



MedStar Health  
Research Institute

## **Organizing Complex Care for Rural Populations: A Case Study of Three Montana Communities**

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## Executive summary

Complex patients have a variety of unique needs, which require complex care interventions to be highly customized for specific patients and their socioeconomic environments. Complex care programs are especially difficult to develop and implement in rural areas where healthcare workforce shortages and highly limited social service resources are common.

Through funding from the Robert Wood Johnson Foundation for its participation in the Transforming Complex Care (TCC) initiative, Mountain-Pacific Quality Health, a non-profit Quality Improvement Network/Quality Improvement Organization (QIO) developed and deployed multi-disciplinary ReSource Teams. These ReSource Teams are designed to work with high healthcare-utilizing patients struggling with complex combinations of health and social challenges. This report uses qualitative and quantitative data to describe recent experiences of the ReSource teams in three rural Montana communities in Kalispell, Billings, and Helena.

The ReSource Teams at the three sites use different combinations of data sources, including electronic health records and patient interviews, to track their complex patients' hospital use and social service needs. The site in Billings uses ICD-10 Z-codes to systematically characterize and respond to their patients' social determinants of health.

Semi-structured interviews with members of each ReSource Team produced the following key themes:

- The ReSource Team deepens and enriches the communication between patients and their primary care providers. Communication is often enhanced by uncovering key information that providers often do not know or may overlook.
- The ReSource Team connects patients to highly fragmented resources that involve health services, social services, and “as-needed” charitable contributions from individuals or community groups.
- The ReSource Team's interactions with patients involve creative problem solving and initial emphasis on patients' personal goals to subsequently support clinical care management goals.
- The ReSource Team identifies areas where the “mainstream healthcare system” has not worked well for patients and seeks to creatively fill the gaps that are uncovered.
- Interviewees identified specific skills and personality traits that are viewed as essential for working effectively with complex patients. These include creativity, persistence, sense of humor, being a good communicator, being an advocate, flexible, adaptive, and high tolerance for frustration.

Although this report is not intended to be a formal program evaluation, the documented experience of the ReSource Teams provides clear examples of how to set up complex care programs in rural environments with highly constrained resources. The teams have developed highly customized approaches to patient care for extremely medically complex and socially vulnerable populations who are not well served by traditional systems of care.

## Introduction

Complex care has emerged as an important component of healthcare payment and delivery reform. People with complex health and social needs face a combination of medical and socioeconomic challenges that can lead to poor health outcomes and high health system costs. Improving systems of care for such patients holds the potential to improve outcomes while containing healthcare costs.

Complex patients have a variety of unique needs, which requires complex care interventions to be highly customized for specific patients and their socioeconomic environments. As a result, complex care often requires a dedicated health workforce prepared to provide an intensive level of patient service. Complex care programs are especially difficult to develop and implement in rural areas. Even in more routine situations, rural healthcare providers face staff shortages and a dearth of organizations to provide other services to complex patients, such as transportation and housing. Rural areas also lack the population to support the kinds of high-touch, intensive care coordination programs upon which many complex patients rely, and smaller patient panels make identifying sustainable funding for those programs even more difficult.

This report describes recent experience with an intervention designed to address the challenges facing people with complex health and social needs in three rural Montana communities in Kalispell, Billings, and Helena. Through funding from the Robert Wood Johnson Foundation for its participation in the [Transforming Complex Care \(TCC\)](#) initiative, [Mountain-Pacific Quality Health](#), a non-profit Quality Improvement Network/Quality Improvement Organization (QIO) developed and deployed multi-disciplinary ReSource Teams. These ReSource Teams are designed to work with high healthcare-utilizing patients struggling with complex combinations of health and social challenges. Patients are targeted for the intervention if they are not in need of palliative or end-of-life care and meet the following criteria:<sup>1</sup>

- Two or more inpatient admissions in six months; AND/OR
- Two or more ED visits; AND
  - Chronic disease; AND/OR
  - Assessed need for additional primary care
  - Assessed needs related to social determinants of health

The intervention is designed to “graduate” patients from the program when they are able to self-manage care or after 90 days of enrollment.

This report describes each site’s initial deployment of ReSource Teams, program data collection activities, and lessons learned from experiences. Detailed descriptions of care team activities come from a series of semi-structured phone interviews conducted in May 2018. Interviews were recorded, transcribed, and analyzed separately by two members of the study team to derive common themes and salient program features within and across the three sites.

