HEALTH NOTE
Expanding Access to Behavioral Health Care Providers (SB18-024)
2018 Colorado General Assembly Regular Session

Bill Number: SB18-024[1]

Bill Topic: Expanding access to behavioral health care providers

Primary Sponsors: Sen. Cheri Jahn, Sen. Jack Tate, Rep. Jonathan Singer

Bill Summary: This bill concerns modifications to the Colorado health service corps program administered by the department of public health and environment to expand the availability of behavioral health care providers in shortage areas in the state, and, in connection therewith, making an appropriation.[a]

Health Note Analysts:
Health Impact Project

Additional Information:
Please visit Health Impact Project at www.healthimpactproject.org for more information.[b] Direct inquiries to: Arielle McInnis-Simoncelli; Phone: 202-540-6370; asimoncelli@pewtrusts.org.

What is the goal of this health note?

Decisions made in sectors outside of public health and health care, such as in education, transportation, and criminal justice, can affect health and well-being. Health notes are intended to provide objective, nonpartisan information to help legislators understand the connections between these various sectors and health. This document provides summaries of evidence analyzed by the Health Impact Project while creating a health note for Senate Bill 18-024. Health notes are not intended to make definitive or causal predictions about how a proposed bill will affect health and well-being of constituents. Rather, legislators can use a health note as one additional source of information to consider during policy-making. The analysis does not consider the fiscal impacts of this bill.

How and why was this bill selected?

The Health Impact Project chose this bill for a health note to understand the potential health implications of the proposed legislation. It was selected from a list of bills for consideration generated by Representative Jonathan Singer and Senator Jim Smallwood. Following the screening process, the Health Impact Project had the final decision-making authority. (See Analysis Methodology on Page 4)

SUMMARY OF HEALTH NOTE FINDINGS

More than 20 million Americans have substance use disorders, yet only one in ten individuals receive treatment, in part because of behavioral health care provider shortages.[2] Fifty-five percent of counties in the U.S. lack early treatment and prevention programs, and 77 percent report unmet behavioral health needs.[3] This health note relates to SB18-024, and summarizes literature regarding how increasing the number of behavioral health providers may directly or indirectly impact a broad set of factors that contribute to health. This review found that financial incentive programs are one effective strategy to increase the number of health care providers in underserved areas and improve health outcomes. Based on the evidence it seems likely that incentives will also increase the number of behavioral health care providers in underserved areas and improve health outcomes.[c] Below is a summary of the key findings:

- A fair amount of evidence shows that incentivizing health providers to work in underserved areas can increase provider availability and access to care.[4]
- A fair amount of evidence indicates that health care providers in financial incentive programs remain in underserved areas longer than non-participants; however, they may not stay in rural or remote areas after the program ends.[5]
- There is very strong evidence showing that access to health care providers can improve health outcomes and that greater improvements in health outcomes are possible by addressing the social and physical determinants of health.[6]

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[a] Summary as described by the Colorado General Assembly, http://leg.colorado.gov/bills/sb18-024.
[b] The Health Impact Project is committed to conducting non-partisan research and analysis.
[c] The health note refers to "behavioral health" when research or policy specifically relates to behavioral health care providers and makes a distinction from "health care."

WHAT ARE THE POTENTIAL HEALTH IMPACTS OF SB18-024?

- There is evidence showing that financial incentive programs can increase the number of health care providers in shortage areas.[7]
- One systematic review found that participants in financial incentive programs for return of service were more likely to work in underserved areas than non-participants.[8] Graduates of twelve New Mexico health professional programs surveyed in 2007 indicated that the availability of loan forgiveness and training programs, along with personal characteristics such as having a rural background and a preference for small communities, influenced their decision to practice in rural areas.[9]

Literature searches for this health note identified additional information about some of select factors that may contribute to the efficacy of programs aimed at expanding access to care and ultimately improving health outcomes.[d] While the health note authors recognize that the scope of the bill aims to increase providers in shortage areas, this evidence may inform implementation of financial incentive programs.

