

Implementation Guidance

For Screening for Social Determinants of
Health in an Electronic Health Record

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- 3 Introduction
 - 3 What Are Social Determinants of Health?
 - 3 Why Screen for Social Determinants of Health?
 - 3 Who Is This Guidance Document Intended For?
- 4 What Is S-HIE?
- 4 Goals of This Guidance Document
- 4 Why Coordinate Social-Needs Screening in Colorado?
- 5 Considerations for Practices Implementing EHR-Based Social-Needs Screening
- 6 Laying the Foundation for Sharing Screening Data
- 8 Integrating Screening Into Practice Workflows
- 10 Conclusion
- 10 Endnotes
- 11 Appendix: Common Screening Tools

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CHI staff who worked on this report:

- Karam Ahmad, lead author
- Kristi Arellano
- Brian Clark
- Cliff Foster
- Anastasia Ratcliff
- Sara Schmitt
- Alec Williams
- Jaclyn Zubrzycki

CHI also thanks the following people for their contribution:

- Cara Bradbury, Care Coordination Project Lead, OeHI
- Dr. Arthur Davidson, OeHI Care Coordination Community Engagement Task Force
- Bryan Trujillo, OeHI Care Coordination Community Engagement Task Force

This guidance document was created in collaboration between the Colorado Health Institute, the Colorado Office of eHealth Innovation (OeHI), the eHealth Commission and the OeHI Care Coordination Community Engagement Task Force, in support of the Colorado Health Information Technology (IT) Roadmap. Colorado's Health IT Roadmap defines strategic initiatives to close the gaps in health care for patients and providers. OeHI is responsible for defining, maintaining, and evolving Colorado's Health IT strategy concerning care coordination, data access, health care integration, payment reform, and care delivery. This document aims to provide organizations who are newer to social needs screening with a road map for integrating screening into their EHRs, adopting strategies for screening, and aligning their screening efforts with a statewide initiative to coordinate data sharing and promote social health information exchange (S-HIE).

Introduction

What Are Social Determinants of Health?

Social determinants of health 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

Unmet needs for social determinants like housing, food, and a livable income contribute to poorer health for many Coloradans. This can have a clear impact on health. For instance, among Colorado residents reporting unstable housing, nearly half report poor general (44.1%), mental (45.8%), and oral health (46.8%) — nearly four times the rate of those with stable housing.²

Having access to stable housing and healthy food can support better health. Social needs like these are exacerbated in crisis situations, like the COVID-19 pandemic, when people experiencing these disparities face even greater barriers to protecting their health.

Why Screen for Social Determinants of Health?

Health care providers are recognizing the value of addressing social determinants in order to improve their patients' health. More than two-thirds of health care organizations nationally report that they screen populations for social determinants as part of their ongoing care management.³ The most common approach is to refer people with needs in these areas to community-based services that can help directly or provide guidance on where to go for assistance.⁴

Health care organizations are also increasingly held responsible for health outcomes and asked to monitor social determinants of health. Public and private insurers are requiring health care organizations to practice whole-person health care and basing some payments on demonstrated value and positive health outcomes rather than on the number of services performed. For example, value-based payment programs like Colorado's

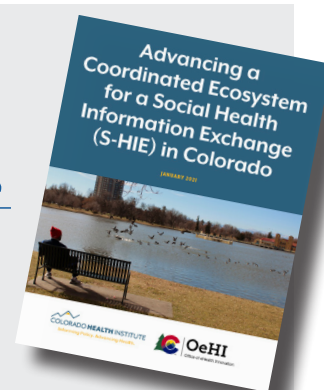
[Hospital Transformation Program](#) (HTP) require that hospitals implement quality-based initiatives and demonstrate meaningful community engagement and improvements in health outcomes over time in order to be eligible for payments. As part of the HTP, hospitals will receive payments based on their performance on key measures, including demonstrating that Medicaid enrollees are formally screened for at least five core social needs during or within 12 months of admission.

Who Is This Guidance Document Intended For?

