



# How Did They Do That?

**Facilitator: Darlene Tad-y, MD**  
 Vice President of Clinical Affairs  
 Colorado Hospital Association





**Dave Ressler**  
 Chief Executive Officer  
 Aspen Valley Hospital



**Grant Besser**  
 Vice President of Public Affairs  
 President of BHC Foundation

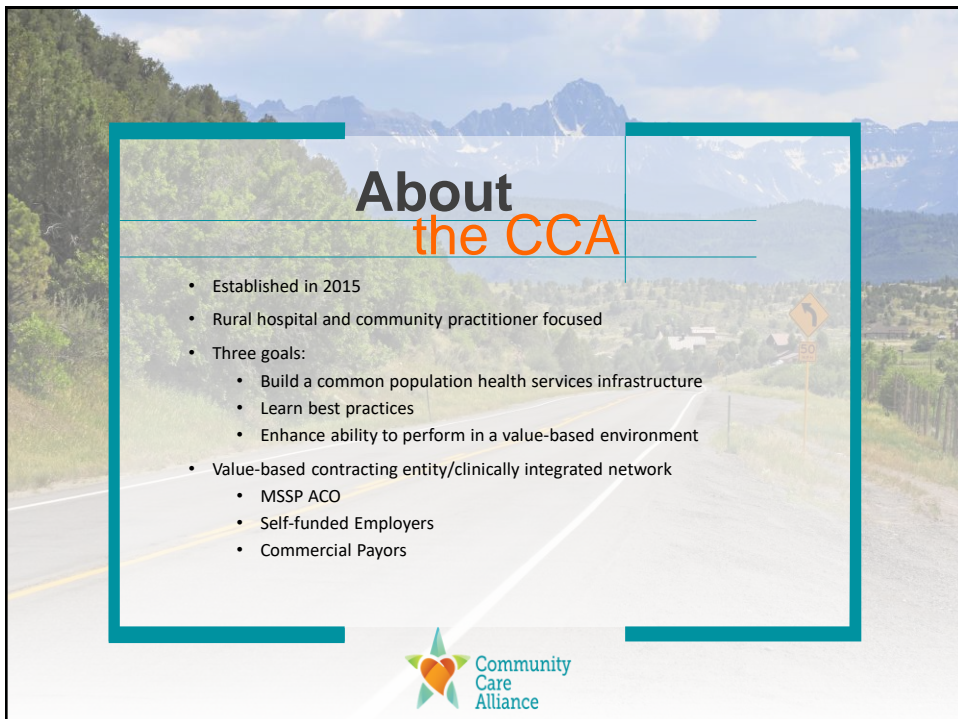


**Thomas MacKenzie**  
 Chief Quality Officer  
 Denver Health

Patient Safety Leadership Congress




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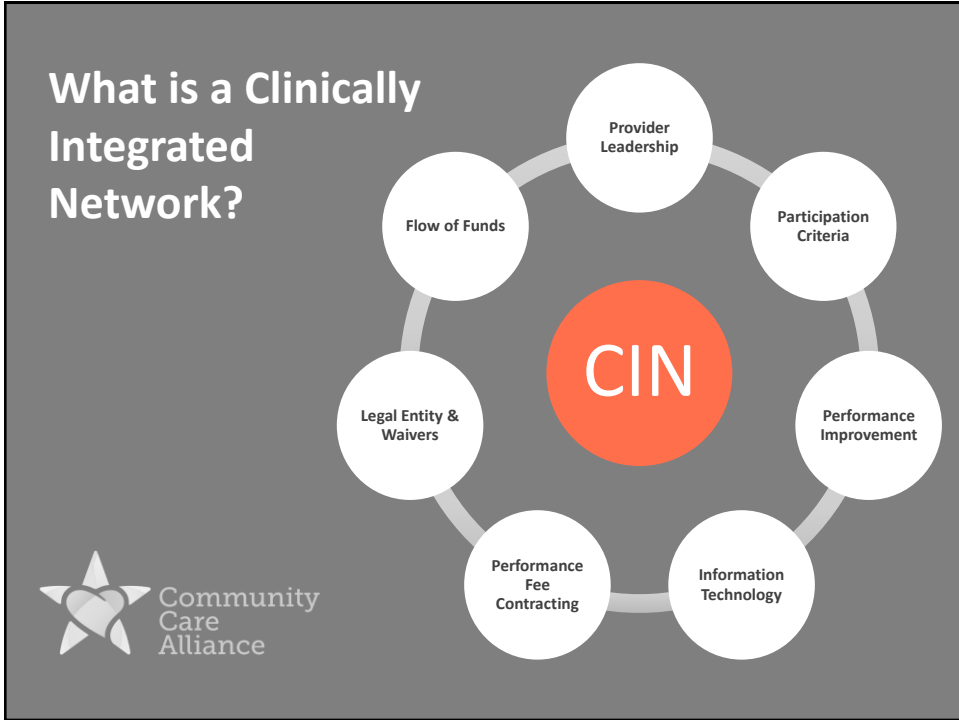