- Most data on the effectiveness of programs such as the National Health Service Corps (NHSC) focus on retention, which is often used a proxy for continuity of care.[10] According to a report prepared for the Office of The Assistant Secretary for Planning and Evaluation by The Lewin Group, Inc., one year after completing their obligations, 49 percent of NHSC primary care providers remained in the same Health Professional Shortage Area (HPSA) and 82 percent practiced in any HPSA.[11] The same study found that NHSC increased the number of FTE-years in HPSAs by approximately 12,500 for primary care physicians, by about 35,000 for nurse practitioners and physician assistants, and by roughly 28,000 FTE-years for mental health providers.[12]
- Evidence also shows financial and non-financial incentives can address provider shortages because they can influence where professionals choose to practice. A survey of National Health Service Corps alumni and participants found that key factors influencing participants' decisions to remain in their assigned areas after completing their commitments included availability of loan repayment support (60% of in-service participants); experience at site (55% of alumni and 43% in-service); ability to offer full scope of services (38% for alumni and 34% in-service); peer relationships (34% of alumni); and site operation (29% of alumni).[13]

Why do these findings matter for Colorado? According to Substance Abuse and Mental Health Services Administration, behavioral health systems are critical to helping Americans find effective treatment for mental health and/or substance use disorders.[14] Overdose deaths are rising in Colorado, yet only 15.7 percent of residents in need receive substance use treatment.[15] The national age-adjusted rate of drug overdose deaths in 2016 was 19.8 per 100,000 people, which was exceeded by nine counties in Colorado.[16] Most counties exceeding this rate are currently also designated as Medically Underserved areas and Mental Health Professional Shortage Areas.[17]

Methods Summary: To complete this health note, staff conducted an expedited literature review using a systematic approach to minimize bias and identify studies to answer each of the identified research questions. In this note, "health impacts" refer to impacts on determinants of health, such as education, employment, and housing, as well as impacts on health outcomes, such as injury, asthma, chronic disease, and mental health. The strength of the evidence is qualitatively described and categorized as: not well researched, a fair amount of evidence, strong evidence, very strong evidence. It was beyond the scope of analysis to consider the fiscal impacts of this bill or the effects any funds dedicated to implementing the bill may have on other programs or initiatives in the state. To the extent that this bill requires funds to be shifted away from other purposes or would result in other initiatives not being funded, policymakers may want to consider additional research to understand the relative effect of devoting funds for this bill relative to another purpose. A detailed description of the methods is provided in Analysis Methodology on page 4.

[d] Since there are many factors that can influence behavioral health access and outcomes, this information represents the evidence resulting from the specific literature review searches and is not an exhaustive list.

HEALTH NOTE FINDINGS BY BILL COMPONENT

Below are the findings related to selected provisions of the bill, including:

BILL COMPONENT 1: Allow the primary care office, under the guidelines adopted by the state board of health, to designate health professional shortage areas in the state using state-specific guidelines rather than federal guidelines.

- According to a 2014 report from the Substance Abuse and Mental Health Services Administration, 55 percent of U.S. counties do not have behavioral health providers and 77 percent reported unmet behavioral health needs.[18]
- Providing access to care will likely improve health outcomes. However, the extent of those improvements will likely depend on program implementation and the extent to which treatment options are timely, comprehensive, evidence-based, and sustainable. More information about the types of services provided by the behavioral health professionals eligible for the loan repayment program are needed to draw conclusions about potential health impacts.

BILL COMPONENT 2: Allow behavioral health care providers and candidates for licensure as a behavioral health care provider to participate in the loan repayment program through the Colorado health services corps to provide incentives to those providers and candidates to deliver behavioral health care services in health professional shortage areas in the state and to ease the financial burdens they face when practicing in health professional shortage areas.

- Evidence suggests that loan repayment programs are successful financial incentives to attract health professionals to underserved areas.[19] Thus, SB18-024 has an opportunity to improve access to providers by addressing provider shortages in underserved areas.[20] Given that loan repayment programs vary based on their design and implementation, more evidence is needed to assess the extent to which these services will have an impact on health outcomes of community residents.
- According to a 2012 evaluation of the Bureau of Clinician Recruitment and Service programs, mental health care providers had the highest retention rates in the 2005 NHSC cohort as compared to other discipline types.[21]

BILL COMPONENT 3: Establish a scholarship program to provide financial assistance to addiction counselors seeking initial or a higher level of certification to defray education and training costs in exchange for a commitment to provide behavioral health care services in health professional shortage areas.