This document is intended for health care providers (such as community health centers, independent practices, health systems, and community mental health centers) interested in screening for social determinants of health and documenting the results in an electronic health record, or EHR. In Colorado, practices and systems across the state are asking their patients about social needs and are starting to implement effective screening systems. This document aims to provide organizations who are newer to social needs screening with a road map for integrating screening into their EHRs, adopting strategies for screening, and aligning their screening efforts with a statewide initiative to coordinate data sharing and promote social health information exchange (S-HIE) (See breakout box).

This is part of a series of guidance documents produced by the Office of eHealth Information and the Colorado Health Institute to inform coordination of S-HIE efforts in Colorado.

[For more information on OeHI's Care Coordination efforts, click here.](#)



What Is S-HIE?

Social health information exchange: A social health information exchange, or S-HIE, is a coordinated system that uses technology and other tools to allow health care and social determinants-focused providers to share data and information about services needed and accessed by their patients or clients. The overall purpose of a S-HIE system is to allow multiple providers to screen, assess, and refer clients to resources; ensure that clients access those resources; provide case management (when applicable); and evaluate the impact of resources on health and well-being and the return on investment across systems. Data sharing via the S-HIE involves exchanging patient information with organizations that may not be part of the same health system or do not use the same EHR or even use an EHR currently. A S-HIE system can capture individual and aggregated data which can be shared and used to create workflows that allow providers to efficiently interact around identified needs.

Goals of This Guidance Document

1. *Provide a Rationale for Standardizing Screening Guidance Within an EHR.*
2. *Share Strategies for Integrating Screening into Practice Workflows.*
3. *Identify Key Considerations for Adopting Screening.*
4. *Describe How to Lay the Foundation for Aligning Screening Between S-HIE Initiatives Statewide.*
5. *Provide Examples of Common Screening Tools.*

Why Coordinate Social-Needs Screening in Colorado?

To promote efficiency when assisting Coloradans in accessing needed services and supports.

As community health providers look to integrate social determinants of health screening into their practices and EHRs, either for the first time or building on their current efforts, it is important that patients are assessed in a standardized fashion across practices. Providing established best practices for screening can create efficiencies for providers to better identify a patient's needs and connect them to appropriate services. This in turn will improve the health of individuals and families.

To strengthen the effectiveness of screening.

Using best practices for social determinants of health screening helps reduce duplication of screening, especially in early phases of integrating screening into practice workflows. Screening duplication from multiple sources is not only an ineffective use of time and resources; it can lead to some patients receiving redundant care coordination while others receive none.

To promote the use of validated screening tools and questions.

All practices implementing social determinants of health screening should have the goal of interoperability in mind; that is, they should aim to set up their systems so that screening data can be shared so action can be taken to connect patients with services. Practices currently use different screening tools, ranging from free text (i.e. a physician's note or a nurse's written documentation) to validated and codified (structured data) screening questions in an EHR. Although some organizations develop and validate their own questions, it would be more efficient to adopt screening tools that have already been validated and codified. Using validated and codified tools ensures evidence-based and tested questions are being asked and to promotes interoperability.



To enable population health measurement and planning with social determinants of health data.

Social determinants screening can provide aggregated data across health care entities to help determine the needs of specific communities and populations, inform and evaluate a practice's impact on improving social determinants for its patients, and inform quality improvement for a practice. Screening data can help a practice evaluate the impact of its social determinants of health strategy and specific interventions it is implementing. As practices statewide move toward alignment of interoperable social determinants data sharing, these efforts can provide actionable insights to support statewide population health planning.

Considerations for Practices Implementing EHR-Based Social-Needs Screening

1. Consider aligning screening efforts with statewide initiatives

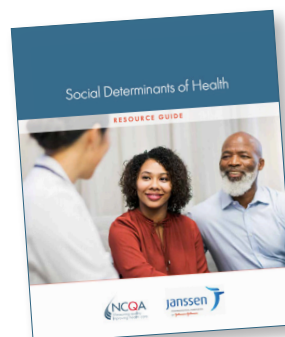
Payers are increasingly requiring providers to practice whole-person health care and demonstrate value and positive health outcomes.⁵ Value-based payment programs like the Alternative Payment Model (APM) and hospital-based programs like HTP – both part of Health First Colorado (Colorado's Medicaid program) – which include incentives based on health outcomes rather than on the number of services provided, create opportunities to move this approach forward. Recent increases in payment incentives through HTP and APM reward health care organizations for adopting strategies that

address the social determinants of health needs of Medicare and Medicaid recipients.

