelessness in Colorado

In Colorado, over 10,000 individuals were homeless in 2016 and Colorado had the third largest percent growth in homelessness nationally between 2015 and 2016.[1] The City of Denver has one of the largest populations of families and families with children who are experiencing homelessness in the U.S.

Homelessness and Health

Homeless individuals are at high risk for illness and have higher death rates than the general population.[2] Studies show that homeless individuals also report difficulty accessing health care and receive low rates of outpatient health care.[3]

How Homelessness Impacts Health

The homeless are exposed to risk factors that cause poor health; these factors may happen after becoming homeless or are made worse by being homeless. These risk factors may be a combination of structural factors, such as the lack of affordable or low-cost housing, and individual risk factors, such as mental health and substance use disorders, and may result in both causing and continuing homelessness.[4]

Limited access to health care services. Common health issues, like chronic diseases such as diabetes and high blood pressure, that can be prevented or managed with the right medications, healthy daily habits (like exercise), and healthy food, are worsened as a result of homelessness and the instability that comes from homelessness.

Homelessness ages an individual. Homelessness rushes the aging process, resulting in higher rates of chronic diseases (e.g. diabetes, heart disease) and medical ailments normally found in people around 20 years older than the homeless person. These include mental and physical decline.

Common health conditions of being homeless are risk factors for violent criminal activity. Homelessness and imprisonment for both violent and non-violent crimes may increase the risk of having multiple health issues. The health conditions of homeless individuals, including mental health issues and substance use disorders, are also risk factors for violent criminal activity that can result in incarceration.[5]

Homelessness is a risk factor for children's long-term health and well-being. Homelessness has a significant impact on children's health, and in turn, their education. Children who are homeless have two times the rate of emotional and behavioral issues than non-homeless children—including anxiety, depression, and social withdrawal.[6]

[1] The number of homeless individuals is measured by point-in-time counts, which are unduplicated one-night estimates of both sheltered and unsheltered homeless populations. The one-night counts are conducted by Continuums of Care nationwide and occur during the last week in January of each year.

[2] D.S. Morrison, "Homelessness as an independent risk factor for mortality: results from a retrospective cohort study", International Journal of Epidemiology. 38 (2009): 877-883.

[3] MB Bushnell et al., "Factors Associated with the health care utilization of homeless person", JAMA. 285 (2001): 200-206.

[4] S. Fazel, J.R. Geddes, and M. Kushel, "The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations", Lancet 384 (2014): 1529–1540

[5] SN Fischer and P Shrout, "Homelessness, Mental Illness, and Criminal Activity: Examining Patterns Over Time", American Journal of Community Psychology, 42 (2008): 251-265.

[6] EL Bassuk and SM Friendman, "Facts on Trauma and Homeless Children", The National Child Traumatic Stress Network, 2005

Strategies to Reduce Homelessness

There are several ways we can reduce homelessness and the associated negative health outcomes of being homeless:

Health and Health Care Strategies:

To improve the health outcomes of homeless individuals, particularly with substance use disorders, chronic disease, and mental health, healthcare services must be delivered in a stable living environment. On strategy is to offer temporary housing to homeless persons when they are recovering from an illness or a hospital stay.

Workforce Strategies:

Being out of work negatively affects health and well-being. Giving homeless individuals the opportunity for long-term employment can improve health and well-being.[7] Stable housing is important to sustaining employment.

Supportive Housing:

Supportive housing strategies provide housing and service supports that help people to stay in stable housing and live healthier lives. Supportive housing provides a critical platform for the delivery of community-based social, mental health, substance abuse, and medical care services that lead to improved health and stability.

TABLE 1: SUCCESSFUL PROGRAMS SERVING THOSE WHO EXPERIENCE HOMELESSNESS IN COLORADO

STRATEGY	PROGRAM	DESCRIPTION
Health & Healthcare	Stout Street Health Center	Integrated behavioral and physical healthcare center that also provides supportive housing for individuals who are homeless receiving services. Served more than 13,000 people in 2015.
Workforce Development	Denver Day Works Pilot Program	Connects individuals who are homeless with work opportunities and supportive services. 109 people given work opportunities and 49 found permanent employment to date.
Housing	Homeward Pikes Peak	Provides health care and housing services to individuals experiencing chronic homelessness who struggle with addiction. Saves taxpayers $2 million per year by reducing ED visits, emergency calls, detox stays, and psychiatric hospitalizations.