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<sup>1</sup> Inclusion and Exclusion Criteria for Complex Care Programs: Survey of Approaches. Technical Assistance Tool. Center for Health Care Strategies: Hamilton, NJ. October 2018. Available at <https://www.chcs.org/resource/inclusion-and-exclusion-criteria-for-complex-care-programs-survey-of-approaches/>

The report also uses different types of data available from each site to provide initial descriptions of patient health, demographic, and socioeconomic characteristics.

## **ReSource Team Organization and Approach**

ReSource Teams staffed by registered nurses, community health workers (CHWs), volunteers, and behavioral health consultants connect complex patients in rural or frontier areas to medical, behavioral health, and social services. The ReSource Teams are designed to address patients' barriers to care, many of which are compounded by rural and frontier areas such as lack of access to transportation, stable housing, and food insecurity. A nurse or CHW first meet with patients upon admission to the hospital. During a subsequent home visits, the nurse or CHW performs clinical assessments, including assessing unmet social needs and other factors such as the types of medications a patient is currently taking. With patients often living significant distances from providers, ReSource Team members often deploy video chat technology on mobile tablets to link patients with other providers to coordinate a full range of care, including addressing social needs.

### **ReSource Team in Kalispell**

The ReSource Team in Kalispell consists of one RN case manager and one community health worker (CHW). Due to high demand, the team has plans to hire an additional CHW. Patients who are considered candidates for the ReSource Team are contacted and asked if they would be interested in receiving coordination services. For participating patients, the team sets up an initial home visit attended by the RN and CHW where they discuss the full range of medical and social issues facing the patient. Obtaining the most comprehensive description possible of all the patients' needs upfront is considered key for successful engagement and knowing how to frame questions to ask of patients in the most productive way. From the first interactions, the ReSource Team begins setting up a "warm handoff" for the next level of care planned for the patient (e.g., from a specific physician practice) after graduation from the program. During the course of the intervention, the RN (focusing primarily on clinical issues) and the CHW (focusing primarily on social issues) communicate regularly with patients. The team focuses on patients' preferred method of communication, which includes text messaging and phone calls. Communication with other healthcare providers takes place mainly through email and phone calls.

### **ReSource Team in Billings**

The ReSource Team in Billings is centered on two CHWs and a lead nurse. One CHW is a military veteran and was recruited specifically to better connect with complex patients with a history of military service. The team partners with area hospitals that refer patients to the program in close collaboration with local hospital case managers and outpatient clinic care managers. Early on, home visits are divided between CHWs and the lead nurse with CHWs taking on home visits thereafter.

Patient contact with CHWs is limited to normal business hours. The ReSource Team communicates informally with the broader care team on a daily basis and participates in more formal weekly huddles.

## **ReSource Team in Helena**

The ReSource Team employs a similar patient engagement approach but is structured somewhat differently in Helena relative to the other two sites. In Helena, the ReSource Team is embedded in a broader Comprehensive Primary Care Plus (CPC+) program funded nationally through the Center for Medicare and Medicaid Innovation (CMMI) (currently in year 2 of 5).

The teams are organized into pods, which are units in shared building space. Physicians share clinical team and clerical/admin staff. Because of liability concerns on the part of the hospitals/health system, no home visits are built into the care management workflow. Nurse care managers who address patients' clinical and social needs work in multiple pods for different physicians. Structured as a transitional care program focusing on social determinants, which account for a bigger piece of the wellness than medical care. Offers extensive care coordination services but without home visits. Phone calls, extra office contact. Services include chronic care management, post-hospitalization follow up, advance care planning, & high-risk obstetrics/post-partum care. Emphasis on care transitions. Focused on patients who are already assigned to primary care physicians. No time limit for services. Some patients remain long term. Some stay until they die. Patients are targeted for intervention based on risk scores, which are designed to predict readmission based on number of medications, chronic diagnoses, and utilization of emergency department (ED), inpatient care, & urgent care within 6 months. Some patients targeted through physician recommendation (need to verify this). Intervention fills gaps in discharge planning and patient understanding of what to do after discharge. No formal limits on intervention duration, and patients stay in program for varying lengths of time.

## **Data Collection and Metrics**

### **Kalispell**

The ReSource Team in Kalispell collects data from their electronic health records (EHRs) to keep surveillance over patients' hospital use including ED visits, observation stays, and inpatient admissions. These cover use at one regional hospital and one critical access hospital. The graphics below summarize hospital use data for 41 patients who began engagement with the ReSource team from October 2016 through September 2017. These patients are predominantly covered by Medicare (54%) or Medicare and Medicaid together (29%). Small numbers of patients are covered by Medicaid only, the Veterans Administration, or private insurance.

