# 2017 MONTANA HIE PLANNING PROJECT REPORT

Health Information Exchange Opportunities in Montana


## Abstract

Project Report of the Montana HIE Planning Project – Orchestrated by the Montana Medical Association and funded by the Montana Health Care Foundation


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# Montana HIE Planning Report

Feb 2018 – David Kendrick, MD, MPH, FACP and Joe Walker, MSIE, CISSP

## Executive Summary

Montana's patients, healthcare & social services providers, payers, and employers face an increasingly complex set of regulations, requirements and opportunities as they push towards better health, better health care outcomes, and an overall reduction in health care costs. A statewide infrastructure for secure health information exchange and care coordination makes a tremendous difference in many other states, by concentrating expertise and resources where they are needed most. With funding from the Montana Health Care Foundation, a Health Information Exchange Planning Project was undertaken from December 6, 2016 through October 27, 2017. Over 100 people attended the initial kickoff meeting from across the state of Montana, with representation from most of its prominent health systems, clinics, hospitals, associations, payers, social service agencies, and some employers. Working in five specialized task forces over the ensuing months, planning participants considered the successes and failures of similar efforts, and have declared their intent and plans to establish a non-profit, Montana-centered, community-owned resource that can coordinate the details to take healthcare in Montana where it needs to go.

During the planning process, Montana's clinical and health quality experts determined the state's greatest needs to be: 1) enhanced care coordination, 2) supporting health care providers' ability to transition from fee-for-service to value-based care, and 3) developing/maintaining quality metrics and indicators. Leaders tasked with protecting the privacy and security of patient information assessed the safeguards required to protect patients' data and privacy. Business leaders explored the financial viability of a new state-wide organization, and developed a 1-page "Return on Investment" reference sheet (attached as Exhibit A) which includes consideration for how such an effort is expected to generate new revenue opportunities, help its stakeholders avoid costs & financial losses, and improve the care provided to patients. The business team also sought out viable options for startup and sustainability funding, given current conditions. Technology experts made recommendations for procurement guidelines and acknowledged the need for the clinical, quality, privacy, security, and financial decision makers to drive technology selection (rather than the other way around).

With the specialized planning experts' recommendations in hand, an executive leadership task force discussed and voted to recommend the creation of a non-profit organization conforming to the following principles (from the original proposed charter):

- broadly represents Montana's health care stakeholders, including but not limited to patients, employers, providers, and payers; and
- aims to improve the access to and quality of health care in the state of Montana through the use of technology to securely exchange health care information, and
- is based on governance policies that are inclusive, non-discriminating, and mitigate conflicts of interest through processes of transparent decision making.

It is advised that such a health information organization should organize, and should pursue funding.

## Background

The healthcare industry of Montana, like the rest of the country, is challenged with improving the health and well-being of its population while also achieving an increasingly complex set of clinical, quality, technical, privacy, and financial requirements, all aimed at enhancing the quality health care services, improving the population's overall health, and lowering costs. As presented and discussed among Montana health leaders in December 2016, the United States ranks 42 out of 224 countries in life expectancy—despite having (by far) the highest health-related expenditures. The United States also performs poorly in measures relating to heart disease, obesity, teen pregnancy, child maltreatment, and chronic disease. Montana has great opportunities for improvement in treatment of substance abuse, behavioral health, cardiovascular disease, cancer, respiratory illnesses, and injuries related to unintentional accidents. The Montana Department of Public Health and Human Services has reported a 20-year difference in life expectancy between American Indian and non-Indian Montanans. Additionally, the aging population is driving higher demands on the health care infrastructure, which faces a severe shortage of qualified medical providers.

Nationally, health care reform efforts are shifting revenue models for health care reimbursement from traditional fee-for-service to fee-for-value models. As these models require careful measurement, and substantial revenue becomes linked to the perceived quality represented in the data, information interoperability and analytics will become absolute requirements for sustainability. These functions are not easily accomplished, and the quality of the system as a whole depends on the success of individual providers.