[7] G Waddell and AK Burton, "Is work good for your health and well-being?" Department for Work and Pensions, 2006
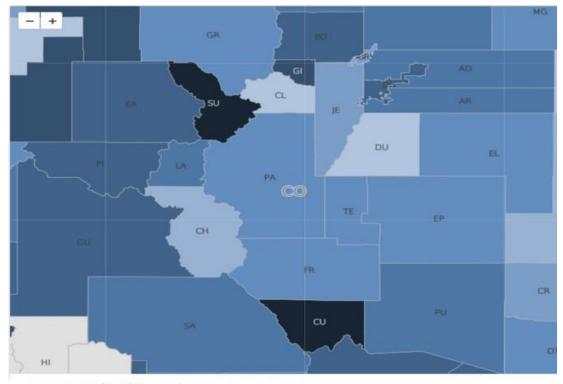
Housing Quality and Health

The close connection between stable housing and health has been well known for more than a century. Florence Nightingale, the founder of modern nursing, once wrote "The connection between health and the dwelling of the population is one of the most important that exists." Today, there is renewed interest in understanding the complex connections between housing factors, neighborhood factors, and other social factors with poor health outcomes, and the unequal disease burden poor and minority communities tend to shoulder — mainly through growing rates of chronic diseases such as asthma, obesity, and diabetes. This paper looks at the role that "place" has in health and the link between the quality of housing, location, and surrounding community with the physical and mental health outcomes of community residents.

The State of Housing Quality in Colorado

Overall, some 17 percent of Colorado housing is believed to have "severe" problems, including that it: lacks complete kitchen facilities; lacks complete plumbing; is overcrowded; and/or is cost burdened (HUD defines cost-burdened families as those who spend more than 30 percent of their income for housing or those who pay more than 50 percent of their income for rent).[1,2]

FIGURE 1: COLORADO COUNTIES WITH BEST AND WORST RATINGS FOR SEVERE HOUSING PROBLEMS

Source: 2017, County Health Rankings & Roadmaps,
http://www.countyhealthrankings.org/

[1] "2017, County Health Rankings & Roadmaps program", Robert Wood Johnson Foundation and the University of Wisconsin, 2017, http://www.countyhealthrankings.org/app/colorado/2017/measure/factors/136/policies

[2] HUD, https://www.huduser.gov

The Impacts of Housing Quality on Health

The links between poor quality housing and children's health issues include:[3,4]

+ **Poor indoor air quality is linked to asthma and other breathing diseases.**

+ **Poor heating and ventilation is linked to physical injuries related to exposure to temperature extremes, and acute and chronic illnesses related to exposure to air pollutants.**

+ **Lead exposure is linked to learning and behavior problems, as well as high blood pressure.**

+ **Homes with rodents and pests are linked to rashes, bites, vector-borne diseases, and asthma.**

+ **Physical dangers, including exposed heating sources, wiring, and unprotected windows are linked to physical injury and mental and/or physical harm from break-ins.**

+ **A lot of noise is linked to stress, anxiety, and impacts on cognitive function.**

+ **Lack of light, specifically daylight, is linked to a poor sense of well-being, learning, and motivation; physical injuries caused by falls; and feelings of lonliness, worry, and fear. Exposure to light at night is also linked to cancer as it lowers the amount of melatonin, a hormone our bodies create to help us sleep.**

Community and neighborhood "cultures" also affect the health of adults and children through a number of means, many of which are a result of the surrounding built environment. Key features of unhealthy neighborhoods include: neighborhood segregation, lack of social inclusion and capital, little political participation, and concentrated poverty.[5]

ORGANIZATION	PROGRAM	DESCRIPTION
Corporation for Supportive Housing (CSH)	Dimensions of Quality Supportive Housing (DOQ)	*CSH developed a set of resources, the DOQ, that they use to work with tenants, providers, funders, and stakeholders to achieve five core supportive housing outcomes: tenants stay housed, tenants are satisfied, tenants have connections, tenants improve health, and tenants increase income/employment.*
Seattle and King County Public Health Department	CHW-based Healthy Homes Program	*Uses community health workers that use an environmental checklist to assess a variety of health hazards (e.g.. second-hand smoke, pest infestations, mold, etc.) five times a year to homes and then assist by providing education, creating action plans for landlords, and assisting with minor repairs.*
LiveWell Colorado	Building Healthy Places Colorado Initiative	*To integrate best practices in sustainable design and development in Colorado, this initiative focuses on publishing research and best practices, provides technical assistance to local leaders on increasing physical activity through the built environment, and puts on a variety of monthly events to provide education to communities.*
Urban Land Institute	Building Healthy Places Colorado Initiative	*To integrate best practices in sustainable design and development in Colorado, this initiative focuses on publishing research and best practices, provides technical assistance to local leaders on increasing physical activity through the built environment, and puts on a variety of monthly events to provide education to communities.*
Division of Housing at the Colorado Department of Local Affairs	Affordable Housing Guide for Local Officials	*A toolkit for local officials to use as a guide for designing and developing affordable housing that addresses such components as funding, working with local governments, land use policies, and "how-tos" for creating successful neighborhoods.*

[3] Breysse, et.al., "The Relationship between Housing and Health: Children at Risk, the National Center for Healthy Housing, two-day workshop", Annapolis, Maryland. 2002