Among these 41 patients, ED visits fell on average and across the distribution of visits, especially at extreme levels like the 90<sup>th</sup> percentile (Table 1). A similar pattern emerged for inpatient admissions but not for observation stays, which occur much less frequently overall.

**Table 1: Hospital Use by Patients Enrolled with the ReSource Team at Kalispell<sup>a</sup>**

	Mean	Median	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile
ED visits				
6 months pre-intervention	3.0	2	3	6
6 months post-intervention	1.6	1	2	3
Observation stays				
6 months pre-intervention	0.5	0	1	1
6 months post-intervention	0.3	0	1	1
Inpatient admissions				
6 months pre-intervention	1.9	2	3	4
6 months post-intervention	0.8	0	1	3

<sup>a</sup> Based on 41 patients enrolled in the intervention October 2016 through September 2017.

## **Billings**

The ReSource Team in Billings collects information through their partnering hospital's electronic health record (EHR), which includes the use of ICD-10 Z-codes documenting "factors influencing health status and contact with health services", many of which are driven by social determinants of health. They also conduct a patient survey to collect detailed information about the need for, and connection to, social support services. The tables below summarize key characteristics from these data sources for 31 individuals who began their engagement with the care team from February 2017 to May 2018.

All 31 patients had at least one issue documented with a Z-code. The most common among these were issues related to literacy/education and employment (Table 2). A very wide variety of other issues including problems with housing and lack of needed personal care were also commonly documented.

**Table 2: Ten Most Commonly Recorded Z-codes by ReSource Team in Billings**

Z-code	Percentage <sup>a,b</sup>
Z55.9 Problems related to education and literacy, unspecified	77.4%
Z56 Problems related to employment and unemployment	71.0%
Z59.6 Low income	67.7%
Z59.7 Insufficient social insurance and welfare support	51.6%
Z60.5 Target of (perceived) adverse discrimination and persecution	38.7%
Z55.8 Other problems related to education and literacy	25.8%
Z59.1 Inadequate housing	25.8%
Z59.2 Discord with neighbors, lodgers and landlord	25.8%
Z74.0 Reduced mobility	22.6%
Z74.1 Need for assistance with personal care	22.6%

<sup>a</sup> Based on 31 patients enrolled in the intervention from February 2017 to May 2018.

<sup>b</sup> 100% has at least one z-code.

Issues related to mental health and substance use stand out among the most commonly recorded patient diagnoses (Table 3). More than 40% of patients were diagnoses with chronic pain.

**Table 3: Ten Most Commonly Recorded Diagnoses by ReSource Team at Billings**

<b>Diagnosis</b>	<b>Percentage<sup>a</sup></b>
Antidepressant use	77.4%
Anxiety	71.0%
Depression	67.7%
Apnea	54.8%
Opioid use	51.6%
Tobacco use disorder	51.6%
Benzodiazepine use	45.2%
Chronic pain	41.9%
Other mental illness	38.7%
Narcotic dependence	41.9%

<sup>a</sup> Based on 31 patients enrolled in the intervention from February 2017 to May 2018.

The CHWs connected their patients with a wide-ranging set of social support services with the vast majority of patients (90.3%) using at least one service shown in Table 4. These most commonly used services address housing or food insecurity followed by assistance with utility bills, financial support, and transportation assistance.

**Table 4: Services provided through CHW embedded in the ReSource Team at Billings**

<b>Service</b>	<b>Percentage<sup>a</sup></b>
Housing (at least one)	61.2%
Affordability/acquisition	25.8%
Section 8	22.6%
Housing and Urban Development	16.1%
Home safety	54.8%
Finances (at least one)	35.5%
Social Security	16.1%
Medication Assistance Program	25.8%
FAP	19.4%
Medicare Part-D	9.7%
Food (at least one)	61.3%
Supplemental Nutrition Assistance Program	45.2%
Food bank	25.8%
Family services	22.6%
Pantry Pals	9.7%
Utilities (at least one)	48.4%
Low-Income Energy Assistance Program	45.2%
Energy Share MT	35.5%
Electric comp	22.6%
Gas comp	3.2%
Transportation (at least one)	22.6%
Gas vouchers	9.7%
Medicaid cab	6.5%
MET special transit	6.5%

<sup>a</sup> Based on 31 patients enrolled in the intervention from February 2017 to May 2018.