## About the CCA

- Established in 2015
- Rural hospital and community practitioner focused
- Three goals:
  - Build a common population health services infrastructure
  - Learn best practices
  - Enhance ability to perform in a value-based environment
- Value-based contracting entity/clinically integrated network
  - MSSP ACO
  - Self-funded Employers
  - Commercial Payors



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## CCA Services

- Clinically Integrated Network (CIN) for Value-based Contracting
- Population Health Data Analytics Platform
- Care Coordination Education & Training
- Quality Improvement Coaching
- Quality Reporting Assistance
- Data Analytics Training
- Health Policy & Regulation Guidance

The slide titled 'CCA Services' features a photograph of a healthcare professional in a white lab coat holding a glowing orb. The orb is surrounded by various healthcare-related icons, including a heart, a stethoscope, a person, a smartphone, a pill, and a microscope. To the right of the image is a bulleted list of seven services. At the bottom right, the Community Care Alliance logo is shown, which includes a stylized star and the text 'Community Care Alliance' and 'A Western Healthcare Alliance Company'. Below the logo is the website address 'CommunityCareAlliance.com'.

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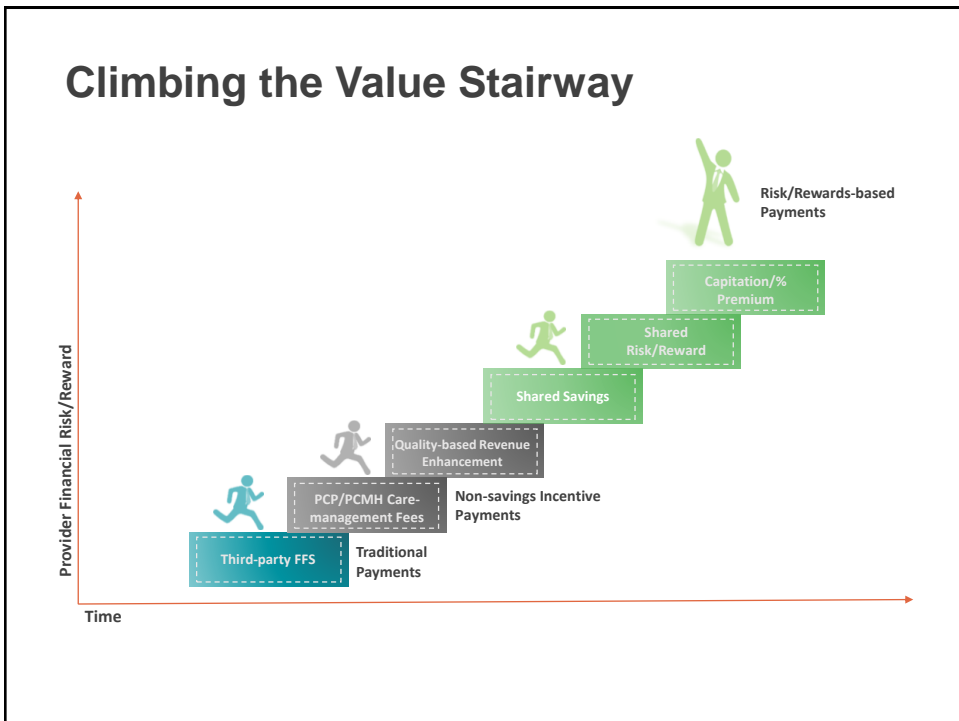
## What is Value-based Care