Systemic improvement can be difficult. Efforts to fix one problem often cause other problems, and uncoordinated improvement projects frequently result in duplication of effort and services between some initiatives with unintentional gaps in others. As national interoperability efforts quickly coalesce, collaboration and coordination among the many disparate fragments of the healthcare system has never been more critical. The citizens of Montana deserve wise use of limited resources to ensure the wisest use of resources to maximize benefit to the people of current improvement efforts.

A common community infrastructure can empower all providers by ensuring they all have affordable access to all relevant data, and to a minimum baseline of high quality data-driven tools. All providers, regardless of their ability to invest in proprietary capabilities, will require access to community data that is reliable and consistent. The work of collecting, cleaning and standardizing this data is ideally suited for an organization driven by non-profit community-focused ideals. A common community infrastructure allows health providers to spread the costs of technology enhancements around, and frees them to focus on making best use of the tools, rather than everyone having to build and implement their own proprietary set of tools. Community-wide collaboration also creates many additional opportunities to pursue widespread initiatives that improve quality, health and efficiency.

Montana health care providers know that a common community infrastructure is a challenge to build. In 2010, Montana healthcare organizations attempted this with the HealthSHARE Montana initiative. Fortunately, many of the technical, business and political barriers that plagued the earlier effort have now been addressed or mitigated. Many other health information organizations throughout the nation have survived the early period of inadequate technologies, unclear policies, and questionable sustainability models. They have banded together to form a national strategic partnership known as the Strategic Health Information Exchange Collaborative (SHIEC, www.StrategicHIE.org). This trade

association now provides extensive support for new health information organizations, like the one proposed in Montana. This association includes more than 60 HIOs, who collectively handle health information for over 200M people in the US. SHEIC member organizations are connecting to one another to create local "Patient Centered Data Homes™ " model. Each of these "data homes" enables patient records to be available wherever the patients seek care, even across state and regional boundaries. This model is expanding rapidly and enables nationwide alerting and reminders in addition to supporting better coordination of care. Without its own health information organization, the people of Montana miss out on this unique opportunity to have their own Patient-Centered Data Home™.

For these and many other reasons, Montana providers support the development of Montana's own health information organization. In fact, several pilot efforts have already begun creating foundational efforts for a state-wide framework. The largest of these pilot efforts is a health information exchange pilot project in Billings, Montana among Riverstone Health, St. Vincent Health Care, Billings Clinic, and Blue Cross and Blue Shield of Montana. This pilot is enabling real-time exchange of health information and facilitating targeted clinical reports to help doctors coordinate care among patients who cross over between their organizations.

On the national stage, Congress passed the 21st Century Cures Act in late 2016, and the national government is rapidly formulating a national interoperability strategy (the Trusted Exchange Framework and Common Agreement) which requires high-functioning health information networks. Montana will never have a better opportunity to exercise greater control over its future than now, while the national framework is forming. Federal funding is aligned with these efforts right now. Montana's state government leaders are supportive, and the Montana Health Care Foundation has contributed funding to support this planning process. This health information planning effort was lead by the Montana Medical Association with assistance from national experts in the field, including Dr. David Kendrick, MD, MPH and Joe Walker, MSE, CISSP from Oklahoma's MyHealth Access Network (which developed through a similar planning project).

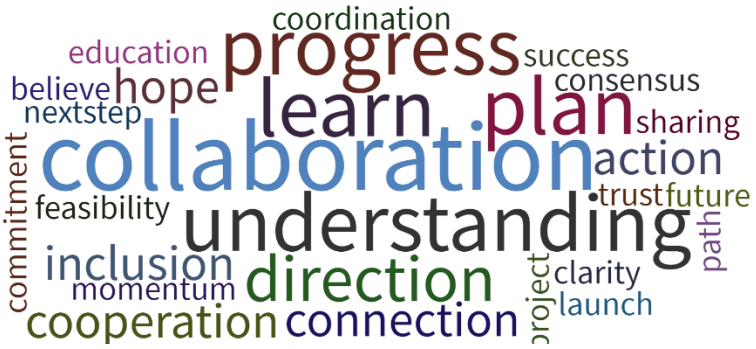


Figure 1: Word cloud developed during the kickoff meeting, representing Montana stakeholders' goals with the planning session.