[4] James Krieger, MD, MPH, and Donna L. Higgins, PhD, "Housing and Health: Time Again for Public Health Action", American Journal of Public Health 92 (2002)
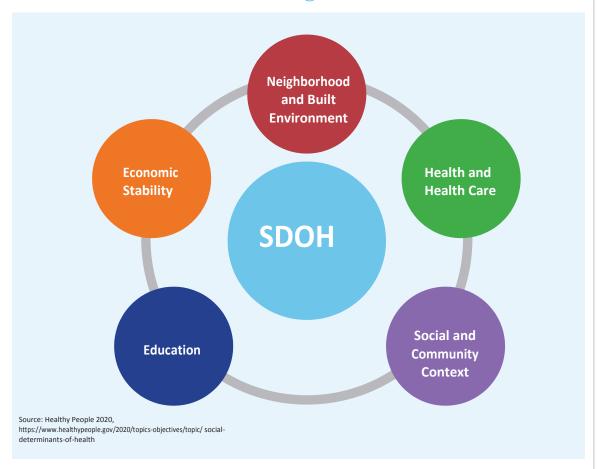
[5] Breysse, et.al., "The Relationship between Housing and Health", 2002

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The Social Determinants of Health Meta-Analysis

A person's health and life expectancy are determined by many factors outside of biological measures (e.g. heart rate, kidney function) and their genetic code. These factors are known as the social determinants of health (SDoH), which are "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life."[1] SDoH affect health outcomes in ways including mortality, morbidity, life expectancy, health care expenditures, health status, and functional limitations.[2]

The SDoH fall into five basic categories:

Source: Healthy People 2020,
https://www.healthypeople.gov/2020/topics-objectives/topic/ social-
determinants-of-health

Health Disparities

Difference in the SDoH (defined above) often lead to disparities in health outcomes and life expectancies between different people and populations in the United States and other countries. There are noticeable health disparities across genders, gender identity and orientation, age, disability status, education level, income, employment, and particularly, geographic location. In fact, where you live is a better predictor of your overall health than your genetic code.[3]

The Colorado Department of Public Health and Environment (CDPHE) contracted with Health Management Associates, Inc. (HMA) to explore promising strategies at the national, state, and particularly, the community level that address SDoH and health disparities. Table 1 presents the subject area by HHS-defined categories of SDoH; notably, there can be overlap among categories that topics fall under, underlining the complex way in which SDoHs interact.

[1] "Social Determinants of Health." World Health Organization, 2017, http://www.who.int/ social_determinants/en/

[2] Henry J. Heiman and Samantha Ariga, "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity" Kaiser Family Foundation. November 4, 2015. http:// www.kff.org/disparities-policy/issue-brief/ beyond-health-care-the-role-of-social-determi- nants-in-promoting-health-and-health-equity/

[3] Garth Graham, MaryLynn Ostrowski, and Alyse Sabina, "Defeating The ZIP Code Health Paradigm: Data, Technology, And Collabora- tion Are Key", Health Affairs Blog, August 6, 2015, http://healthaffairs.org/blog/2015/08/06/ defeating-the-zip-code-health-paradigm-da- ta-technology-and-collaboration-are-key/

TABLE 1: SDOH KEY FOCUS AREAS FOR CDPHE RESEARCH PAPERS

KEY AREA	ELEMENTS	CDPHE HMA FOCUS TOPICS
Neighborhood and Physical Environment	Access to healthy food, quality housing; exposure to environmental conditions, crime, violence	Quality Housing
Health and Health Care	Access to health care and primary care; health literacy	Family Friendly Business Practices
Social and Community Context	Social cohesion, civic participation, discrimination, incarceration	+ Neighborhood Fabric and Social Connectedness + Criminal Justice: Cradle to Prison Pipeline
Education	Early childhood education and development, high school graduation, enrollment in higher education, language and literacy	+ Childcare + Early Childhood Education + K-12 Education
Economic Stability	Poverty, employment, food insecurity, housing instability	+ Economic Opportunity + Homelessness + Affordable Housing + Paid Leave

These interventions outside of the health care system are important to an individual's overall health, even more than their family's history. Because of this, Colorado participates in a variety of federal initiatives and programs, as well as state and local programs, aimed at addressing SDoH in efforts to achieve "the highest level of health for all people"[4] as envisioned in Healthy Colorado. Healthy Colorado is Colorado's five-year plan for improving public health and the environment. It focused on the priorities of healthy eating, active living and obesity prevention, and mental health and substance abuse, as well as Colorado's 10 Winnable Battles (healthier air, clean water, infectious disease prevention, injury prevention, mental health and substance abuse, obesity, oral health, safe food, tobacco, and unintended pregnancy).[5]

[4] "Healthy Colorado: Shaping a State of Health. Colorado's Plan for Improving Public Health and the Environment 2015-2019, p. 2", CDPHE, https://www.colorado.gov/pacific/sites/default/files/OPP_2015-CO-State-Plan.pdf

[5] Ibid.

VIII. Appendix C: Literature Review of Best Practices in Preventing Mental and Substance Use Disorders

Additional Programs and Interventions

Programs and interventions are broadly broken down between three categories: (1) universal; (2) selective; and (3) indicated. Universal programs are those that can work on all individuals targeted, such as all the children at a school or even in a school district. Selective interventions are those targeted towards individuals who have been identified of being at-risk of developing problem behaviors, while indicated interventions are those programs that target specific children who have been identified in some way as having problem behavior(s). These terms will be used throughout the paper to identify, more specifically, the target populations for each program or intervention with the focus on universal and selective interventions as they are more often used to identify prevention or early intervention programs, rather than treatment or late intervention programs which are more often labeled as indicated interventions.