2. Consider how information is going to be collected, shared, stored, and governed

When adopting screening into a workflow, it is important to consider how screening data will be collected, shared, stored, and governed. Collection methods can vary, depending on an organization's staff, capacity, community characteristics, and whether the screening tool fits into the workflow. And screening can happen in many places and by many means, including in person, remotely by phone, through patient questionnaires, or via digital forms via kiosks, tablets, or phone, and web applications.

Practices should consider the needs of their community, offering tools in multiple languages and adopting other strategies that ensure accessibility. Practices can also take steps to help patients feel comfortable answering screening questions truthfully. Self-administered screening can often address this challenge by giving patients more privacy and agency to choose how and where they provide information.



For more information on considerations for practices implementing EHR-based social needs screening, review the National Committee for Quality Assurance's (NCQA) "[Social Determinants of Health Resource Guide.](#)"

Organizations interested in sharing screening data through a coordinated S-HIE must consider privacy and interoperability issues. Privacy can be addressed through establishing clear data-sharing agreements with external organizations. Interoperability can be addressed through using validated and codified screening questions in use by other S-HIE users.

Organizations should consider reviewing all relevant privacy and consent laws including but not limited to Health Insurance Portability and Accountability Act (HIPAA) requirements for sharing Protected Health Information (PHI). Federal compliance regulations that govern the use of personally identifiable information (PII) should also be considered when establishing policies for governing the types and ways that information can be exchanged.

3. Consider local resource availability

Practices should scan the local resource landscape when choosing what questions and screening tools to use in their community. It is most useful to ask a patient if rent assistance or a food bank would help them if those resources are actually available. However, screening for social needs also allows practices to synthesize data to assess needs in the community. It also allows practices to make a care plan for addressing physical health needs for patients, regardless of if a need can be met. It is an important tool for providing whole person care as well as for pointing to unmet needs and securing resources to address them.

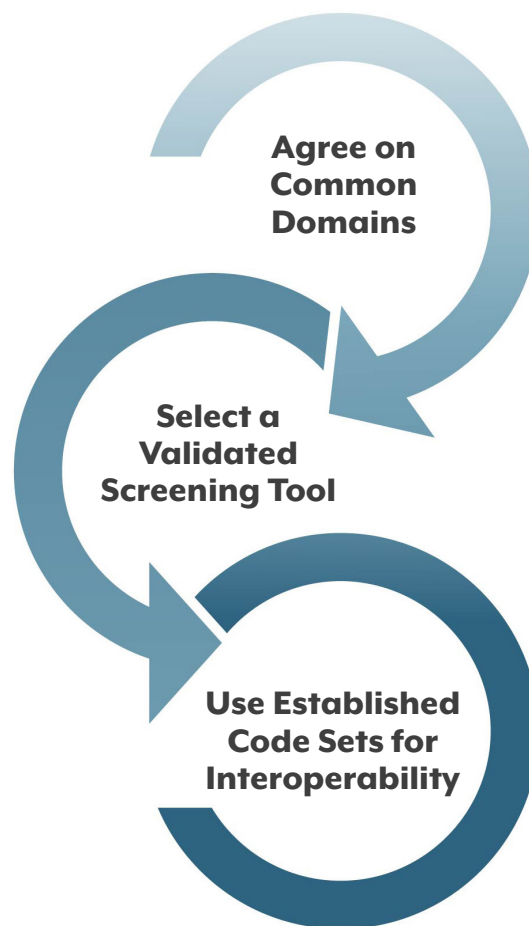
Laying the Foundation for Sharing Screening Data

As more practices, hospitals, and providers in clinical settings begin screening for social determinants of health, it is important to begin laying the foundation to share these data statewide. To build toward the goal of aligned, sharable results of screening that are interoperable between all providers, three foundational steps must take place:

First, practices should agree on what **common domains** will be assessed based on community need.