## **Helena**

The team at Helena collects data from their electronic health records (EHRs) to keep surveillance over patients' hospital use including emergency department (ED) visits and inpatient admissions. These cover use at a one area hospital. The team also tracks patient demographics and common diagnoses. The tables and graphics below are derived from data for 130 patients who began engagement with the team from May to September 2017.

Patients treated by the care team at Helena are mostly female and covered by Medicare (Table 5). In this population, behavioral health and cardiovascular disorders are very common (Table 6). Extreme body mass index (BMI), indicating severe obesity, has been diagnosed in more than 45% of Helena's complex patients.

**Table 5: Characteristics of Patients Enrolled with the ReSource Team at Helena**

<b>Characteristic</b>	<b>Percentage<sup>a</sup></b>
Male	38.5%
Age	
19-52	25%
53-65	25%
66-74	25%
75+	25%
Insurance	
Medicare	63.9%
Medicaid	20.8%
Private	13.1%
Self-pay/uninsured	2.3%

<sup>a</sup>Based on 130 patients enrolled in the intervention from May to September 2017.

**Table 6: Diagnoses of Patients Engaged with the ReSource Team at Helena**

<b>Diagnosis</b>	<b>Percentage<sup>a</sup></b>
Mental health disorder	48.5%
Substance use disorder	15.4%
BMI > 40	45.4%
Tobacco use disorder	42.3%
Congestive heart failure	16.9%
Depression	39.2%
Ischemic vascular disease	58.5%
Hypertension	58.5%
Asthma	18.5%
Chronic obstructive pulmonary disease	32.3%
Coronary artery disease	16.2%
Diabetes	31.5%
Narcotic use	31.5%

<sup>a</sup>Based on 130 patients enrolled in the intervention from May to September 2017.

Among the 130 patients at Helena, the average number of ED visits fell, while the median remained stable (Table 7). Thus, the fall in the average was driven by reductions at the upper

percentiles (e.g., 75<sup>th</sup>, 90<sup>th</sup>). Inpatient admissions fell somewhat across the distribution, including the median.

**Table 7: Hospital Use by Patients Engaged with the ReSource Team at Helena<sup>a</sup>**

	Mean	Median	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile
ED visits				
6 months pre-intervention	2.2	1	3	6
6 months post-intervention	1.6	1	2	4.5
Inpatient admissions				
6 months pre-intervention	0.9	1	1	2.5
6 months post-intervention	0.5	0	1	2

<sup>a</sup>Based on 130 patients enrolled in the intervention from May to September 2017.

## Early Program Experience

The following observations reflect a combination of activities and lessons learned across the three ReSource Team sites:

**The ReSource Team deepens and enriches the communication between patients and their primary care providers.** Communication is often enhanced by uncovering key information that providers often do not know or may overlook. For example, a physician struggled to understand why a diabetic patient’s blood sugar was frequently out of control. Through ongoing patient interactions, the ReSource Team eventually discovered, and communicated to the physician, that the patient walked 16 miles per day due to lack of transportation. This discovery led to significant adjustments in nutrition and self-care planning for this particular patient. A CHW from one of the ReSource Teams described in a more general way the process of finding out important information about patients:

*“... a lot of it is things that they [doctors, nurses] just didn't know because they're taking at face value what the client's saying. The client goes into the hospital for just a regular doctor's appointment. They dress clean, they take showers, stuff like that, but when I meet with them prior to that, they hadn't bathed in two weeks, they're wearing ripped clothes. Just I give them a perspective that the doctors and nurses didn't have before.”*

The ReSource Teams also ensure that information from office visits is repeated and communicated accurately to patients’ family members. Although family members are often important partners in patients’ self-care, missing or inaccurate information from the patient often stands as a barrier to effective self-care support from family members.

**The ReSource Team connects patients to highly fragmented resources that involve health services, social services, and “as-needed” charitable contributions from individuals or community groups.** Patients’ service needs are driven by multiple causes including poverty/low income, social isolation, housing instability, and low health activation. Some patients are eligible for publicly available services. Others depend on the ability of the ReSource Team to locate assistance through less formal networks and channels. One ReSource Team, for example, often tapped financial counselors to help patients apply for

medical bill forgiveness and manage their budgets to afford medications. In another example, one patient was able to avoid missing appointments and work after receiving free tires from an anonymous donor that a CHW managed to locate.

One interviewee commented that, sometimes, identifying and explaining to patients the resources and services they already can access is an important part of the job.