World Health Organization: Preventing Mental Disorders

The World Health Organization (WHO) has put out an overview looking at the prevention of mental disorders and dives into effective programs and policies used for a variety of mental disorders, including depression, anxiety, substance use, suicide, and psychotic disorders. The programs listed below all are taken from the WHO's manual on the Prevention of Mental Disorders and the ones listed are examples of interventions that have shown high levels of effectiveness based on a variety of research studies.

One program identified is "Coping with Stress Course", which is targeted at high school adolescent students with depressive systems. The program consists of 15 group sessions that use cognitive therapy methods to identify negative thinking patterns and helping students generate more positive counter-thoughts to challenge those negative patterns. A randomized control study (RCT) found that students who participated showed a lower incidence of first depressive episodes after one year in the experimental group (14.5%) compared to the control group (25.7%) (WHO, 2004). This program has also been used to target children whose parents have psychiatric disorders, particularly depression, and using the same 15 group sessions, they found that the experimental group had a much lower incidence of depression (9.3%) compared to the control group (28.8%) at the 14-month follow-up (WHO, 2004).

Another identified intervention is the Australian FRIENDS program, which is widely used in Australian schools, health centers, and hospitals. The program is used to prevent the development of anxiety orders by strengthening emotional resilience and cognitive skills. FRIENDS consists of 10 sessions that teach children, ages 7 to 16, about how to cope with anxiety, while teaching problem-solving skills and building self-confidence (WHO, 2004). A controlled trial done with the program found that children who entered with higher levels of anxiety reduced the first onset of a diagnosable anxiety disorder from 54% to 16% in the six months following the intervention (WHO, 2004). Other studies have also shown that it is effective in dropping anxiety symptoms both in select groups of children and entire school populations, meaning it could be used as a universal or selective intervention.

The Midwestern Prevention Project is an example of an intervention that has shown success in reducing alcohol abuse that includes both individual-level education and community-level interventions. The project was implemented in Kansas, across 50 public schools, and another state, across 5 schools (WHO, 2004). The program includes 10 to 13 sessions with five "booster" sessions, a mass media campaign, a

parent education program, community leader training, and local policy changes. One study found that the program was effective in reducing self-reported prevalence of monthly intoxication until the end of high school, but the effect fades after three years (WHO, 2004). There are a variety of high school programs that look at preventing substance use, but overall the programs lack effectiveness for long-periods of time, but for the Midwestern Prevention Project, they had longer lasting results compared to other programs due to the inclusion of the community and parents, as well as the booster sessions (WHO, 2004).

When looking at the prevention of psychotic disorders, the WHO mentions the Scandinavian Early Treatment and Identification of Psychosis Study (TIPS), which was an early detection research project targeting first-episode psychosis. The program compared one service sector who had implemented early detection teams and major public health information campaigns to two service sectors that utilized already existing detection and referral systems. Th study found that delays into treatment were reduced in the first sector, with the dual implementation, by 90% and that the media campaign was effective in enhancing mental health literacy and promoting early help-seeking (WHO, 2004).

Building on the TIPS program, Australia created the Compass Strategy that is a targeted community awareness campaign that aims to improve the mental health literacy of young people (ages 12 to 25), their families, and community members, while increasing the rates of help-seeking and reducing delays into treatment (WHO, 2004). The campaign utilizes a website, an information telephone service, and the use of multimedia. One study found that when comparing two regions, one with the campaign and one without, that the program was found to have a signification impact on the awareness of mental health campaigns, self-identified depression, help for depression sought in the previous year, increased awareness of suicide risk, and a reduction in the perceived barriers to help seeking in the experimental region (Wright et al., 2006).

Finally, another program working on mental health and suicide is the Suicide Prevention and School Crisis Management Program, which was implemented in a public-school district in Florida, that covered children from elementary school through high school. The program was comprehensive and so involved implementing a suicide prevention school policy, teacher training, parent education, teaching students stress management and life skills, and establishing a crisis team in each school. A five-year longitudinal-study found that the program reduced the annual number of suicides among students by 63% and reduced suicide attempts by 64% (WHO, 2004).

NASMHPD Research Institute Matrix of Children's Evidence-Based Interventions
This study is a collection of programs and interventions that are targeted towards a variety of mental and behavioral health issues affecting children and youth. The interventions listed below are selected from the matrix due to their target of a specific issue behavior (i.e. substance abuse, depression, suicide prevention, etc.), their evaluation results, and focus on prevention or early intervention.