To build an effective, patient-oriented screening

Figure 1. Measuring Implementation of Screening



process, practices must agree first on what domains are most important to assess (screen for). A domain is an area that captures a social or behavioral determinant of health status. For example, the Accountable Health Communities' Health-Related Social Needs Screening [Tool](#) includes the domains of housing instability, food insecurity, transportation problems, utility needs, and interpersonal safety. These are the five domains required by HTP as well. Other screening tools tend to have similar domains. Practices should select domains based on community need (as identified through engagement and assessment) and to facilitate their participation in programs like HTP or other value-based payment opportunities.

Second, practices must **select an established screening tool** with relevant questions.

While community health providers may develop their own screening questions and screening tools, they do not need to start from scratch. Using



existing, established screening questions and tools can save time and ensure more accurate responses. Many EHR vendors have integrated social determinants screening modules built into their systems with validated screening questions. The National Committee for Quality Assurance ([NCQA](#)) — an organization that works to improve health care quality through evidence-based standards and measures — recommends that organizations adapt pre-validated social determinants of health screening tools and tailor them to include questions that are relevant to their communities.

Finally, practices should **use established code sets** for screening questions **to be interoperable**.

Once a practice has chosen screening tools, the next step is to start using established codes to make data from the screenings interoperable across different health systems and EHRs. Both practices and the health information technology (HIT) industry alike have roles in making this happen.

There are several systems practices can use to help make data collected for risk factors interoperable. [Logical Observation Identifiers Names and Codes](#) (LOINC), universal standards for identifying clinical information, support interoperable data exchange for practices and their partners by providing a common language (standardized, discrete variables) for screening data across EHRs. Practices should consider aligning their screening data to LOINC within their EHRs so that other providers and partners can know a patient's social needs regardless of the screening tool being used within a specific practice.

Practices can also use [Z codes](#) – ICD-10 codes that include social needs and non-medical factors

that influence health. Z codes are assigned based on the data collected in a screening tool. Even though they are already available for use, many hospitals and health providers have not widely adopted them. This is likely due to lack of clarity about who can document a patient's social needs, an absence of operational processes for documenting and coding social needs, and general unfamiliarity with Z codes.⁶ Practices should consider adopting these codes into their screening workflows so patients' needs are clearly documented in a standardized way and used and shared within an EHR similar to other medical diagnoses. Z codes can also assist with identifying population-level trends in social needs.

Interoperability of social risk factors across EHRs is still an area in development. One national initiative called [the Gravity Project](#) aims to standardize codes and facilitate the use of this data in patient care. The Gravity Project has completed developing standards for three focused domains: food insecurity, housing instability and quality, and transportation access. The Gravity Project aims to create practical use cases and recommendations for how to document social determinants data across EHRs. It has also developed recommendations for grouping these data elements for interoperable electronic exchange and aggregation. Health care organizations and partners interested in S-HIE work in Colorado can build on this important work by adopting the standards developed by the Gravity Project as groups start to coordinate best practices around screening for the social determinants of health.

The adoption of consistent codes will take time. When social risk factors are coded in the EHR in a standardized way, practices can share screening assessment data to refer patients to services to address whatever social needs they have, supporting better health.

Integrating Screening Into Practice Workflows

Screening for social determinants varies from practice to practice. Some practices have fully integrated screening into their workflows, and some are just getting started. This section provides key guidance on how practices can adopt EHR-based screening for social determinants of health into their day-to-day routines.

Practices can consider six key steps, adapted from a U.S. Centers for Disease Control guidance document for screening in another area:⁷ Lay the groundwork for screening, get organizational commitment and buy-in, plan for screening, establish referral procedures, orient and train staff, pilot test the screener and measure implementation.

1. Lay the groundwork for screening

Implementing a new screening tool into a practice workflow can require changes in staff routines, job descriptions, administrative procedures and more. As with any changes in a workplace, staff will have questions. Experts advise that practices share the rationale for implementing new screening, educate staff on the importance of social determinants of health and why screening matters and identify and communicate goals for screening and for which social determinants the organization plans to screen.

2. Get organizational commitment and buy-in

Integrating screening into a practice's workflow requires both a firm commitment from leadership and the communication of that commitment to staff. Before planning for screening, it is important to determine if the practice is committed and ready to undertake a new care coordination process. Getting commitment from leadership is also key as integrating a new screener into a practice may require financial, staffing, and other resources. Socializing the importance of social needs screening within a practice is important as well. To ensure successful adoption, staff must embrace and champion screening in the interest of improving the process of addressing patient needs.