## The Call to Action

A majority of the Montana stakeholders attending the kickoff meeting voted in support of a preliminary charter, which was a pledge as follows:

"…to work together to develop a non-profit organization that:

- broadly represents Montana's health care stakeholders, including but not limited to patients, employers, providers, and payers; and

- aims to improve the access to and quality of health care in the state of Montana through the use of technology to securely exchange health care information, and
- is based on governance policies that are inclusive, non-discriminating, and mitigate conflicts of interest through processes of transparent decision making."

The authors of this pledge wanted it to include a statement of the value proposition and a preamble to make it clear why this process was important. These principles became the basis for the discussion in the subsequent planning process.

## The Planning Process

Five planning task forces held their first meetings at the 2-day kickoff event. Each task force was oriented to the opportunities and challenges and defined their objectives for subsequent meetings. After the in-person meetings, video conference sessions were assembled of the various committee members to consider the needs of each group. The committee schedule is represented to the right, and the purposes of each committee, as discussed, are as follows:


Figure 2: Planning committee's succession and schedule.

| Task Force | Purpose |
|---|---|
| Governance | Oversee the planning process—coordinate and assemble the input received from each of the other task forces, and organize the aggregated information to develop and implement a proposed plan. |
| Clinical & Quality | Identify, develop and prioritize the most essential needs of the health care industry in the state to enhance clinical outcomes and improve health. |
| Privacy & Security | Identify widely-known and local policy issues and appropriate strategies for navigating them. Separate "low-hanging-fruit" issues from challenging issues, and develop recommendations for implementation of a successful policy framework. |
| Business & Finance | Assess capital and ongoing sustainability opportunities, roadblocks, and viable strategies. Develop recommendations to establish and sustain a viable infrastructure. |
| Technology | Collect requirements from other committees, consider current industry solutions, and assess community capabilities. Develop guidelines and recommendations to guide a potential procurement process. |

Each task force held one in-person meeting in Helena in December to lay out the work for the task force, then followed up with a series of phone meetings before reporting back to the Governance task force. The Governance task force then called for volunteers who would work together to do the work required to make the HIE successful. These volunteers were dubbed as "Champions" for the HIE. These Champions have formed a steering committee that is implementing the recommendations from task forces through the formation of a new non-profit entity.

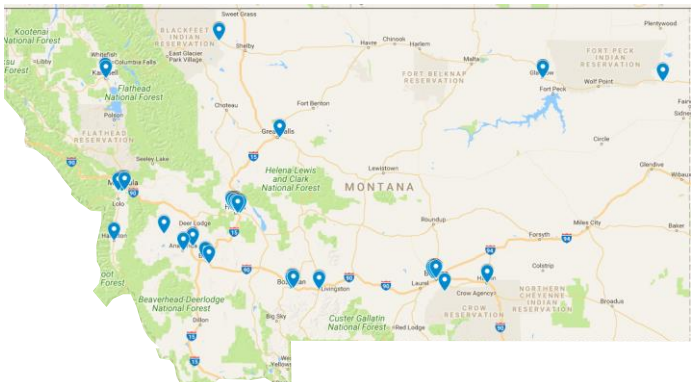


Figure 3: Stakeholders' business locations

The kickoff in December 2016 was attended by healthcare professionals from all over Montana, across disparate parts of the health care sector, by invitation. During and since the kickoff, 95 individual thought leaders participated in dozens of planning meetings. The chart below shows how many individuals supported the effort, grouped by the type of organizations they represented and the committee meetings in which they participated:

| Count of Unique Individuals at Each Meeting Type Type of Organization | Champions | Governance | Clinical Quality | Privacy/Security | Finance/Business | Technology | Any Meetings |
|---|---|---|---|---|---|---|---|
| Association | 4 | 7 | 6 | 3 | 2 | 3 | 10 |
| BH | | | | | 1 | | 1 |
| CHC | | | 3 | 1 | | | 3 |
| Clinic | 1 | 10 | 7 | 5 | 7 | 5 | 14 |
| County | | | 1 | | | 1 | 1 |
| Dentist | | | 1 | | | | 1 |
| DPHHS | 1 | 3 | | | 1 | 1 | 3 |
| Employer | | 2 | 1 | 1 | | | 2 |
| Hospital | | 3 | 6 | 4 | | 4 | 10 |
| Indian Health | 1 | 1 | | | | | 1 |
| MedEd | | | | | 1 | | 1 |
| Other | 2 | 1 | 1 | | | 1 | 3 |
| Payer | 1 | 4 | 3 | 1 | 2 | 1 | 5 |
| Provider Health Network | | 1 | | | | | 1 |
| QIO | 2 | 3 | 2 | | | 1 | 5 |
| Social Services | | 1 | | | | | 1 |
| State | | 4 | 1 | 1 | 3 | | 7 |
| Students | | 1 | 2 | 3 | 1 | 3 | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Systems | 2 | 11 | 7 | 7 | 6 | 5 | 17 |
| TPA | | 2 | | | 1 | | 2 |
| VA | | 1 | 2 | | | | 3 |
| Grand Total | 14 | 57 | 45 | 28 | 27 | 27 | 95 |

## Project Outcomes:

The planning process created a foundation of support for a cooperative effort to promote health information exchange activities across a community. This section describes the findings and recommendations of each task force, but first we summarize each one in a few statements:

- The Clinical-Quality task force defined priorities that clinicians and measurement experts agreed would generate the greatest overall benefit to the providers and population.
- The Privacy & Security task force determined that a common framework could be established and that existing models used by other HIEs would and should align well with the needs and requirements of Montana's provider population.
- The Business-Finance task force surveyed the market and determined that funding for an HIE was achievable, if the organization could achieve buy-in from its largest financial stakeholders. To this end, an exhibit for a business proposal was developed, which highlighted many substantial returns on investment, any one of which could form the basis for a business justification to an organization. Capital funding opportunities were explored, and plans were laid to seek support from local funding sources and Montana's Department of Public Health and Human Services to apply for federal assistance using the 90/10 arrangement that has benefited several other state efforts. Funding efforts for the project look promising and are under development.
- Finally, the Technology task force met long enough to consider that technology needed to be procured based on the needs declared by the group, not the other way around. Some procurement principles were defined, and the task force agreed to await further direction from Governance.
- Ultimately the Governance Committee decided to form a committee of HIE Champions who would commit their time and energies into making the HIE a reality.

### Clinical-Quality Task Force

The Clinical-Quality task force met on 12/7/2016, 1/9/2016 and 2/3/2016. The group discussed many problems to be addressed, and worked together to identify the most pressing issues from a clinical and healthcare standpoint that deserve the first attention by a collaboration of this scale. The task force recommended focusing efforts on the following priorities. The task force chose not to number the three top-level priorities, deeming them to be equally important with one another. The subtopics under each priority were ranked, as follows:

- Enhance care coordination capabilities
    1. Admit / Discharge / Transfer (ADT) alerts to those involved with patient's care;
    2. Super-utilizers report to understand and intervene with people who frequent emergency rooms;

3. Mental health care coordination, where needed and appropriate;
4. Emergency room use case: Ensuring medical histories are available to healthcare providers when patients are most in danger;
5. Coordination for transitions of care between private sector care services, and public sector care services (such as Veteran Affairs and Indian Health Services);
6. Preadmission reviews: Before hospital admissions, treatment and medication history from other facilities enables providers to give better care;
7. Physician active panel monitoring – Enable Primary Care Physicians and/or care coordinators to monitor their patients' utilization of healthcare services.

