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 Department of Health Care Policy & Financing
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RY- Department IT Capital Construction Project: CC-IT-03 OeHI Social Health Information Exchange (SHIE) - Prescriber Tool Phase II

Summary of Request	Total Funds	CCF-IT	Cash Funds	Reappropriated Funds	Federal Funds
FY 2024-25	\$11,031,650	\$1,539,359	\$0	\$0	\$9,492,291
FY 2025-26	\$8,139,343	\$1,203,920	\$0	\$0	\$6,935,423
FY 2026-27	\$4,049,989	\$743,838	\$0	\$0	\$3,306,151

Categories of IT Capital Projects

System Replacement (costs escalating, failing technology, software or vendor support ended, or new technology, e.g., DRIVES, CHATS)	System Enhancement Regulatory Compliance (new functionality, improved process or functionality, new demand from citizens, regulatory compliance, e.g, CBMS)	Tangible Savings Process Improvement (conscious effort to reduce or avoid costs, improve efficiency, e.g., LEAN, back office automation)	Citizen Demand “The Ways Things Are” (transformative nature of technology, meet the citizens where they are, e.g., pay online, mobile access)
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Request Summary

The Office of eHealth Innovation (OeHI), in partnership with the Department of Health Care Policy and Financing (HCPF), the Office of the Lieutenant Governor, and the Behavioral Health Administration (BHA) requests \$11,031,650 total funds, including \$1,539,359 in Capital Construction Funds (CCF), and 5.5 HCPF FTE, and 2.0 Office of Information Technology (OIT) FTE in FY 2024-25; \$8,139,341 total funds, including \$1,203,918 CF, and 5.5 HCPF FTE, and 2.0 OIT FTE in FY 2025-26; and \$4,049,989 total funds, including \$743,838 CF, and 5.5 HCPF FTE, and 2.0 OIT FTE in FY 2026-27 to support the continued expansion and implementation of a technical infrastructure that enables prescribers and community partners to facilitate access to health improvement supports and Social Health information Exchange (SHIE). NOTE: The name of this technology infrastructure will evolve, as the term SHIE doesn't fully capture the comprehensive nature of this infrastructure innovation. Others may recognize this budget request as Prescriber Tool Phase II, as has been referenced in a number of strategic documents and presentations.

This request directly addresses efforts to improve member health, close disparities, and improve affordability by:

- Enabling clinicians to prescribe health improvement programs to Medicaid members provided through Regional Accountable Entities today (as well newly evolving programs in the future) to improve member health and outcomes and prevent disease escalation thereby improving affordability (e.g., prenatal programs, diabetes management, nutritional counseling, living healthy classes like weight management, healthy eating, tobacco cessation and more).
- Enable clinicians to prescribe - and vendor/community partners to better coordinate, provide access to and deliver - social determinants of health support programs like SNAP or WIC to Medicaid members. This advances Colorado's ability to support whole person care and support, while improving member health and outcomes, closing disparities, and improving affordability.
- Enable provider access to innovative tools that help them improve quality care and outcomes, close disparities, and improve affordability thereby achieving these critical shared goals associated with Medicaid's approved value-based payment models (e.g., maternity bundle, hospital transformation program payments and APM2 primary care).

Ultimately, this system will facilitate assessments and referrals for members to improve the ease of connecting members to public benefits programs (e.g., Supplemental Nutrition Assistance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants and Children (WIC), housing assistance, etc.), health improvement programs (diabetes management, prenatal supports, etc.) and community-based services as well (homeless shelters, foodbanks, etc.). This request directly supports the Governor's quest to save people money on health care, facilitate behavioral health transformation, ease access to public programs that support Coloradans in need, propel the health system's payment system from volume to value (value-based payments) and propel the Wildly Important Goals (WIGs) set forth by the Governor's Working Group on Health and Governor's Working Group on Homelessness.

This request is for continuation of the project after being initially developed through a \$15,000,000 Home and Community-Based Services (HCBS) cash fund investment.

Project Description

The Department's request falls under the *Citizen Demand* category. The Department is requesting funding in response to increased data indicating that effective social care delivery has significant impacts on individuals' health and the cost of their care. Currently, the provision of social care services and health improvement programs is fragmented and burdensome to providers and care coordinators. In alignment with the Department's quest for health improvement and better outcomes, closing disparities, improving whole person care, and reducing health care costs, this request will build upon existing architecture and serve as a "network of networks," connecting technology platforms used by Community Based Organization (CBOs), physical and behavioral healthcare providers, RAEs, and other organizations that deliver quality care and community supports to Coloradans.

To ensure that individuals with diverse needs are served by SHIE, HCPF and OeHI identified the need for a two-pronged hub-and-spoke approach to implementation: one focused on statewide data sharing and large-scale infrastructure (the hub) and one focused on the needs of individual communities (the spokes). A regional approach to SHIE allows communities and CBOs to leverage existing relationships and investments and enable access to the programs and supports available to individuals through Medicaid and through their local communities, creating momentum and engagement that can support other use cases as the infrastructure grows and matures. Key activities that will be pursued as a component of this request include:

- ***Statewide Unifying Architecture:*** Continued implementation and expansion of the flexible data sharing ecosystem that facilitates technical connectivity between SHIE users such as Regional Accountable Entities (RAEs)/Managed Care Organizations (MCOs), Colorado's Health Information Exchanges (HIEs), behavioral health providers, CBOs, state agencies, and other organizations that deliver whole-person care to Coloradans.
- ***Data Governance:*** Implementation of a formal data governance structure to ensure equitable, community-led decision-making that supports the SHIE priorities and needs of all Coloradans. Governance will support the processes and procedures that govern the onboarding of health improvement and social data into SHIE and ensure that CBOs can access and utilize clinical data, where appropriate, and send standardized referrals to clinical and non-clinical partners.
- ***Consent Management:*** Development and expansion of an integrated consent management solution to ensure Coloradans' consent to share data in the SHIE ecosystem is appropriately obtained and freely given. Consent management is critical to the secure transfer of information within the SHIE model and is especially critical for communities that have historically been disenfranchised who may experience high levels of distrust with the medical system and government. Current systems lack the tools needed to not only properly manage and track client consent, but to store and share data appropriately based on federal and state regulations.
- ***Resource Directory:*** One of the essential tenets of effective SHIE is real-time access to accurate, updated information for health care providers. Today, this resource information is fragmented across multiple systems, and physical and behavioral provider data is stored separately from community resources, while providers are often unaware of programs and supports available to their patients. OeHI intends to leverage and expand upon existing work by the Behavioral Health Administration (BHA) to improve the accuracy, consistency, and availability of resource information. This initiative will ensure data surfaced by state agencies is consistent and ensure that CBOs and providers need only update their facility and service information in one location.
- ***Expansion of Regional Investments:*** Building upon regional priorities and successes is critical to increasing uptake and buy-in of SHIE data sharing. This component of the SHIE funds community-driven infrastructure development, which aims to leverage existing

networks and innovations for social care data sharing within communities across Colorado. The goal of this component is to ensure the systems and health improvement support programs most often used by regional organizations including RAEs/MCOs, safety-net health systems, and CBOs who support members are prioritized for SHIE integration. The requested funding would expand across additional regions and use cases to ensure continued SHIE technical infrastructure is developed in a way that prioritizes and reflects the diversity of needs and experiences of Coloradans.