3. Plan for screening

When the practice is ready to move ahead, create a planning team made up of staff members who would be involved in implementing the screening protocol. This can include staff who would perform the screening and those who might handle medical records or patient data. The following are key questions to consider:

1. Who will be screened, how often, and where?
2. What screening tool(s) will be used (for example: PRAPARE, AHC, etc.)? (See Appendix for examples)
3. Who on staff will screen?
4. How will data be transferred into the EHR (if not using EHR-based screening tools)?
5. Where will screening information and data be stored and managed?
6. What happens if/when patients screen positive/negative?
7. If a patient screens positive (for example: they are experiencing homelessness), how will follow up take place?

4. Establish referral procedures

Once planning is underway, it is important to establish procedures for referring patients to services that address their needs. To do so, three key steps must take place:

1. Determine how and when referral to services will be delivered to the patient and how that information will be communicated to the patient.
2. Determine if there are existing community resources and identify if there are gaps in services. It is important to know right away if there is a place to send patients with given needs. In cases where appropriate resources are not available, it is still valuable to screen to track the identified need.
3. Determine whether the referral will be open (outbound only) – where the practice will send the patient to an outside resource, or closed-loop (two-way) – where communication occurs between the practice and the resource to ensure the patient had their needs met.

5. Orient and train staff

As with introducing any new task or duty into a practice’s workflow, orientation and staff training are important to ensure screening is properly administered through or included in the EHR.

1. Orient all staff to the social determinants of health being screened for and the tool being used. Determine what staff members need to know about using the screening tool(s) and the social determinants being screened for.
2. Train staff on how to conduct the screening, ensuring that it is clear who will conduct the screening, how patients will be referred, and how to manage information documented in the EHR.
3. Ensure equity, cultural considerations, and accessibility are integrated into how staff screen patients in the community. Screening should be considerate of the patients’ identity – including but not limited to their race, ethnicity, age, gender, sex, sexual orientation, and ability.

6. Pilot test the screener and measure implementation

Before fully implementing a screening tool into a practice workflow, pilot the tool to prepare and look for potential improvements. The following are key considerations for process refinement during the piloting of the screener:

1. Determine the time it takes to screen. Have staff time themselves to gauge the time and resources necessary to screen patients under different scenarios.
2. Solicit input from staff and patients on improvements. Identify what is working well and what is not in the screening workflow. Communicate any changes to staff and encourage process refinement.
3. During the pilot phase of screening, consider tracking the measures in Table 1.⁸ Establish internal metrics to gauge success.
4. Ensure screening practices are sustained and evolve as improvements are made in the workflow.

Table 1. Measuring Implementation of Screening⁹

Measurement	Description
Number of Patients in Target Population	This is the number of people who, according to the practice’s plan, should be screened.
Percentage Screened	The number of patients who are screened divided by the number in the target population is the percentage of patients screened. This is a good measure of the effectiveness (coverage) of a screening system. Set a realistic goal to start, perhaps 80%, and work toward it.
Number and Percentage who Screen positive	The percentage of screened patients deemed positive (i.e., the number positive divided by the number screened) is important in communicating to staff and administrators about the size of the problem and the number of patients needing help.
Percentage of Positive Referred to Services	The number of patients who received referrals to services divided by the number who screen positive will measure the practice’s effectiveness in getting help to those who need it.

Conclusion

As more community health providers adopt screening for social determinants of health into their practice workflows, it is important they do so in a way that lays the foundation for sharing screening data across projects. Many of these practices are still early in the journey of screening for social needs, working with community partners to connect patients to services, and being able

to share screening information across projects. This screening guidance document is one of many ongoing efforts to standardize the screening and sharing of social determinants of health data to facilitate interoperable information exchange between practices and organizations. The ultimate goal is to improve the health of Coloradans by connecting them to social services that can help support their health and well-being.