- Establish a Qualified Clinical Data Registry (QCDR—an entity that collects data, creates and submits federally-required quality measures), to support value-based programs, including:
    1. MIPS / MACRA – New quality reporting required by Medicare/Medicaid
    2. CPC+ / PCMH – Value-based payment models requiring quality measurement
- Community quality measurement
    1. Community needs assessment
    2. Community resource planning (with social determinant additions)
    3. Retail pharmacy immunization monitoring

The Governance Committee subsequently suggested adding another bullet to the priority list:

- Availability of community data for community and practice-specific improvement opportunities
    - Including multiple data types (such as claims and social determinants data) and sources with tools for organizations

## Privacy & Security Task Force

This task force met on 12/7/2016, 1/19/2016, 2/8/2016 and 3/9/2016. The group discussed the work done before for HealthShare Montana, the legal framework for a health information exchange pilot project in Billings, the MyHealth legal framework, and other possibilities. They agreed at this phase to review the major decision points that would need to be resolved in order to establish a framework, and reviewed the issues and solutions MyHealth has employed, with discussion of Montana-specific implications. In the final meeting, the task force voted to send feedback to governance stating the following:

No issues appeared to be unresolvable and on the outset it appears MyHealth's legal model could work as a starting point for Montana. However, member organizations need to commit time of their key compliance people to ensure they can understand and adapt the framework to fit the needs of Montana providers. The task force also requested it be noted that they did not have the right number and types of people they thought that this topic warrants, though the recommendation was agreed upon by those present. With the right group gathered, the details that were discussed here would be wise to revisit.

The major topics of discussion included:

| | | | |
|---|---|---|---|
| Governance Policies | Rights of Participants | Legal Frameworks | Permissible PHI Uses |
| Reports vs Research | Amendment Procedures | Data Ownership | Compliance Roles |
| Enforcement / Liability | Network-to-Network | Security Safeguards | Breach Response |
| Incident Response | Privacy Complaints | Opt Out Policy | Managing Restrictions |
| Auditing Disclosures | Amending PHI | Min. Necessary Access | Administering Users |

## Technology Task Force

This task force met on 12/7/2016 and 2/13/2016, and stands ready to reconvene once specific direction has been provided by the initiative with specific requirements in mind. The task force saw a demo of the MyHealth technology as a potential starting point, and recommended the following guiding principles as part of a technology procurement plan:

- Consider the full data life cycle as a lens for thinking about system requirements
- Take advantage of lessons learned from other communities
- Community should be prepared to undergo an iterative process through the following steps:
    - Gather requirements (i.e. from other task forces and participants)
    - Gather information about available options
    - Develop and implement plans incorporating functional, resources and constraints

A viable HIE vendor solution needs to:

- Meet national standards for interoperability (ONC technology standards)
- Provide a modular solution capable of supporting "best of breed" mix of solutions (not one-size-fits-all and requirement to use that vendor's product for every function)
- Cooperate, be responsive, and work well with other vendors
- Be able to intake and process both clinical and claims data

## Business and Finance Task Force

This task force met on 12/7/2016, 1/20/2017, 3/6/2017, 4/21/2017 and 6/20/2017. The task force members advise that to be sustainable, a health information organization must generate value for its members that they deem sufficient to justify continued investment. To this end, a value proposition sheet was created with health systems in mind, where several possible value proposition platforms are highlighted. A health system could choose one or more of these value propositions to focus on in order to generate meaningful ROI. The proposition (attached as Exhibit A) considers new revenue opportunities, avoidance of costs and losses, and improvement in care (better execution on its mission), as summarized in this Figure 4.