- Focused on achieving the quadruple aim
  1. Engaged Providers
  2. High quality care
  3. Low costs
  4. Healthy population
- Providers held to certain quality and cost standards and population health programs to ensure a specific group of patients receive better care and become healthier
- Shift from conventional healthcare to population health



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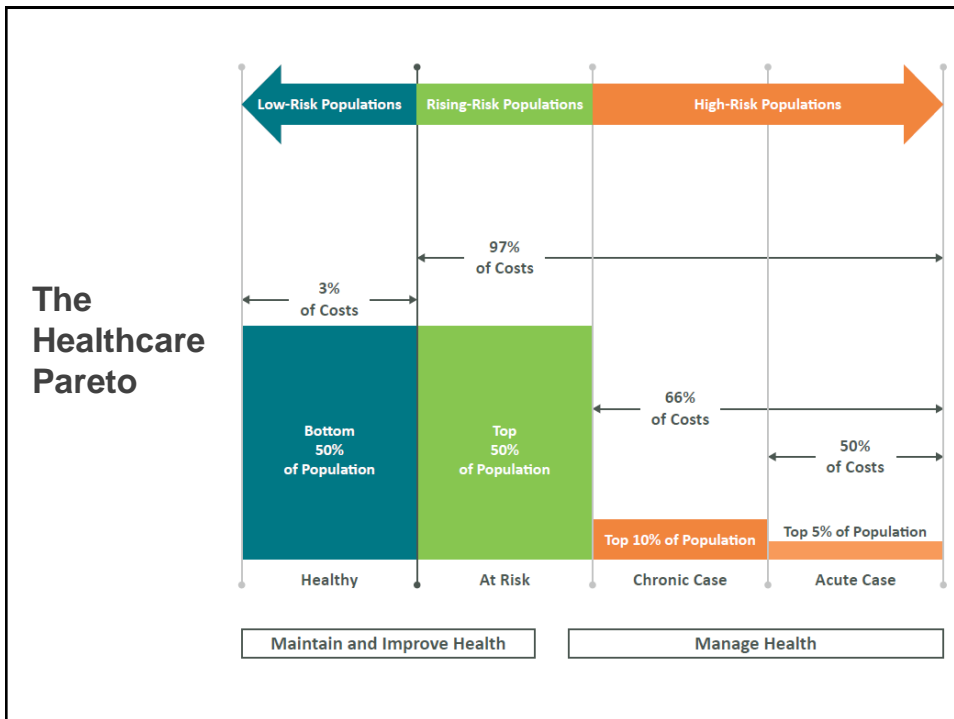
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## Population Health

	Conventional Healthcare	Population Health
<b>Purpose</b>	<ul style="list-style-type: none"> <li>Cure disease</li> </ul>	<ul style="list-style-type: none"> <li>Prevent disease</li> <li>Keep people healthy &amp; well</li> <li>Mitigate chronic conditions</li> </ul>
<b>Values</b>	<ul style="list-style-type: none"> <li>Diagnosis, treatment, cure</li> <li>Physician's expertise</li> <li>Unlimited access to healthcare*</li> </ul> <p>*If you can afford it</p>	<ul style="list-style-type: none"> <li>Prevent disease</li> <li>Emphasis on wellness</li> <li>Timely, high-quality, cost-effective care</li> <li>Patient-centered</li> <li>Coordinated care / medical home</li> </ul>
<b>Methods</b>	<ul style="list-style-type: none"> <li>Diagnosis and treatment</li> <li>Fee-for-service</li> </ul>	<ul style="list-style-type: none"> <li>Personalized wellness plans</li> <li>Community engagement &amp; prevention</li> <li>Global payments</li> <li>Shared health information</li> </ul>
<b>Constraints</b>	<ul style="list-style-type: none"> <li>Cost &amp; lack of access</li> <li>Continuity of care</li> <li>Administrative burdens</li> <li>Limited patient contact</li> </ul>	<ul style="list-style-type: none"> <li>Implementation cost</li> <li>Politics</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Greater autonomy</li> </ul>	<ul style="list-style-type: none"> <li>Cost effectiveness</li> <li>Evidence-based / personalized medicine</li> <li>Increased quality / error reduction</li> </ul>