SHIE efforts are well aligned with a number of other initiatives across the state and nation, including the [BHA's 2023-25 Strategic Plan](#)¹, the 2025 launch of the next iteration of Colorado's Accountable Care Collaborative (ACC), the advances and uptake of the Prescriber Tool (already used by 47% of Medicaid prescribers), the evolution into Value Based Payments that reward quality improvement, closing disparities, and affordability. It further aligns with the federal government's investments into both a healthcare-oriented data fusion center and the Office of the National Coordinator for Health IT (ONC)'s rollout of the Trusted Exchange Framework and Common Agreement (TEFCA) model to update and further integrate our national HIE infrastructure.

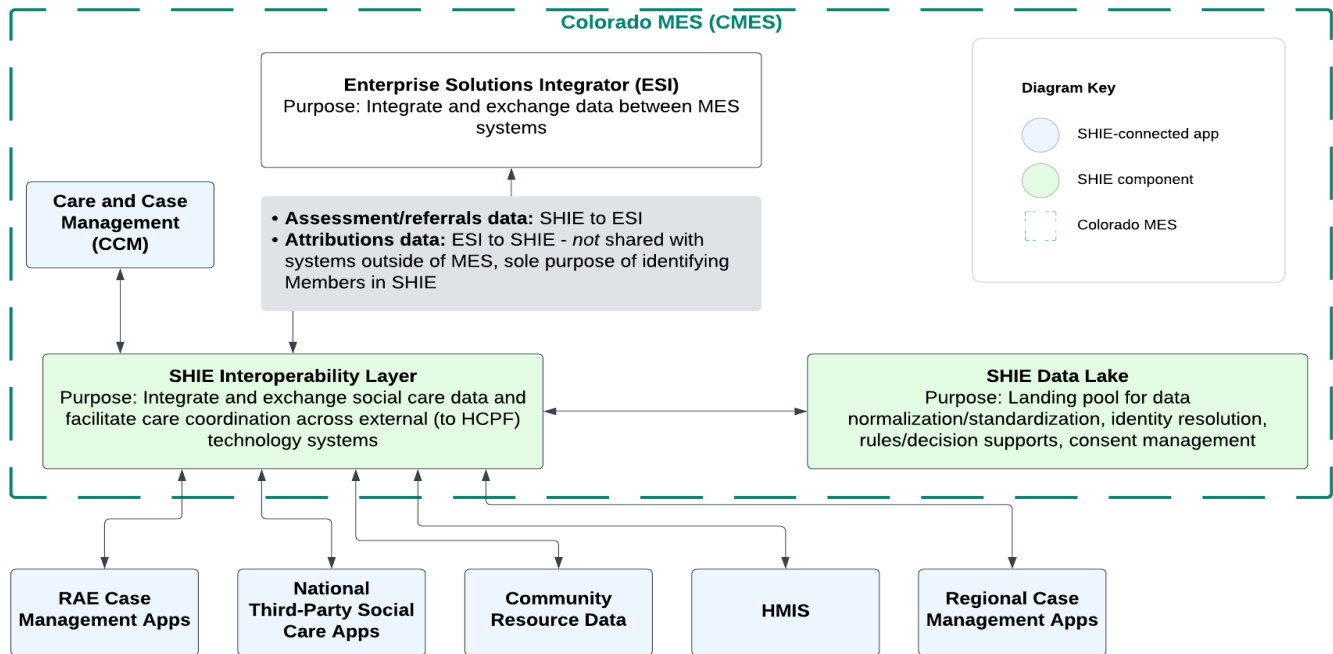
With the guidance of the eHealth Commission, OeHI's SHIE approach is the result of several years of consultation and collaboration with other state agencies and community partners, including HCPF, the BHA, Colorado Department of Human Services (CDHS), Colorado Department of Public Health and Environment (CDPHE), Colorado Department Of Corrections (CDOC), Local Public Health Agencies (LPHAs), CBOs, clinicians, and other stakeholders to build on successes and lessons learned, and to avoid duplicative efforts across the complex social care landscape. OeHI will continue to leverage the partnerships it has built with other state agencies and community partners to ensure the SHIE evolves to meet the needs of the continually changing state health IT landscape. Colorado is the first state to have approval from CMS to build SHIE within a state's Medicaid Enterprise Systems (MES) framework and leads the nation in leveraging technology to improve access to health improvement programs and social care services.

Systems Integration Opportunities

The Social Health Information Exchange (SHIE) infrastructure, procured through the SHIE Invitation to Negotiate, is designed to be an MES module that can be fully integrated into the MES landscape, as shown in the figure below. SHIE will act as an integrator to bridge the gap between third-party social care platforms outside of the secure MES, and other MES and state systems. It will integrate with the Department's Care and Case Management (CCM) tool to exchange assessments and referral data between CCM, and the tools used by the RAEs. Since Medicaid members with complex needs may interface with a number of case management agencies, care coordinators, and community-based service providers, SHIE provides the ability to interoperate any number of external systems to facilitate seamless care coordination services

¹ https://drive.google.com/file/d/1EXZHhWtgoL_E7kp7g0gJ0QJOW33bqdSd/view

without directly interfacing these systems with sensitive MES systems. This allows SHIE to maximize data exchange and RAE program access functionality, without introducing unnecessary security risks.



Risks and Constraints

Funding through the HCBS cash fund in FY 2022-23 initiated an unprecedented opportunity to build an interoperable SHIE ecosystem intended to transform our care delivery and member health improvement support model. The development of SHIE has been a primary goal of OeHI since the first Health IT Roadmap was launched in FY 2017-18, with OeHI and HCPF making incremental progress with our state-designated Health Information Exchanges (HIEs) and community partners. It has also been a core component of HCPF’s care delivery vision and strategy since 2018, known as Prescriber Tool Phase II. (Note that Phase I of the Prescriber Tool, which included two parts: Opioid Module and Affordability Module), is already active, operational, and successfully achieving its quality improvement and affordability goals. Funding through HCBS cash fund has allowed OeHI and HCPF to harness lessons learned from previous projects to develop a meaningful approach to leverage existing community efforts across Colorado. This funding would ensure that expanded development continues after the HCBS cash fund has expired on September 30, 2024.

Operating Budget Impact

At this time, the Department is not submitting an additional maintenance and operations (M&O) budget request because the procurement process for the SHIE is ongoing; although estimates have been secured for ongoing funding as a part of the negotiations process, the Department will gather significant additional information about the scope and scale of M&O after the contract has been executed and the discovery process has begun, within the first year of implementation. The Department plans to submit an M&O request in a future budget cycle.