Project Towards No Drug Abuse is a targeted prevention program that is meant to provide students in high-school, with skills and education around drug use, stress management, coping, self-control, and tobacco cessation. The intervention consists of two lessons taught in a 4 to 5-week period. Three RCTs done on the program has shown effectiveness in reducing cigarette use (27%), marijuana use (22%) and hard drug use (26%) in the last 30 days 12 months after the intervention (Yannacci and Rivard, 2006). It

also showed a 25% reduction in the prevalence of men carrying a weapon (25%) (Yannacci and Rivard, 2006).

Striving Together to Achieve Rewarding Tomorrows (START) is a program from the National Center on Addiction and Substance Abuse (CASA) that is geared towards severely distressed neighborhoods. The program is a comprehensive intervention that consists of community enhanced policing, case management, juvenile justice intervention, family services, mentoring, and incentives for participation (Yannacci and Rivard, 2006). The goal is to reduce risk behaviors for high risk youth in these neighborhoods and positive effects where shown, including avoidance of gateway drug use and a decrease in violent crime and drug sales, over a 12-month period (Yannacci and Rivard, 2006).

Big Brothers, Big Sisters is an organization that trains mentors to work with children and for children ages 10 to 16 with complex mental health needs, there are promising results showing that youth who participate in the program are half as likely to initiate drug and alcohol use as the control group (Yannacci and Rivard, 2006). They also report improved functioning with parents and peers (Yannacci and Rivard, 2006). Mentoring, quite simply, consists of an adult working one-on-one with a child to foster a positive relationship and provide a positive role model from whom the child can learn positive social and problem-solving skills.

Linking the Interests of Family and Teacher (LIFT) is a program geared towards kids ages 6 to 11 (i.e. elementary school) that is meant to teach students, particularly those living in high crime neighborhoods, social skills, communication skills, and behavioral management (Yannacci and Rivard, 2006). One RCT study showed that immediately after and three years following the program, participants reported less negative behavior, including substance use, being arrested, and disruptive behavior in the classroom (Yannacci and Rivard, 2006).

Coping with Distress and Self-Harm and Coping with Stress are two similar programs focused on teaching students, mainly those from eighth grade to tenth grade, how to deal with stress and distress. Each program consists of teaching students how to identify and change negative or irrational thoughts, how to cope with negative feelings, along with teaching positive self-talk and help seeking behaviors (Yannacci and Rivard, 2006). One RCT showed that students in each treatment group exhibited greater coping skills and/or fewer symptoms of depression or distress compared to control groups (Yannacci and Rivard, 2006).

NIDA Preventing Drug Use Among Children and Adolescents

Guiding Good Choices (GGC) is an intervention meant to educate parents on how to reduce risk factors and strengthen bonding in their families. It consists of five 2-hour sessions where parents are shown how to create age-appropriate opportunities for their families, how to set clear expectations and discipline systems for their children, how to teach their kids coping strategies, how to adopt family conflict management approaches, and how express positive feelings to promote family bonding. An independent test of the intervention, used on rural parents, found the program to be effective in inhibiting alcohol and marijuana use, showing use in preventing substance abuse issues in children.

Life Skills Training (LST) is a program meant to address a wide range of risk and protective factors by teaching personal and social skills, coupled with drug resistance skills and self-management skills. It is geared towards students in middle or junior high school and consists of 15 sessions during year one, followed by 10 booster sessions in year two, and finally 5 booster sessions in year 3 (NIDA, 2003). A

variety of evaluations have been done on the program since its inception in 2995 and has shown to reduce the prevalence of tobacco, alcohol, and illicit drug use relative to controls by 50 to 87 percent (NIDA, 2003. When combined with the booster sessions, it was shown to reduce the prevalence of substance abuse beyond a student's high school years by 66% (NIDA, 2003). It has more recently been adapted for an elementary school setting where it was also shown to reduce tobacco and alcohol use.

Project ALERT is a drug prevention curriculum for middle school substance meant to reduce the onset and regular use of substances. It consists of 14 lessons and focuses on alcohol, tobacco, marijuana, and inhalants which are substances that adolescents typically use first and most widely (NIDA, 2003). The program utilizes participatory activities and videos to establish nondrug norms, help develop reasons not to use, and resist pro drug pressures. It has been shown to prevent marijuana use initiation, decrease current and heavy smoking, curb alcohol misuse, reduce prodrug attitudes and beliefs, and help smokers quit. ALERT has also been shown to work with both high- and low-risk youth (NIDA, 2003).

Project STAR is a drug abuse prevention community program that utilizes a comprehensive approach by providing components to schools, parents, community organizations, and policymakers (NIDA, 2003). There is also a mass media campaign used to encourage publicizing positive efforts for drug prevention. It is used in a middle school environment and is incorporated into classroom curriculums over a two-year period. Strategies used range from teaching youth drug resistance skills, limiting youth access to alcohol or drugs, teaching family communication skills, and getting parents involved in community action (NIDA, 2003). Long-term follow-up studies showed significant reductions in drug use among participants compared to children who did not receive the intervention (NIDA, 2003).