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## Data Analytics



- Access to online data analytics platform
  - Financial & quality dashboards
    - ER utilization, AWVs, risk, gaps in care, GPRO reporting
    - Chronic condition registries
- Population health clinical support to augment data reports
- Custom ad-hoc reports & analysis
- Data literacy webinar series



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## Roles of Rural ACOs

- Build** medical communities to keep care local
- Expand** member-driven collaboration
- Develop** data analytic capabilities in the hospitals & practices
- Increase** reimbursement to practices & outpatient clinics
- Focus** on prevention & chronic care management
- Improve** clinical capabilities & access



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**WESTERN ACO**  
Established 2019

- 2 PPS Hospitals
- 7 Critical Access Hospitals
- 6 Rural Health Clinics
- 3 Federally Qualified Health Centers
- 1 Hospice
- 7 Independent Practices
- 50 Care Coordinators
- Over 600 Providers
- 2019 Est. Attributed Population: 15,000

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## 2018 ACO Results

Rocky Mountain Accountable Care Organization

# 2018

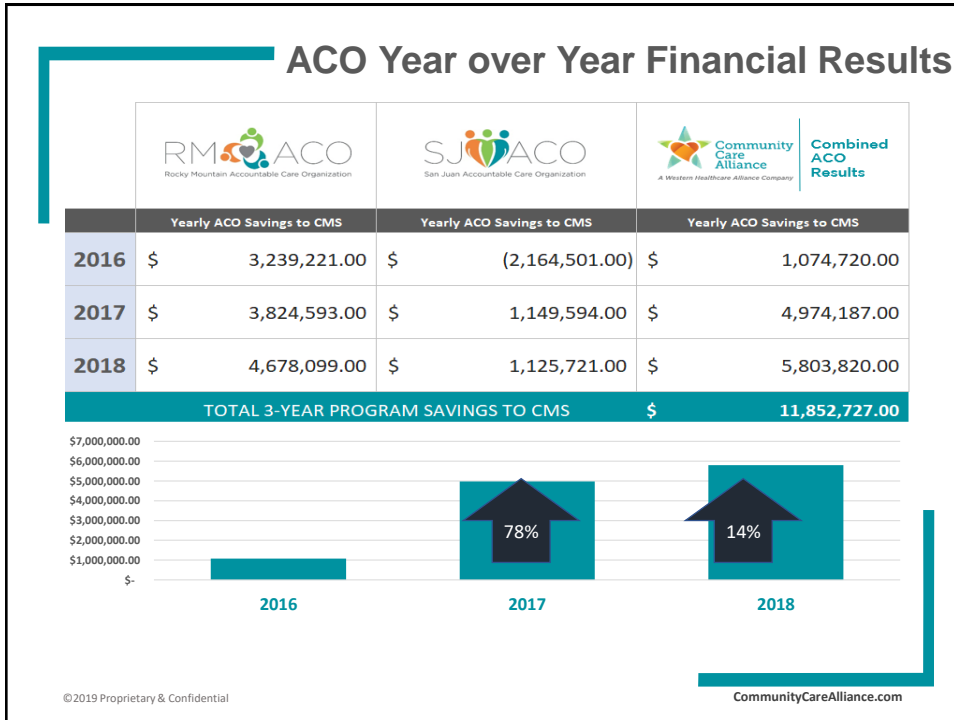
San Juan Accountable Care Organization

Assigned Beneficiaries		13,525	9,236	Assigned Beneficiaries	
CMS Benchmark	VALUE	\$ 142,802,765.00	\$ 83,615,217.00	VALUE	
	PMPY	\$ 10,558.43	\$ 9,053.19	PMPY	
	PMPM	\$ 879.87	\$ 754.43	PMPM	
Shared Savings Threshold	VALUE	\$ 138,820,770.00	\$ 81,042,898.00	VALUE	
	PMPY	\$ 10,264.01	\$ 8,774.67	PMPY	
	PMPM	\$ 855.33	\$ 731.22	PMPM	
Actual Expenditures	VALUE	\$ 138,124,666.00	\$ 82,489,496.00	VALUE	
	PMPY	\$ 10,212.54	\$ 8,931.30	PMPY	
	PMPM	\$ 851.05	\$ 744.28	PMPM	
MSR		2.90%	3.10%	MSR	
Savings to CMS		\$ 4,678,099.00	\$ 1,125,721.00	Total 2018 CCA Savings to CMS	
				\$ 5,803,820.00	
Shared Savings Earnings / Miss Statistics					
Quality Score		92.26%	87.62%	Quality Score	
Total Shared Savings Rate		46.13%	43.81%	Total Shared Savings Rate	
Earned Shared Savings		\$ 2,158,039.00	\$ 1,446,598.00	Shared Savings, Missed By Value	
Shared Savings Paid back to AIM		\$ 2,158,039.00	\$ 13.05	Shared Savings, Missed By PMPM	

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## Valley Health Alliance

The Valley Health Alliance (VHA) promotes the health & well-being of the Roaring Fork community by collaborating to provide healthcare that is accessible, affordable and high quality.

VHA is the collaborative effort of six local employers:

- Aspen Skiing Company