- The Bureau of Labor Statistics (BLS) projects a 23 percent increase in the number of substance abuse, behavioral disorder, and mental health counselors from 2016 to 2026. This anticipated growth is expected as individuals seek addiction and mental health counseling services.[22]
- A 2016 study modeled supply and demand for behavioral health practitioners in 2025, projecting shortages in all or most of nine categories of behavioral health providers. Net shortfall was estimated at approximately 45,000 to 70,000 providers, which was assumed to exceed supply. For the second scenario, BLS used 2013 survey results from the Substance Abuse and Mental Health Services Administration's (SAMHSA). The study estimates that there will be a shortage for all provider types except behavioral health nurse practitioners and physician assistants.[23]
- Research for this analysis did not yield studies demonstrating the impact of financial incentives on entry into health professional certification courses.

BILL COMPONENT 4: Add two members to the advisory council that reviews program applications, which members include a representative of an organization representing substance use disorder treatment providers and a licensed or certified addiction counselor who has experience in rural health, safety net clinics, or health equity.

- By ensuring that two individuals with the qualifications listed above are added to the advisory council that reviews program applications, the likelihood of the council considering social

determinants of health, including provider diversity and cultural competency, and health equity may increase.
- Research for this analysis did not yield studies demonstrating that there would be impact on health outcomes by adding two members to the advisory council.

BILL COMPONENT 5: Modify program reporting requirements and requires annual reporting that coincides with required SMART Act reporting by the department.
- More information is needed to determine how modifications to the SMART Act reporting requirements would affect health. At this time, analyzing reporting for this performance management system is out of the scope of this analysis.

BILL COMPONENT 6: Require the general assembly to annually appropriate $2.5 million from the marijuana tax cash fund to the primary care office to provide loan repayment for behavioral health care providers and candidates for licensure participating in the Colorado health service corps and to award scholarships to addiction counselors participating in the scholarship program.
- It was beyond the scope of analysis to consider the fiscal impacts of this bill or the effects any funds dedicated to implementing the bill may have on other programs or initiatives in the state. To the extent that this bill requires funds to be shifted away from other purposes or would result in other initiatives not being funded, policymakers may want to consider additional research to understand the relative effect of devoting funds for this bill relative to another purpose.

WHICH POPULATIONS ARE MOST LIKELY TO BE AFFECTED BY THIS BILL?
Data from Colorado on substance use disorders indicate that counties reporting the highest rates of age-adjusted drug overdose deaths have lower median household incomes than the state overall.[24] Hispanic/Latino residents comprise a larger percentage of those counties' populations than of the state population.[25] While Colorado data from 2016 show that white, non-Hispanic residents died of opioid overdose at a rate of 10.3 per 100,000, Hispanic residents follow closely with a rate of 9.6.[26] As of 2017, Hispanic residents and individuals with incomes between 100–300% of the Federal Poverty Level are most likely to remain uninsured in the state of Colorado, posing a potential barrier to accessing behavioral health care.[27]

HOW LARGE MIGHT THE IMPACT BE?
Where possible, the Health Impact Project describes how large the impact may be based on the bill language and literature, such as describing the size, extent, and population distribution of an effect. Given the limitations of the bill language, the Health Impact Project was not able to determine the potential magnitude of impact this bill might have as a whole. However, the Project has provided information regarding the potential magnitude under the health note findings, where possible, of specific interventions based on the literature.

ANALYSIS METHODOLOGY
Once the bill was selected, the Health Impact Project developed a conceptual model meant to hypothesize the potential relationship between the bill, heath determinants, and health outcomes. The conceptual model maps a pathway across each bill component and the potential direct impacts, intermediate impacts, and health outcomes. The model was developed using Project expertise, assumptions, logic, and a preliminary review of the literature. The Project then used the model to develop research questions and a list of keywords to search. As a team, the Project reached consensus on the final conceptual model, research questions, contextual background questions, keywords, and keyword combinations. The conceptual model, research questions, search terms, and list of literature sources were peer-reviewed by one expert external to the Project prior to conducting the literature review. A copy of the conceptual model is available online at www.healthimpactproject.org.

The Project prioritized seven research questions related to the 6 bill components (see page 3):

1. To what extent does access to loan repayment options impact entry into qualifying provider shortage programs (clinical providers/behavioral health providers/primary care providers)?
2. To what extent does access to loan repayment and scholarships impact entry into schools (clinical providers/behavioral health providers/primary care providers)?
3. To what extent do incentivized health provider programs impact economic development in target community?
4. To what extent does an incentivized repayment option for health care providers impact utilization of services by community members?
5. To what extent do loan forgiveness programs and scholarships impact entry into certification programs?
6. To what extent do incentivized health provider programs (or loan repayment and scholarships) affect access to health-promoting resources among both providers and residents, such as housing, healthy foods, insurance, physical activity depending on environment in rural or urban environments?
7. To what extent do incentivized health provider programs (or loan repayment and scholarships) impact: mental health, physical health, housing stability, social support, behavioral health, employment, and income?