*“One thing I was really surprised about is that a lot of these people actually had resources in place or were eligible for resources. They just didn’t know how to tap into them or how to get what they needed from those resources. I think every single one of them needed someone to hear their story and help them put the pieces together.”*

**The ReSource Team’s interactions with patients involve creative problem solving and initial emphasis on patients’ personal goals to subsequently support clinical care management goals.** Patients often have immediate personal priorities that serve as prerequisites to their addressing longer term health and wellness goals. These priorities commonly emerge during the team’s detailed patient assessments, which raise issues that are not covered in office visits.

For example, one of the ReSource Teams worked with a patient who was lonely ... the team helped her get a makeover to prepare for online dating. The issue of loneliness and its profound health effects came up routinely during interviews with one interviewee citing recent research showing that in terms of reduced mortality, the benefits of social support and integration are comparable to a reduction in tobacco use.<sup>2</sup> The ReSource Team emphasizes the need to facilitate a goal-setting process that is ultimately productive for patient health without dictating a provider-driven agenda. As expressed by one team member,

*“It isn’t about the goal for the health care provider. It isn’t about getting lab work right. It’s about [the patient’s] quality of life.”*

The work of the ReSource Team involves a great deal of trial and error that takes on unpredictable paths to meet patient needs. As one team member described it,

*“I like to use the analogy of getting in a boat that has 1,000 holes in it and you’re in there in the water with your patient. You have no idea where to begin, so you just start plugging leaks... I have no idea how it’s going to go forward, if it’s going to enhance the outcome, but it’s something I can do and it seems like there’s that one plug that all of a sudden that boat staying afloat... You never know which one is going to be the one. You just start wherever you can.”*

**The ReSource Team identifies areas where the “mainstream healthcare system” has not worked well for patients and seeks to creatively fill the gaps that are uncovered.** As one interviewee described the issue,

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<sup>2</sup> Holt-Lunstad J, Smith TB, Layton JB (2010) Social Relationships and Mortality Risk: A Meta-analytic Review. PLoS Med 7(7): e1000316. <https://doi.org/10.1371/journal.pmed.1000316>

*“Everyone is just so different. I think in general the mainstream health care system didn’t work for them, and it was all for different reasons, but they didn’t need more of the same. They needed something different. They needed someone to be able to take the time to listen, to be in their environment and see something different from what people would see in a doctor’s office or in a hospital. Someone to hear them out and not even just about their health care. ... For too long, we know what the science says and we know what we should do, and then we get frustrated when people don’t do what they should. But we haven’t been able to take the time to figure out why that gap existed and to try to fill it... We thought it would be about education. We thought that we would go in and teach them how to take care of themselves and that’s just not what this is. There is just so much more to it. I think that’s kind of the missing link: expanding what we know from science and taking that human aspect and bridging the two.”*

Another interviewee described connections between the ReSource Team and the broader healthcare system:

*“Meeting them [the patients] in the hospital, that started the relationship. Then going into that home and letting them guide that conversation, that also built that relationship. I feel like we owe a lot of success to that because we became different from other people that were part of their care team that had light touches. We have this really heavy touch in the home... This is care beyond hospital walls. ... I’m not there to discipline. I’m not there to parent. I am basically there to listen and at key opportune moments evoke responses, or listen and try to pull out more information if something is medically interesting or relevant.”*

Interviewees felt that the work of ReSource Team is very new to other health professionals but should be viewed as part of value-based care and population health management. One interviewee viewed the continuation and expansion of the ReSource Team’s work as a “political conversation” that has to take place with providers about disrupting the local culture of medical practice.

**Interviewees identified specific skills and personality traits that are viewed as essential for working effectively with complex patients. These include creativity, persistence, sense of humor, being a good communicator, being an advocate, flexible, adaptive, and high tolerance for frustration.** A key function of the ReSource Teams is to deploy community health workers (CHWs) or nurse care managers to help patients resolve important health-influencing issues outside of clinics and hospitals. With these essential attributes, in addition to a keen knowledge of the community’s needs and resources, ReSource Team members can productively connect complex patients with the services they need. As one ReSource Team member reflected,

*“Some people have to get very cold to just deal with certain complexities in their jobs, and I feel like you cannot get to that place where you’re hardened. Sense of humor, huge, because I think that’s how you don’t get*

*hardened, that you're able to talk about stuff and you're able to laugh at things. And you're able to just laugh at certain situations that come up and this is not a predictable job."*

Another highlighted motivational interviewing as underpinning the work on complex care management:

*"[The patients] are not always going to do things the way that you'd like them to do things. And you kind of have got to remove that in the beginning, like necessarily how you think they should do things and approach it more through motivational counseling [and help] them find out on their own, through your guidance and support, what works for them."*

## **Discussion**

The analysis of Mountain-Pacific's three ReSource Teams provides insights into the design of care management approaches for complex patients in rural settings. All three discovered communication gaps between complex patients and their medical providers that were highly consequential and frequently occurring. These gaps were commonly the result of routine care processes designed for less complex patients where providers may safely assume that patients have access to the most basic necessities of life. Another important factor is that patients in these circumstances are not comfortable volunteering such information directly to their providers. As a result, care teams in these situations must have the capability and personal sensitivity to probe deeply and carefully into these hidden factors that can render other treatment protocols ineffective. Although members of a more "traditional" clinical care team might be trained to probe for these factors, the Mountain-Pacific experience casts doubt on this possibility for two reasons: 1) the process is very time intensive and 2) patients may remain resistant to having such conversations with their direct care team in a clinical setting. In a similar way, the ReSource Teams illustrate the value of finding and remediating communication gaps that occur among patients' family members and caregivers.

Another key element of how the ReSource teams engage with patients is the emphasis on patient-driven goal setting. This element further strengthens communication and trust during patient interactions. It also frames and reinforces the clinical goals that are focused on by providers.

The ReSource Teams frequently encountered challenges common to rural areas – specifically, limited publicly financed social services as well as constrained and highly fragmented charitable resources. Although some patients could be enrolled in available social service programs, others required more creative situation-specific responses (e.g., free car tires from an anonymous donor). In such cases, it is not clear whether similar resources would be available later for other patients in similar situations. This uncertainty, however, reflects broader public policy and philanthropic decisions well beyond the reach of any complex care team. Nevertheless, the ReSource Team experience illustrates how a complex care team can leverage the most from what is available to their patients in a given social policy environment.

Although the quantitative data in this report are not sufficient to support rigorous evaluation of patient outcomes, they provide a clear description of specific challenges faced by the

ReSource Teams' patients and they generate information to guide the planning of specific care management activities. The quantitative data also reinforce the examples given by interviewees about the complexity and heterogeneity of the patients they serve. Data available from Helena shows the very high prevalence of multiple chronic illnesses, behavioral health diagnoses, and extreme obesity in their complex patient population. Through its use of ICD-10 Z-codes and additional primary data collection around social service needs, the ReSource Team in Billings quantified the scale and scope of socioeconomic issues that were most pressing among their complex patients.

The development of Mountain-Pacific's ReSource Teams is taking place at a time when broader healthcare payment and delivery reforms are placing greater emphasis on improving care for people with complex health and social needs. The ReSource Team in Helena, for example, is embedded within a broader CPC+ program. More broadly, Medicare's Quality Payment Program (QPP) for outpatient care includes a complex patient bonus, which was designed as a short-term measure to account for clinical and social complexity.<sup>3</sup> Longer term, the Center for Medicare and Medicaid Services (CMS) seeks to develop a more precise adjustment for medical and social risk factors in the QPP. Similar attention to complex patients is also an important element in accountable care initiatives, especially in those Medicaid where complex health and social challenges are common. Successful implementation of these and similar reforms requires providers to develop proficiency in addressing social determinants of health affecting complex patients in ways that are tailored to their local environments. The work of the ReSource Teams illustrates several ways to develop this proficiency.

The analysis in this report is subject to some caveats. First, the quantitative data are derived from convenience samples and reflect only the experience of patients who agreed to work with the ReSource Teams. Second, the analysis of hospital utilization outcomes does not include a comparison group, and therefore, should be viewed as descriptive and preliminary. Although there are some encouraging findings regarding reductions in hospital use for Kalispell and Helena, the phenomenon of regression to the mean cannot be ruled out, especially since most of the reductions occurred at the upper extreme end of the utilization distribution.

Despite these caveats, the experience of the ReSource Teams provides clear examples of how to set up complex care programs in rural environments with highly constrained resources. The teams have developed highly customized approaches to patient care for extremely medically complex and socially vulnerable populations who are not well served by traditional systems of care.

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<sup>3</sup> Department of Health and Human Services. Centers for Medicare & Medicaid Services. 42 CFR 405, 410, 411, 415, 425, and 495. Available at <https://s3.amazonaws.com/public-inspection.federalregister.gov/2018-24170.pdf> .