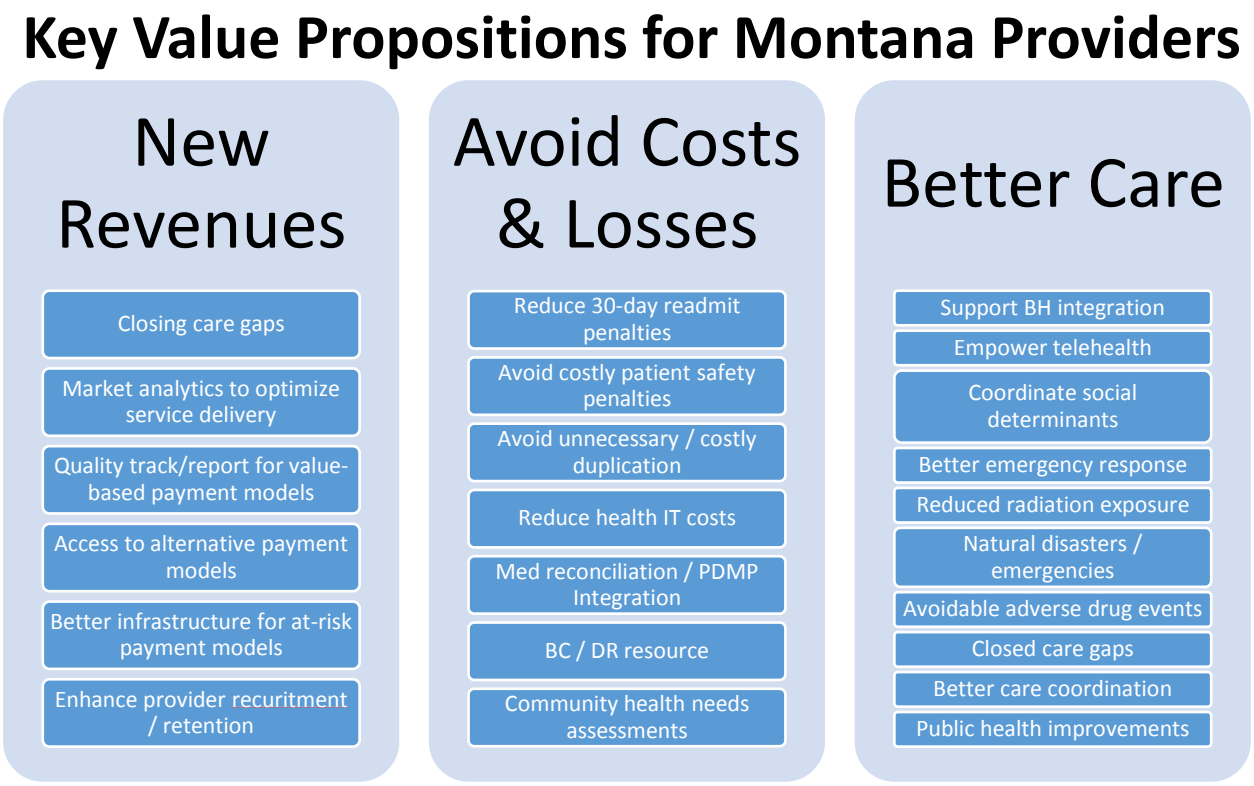


Figure 4: Business Proposition Summary

The task force also assessed Montana's capacity for sustaining a health information organization, and determined that pricing models used by HIEs today could feasibly generate one to several million dollars per year with a good business plan. With QCDR/MIPS and value-based reimbursement changes, innovative opportunities for sustainability may be viable. Startup funding may be generated by leveraging Medicaid 90/10 IAPD funding, if a local source for the 10% match can be found. HIE Champions have identified several possible strategies which they are pursuing.

A market survey and analysis was also done, revealing that at 20% of participation, a state HIE could likely be funded .

**Montana Market Analysis – Sustainable: Yes**

| State #'s | Count |
|---|---|
| Clinicians | 5,604 |
| Facilities | 879 |
| Hospitals | 65 |
| FQ Health Centers | 62 |
| Long Term Care Facilities | 76 |
| Mental Health Centers | 26 |

Subscription-based HIE priced similarly to other HIEs works.
*Sustainability Target: ~$3M*
*Est. Market Potential: ~$22M*

Capital Funding Proposal:
Federal funds are allocated to help—need to raise 10% in local funding (state government is supportive but isn't a funding source).