Next the Project conducted an expedited literature review using a systematic approach to minimize bias and answer each of the identified research questions.[e] The Project limited the search to systematic reviews and meta-analyses of studies first, since they provide analyses of multiple studies or address multiple research questions. If no appropriate systematic reviews or meta-analyses were found for a specific question, the Project searched for nonsystematic research reviews, original articles, and research reports from U.S. agencies and non-partisan organizations.

The Project searched Cochrane and Campbell databases along with the following leading journals in public health research to explore each research question: American Journal of Public Health, Social Science & Medicine, Bulletin of The World Health Organization, BMC Public Health, Annual Review of Public Health, Public Health Reports, and Epidemiologic Reviews.[f] These additional journals were also searched: American Journal of Preventive Medicine, Journal of Behavioral Health and Social Behavior, and the Journal of Health Services Research and Policy. The Project also searched leading governmental and nonpartisan sources including the County Health Rankings and Roadmaps and the Guide to Community Preventive Services. All searches were completed using the following keywords: loan repayment, scholarship, loan forgiveness, school attendance, certification, mental health, behavioral health, health, economic development, employment, income, housing, and substance use. To research the context of the proposed legislation with the jurisdiction, the Project searched legislative reports, media, and spoke with policymakers and staff. The Project identified related local data to understand potential impacts through the Colorado Health Institute, Colorado Department of Local Affairs, Colorado Department of Public Health and Environment, and the Colorado General Assembly.

After following the above protocol, the Project identified 245 abstracts for potential inclusion and reviewed the full text corresponding to each of these abstracts. After applying the inclusion criteria, 210 articles were excluded. A final sample of 24 articles was used to create the health note. The health note summarizes information yielded through the searches and includes statements if no evidence to answer a specific research question was found.

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[e] Expedited reviews streamline traditional literature review methods in order to synthesize evidence within a shortened timeframe. Prior research has demonstrated that conclusions of rapid versus a full systematic review did not vary greatly. Cameron A. et al. "Rapid Versus Full Systematic Reviews: An Inventory of Current Methods and Practice in Health Technology Assessment," Australia: ASERNIPS (2007), 1-119, https://www.surgeons.org/media/297941/rapidvsfull2007_systematicreview.pdf.

[f] These journals were selected using results from a statistical analysis completed to determine the leading health research journals between 1990 and 2014. Merigó, José M., and Alicia Núñez. "Influential Journals in Health Research: A Bibliometric Study," *Globalization and Health* 12.1 (2016), accessed Jan. 11, 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4994291/.

Of the studies included, the strength of the evidence was qualitatively described and categorized as: not well researched, a fair amount of evidence, strong evidence, very strong evidence. The evidence categories were adopted from a similar approach from another state.[28]

Very strong evidence: the literature review yielded robust evidence supporting a causal relationship with few if any contradictory findings. The evidence indicates that the scientific community largely accepts the existence of the relationship.
Strong evidence: the literature review yielded a large body of evidence on the association but the body of evidence did contain some contradictory findings or studies that did not incorporate the most robust study designs or execution or had a higher than average risk of bias; or some combination of these.
A fair amount of evidence: the literature review yielded several studies supporting the association, but a large body of evidence was not established; or the review yielded a large body of evidence but findings were inconsistent with only a slightly larger percent of the studies supporting the association; or the research did not incorporate the most robust study designs or execution or had a higher than average risk of bias.
Not well researched: the literature review yielded few if any studies or only yielded studies that were poorly designed or executed or had high risk of bias.