Background of Problem or Opportunity

Research has demonstrated that social determinants of health (SDoH), defined by the World Health Organization (WHO) as 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,” more significantly impact an individual’s health than direct medical care. Current estimates by the US Department of Health and Human Services estimate that nationally, SDoH are more than twice as impactful on health outcomes than clinical care.² SDoH factors affect communities differently, and people of color, those living in rural areas, LGBTQ+ individuals, and individuals with disabilities are most impacted. Structural inequities are recognized as key SDoH factors themselves³, and individuals from these communities experience worse health outcomes when all other factors are held constant. SDoH factors build upon one another and worsen an individual’s health and wellbeing over time. For example, redlining, a common racially discriminatory housing policy in the mid-20th century, enforced the housing of communities of color in neighborhoods considered “undesirable.” Redlining has resulted in the continued under-resourcing of these neighborhoods that have had significant impacts on residents’ health outcomes; historical redlining is strongly associated with poor stroke outcomes⁴, increased exposure to environmental pollutants⁵, asthma⁶, and poor HIV outcomes⁷, among others. Addressing SDoH while easing access to health improvement programs are critical to achieving Colorado’s goal of becoming one of the healthiest states in the nation.

Alongside direct investment in communities to improve the availability of services, technology supports more effective delivery of SDoH services and access to health improvements programs. CBOs that deliver a significant proportion of SDoH supportive services have historically been separate from the healthcare system and ineligible for associated investments from the state and federal government aimed at upgrading

² Whitman A, De Lew N, Chappel A, Aysola V, Zuckerman R, Sommers B. “Addressing Social Determinants of Health: Examples of Successful Evidence-Based Strategies and Current Federal Efforts.” Department of Health and Human Services, Office of Health Policy Report. 2022 Apr. [Link](#).

³ Johnson T. “Intersection of Bias, Structural Racism, and Social Determinants with Health Care Inequities.” *Pediatrics*. 2020 Aug, 146:2. [Link](#).

⁴ Jadov B, Hu L, Zou J. “Historical Redlining, Social Determinants of Health, and Stroke Prevalence in Communities in New York City.” *JAMA Network Open*. 2023 Apr, 6:4. [Link](#).

⁵ Mehdipanah R, McVay K, Shulz A. “Historic Redlining Practices and Contemporary Determinants of Health in the Detroit Metropolitan Area.” *American Journal of Public Health*. 2023 Jan. [Link](#).

⁶ Jones B, Hoffman M, Kane N. “‘Redlining’ to ‘Hot Spots’: The Impacts of a Continued Legacy of Structural and Institutional Racism and Bias on Asthma in Children.” *The Journal of Allergy and Clinical Immunology In Practice*. 2022 Apr, 10:4. [Link](#).

⁷ Logan J, Crepaz N, Luo F, Dong X, Gant Z, Ertl A, Girod C, Patel N, Jin C, Balaji A, Sweeney P. “HIV Care Outcomes in Relation to Racial Redlining and Structural Factors Affecting Medical Care Access Among Black and White Persons Living with Diagnosed HIV.” *AIDS and Behavior*. 2022 Mar, 26. [Link](#).

technology⁸. Concurrently, providers most often don't have optics into the health improvement support programs available to their patients, which is contradictory to evolving value-based payment models, our quest to improve health and close disparities while also improving affordability. Today, CBOs vary significantly in technology access and capacity, and organizations that serve historically marginalized communities often have the most significant gaps in connectivity and technology⁹. Concurrently, provider access to electronic medical/health records (EMR/EHR) has significantly expanded, creating new opportunities to leverage, as is the case with the Prescriber Tool Phase I, which enables access to information like the Opioid Model and the Affordability Module through the EHR/EMR. An effective, connected SHIE has the opportunity to address the following problems:

For individual Coloradans:

- Lack of connection between systems leads to two opposing challenges: some Coloradans receive duplicative screening and services, while others do not receive any. Coloradans may need to repeat their personal and health history information or restate traumatic experiences repeatedly to different organizations before they receive the help they need, while others may never receive help.
- Coloradans may have difficulty understanding what resources and health improvement programs are available in our fragmented systems. They may know what their needs are, but may not be aware that resources exist in their communities or health improvement programs are available under their insurance coverage program to support them, leading to further gaps in care, poor health outcomes and increases in costs.

For healthcare teams:

- Providers lack the information they need to deliver effective care, leading to duplicative or missed screenings, costing additional money, and draining already-overtaxed resources.
- Providers who have adopted a social care or referrals platform into their workflow frequently lack the ability to connect with other systems. This requires providers to access multiple uncoordinated tools or follow manual, time-consuming, and unrealistic processes to understand their patients' needs¹⁰.
- Providers understand and value the importance of programs that address a member's health and health disparities as an alternative or in conjunction with prescribing medication but are often unaware of the resources and programs that exist in communities or within the patient's health plan. They may also be unaware or unable

⁸ Roels N, Estrella A, Maldonado-Salcedo M, Rapp R, Hansen H, Hardon A. "Confident futures: Community-based organizations as first responders and agents of change in the face of the Covid-19 pandemic." *Social Science and Medicine*. 2022 Feb, 294. [Link](#).

⁹ Walker, E, McCarthy J. "Legitimacy, Strategy, and Resources in the Survival of Community-Based Organizations." *Social Problems*. 2010 Aug, 57:3. 315-40. [Link](#).

¹⁰ Bleacher H, Lyon C, Mims L, Cabuhar K, Begum A. "The Feasibility of Screening for Social Determinants of Health: Seven Lessons Learned." *Family Practice Management*. 2019 Oct, 26:5. [Link](#).

to leverage or access those resources and programs to improve their patients' health or mitigate disease exacerbation. SDoH programs may include support and advice on physical activity, loneliness, social networking, job hunting, housing, financial hardship, debt, learning new skills, legal issues, opportunities to participate in creative activities, and parenting¹¹. Health improvement programs may include diabetes management; nutrition counseling and support; prenatal high-risk screenings, education, and support; tobacco cessation and more to be developed as exists in commercial, such as Asthma, COPD, cardiac, lifestyle management programs like weight or stress management and resilience, etc.

- Utilizing the SHIE provides Medicaid providers the tools and technology to incorporate programs and supports that achieve our shared goals of improving patient health and outcomes, easing access to public support programs, closing disparities, and improving affordability. This enables Medicaid providers to earn the value-based payments designed to reward them for achieving these shared goals to the betterment of Medicaid members as well as the state's budget. The SHIE can be leveraged to promote programs that increase health outcomes and have related payments through HCPF's maternity bundle, hospital transform program payments, primary care APM2 and other value-based payments to providers.

For state and local government programs:

- State and local governments that provide funding for community services lack accurate information about resource utilization and true community need¹².
- As the largest health insurance payer in Colorado (serving 1 in 4 Coloradans), including many of our most vulnerable neighbors, Colorado's Medicaid program is operating under an increasingly strained budgetary landscape. Improvements to care coordination, health improvement program access and SDoH supports can position Health First Colorado to tackle health disparities, improve quality and reduce disease escalation, acute care, and emergency room visits, while better caring for those with chronic conditions.
- Public benefits programs (e.g., SNAP, WIC, housing assistance) are often underutilized^{13,14}. Eligible individuals may face barriers to enrollment, including difficulty attending required appointments, language barriers, and challenges navigating the enrollment and recertification processes¹⁵. Improvements to digital referrals can help care coordinators identify community supports that can streamline access to needed programs.