**Health Insurance Coverage (2016):**
Private (559K); Medicare (201K); Medicaid (193K); Uninsured (76K)

Figure 5: Market Survey Summary

## Governance Task Force

The Governance task force met on 12/6/2016, 12/19/2016, 1/30/2016, and 7/13/2017. At its July meeting, after receiving the conclusions and recommendations of all committees, 14 committee members volunteered as champions to work together in bringing the fruits of the planning process to

reality. This group of Champions have continued meeting and are working to establish the formal business plan, incorporate the organization, develop bylaws and form and to win support from health systems along the way. The champions have met several times subsequently and intend to form a non-profit organization, in pursuit of 501(c)3 status and financial backing.

## Conclusions

With some devoted focus and energy, there are resources and opportunities sufficient to fund and sustain a health information organization comparable in size and capability to those thriving in many other states. With the groundwork laid by the stakeholders in the initial year of planning, and with the ongoing engagement of stakeholder organizations, Montana's HIE Champions can succeed in establishing a successful health information organization for Montana that can become a catalyst to draw additional funding, appeal to its existing talent base, and magnify Montana providers' efforts and businesses as they work together to improve population health, obtain better health outcomes and improve cost efficiency for health care services.

**Health System Value Considerations for Health Information Exchange in Montana**

Health systems and hospitals play a critical role in the care of patients in their communities, but are under increasing stress from rising technology costs, new regulations and requirements, and changing compensation models. A state-wide health information organization can help to address many of these challenges. All of these benefits of HIE's are being experienced in other parts of the United States, and are achievable in Montana as well, with your participation:

**New Revenue Opportunities**

- Closing care gaps – Generate new revenue by identifying overdue preventive screenings (colonoscopies, mammograms, etc.) based on comprehensive, timely data.
- Market analytics to optimize service delivery – HIE supports patient utilization analytics based on real time clinical data flow instead of reports based on claims data with 6-month lag.
- Quality tracking and reporting for value-based payment models – Evaluate quality measures at the patient level in near real time, providing revenue opportunities to both close the gap AND improve performance.
- Access to alternative payment models – Center for Medicare and Medicaid Innovation (CMS) programs and state-wide improvement opportunities favor collaborative community models.
- Better for provider-at-risk payment models – HIEs yield efficiencies. A national study (Medicare over 6 years) showed $139 lower per beneficiary per year in regions with mature HIE vs regions without.
- Enhance provider recruitment and retention – Reduce provider concerns about rural and remote practice by ensuring they are connected to patients and colleagues across the state.

**Avoid Costs and Losses**

- Avoid 30-day readmission penalties – Health systems avoid penalties with proactive admission, discharge, and transfer alerts from all other hospitals and clinics participating in HIE.
- Avoid costly patient safety penalties – Hospital Safety penalties are appropriately avoided by having data on pre-existing adverse conditions such as infections and renal failure.
- Avoid unnecessary and costly procedure duplication – Where compensation limits exist (at-risk, uninsured, limits on number of scans, etc.), HIE helps avoid unnecessary test duplication.
- Reduce Health IT costs – One HIE interface can replace dozens, including: public health reporting, lab companies, insurance companies, referring providers, and quality measurement solutions.
- Med reconciliation tools and integration with PDMP – One integration helps all providers in the HIE.
- Business continuity / disaster response – HIE provides patient record access when EMR systems are down.
- Community Health Needs Assessments – Full community needs assessments made regularly at lower cost.

**Better Care**

- Support Behavioral Health integration – HIE enables state-wide efforts to address some of Montana's greatest health needs (suicide prevention, treatment coordination, and opiate abuse).
- Support / empower telehealth solutions – With HIE relevant records are available to support remote care.
- Coordination to address social determinants – Connecting social services infrastructure to clinical systems.
- Better emergency response – EMS and ED use HIE to reduce delays in care during emergencies.
- Reduced exposure to radiation – Multiple studies confirm that HIE reduces duplicated scans.
- Support for natural disasters/emergencies – HIE enables location of patients with health needs.
- Avoidable adverse drug events – HIE enables better med reconciliation to avoid ADE's.
- Care gaps closed – Mammograms, colonoscopies, and benefits of early detection are realized.
- Better care coordination – Alerting to primary care providers creates opportunity.
- Public health and population health improvement – HIE enabled reduction in untreated STDs from 46% to 8% during 1 year.