The Good Behavior Game (GBG)

The Good Behavior game is a behavioral intervention tool, used in elementary schools for the prevention of substance abuse and/or violent behavior. How the game works is an adult collects children's definition of the rules around what would make the classroom, or any other setting with elementary students, a good place to learn. Then, the adult works with the students to collect descriptions of bad behaviors that would interfere with their learning place. Next, the adult should provide examples, both written and physical, about each concept to ensure every child understands the "good behaviors" and the "fouls" or bad behaviors. Following that, the adult divides the classroom into teams and explains that the way to win the GBG is to have the fewest fouls, as defined by the children. To keep track of each team, the adult should have a daily scoreboard that is highly visible. The GBG can be customized in a variety of ways to keep it interesting and interactive for students, but overall the GBG is a simple, low-cost tool, created in 1969, that has a solid background of evidence supporting its effectiveness (Embry, 2002).

A study done on the GBG by Johns Hopkins found that the intervention was effective in reducing aggressive behavior in students who had high aggressive ratings, while also increasing students' on-task performances in the classroom (Embry, 2002). At a 6-year follow-up, the study found that of the children who had participated in the program, males were significantly less likely to initiate smoking in their early teens (50%) and were more likely to be rated as better-behaved than their counterparts in the non-intervention group (Embry, 2002). The GBG has also been added as a component to another program called LIFT (Linking the Interests of Families and Teachers) which is designed to work with parents and elementary school children to address aggressive and anti-social behavior (Embry, 2002). The study found that, at a 3-year follow-up, the program delayed the time to first patterned alcohol use,

marijuana use, and police arrest (Embry, 2002). LIFT was implemented in higher risk neighborhoods, showing that the GBG can be embedded in larger efforts with at-risk populations and have an impact.

Creating Lasting Family Connections (CLFC)/Creating Lasting Connections (CLC)

This program is geared towards families to increase parenting skills and family-relationship skills to build the resiliency and reduce the frequency of substance abuse of youths, ages 9 to 17(NREPP, 2017). The intervention uses six modules, taught over 18 to 20 weekly sessions to both parents and youths, and is meant to be used in a variety of community settings, such as schools or churches. One evaluation of the study found that the program is effective for improving knowledge, attitudes, and beliefs about substance use in parents and shows promising results in improving receipt of mental health and/or substance use treatment for both parents and youths (NREPP, 2017). The program has often been used in populations of recently released prisoners to help them reconnect with their families and reduce rates of substance abuse and recidivism, with promising results (McKiernan et al., 2012).

Comprehensive Behavioral Health Model

The Boston Public Schools (BPS) system has developed a model, called the Lighthouse Model (see Figure 2), to provide comprehensive behavioral and mental health supports to all students in BPS. The program involves universal screenings to identify students that may need more attention, the use of evidence-based interventions, and specialized services for the neediest students (Colorado Education Initiative, 2014). Since 2012, BPS has seen an increase in positive behaviors and a decrease in problem behaviors, including students at risk for negative affect, which involves signs of depression or anxiety that impact a student's ability to learn in school (Boston Public Schools, 2015). They have also seen a decrease in time spent on Tier 3 services (i.e. individual counseling, case management, crisis response) and increased academic outcomes (Behavioral Health Services, 2015). It currently reaches over 57,000 students and includes specific modules around suicide prevention, sexual violence, threats, and social-emotional learning (Behavioral Health Services, 2015).

Figure 2: Boston Public Schools Lighthouse Model

Source: Boston Public Schools, 2015

InShape Prevention Plus Wellness

InShape is a brief intervention targeted towards college students, or those between the ages of 18 and 25, to reduce drug abuse and increase positive mental health and physical health outcomes (NREPP, 2010). Using the Behavior-Image model, it works to incorporate naturally motivating social images and future self-images to help young adults think about and plan positive changes in their lives. The key components include a self-administered fitness behavior-image screen, a scripted and standardized one-on-one consultation with participants, and a goal plan that provides fitness recommendations during a single half-hour session (NREPP, 2010). The intervention has shown to have a significant impact on alcohol use and driving after drinking, marijuana use, and the use of stress management techniques (NREPP, 2010; Werch et al., 2007). It has been implemented in at least two university settings, with nearly 1,000 students but the downsides include the costs involved (at least $400) and questions over how long the program's impact will last without booster or follow-up sessions (NREPP, 2010).

Healthy Workplace

For an intervention focused on older populations, there is Healthy Workplace, which is designed for workers, who are not substance-dependent, to help prevent future substance abuse. It has five interventions within the program: (1) SAY YES! Healthy Choices for Feeling Good; (2) Working People: Decisions About Drinking; (3) Make the Connection series; (4) Healthy Life 2000; and (5); Power Tools. All work to target unsafe drinking, illegal drug use, prescription drug use, and healthy lifestyle practices by integrating prevention materials into popular health promotion programs to try and reduce the stigma and barriers surrounding help-seeking behaviors and substance abuse (NREPP, 2008). All the interventions are meant to be delivered in small groups with videos and print materials and each workplace can choose from the interventions to create a program that works best for an organization's goals and workforce (NREPP, 2008). An evaluation study has shown that it has a significant impact on reducing alcohol use (both overall consumption and binge drinking), reducing substance use for stress relief, and having improved knowledge around the risks of alcohol and other drugs compared to no-treatment control groups (NREPP, 2008). Issues include problems around attrition within the evaluation but the program has been implemented across the U.S., Australia, and Canada.