¹¹ Mofizul Islam M. "Social Prescribing - An effort to apply common knowledge: Impelling forces and challenges." *Frontiers in Public Health*. 2020 Nov, 9. [Link](#).

¹² Thorpe L, Chunara R, Roberts T, Pantaleo N, Irvine C, Conderino S, Li Y, Hsieh P, Gourevitch M, Levine S, Ofrane R, Sport B. "Building Public Health Surveillance 3.0: Emerging Timely Measures of Physical, Economic, and Social Environmental Conditions Affecting Health." *American Journal of Public Health*. 2022 Oct. [Link](#).

¹³ US Department of Agriculture. National and State Estimates of WIC Eligibility and Program Reach in 2020. [Link](#).

¹⁴ Center on Budget and Policy Priorities. "A Closer Look at Who Benefits from SNAP: State-by-State Fact Sheets - Colorado." 2023 Feb. [Link](#).

¹⁵ Code for America. "In Their Own Words: Parents Help Us Understand Barriers to Accessing WIC." 2022 Apr. [Link](#).

Justification

Colorado’s initiative is supported by CMS’ recognition of the critical importance of addressing SDoH as outlined in [State Health Official \(SHO\) letter # 21-001](#)¹⁶ and [State Medicaid Director \(SMD\) Letter #16-003](#),¹⁷ which both outline the need for SDoH and programs supports, and enable states to address challenges through the Medicaid program.

Extensive research has demonstrated the connection between unmet social needs and suboptimal health outcomes, such as cardiovascular disease¹⁸, childhood asthma¹⁹, and substance use disorder²⁰. Despite an acknowledgment of the need to address SDoH to improve patient outcomes, progress in integrating social services and health improvement supports with medical care has been slow from a technology perspective. Lack of data has been frequently cited as a barrier to the integration of social care into medical practices, as providers report [lack of optics] when it comes to addressing their clients’ social care needs, as they “lack data on both their patients’ social needs and the capabilities of potential community partners.”²¹ OeHI’s SHIE approach seeks to address this barrier by improving access to the data needed to deliver social care services for all members of the care team.

Leveraging technology to address SDoH and health improvement program support is an emerging and highly innovative and promising practice across the nation. While Colorado is the first state to receive approval for funding through CMS to build an interoperable SHIE ecosystem, OeHI has identified lessons learned and best practices through four years of OeHI-funded pilot projects and from other state and local approaches to managing SDoH technology, including projects in North Carolina, San Diego, CA, and King County, WA.

Business Process Analysis

According to the 2021 Colorado Health Access Survey²², about one in four (23.9%) residents of Colorado have an income at or below 200% of the federal poverty level. Among them, 14.7% experience food insecurity and 10.5% lack stable housing – with rates even higher in some communities throughout the State. This has a clear impact on health: for example, among

¹⁶ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.medicaid.gov/sites/default/files/2022-01/sho21001_0.pdf

¹⁷ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/SMD16003.pdf

¹⁸ Parekh T, Desai R, Pemmasani S, Cuellar A. “Impact of Social Determinants of Health on Cardiovascular Diseases.” *Journal of the American College of Cardiology*. 2020 Mar, 75 (11_Supplement_2):1989. [Link](#).

¹⁹ Federico M, McFarlane II A, Szeffler S, Abrams E. “The Impact of Social Determinants of Health on Children with Asthma.” *Journal of Allergy and Clinical Immunology in Practice*. 2020 Jun, 8:6. [Link](#).

²⁰ Sulley S, Ndanga M. “Inpatient Opioid Use Disorder and Social Determinants of Health: A Nationwide Analysis of the National Inpatient Sample (2012-2014 and 2016-2017).” *Cureus*. 2020 Nov, 12:11. [Link](#).

²¹ Murray G, Rodriguez H, Lewis V. “Upstream with a Small Paddle: How ACOs Are Working Against the Current to Meet Patients’ Social Needs.” *Health Affairs*. 2020 Feb, 39:2. [Link](#).

²² Colorado Health Institute (CHI). Colorado Health Access Survey. Denver, Colorado: 2021. [Link](#).

Colorado residents reporting unstable housing, nearly half report poor general (45.1%), and oral health (44.5%), while over half report poor mental health (60.0%).

These inequities are also compounded by Coloradans' intersecting identities such as race, ability, gender identity, etc. A statewide SHIE would allow Coloradans to be connected to the health resources they need quickly and easily. Low-income Coloradans would be able to search for and be referred to resources, health improvement programs or providers that meet their needs. Research^{23,24,25} strongly suggests that addressing social determinants of health in low-income individuals may reduce avoidable hospital utilization, including ER use, delayed discharges, and readmissions. Additional benefits to SHIE may have wide-ranging ROI that is difficult to quantify - for example, improved care coordination can improve individuals' relationship to the healthcare system^{26,27}, which makes them more likely to seek preventive care earlier, improving chronic disease management²⁸ and reducing the cost of complex care²⁹. Rural Coloradans have less access to physical, behavioral, and social health resources compared to Coloradans that live in urban areas. The impact of SDoH challenges are compounded by the barriers that already exist for rural Coloradans - fewer resources in general and longer distances to reach the resources they need, as well as limited public transit options and few choices available to purchase healthy foods or access housing that meets their needs. OeHI's approach includes a regional focus that allows communities to integrate into the SHIE ecosystem using established networks that work for them. An integrated SHIE network not only allows members of the care team to understand what resources are available within their community, but also identify gaps between community need and accessible resources while providing access to health improvement programs available through Medicaid and supports through public programs (SNAP, WIC, etc). Data captured in the SHIE technical infrastructure can also provide invaluable information to social care providers in rural communities that can inform future funding requests or grant applications that can bolster resources available in rural Colorado. SHIE technical infrastructure can also better incorporate non-clinical provider

²³ Hafez E, Ma X, Rouhizadeh M, Singh G, Weiner J, Kharrazi H. "Assessing the Impact of Social Needs and Social Determinants of Health on Health Care Utilization: Using Patient- and Community-Level Data." *Population Health Management*. 2021 Apr, 24:2. [Link](#).

²⁴ McCarthy M, Zheng Z, Wilder M, Elmi A, Li Y, Zeger S. "The Influence of Social Determinants of Health on Emergency Departments Visits in a Medicaid Sample." *Annals of Emergency Medicine*. 2021 May, 77:5. [Link](#).

²⁵ Yan A, Chen Z, Wang Y, Campbell J, Xue Q, Williams M, Weinhardt L, Egede L. "Effectiveness of Social Needs Screening and Interventions in Clinical Settings on Utilization, Cost, and Clinical Outcomes: A Systematic Review." *Health Equity*. 2022 Dec, 6:1. [Link](#).