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[1] Colorado General Assembly, "SB18-024: Expand Access Behavioral Health Care Providers," accessed April 18, 2018, http://leg.colorado.gov/bills/sb18-024.
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[3] Substance Abuse and Mental Health Services Administration, *Building the Behavioral Health Workforce*, (2014), Vol. 22, No. 4, accessed April 17, 2018, https://www.samhsa.gov/samhsaNewsLetter/Volume_22_Number_4/building_the_behavioral_health_workforce/.
[4] County Health Rankings & Roadmaps, "Higher Education Financial Incentives for Health Professionals Serving Underserved Areas," accessed April 18, 2018, http://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/policies/higher-education-financial-incentives-for-health-professionals-serving-underserved-areas.
[5] County Health Rankings & Roadmaps, "Higher Education."
[6] Paula Braveman and Laura Gottlieb, "The Social Determinants of Health: It's Time to Consider the Causes of the Causes," *Public Health Reports,* 2014, Vol. 129, pp. 19-31, accessed April 19, 2018, https://doi.org/10.1177/00333549141291S206; County Health Rankings & Roadmaps, "County Health Rankings Model," accessed April 24, 2018, http://www.countyhealthrankings.org/explore-health-rankings/what-and-why-we-rank.
[7] County Health Rankings & Roadmaps, "Higher Education."
[8] Till Bärnighausen and David E Bloom, "Financial Incentives for Return of Service in Underserved Areas: A Systematic Review," *BMC Health Services Research* 9, no. 86 (May 29, 2009): https://doi.org/10.1186/1472-6963-9-86.
[9] Zina M. Daniels, et al., "Factors in Recruiting and Retaining Health Professionals for Rural Practice," *The Journal of Rural Health* 23, no. 1 (2007): 62-71, https://doi.org/10.1111/j.1748-0361.2006.00069.x.
[10] Congressional Research Service, "National Health Service Corps: Background, Funding, and Programs," (April 18, 2017), accessed April 18, 2018, https://www.everycrsreport.com/files/20170418_R43920_f2093270a82a391c900b35535c4aaf0d7e43f53c.pdf; National Advisory Council on the National Health Service Corps, "Executive Summary," accessed April 18, 2018, https://nhsc.hrsa.gov/corpsexperience/aboutus/nationaladvisorycouncil/meetingsummaries/0611execsummary.pdf.
[11] Sebastian Negrusa, et al., *Retention Rates: NHSC vs non-NHSC Providers NAC NHSC Meeting*, The Lewin Group, (2016), accessed April 18, 2018, https://aspe.hhs.gov/system/files/pdf/255496/NHSCanalysis.pdf
[12] Ibid.
[13] Health Resources & Services Administration Bureau of Health Workforce, "2016 NHSC Participant Satisfaction Survey Results," (January 2017),

https://nhsc.hrsa.gov/corpsexperience/aboutus/nationaladvisorycouncil/meetingsummaries/nhsc_survey_presentation_for_nac_meeting.pdf.

[14] Substance Abuse and Mental Health Services Administration, *Behavioral Health Treatments and Services*, updated September 20, 2017, accessed April 19, 2018, https://www.samhsa.gov/treatment.

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[18] Substance Abuse and Mental Health Services Administration, *Building the Behavioral Health Workforce*.

[19] County Health Rankings & Roadmaps, "Higher education."

[20] Ibid.

[21] Donald Pathman, Thomas Konrad, and Robert Schwartz, *Evaluating Retention in BCRS Programs,* Cecil G. Sheps Center for Health Services Research, 2012, accessed April 25, 2018, http://www.shepscenter.unc.edu/wp-content/uploads/2017/08/Evaluating-Retention-in-BCRS-Programs-Final-Report_Pathman_5-4-12-1.pdf.

[22] Bureau of Labor Statistics, U.S. Department of Labor, "Occupational Outlook Handbook, Substance Abuse, Behavioral Disorder, and Mental Health Counselors," accessed April 13, 2018, https://www.bls.gov/ooh/community-and-social-service/substance-abuse-behavioral-disorder-and-mental-health-counselors.htm.

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[24] Colorado Department of Local Affairs, *Colorado Demographic Profiles*, accessed April 18, 2018, https://demography.dola.colorado.gov/community-profiles/.

[25] Ibid.

[26] Henry J. Kaiser Family Foundation, *Opioid Overdose Deaths by Race/Ethnicity,* accessed April 19, 2018, https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-raceethnicity/?dataView=2¤tTimeframe=0&selectedRows=%7B%22states%22:%7B%22colorado%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D.

[27] Colorado Health Institute, *2017 Colorado Health Access Survey: The New Normal,* (2017), accessed April 19, 2018, https://www.coloradohealthinstitute.org/research/colorado-health-access-survey.

[28] Washington State Board of Health, "Executive Summary: Health Impact Review of HB 2969," accessed June, 2016, http://sboh.wa.gov/Portals/7/Doc/HealthImpactReviews/HIR-2016-05-HB2969.pdf.