Older Americans Substance Abuse & Mental Health Technical Assistance Center: Evidence-Based Practices for Preventing Substance Abuse and Mental Health Problems in Older Adults

While most of the examples discussed so far have focused on children and youth, the following are examples of interventions that can be used for older individuals, namely those above the age of 65. While an important population, overall there are fewer interventions focused on this age group as the notion of "prevention" is often geared towards younger populations, and therefore less research has been done on the efficacy of interventions among older populations. The interventions below are those identified through the review that have a solid background of proof for having an impact on specific risk behaviors including alcohol misuse, medication misuse, depression and anxiety, and suicide.

When looking at alcohol misuse, brief interventions have shown promise. One such program is called Project GOAL (Guiding Older Adult Lifestyles), which was a controlled clinical trial implemented sin 24 community-based primary care practices in Wisconsin for patients ages 65 or older (Blow, Bartels, Brockmann and Van Citters, 2005). The experimental group received two physician-delivered counseling sessions, 30 days apart, which included advice, education, and contracting that used a scripted workbook and 2 weeks after each session, a nurse conducted a follow-up telephone call. The control group simply received a general health booklet. Experimental group patients demonstrated a significant reduction in 7-day alcohol use (34%), episodes of binge drinking (74%), and frequency of excessive drinking (62%) compared with the control group 12 months after the intervention (Blow, Bartels, Brockmann and Van Citters, 2005).

A similar program, called the Health Profile Project, was a more selective intervention targeting older adults that reported drinking above recommended limits. The project was implemented in primary care clinics in Michigan and Ohio, with intervention patients receiving an appointment with their clinician where they would review a Brief Alcohol Intervention booklet that included the patient's self-reported drinking data and where they would develop a contract to reduce at-risk drinking (Blow, Bartels, Brockmann and Van Citters, 2005). Control patients received a general health advice booklet. Eighteen months after the intervention, the intervention patients showed significantly more reduction in

frequency and quantify of alcohol consumption compared to the control group, again showing the efficacy of brief interventions (Blow, Bartels, Brockmann and Van Citters, 2005).

For medication misuse, one universal intervention is an interactive software program, designed for older adults (ages 60 and older), called the Personal Education Program (PEP). A RCT done with PEP showed that the software increased knowledge and improved self-efficacy regarding self-medicating compared to controls (Blow, Bartels, Brockmann and Van Citters, 2005). PEP users also reported fewer adverse self-medication behaviors over time (Blow, Bartels, Brockmann and Van Citters, 2005). Another pretest/posttest evaluation showed that at a 2-month follow-up, many participants reported using the PEP-generated medication reminder checklist (55%), using a checklist to discuss problems with a physician (32%), and making a "real change" in the way they took medications (24%) (Blow, Bartels, Brockmann and Van Citters, 2005).

Physical activity has shown promise in helping to prevent the development of depression, and several interventions have been created that utilize exercise for older adults to help prevent late-life depression. The first program was a multi-component intervention that included visits with a registered nurse, 60-minute exercise sessions with a trained instructor that included strength training, aerobic activity, and stretching (Blow, Bartels, Brockmann and Van Citters, 2005). The program showed significant reductions in depressive systems and improved health functioning among participants. A second program focused on older adults with osteoarthritis, with participants split between an aerobic exercise program, a resistance exercise program, and a control group (Blow, Bartels, Brockmann and Van Citters, 2005). Participants participated in 60 minute sessions three times a week for 3 months and once the exercise programs were finished, each participant in the exercise programs were followed by a 14-month home exercise program with support and supervision from a trained instructor. Evaluations showed significant reductions in depressive symptoms for older adults participating in the aerobic exercise program (Blow, Bartels, Brockmann and Van Citters, 2005).

In terms of suicide prevention, one intervention of note come from Japan, where older residents (ages 65 and up) would complete a depression screening, and those who screened positive would be provided treatment by a nurse or psychiatrist if needed (Blow, Bartels, Brockmann and Van Citters, 2005). Everyone was offered health workshops, that included information on the signs and symptoms of depression, along with information on accessing the mental health system and knowledge on how to develop relationships with other community members and neighbors. One evaluation showed that the intervention was associated with a reduction in suicide rates of 73% among older men and 76% among older women compared to similar populations in other regions (Blow, Bartels, Brockmann and Van Citters, 2005). As well, suicide completion was seen to decrease from 11 to 4 for men and from 16 to 6 for women (Blow, Bartels, Brockmann and Van Citters, 2005).