²⁶ Mohottige D, Boulware L. "Trust in American Medicine: A Call to Action for Health Care Professionals." *The Hastings Center Report*. 2020 Feb, 50:1. [Link](#).

²⁷ DeCamp M, DeSalvo K, Dzeng E. "Ethics and Spheres of Influence in Addressing Social Determinants of Health." *Journal of General Internal Medicine*. 2020 Jun, 35. [Link](#).

²⁸ Ochieng J, Crist J. "Social Determinants of Health and Health Care Delivery: African American Women's T2DM Self-Management." *Clinical Nursing Research*. 2020 Apr, 30:3. [Link](#).

²⁹ Shankar K, Dugas J, Flacks J, Brahim M, Morton S, James T, Mitchell P. "High touch, high trust: Using community health advocates and lawyers to address ED high utilizers." *The American Journal of Emergency Medicine*. 2022 Oct, 60. [Link](#).

types, such as Local Public Health Agencies (LPHAs) who may have access to different resources, into clients' care teams.³⁰

Individuals experiencing homelessness experience higher rates of chronic illness and, on average, have a life expectancy of 12 years less than the average American.³¹ Poor health outcomes are both a cause and a result of homelessness. Homelessness services are fragmented, as providers of housing-related services encompass federal, state, county, and municipal governments, non-profit organizations, healthcare delivery organizations, faith-based organizations, and others, each with their own preferred data system. Even where connections between these data systems exist, collecting holistic client data can be especially difficult among clients with a higher rate of behavioral health concerns, distrust for service providers, and frequent interactions with law enforcement. Homelessness is a priority use case for SHIE implementation. The infrastructure can improve care coordination of clients experiencing homelessness by integrating the state Homeless Management Information System (HMIS), local shelter data, and other resource information alongside information about clients' physical and behavioral health to ensure their needs are accurately understood. These data can be used to support the connection of individuals with available housing resources and can promote the use of other styles of services (e.g., eviction prevention or rental assistance) so individuals are connected with services *before* they experience homelessness. This could contribute to better public safety and alleviate the strain of law enforcement and other first responders to this population.

The impacts of incarceration on individuals' health is well established in research - incarceration is associated with poor birth outcomes³² and preventable maternal death, high rates of physical limitations and depression in older adults³³, and poor mental health.³⁴ Emerging research suggests that incarceration not only impacts the individual, but also has wide reaching impacts on communities and families.³⁵ People re-entering the community after incarceration tend to experience poor physical and behavioral health, especially in the first months following their release from prison or jail - these individuals' risk of premature death is almost 13 times higher than other individuals during the first two weeks following release.³⁶ In

³⁰ Feeser K, Mayer M, Eminston A. "A Rising Tide: Increasing Rural Local Health Department Capacity to Address the Social Determinants of Health." 2019 Jul. NACCHO. [Link](#).

³¹ National Health Care for the Homeless Council. "Homelessness and Health: What's the Connection?" 2019 Feb. [Link](#).

³² Jahn J, Chen J, Agenor M, Krieger N. "County-level jail incarceration and preterm birth among non-Hispanic Black and white US women, 1999-2015." *Social Science and Medicine*. 2020 Apr, 250. [Link](#).

³³ Latham-Mintus K, Deck M, Nelson E. "Aging with Incarceration Histories: An Intersectional Examination of Incarceration and Health Outcomes Among Older Adults." *The Journals of Gerontology: Series B*. 2022 Jun. [Link](#).

³⁴ Porter L, DeMarco L. "Beyond the dichotomy: Incarceration dosage and mental health." *Criminology*. 2018 Dec, 57:1. [Link](#).

³⁵ Gifford E. "How Incarceration Affects the Health of Communities and Families." *North Carolina Medical Journal*. 2019 Nov, 80:6. [Link](#).

³⁶ Binswanger I, Stern M, Deyo R, Heagerty P, Cheadle A, Elmore J, Koepsell T. "Release from Prison - A High Risk of Death for Former Inmates." *New England Journal of Medicine*. 2007 Jan, 356. [Link](#).

Colorado, individuals exiting incarceration are typically eligible for Health First Colorado.³⁷ However, fragmented systems and supports with limited data sharing reduce individuals' ability to easily connect with healthcare services, behavioral health, and needed medications upon reentry. The SHIE infrastructure can improve outcomes for justice-involved Coloradans by integrating the care coordination platforms used by Colorado's Regional Accountability Entities (RAEs), which provide care coordination services to Medicaid members, alongside the tools used by case managers at our prisons and jails, our parole system, and by CBOs who focus on supporting the reentry population. These data can ensure that Coloradans reentering the community are not only successfully enrolled in Medicaid but have the information and support they need to access needed physical, behavioral, and social healthcare services and supports. Improved access to SDoH supports can improve Coloradans' ability to be successful post-incarceration and can reduce recidivism. Use of Medicaid services post-incarceration is associated with a reduced risk of reincarceration *and* improved employment prospects.³⁸

HCBS programs help to support low-income Coloradans and people with disabilities in living everyday lives in the community. There are roughly 45,000 HCBS-enrolled individuals in Colorado, the majority of whom are living with an Intellectual and Developmental Disability (IDD).³⁹ People living with IDD experience high rates of hospitalization, and studies have shown that individuals with high social care needs are much more likely to be hospitalized or to visit the ER.⁴⁰ People with disabilities and HCBS-eligible individuals must navigate complex eligibility requirements for services and experience long wait times due to HCBS staffing challenges.⁴¹ These challenges may result in delays in care. Many HCBS providers lack access to Health IT, and where digital solutions exist, fragmented systems make it difficult for providers to coordinate their clients' care. The SHIE infrastructure can improve outcomes for those enrolled in HCBS by integrating the HCBS program's case management system with the RAEs' care coordination and health improvement program platforms to reduce duplication of efforts across agencies. The SHIE infrastructure can also allow HCBS case managers to view referrals their clients have received from other providers so they can follow up on the status of those referrals; the infrastructure will also eventually enable self-referrals so clients can feel empowered to drive their own care, which HCPF Office of Community Living staff have identified as a priority. With the existence of chronic conditions significantly higher than non-LTSS Medicaid members, the SHIE will also enable providers to more readily prescribe health improvement and condition management programs available through Medicaid to these members and all Medicaid members.

³⁷ Colorado Department of Health Care Policy and Financing. "Health First Colorado and Criminal Justice Involved Populations." [Link](#).

³⁸ Badaracco N, Burns M. "The Effects of Medicaid Coverage on Post-Incarceration Employment and Recidivism." Health Services Research. 2021 Sep, 56:52. [Link](#).

³⁹ Watts M, et al. "Medicaid Home and Community-Based Services Enrollment and Spending". KFF. 2020 Feb. [Link](#).

⁴⁰ Friedman C. "Social determinants of health, emergency department utilization, and people with intellectual and developmental disabilities." Disability and Health Journal. 2021 Jan, 14:1. [Link](#).