Endnotes

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- ⁹ U.S. Centers for Disease Control and Prevention. (2014). Planning and Implementing Screening and Brief Intervention for Risky Alcohol Use: A Step-by-Step Guide for Primary Care Practices. Available at: <https://www.cdc.gov/ncbddd/fasd/documents/AlcoholSBImplementationGuide-P.pdf>

Appendix: Common Screening Tools

There are many [screening tools used in EHRs](#), and agencies should have flexibility to select one that meets their needs while also being standardized and aligned. The intent of this appendix is to offer examples of some commonly used standardized screening tools.

The following tables include summaries of common screening tools, common domains

which should be included in every screening, supplemental domains which are optional to screen, and links to the additional resources related to the tools. Additionally, the Gravity Project has useful [educational and instructional materials](#) that can assist organizations interested in carrying out screening for the social determinants of health.

Accountable Health Communities Health-Related Social Needs Screening Tool (AHC HRSN)	
Summary:	<p>AHC HRSN is a standardized screening tool developed by the Centers for Medicare & Medicaid Services used in the Accountable Health Communities Model. The tool is designed to be simple and readily understandable by a broad audience across a variety of practice settings. To achieve this ease of use, the tool is offered in multiple languages and can be administered in a variety of formats, including electronic, paper-based, and self-administered.</p> <p>The tool is 10 questions long and designed to identify unmet needs across five core domains and eight supplemental domains addressed in the AHC Model.</p>
Domains:	<ul style="list-style-type: none"> • Housing instability • Food insecurity • Transportation problems • Utility help needs • Interpersonal safety
Supplemental Domains:	<ul style="list-style-type: none"> • Financial strain • Employment • Family and community support • Education • Physical activity • Substance use • Mental health • Disabilities
Link to Tool:	https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf
Link to Additional Resource:	https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-Clinical-Settings.pdf

EPIC Social Determinants of Health Wheel

Summary:	<p>EPIC is an electronic health record software that helps clinicians capture social determinant of health risk factors across 10 domains. It also gives organizations the option to add supplemental domains.</p> <p>EPIC built a “wheel” into their platform which makes visualizing and using social determinants of health information easier for the clinician. Based on patient answers, panels of the wheels turn colors to indicate risk within a particular measure.</p>
Domains:	<ul style="list-style-type: none"> • Financial resource strain • Transportation needs • Alcohol use • Depression • Intimate partner violence • Social connections • Physical activity • Tobacco use • Stress • Food insecurity
Supplemental Domains:	<p><i>Organizations can add additional supplemental measures</i></p>
Link to Tool:	<p>Note: EPIC tools are customer specific for health care organizations. If interested in learning more about EPIC, connect with the Healthy Planet Analyst within your organization.</p>
Link to Additional Resource:	<p>https://www.sfdph.org/dph/files/wpcfiles/Epic_Coordinated_Care_Management.pdf</p>

Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)

<p>Summary:</p>	<p>The PRAPARE is a standardized patient risk assessment tool and protocol that focuses on measures that are actionable. It was developed by community health providers and has been adopted across the continuum of care. PRAPARE includes a set of validated questions that can be selected based on a user's priorities. Electronic health record templates of the PRAPARE tool exist for a number of popular EHR programs, including eClinicalWorks, Cerner, Epic, athenaPractice, and NextGen.</p> <p>PRAPARE aligns with national initiatives prioritizing social determinants.</p> <p>It consists of a set of national core domains as well as a process for addressing social determinants at both the patient and population levels. It has also been translated into 26 languages, creating greater accessibility for communities.</p>
<p>Domains:</p>	<ul style="list-style-type: none"> • Race • Education • Ethnicity • Employment • Migrant and/or seasonal farm work • Insurance • Veteran status • Income • Language • Material security • Housing status • Transportation • Housing stability • Social integration and support • Address/neighborhood • Stress
<p>Supplemental Domains:</p>	<ul style="list-style-type: none"> • Incarceration history • Safety • Refugee status • Domestic violence
<p>Link to Tool:</p>	<p>https://www.nachc.org/research-and-data/prapare/about-the-prapare-assessment-tool/</p>
<p>Link to Implementation and Action Toolkit:</p>	<p>https://www.nachc.org/wp-content/uploads/2020/08/NACHC_PRAPARE_ALL-Updated-8.24.20.pdf</p>



1999 Broadway, Suite 600, Denver, CO 80202 • 303.831.4200
coloradohealthinstitute.org

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