A more selective intervention, focused on older adults (ages 60 and up) with depression, is called PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial). The program includes a team of care providers, including a primary care physician, a supervising psychiatrist, and a depression care manager, that works with participants to treat their depression and focuses on issues that are more specific to older adults, such as medical comorbidity, functional disabilities, cognitive functioning, and social stigma (Blow, Bartels, Brockmann and Van Citters, 2005)a. Participants in the program had significant reductions in suicide ideation 8 months after the intervention and was more effective for those with major depression rather than minor depression (Blow, Bartels, Brockmann and Van Citters,

2005). Results also showed reductions in depression 12 months after the intervention (Blow, Bartels, Brockmann and Van Citters, 2005). While this intervention is not useful in the prevention of depression, it has shown effectiveness in reducing suicide ideation, which is an important factor when looking at a person's overall mental health.

Kognito At-Risk in Primary Care

This program is cared toward primary healthcare professionals to improve their skill, knowledge, and attitudes in addressing behavioral and mental health issues with their patients. The online development simulation aims to improve users' knowledge when they are screening patients for substance use, PTSD, suicidal thoughts, and depression. It also teaches providers to conduct brief interventions via motivational interviewing, while creating a collaborative treatment plan with patients. The simulation consists of five modules around prevalence, trauma as a risk factor, barriers to addressing behavioral health, risk factors and warning signs, and recommended treatment options (NREPP "Kognito", 2017). A pretest/posttest evaluation study, showed that the program is effective for improving knowledge, attitudes, and beliefs about mental health, particularly around how to screen patients (NREPP "Kognito", 2017). This intervention offers another way to look at early intervention by including primary care providers to help identify at-risk patients.

References

Behavioral Health Services. (2015). *Fact Sheets*. Behavioral Health Sciences, Boston, MA.
http://cbhmboston.com/families-cbhm/supports-and-services/

Blow, F.C., Bartels S.J., Brockmann, L.M., and Van Citters, A.D. (2005). *Evidence-Based Practices for Preventing Substance Abuse and Mental Health Problems in Older Adults*. Substance Abuse and Mental Health Services Administration. Washington, DC.

Boston Public Schools. (2015*). Comprehensive Behavioral Health Model: Prospectus*. Boston Public Schools. Boston, MA.

Center for the Collaborative Classroom. (2017). *Caring School Community*.
https://www.collaborativeclassroom.org/caring-school-community

Coffman, C.H. (2017). *Substance Abuse Trend and Response Task Force Eleventh Annual*. Colorado Substance Abuse Trend and Response Task Force. Denver, CO.

Colorado Education Initiative. (2014). *Colorado Framework for School Behavioral Health Services*. Colorado Education Initiative. Denver, CO.

Embry, D.D. (2002). The Good Behavior Game: A Best Practice Candidate as a Universal Behavioral Vaccine. *Clinical Child and Family Psychology Review, 5*, 273-297

Enriquez, M. (2017). *Speak Now Public Health Campaign First Summative Evaluation Report*. Colorado Department of Human Services, Office of Behavioral Health (OBH). Denver, CO.

McKiernan, P. et al. (2012). Creating Lasting Family Connections: Reducing Recidivism with Community-Based Family Strengthening Model. *Criminal Justice Policy Review, 24*, 94-122.

National Institute on Drug Abuse (NIDA). (2003). *Preventing Drug Use Among Children and Adolescents* (NIH Publication No. 04-4212(A)). National Institutes of Health. Bethesda, MD.

National Registry of Evidence-based Programs and Practices (NREPP). (2008). *Healthy Workplace*. Substance Abuse and Mental Health Services Administration. Washington, D.C.

National Registry of Evidence-based Programs and Practices (NREPP). (2010). *InShape Prevention Plus Wellness*. Substance Abuse and Mental Health Services Administration. Washington, D.C.

National Registry of Evidence-based Programs and Practices (NREPP). (2017). *Creating Lasting Family Connections (CLFC)/Creating Lasting Connections (CLC)*. Substance Abuse and Mental Health Services Administration. Washington, D.C. http://www.nrepp.samhsa.gov/ProgramProfile.aspx?id=181

National Registry of Evidence-based Programs and Practices (NREPP). (2017). *Kognito At-Risk in Primary Care*. Substance Abuse and Mental Health Services Administration. Washington, D.C. http://www.nrepp.samhsa.gov/ProgramProfile.aspx?id=212

Stapleman, J. (2015). *Sources of Strength pilot program works 'upstream' in seven schools to prevent the need for youth suicide intervention*. Colorado Department of Public Health and Environment.

Werch, C.E. et al. (2007). Brief Multiple Behavior Interventions in a College Student Health Care Clinic. *Journal of Adolescent Health, 41*, 577-585

World Health Organization (WHO). (2004). *Prevention of Mental Disorders: Effective Interventions and Policy Options* (NLM classification: WM 140). Geneva, Switzerland: WHO Library Cataloguing-in-Publication Data

Wright, A. et al. (2006). Development and evaluation of a youth mental health community awareness campaign – The Compass Strategy. *BMC Public Health, 6*, 215

Yannacci, J. and Rivard, J.C. (2006). *Matrix of Children's Evidence-Based Interventions*. Center for Mental Health Quality and Accountability. Alexandria, VA.