⁴¹ Watts M, et al. "Ongoing impacts of the pandemic on Medicaid Home & Community-Based Services (HCBS) programs: Findings from a 50-state survey". KFF. 2022 Nov. [Link](#).

Individuals experiencing substance use disorder (SUD) are more likely to also have other health conditions such as lung and heart disease, mental health conditions, and cancer.⁴² Managing multiple health conditions requires effective and efficient care coordination. SUD services are fragmented, and data sharing is difficult due to protections for SUD data under [42 CFR Part 2](#)⁴³ regulations. A lack of data sharing makes it more difficult for individuals experiencing SUD to find the care they need. Additionally, according to the 2021 Colorado Health Access Survey, 80,000 Coloradans did not seek substance use treatment due to stigma (72.3%), concerns about health insurance coverage (36.6%), concerns about cost (55.9%), and difficulty booking an appointment (22.8%).⁴⁴ Finding treatment should not be a barrier to care in Colorado. The SHIE infrastructure will have strong privacy and confidentiality protections that act in accordance with state and federal laws. These protections, in addition to the ability to enhance care coordination efforts, will enable the SHIE to connect people to the SUD treatment they need to thrive, as well as SDoH services needed for people experiencing or recovering from SUD to be successful in their communities. Connection to necessary services will also reduce morbidity and mortality related to drug use and overdose.

Cost-Benefit Analysis and Project Alternatives (per H.B. 15-1266)

The Department’s planning activities to date, including business and technical requirements gathering, resulted in the Department’s decision to pursue a competitive Invitation to Negotiate (ITN) process, rather than a standard Request for Proposal (RFP). The ITN process allowed the Department to carefully assess vendor proposals based on both technical merit and cost, and to allow the vendor community to propose their best solutions without being artificially constrained by any requirements the Department may have chosen either arbitrarily or out of a lack of knowledge as to the potential solutions available. Throughout the development of the ITN, Colorado has examined other state and community models, including North Carolina, California, Washington, and Michigan. The Department also conducted interviews with county and local governments, all of Colorado’s RAEs, and a multitude of CBOs to understand their technology needs and current workflows. Based on this extensive qualitative and quantitative research, the Department is satisfied that this approach is the best fit for Colorado and that the resulting contract represents the most effective technology solution.

Without this funding, the system would remain at the base development level achieved through stimulus funds, and progress would stall. The vision of including additional state systems such as the SNAP and WIC, or health improvement programs offered through Regional Accountable Entity and other potential benefits will not be achieved.

⁴² National Institutes of Health, U.S. Department of Health and Human Services. “Addiction and Health.” 2022 Mar. [Link](#).

⁴³ <https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-2>

⁴⁴ CHI. Colorado Health Access Survey. [Link](#).

Success Criteria and Improved Performance Outcomes

OeHI's SHIE efforts support broader efforts to make a transformative impact on the way healthcare is delivered in Colorado by fully engaging communities, community-based resources, and health improvement programs to provide whole-person, equitable care that improves quality and reduces costs. OeHI will be tracking the following metrics to understand the impact of SHIE implementation:

- Number of organizations accessing data through the SHIE infrastructure, by organization type.
- Number of individual users accessing data through the SHIE infrastructure or through connected applications/programs, by user type.
- Number of unique Medicaid members who have data being shared through SHIE (covered lives).
- Number of third-party applications/platforms integrated with the SHIE infrastructure.
- Number of referrals exchanged through the SHIE infrastructure.
- Number of SDoH screenings/assessments exchanged through the SHIE infrastructure.
- Number of unique Medicaid members with at least one SDoH screening/assessment exchanged through the SHIE infrastructure.

Assumptions for Calculations

Systems costs are based on vendor estimates for implementation in alignment with the Department's initial priority use cases, collected through the ITN process.

The following assumptions were made:

- Cloud storage rates were estimated to increase 10% per year in alignment with inflation
- Staffing costs were estimated to increase 3% per year
- The Department assumes it would receive a 90% federal match on all Medicaid implementation costs (Phase 1), and 75% federal match for Medicaid l costs related to maintaining (Phase 2) the portions of SHIE developed for the initial priority use cases as they are implemented. The Department assumes a continued 90% federal match on Medicaid enhancements of the system that would support other use cases that are prioritized after the initial implementation is complete and certified. Based on the allowable federal participation for the other non-Medicaid programs, the weighted federal match is 86.05%
- The Department assumes it will have all Advanced Planning Documents (APDs) submitted and approved by CMS prior to incurring any expenditure, allowing the Department to receive the enhanced weighted federal match on all costs.
- The Department assumes that the 5.5 State term-limited FTE would be required for 2-3 years and that any ongoing permanent need would be requested through an operating request.
- The Department assumes that the OIT Staff will work full time for 40 hours a week, 52 weeks a year for a total of 2080 hours.

- The Department included a 5% contingency buffer to the total to account for potential cost overruns as large-scale IT projects have a propensity to come in over budget by the time the project is finished.⁴⁵

Consequences if not Funded

Without continued funding, the social care and health improvement program landscape will continue to be fragmented, and the State will not optimize its ability to improve health and quality outcomes, close disparities and improve affordability. Additionally, progress in development of the SHIE will be halted, resulting in a system with a narrow focus and limited ability to improve equity for all Coloradans. This would also impede Colorado’s ability to reduce costs for patients, providers, and the community and be misaligned with the Governor’s priorities of saving people money on health care, closing disparities, transforming the behavioral health system, and evolving our health care payment system from volume to value.

Implementation Plan

Change Management

Change management is a requirement for all Department projects. The Department has a robust internal change management process and requires all vendors to deliver a change management plan, which includes: the approach to change management, a scope control process, process to monitor and measure scope, testing strategy, training plan, and operational readiness plans.

The Department follows CMS MES testing guidance framework, which outlines actions and deliverables states are required to demonstrate or provide as evidence. These include:

- Contract requirements for system testing
- Definition of defect severity
- Defect resolution
- Master test plans
- Test execution; including units, system integration, regression, user acceptance, performance and load testing, parallel and data migration testing
- Incident response handling
- Requirements’ traceability
- Deployment plan
- On-going testing after production to validate any system changes

Alignment with OIT Best Practices and Standards

The Department collaborates with the Office of Information Technology (OIT) to ensure that all SHIE vendors comply with OIT’s best practices and standards. Additionally, this advances the OIT goal and Governor’s priority to Advance Digital Government Services particularly through the pillar to “design around the life experiences of Colorado residents”.

⁴⁵ <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/delivering-large-scale-it-projects-on-time-on-budget-and-on-value>

Procurement

The SHIE ITN was a highly collaborative cross-agency negotiations effort. Subject-matter experts (SMEs) were included from across the Department, OIT, CDHS, BHA, and CDPHE. OIT staff have been highly involved with the procurement process.

Disaster Recovery and Business Continuity

All implementations would be compliant with all existing state and federal IT architecture, security and business continuity requirements and guidelines, as well as state cybersecurity policies set forth by the Office of Information Security. Additionally, all OIT project gating would be closely followed to ensure adequate risk assessments are conducted and all necessary actions are taken as a result. The Disaster Recovery Plan is a requirement of gate 4 and the authorization to operate would not be granted without the required documentation and planning.

Accessibility Compliance


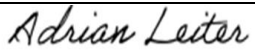
The Department, in collaboration with OIT, is in the process of developing an accessibility compliance program for current and future vendors. The SHIE Contract contains explicit accessibility provisions to ensure compliance with these emerging requirements, as well as with federal and state accessibility legislation.

ADDITIONAL REQUEST INFORMATION	
Please indicate if three-year roll forward spending authority is required.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is this a continuation of a project appropriated in a prior year?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If this is a continuation project, what is the State Controller Project Number?	N/A
If this request effects another organization, please provide a comfort letter.	
Please attach a letter from OIT indicating review and approval of this project	

ESTIMATED PROJECT TIME TABLE		
Steps to be completed	Start Date	Completion Date
SHIE Contract Phase 1: Planning and Discovery	11/1/2023*	6/30/2024
SHIE Contract Phase 2: DDI	3/1/2024	3/31/2027
SHIE Contract Phase 3: Maintenance and Operations	4/1/2027	6/30/2033
Implementation of Regional Proofs of Concept	7/1/2023	9/30/2026
Consent Management Proof of Concept	11/1/2023*	6/30/2025

* Estimate; dependent on execution date of SHIE Contract

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

CC-IT: CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY REQUEST FOR FY 2023-24								
Department	HCPF	Signature Department Approval:		 23-Sep-23				
Project Title	Social Health Information Exchange Project	Signature OIT Approval:		Rus Pascual 23-Sep-23				
Project Year(s)	FY 2024-25, FY 2025-26 and FY 2026-27	Signature OSPB Approval:		 10/30/23				
Department Priority Number	3							
Five-Year Roadmap?	No	Name and e-mail address of preparer:		stephanie.pugliese@state.co.us				
Revision? No If yes, last submission date:	Total Project Costs	Total Prior Year Appropriations	Total Request	Year 2 Request	Year 3 Request	Year 4 Request	Year 5 Request	
A. Contract Professional Services								
(1)	OIT Contracted Program Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(2)	Quality Assurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(3)	Independent Verification and Validation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(4)	Traveling	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(5)	Leased Space (Temporary)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(6)	Feasibility Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(7a)	Inflation for Professional Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(7b)	Inflation Percentage Applied	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(8)	Other Services/Costs	\$ 22,115,220	\$ -	\$ 10,506,333	\$ 7,751,755	\$ 3,857,132	\$ -	\$ -
(9)	Total Professional Services	\$ 22,115,220	\$ -	\$ 10,506,333	\$ 7,751,755	\$ 3,857,132	\$ -	\$ -
B. Software Acquisition								
(1)	Software COTS Purchase	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(2)	Software Built	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(3a)	Inflation on Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(3b)	Inflation Percentage Applied	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(4)	Software COTS Purchase Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(5)	Total Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C. Equipment								
(1)	Servers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(2)	PCs, Laptops, Terminals, PDAs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(3)	Printers, Scanners, Peripherals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(4)	Network Equipment/Cabling	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(5)	Miscellaneous	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(6)	Total Equipment and Miscellaneous	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
D. Project Contingency								
(1)	5% project contingency	\$ 1,105,762	\$ -	\$ 525,317	\$ 387,588	\$ 192,857	\$ -	\$ -
E. Total Request								
	Total Budget Request [A+B+C+D]	\$ 23,220,982	\$ -	\$ 11,031,650	\$ 8,139,343	\$ 4,049,989	\$ -	\$ -
F. Source of Funds								
	GF	\$ 3,487,117	\$ -	\$ 1,539,359	\$ 1,203,920	\$ 743,838	\$ -	\$ -
	CF/RF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	FF	\$ 19,733,865	\$ -	\$ 9,492,291	\$ 6,935,423	\$ 3,306,151	\$ -	\$ -

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

Table 1.1 Summary by Line Item FY 2024-25							
Row	Line Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	(3) DEPARTMENT OF HEALTH CARE POLICY AND FINANCING; Social Health Information Exchange Project	\$11,031,650	5.5	\$1,539,359	\$9,492,291	86.05%	Table 2.1 Row D
B	Total Request	\$11,031,650	5.5	\$1,539,359	\$9,492,291	86.05%	Row A

Table 1.2 Summary by Line Item FY 2025-26							
Row	Line Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	(3) DEPARTMENT OF HEALTH CARE POLICY AND FINANCING; Social Health Information Exchange Project	\$8,139,343	5.5	\$1,203,920	\$6,935,423	85.21%	Table 2.2 Row D
B	Total Request	\$8,139,343	5.5	\$1,203,920	\$6,935,423	85.21%	Row A

Table 1.3 Summary by Line Item FY 2026-27							
Row	Line Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	(3) DEPARTMENT OF HEALTH CARE POLICY AND FINANCING; Social Health Information Exchange Project	\$4,049,989	5.5	\$743,838	\$3,306,151	81.63%	Table 2.3 Row D
B	Total Request	\$4,049,989	5.5	\$743,838	\$3,306,151	81.63%	Row A

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

Table 2.1 Summary by Initiative FY 2024-25							
Row	Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	Term-limited FTE	\$638,448	5.5	\$73,422	\$565,026	88.50%	FTE Calculator
B	OIT Staff	\$549,328	0.0	\$63,173	\$486,155	88.50%	Table 5.1 Row C
C	Contract Costs	\$9,318,557	0.0	\$1,329,461	\$7,989,096	85.73%	Table 3.1 Row G
D	5% Contingency	\$525,317	0.0	\$73,303	\$452,014	86.05%	5% of Total Project
E	Total Request	\$11,031,650	5.5	\$1,539,359	\$9,492,291	86.05%	Sum of Rows A thru D

Table 2.2 Summary by Initiative FY 2025-26							
Row	Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	Term-limited FTE	\$596,448	5.5	\$68,592	\$527,856	88.50%	FTE Calculator
B	OIT Staff	\$565,823	0.0	\$65,070	\$500,753	88.50%	Table 5.2 Row C
C	Contract Costs	\$6,589,484	0.0	\$1,012,928	\$5,576,556	84.63%	Table 3.2 Row F
D	5% Contingency	\$387,588	0.0	\$57,330	\$330,258	85.21%	5% of Total Project
E	Total Request	\$8,139,343	5.5	\$1,203,920	\$6,935,423	85.21%	Sum of Rows A thru D

Table 2.3 Summary by Initiative FY 2026-27							
Row	Item	Total Funds	FTE	Capital Construction Fund	Federal Funds	FFP Rate	Notes/Calculations
A	Term-limited FTE	\$615,985	5.5	\$70,838	\$545,147	88.50%	FTE Calculator
B	OIT Staff	\$582,795	0.0	\$67,021	\$515,774	88.50%	Table 5.3 Row C
C	Contract Costs	\$2,658,352	0.0	\$570,558	\$2,087,794	78.54%	Table 3.3 Row D
D	5% Contingency	\$192,857	0.0	\$35,421	\$157,436	81.63%	5% of Total Project
E	Total Request	\$4,049,989	5.5	\$743,838	\$3,306,151	81.63%	Sum of Rows A thru D

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

Table 3.1 SHIE Contract Costs FY 2024-25							
Row	Item	Type	Total Fund	Capital Construction Fund	Federal Funds	Match Rate	Notes
A	SHIE Infrastructure Contract: Phase 1	Contract	\$3,490,000	\$401,350	\$3,088,650	88.50%	Vendor Estimate
B	SHIE Infrastructure Contract: Phase 2	Contract	\$1,359,000	\$347,904	\$1,011,096	74.40%	Vendor Estimate
C	Cloud Costs: Phase 1	Contract	\$313,038	\$80,138	\$232,900	88.50%	Vendor Estimate
D	Cloud Costs: Phase 2	Contract	\$156,519	\$40,069	\$116,450	74.40%	Vendor Estimate
E	Community Infrastructure: Phase 1	Contract	\$2,500,000	\$287,500	\$2,212,500	88.50%	Vendor Estimate
F	Provider Directory and CRI Work: Phase 1	Contract	\$1,500,000	\$172,500	\$1,327,500	88.50%	Vendor Estimate
G	Total Contract Costs		\$9,318,557	\$1,329,461	\$7,989,096	85.73%	Sum of Rows A thru F

Table 3.2 SHIE Contract Costs FY 2025-26							
Row	Item	Type	Total Fund	Capital Construction Fund	Federal Funds	Match Rate	Notes
A	SHIE Infrastructure Contract: Phase 1	Contract	\$780,000	\$89,700	\$690,300	88.50%	Vendor Estimate
B	SHIE Infrastructure Contract: Phase 2	Contract	\$1,120,800	\$286,925	\$833,875	74.40%	Vendor Estimate
C	Cloud Costs: Phase 2	Contract	\$688,684	\$176,303	\$512,381	74.40%	Vendor Estimate
D	Community Infrastructure: Phase 1	Contract	\$2,500,000	\$287,500	\$2,212,500	88.50%	Vendor Estimate
E	Provider Directory and CRI Work: Phase 1	Contract	\$1,500,000	\$172,500	\$1,327,500	88.50%	Vendor Estimate
F	Total Contract Costs		\$6,589,484	\$1,012,928	\$5,576,556	84.63%	Sum of Rows A thru E

Table 3.3 SHIE Contract Costs FY 2026-27							
Row	Item	Type	Total Fund	Capital Construction Fund	Federal Funds	Match Rate	Notes
A	SHIE Infrastructure Contract: Phase 1	Contract	\$780,000	\$89,700	\$690,300	88.50%	Vendor Estimate
B	SHIE Infrastructure Contract: Phase 2	Contract	\$1,120,800	\$286,925	\$833,875	74.40%	Vendor Estimate
C		Contract	\$757,552	\$193,933	\$563,619	74.40%	Vendor Estimate
D	Total Contract Costs		\$2,658,352	\$570,558	\$2,087,794	78.54%	Sum of Rows A thru C

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

year.)

Table 4 FTE Calculations							
Personal Services							
Position Classification	FTE	Start Month	End Month	FY 2024-25	FY 2025-26	FY 2026-27	Notes
ANALYST IV	4.5	Jul 2024	N/A	\$356,504	\$356,504	\$374,375	
CONTRACT ADMINISTRATOR VI	1.0	Jul 2024	N/A	\$106,182	\$106,182	\$106,169	
				\$0	\$0	\$0	
				\$0	\$0	\$0	
Total Personal Services (Salary, PERA, Medicare)	5.5			\$462,686	\$462,686	\$480,544	
Centrally Appropriated Costs							
Cost Center	FTE	FTE	Cost or	FY 2024-25	FY 2025-26	FY 2026-27	Notes
Health, Life, Dental	0.0	0.0	\$11,033	\$60,682	\$60,682	\$60,682	
Short-Term Disability	-	-	0.16%	\$655	\$655	\$680	
Amortization Equalization Disbursement	-	-	5.00%	\$20,482	\$20,482	\$21,273	
Supplemental Amortization Equalization Disbursement	-	-	5.00%	\$20,482	\$20,482	\$21,273	
Paid Family and Medical Leave Insurance	-	-	0.45%	\$1,843	\$1,843	\$1,915	
Centrally Appropriated Costs Total				\$104,144	\$104,144	\$105,823	
Operating Expenses							
Ongoing Costs	FTE	FTE	Cost	FY 2024-25	FY 2025-26	FY 2026-27	Notes
Supplies	0.0	0.0	\$500	\$2,750	\$2,750	\$2,750	
Telephone	0.0	0.0	\$235	\$1,293	\$1,293	\$1,293	
Other	0.0	0.0	\$0	\$0	\$0	\$0	
<i>Subtotal</i>				<i>\$4,043</i>	<i>\$4,043</i>	<i>\$4,043</i>	
One-Time Costs (Capital Outlay)	FTE		Cost	FY 2024-25	FY 2025-26	FY 2026-27	Notes
Furniture	5.5		\$5,000	\$30,000	\$0	\$0	
Computer	5.5		\$2,000	\$12,000	\$0	\$0	
Other	5.5		\$0	\$0	\$0	\$0	
<i>Subtotal</i>				<i>\$42,000</i>	<i>\$0</i>	<i>\$0</i>	
Total Operating				\$46,043	\$4,043	\$4,043	
Leased Space							
Leased Space	FTE	FTE	Cost	FY 2024-25	FY 2025-26	FY 2026-27	Notes
Leased Space	0.0	0.0	\$4,650	\$25,575	\$25,575	\$25,575	

CC-IT-03 Social Health Information Exchange
Appendix A: Assumptions and Calculations

Table 5.1 OIT Staff FY 2024-25						
Row	FTE Title	OIT Common Policy Service Rate Category	Count/FTE	Rate	Hours	Total
A	SHIE Product Owner	Sr. Project Manager	1.00	\$134.87	2,080	\$280,530
B	SHIE Project Manager	Project Management	1.00	\$129.23	2,080	\$268,798
C	Total OIT Staff		2.00		4,160	\$549,328

Table 5.2 OIT Staff FY 2025-26						
Row	FTE Title	OIT Common Policy Service Rate Category	Count/FTE	Rate	Hours	Total
A	SHIE Product Owner	Sr. Project Manager	1.00	\$138.92	2,080	\$288,954
B	SHIE Project Manager	Project Management	1.00	\$133.11	2,080	\$276,869
C	Total OIT Staff		2.00		4,160	\$565,823

Table 5.3 OIT Staff FY 2026-27						
Row	FTE Title	OIT Common Policy Service Rate Category	Count/FTE	Rate	Hours	Total
A	SHIE Product Owner	Sr. Project Manager	1.00	\$143.09	2,080	\$297,627
B	SHIE Project Manager	Project Management	1.00	\$137.10	2,080	\$285,168
C	Total OIT Staff		2.00		4,160	\$582,795