- Aspen Valley Hospital
- City of Aspen
- Mountain Family Health Centers
- Pitkin County
- Valley View Hospital

Valley Health  
ALLIANCE

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## How Did They Do That?

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Patient Safety Leadership Congress

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# Making the Case: Community Collaboration

Grant Besser  
President, BCH Foundation

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## BCH VISION

**Partnering to create and care for the healthiest community in the nation**

**BCH Vision x Role of Foundation x Partner Collaboration**

=

**Emergency Department Reductions  
(Individuals Experiencing Homelessness)**

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## Impetus for BCH Vision

Partnering to create and care for the healthiest community in the nation

- **Address challenges from rapidly changing industry.**
  - Increasing competition, declining payments, volatile government policies, costs of care, etc.
- **Strengthen engagement and alignment behind partners.**
  - Drive Patient Value: Quality, Access, Outcomes, Cost, Experience
- **Maximize our strengths as independent entity while being open to partnerships that help us optimize quality of services and improve public health.**

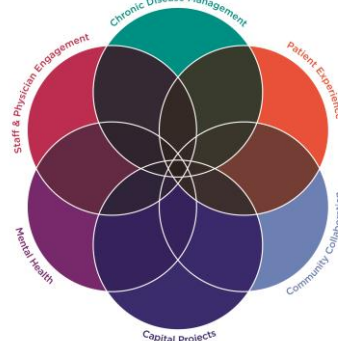
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Boulder Community Health Foundation

*Celebrating 40 Years of Community Impact*

- Exists to enhance the quality and availability of health care services at BCH.
- Approximately \$2.6 million granted to BCH on annual basis.
- BCH Foundation Priorities:



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## Community Collaboration Fund

- Established in 2018 in support of community partnerships.
- Focused on enhancing the treatment and care of our community.
- BCH Foundation playing role as influencer, convener, funder.
- Criteria:
  - Aligned to:
    - BCH vision, priorities, and geographic footprint
    - BCH Foundation priorities
    - Community health needs
  - Scale and sustainability
  - Accountability: quantitative & qualitative
  - BCH champion



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## BCHF Community Collaboration Partnerships To Date



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## Value of Foundation Role in Driving Partnerships

“Health care extends well beyond care settings—into homes, schools, and neighborhoods. **Transforming health outcomes requires a coordinated effort to tackle such contributing factors as socioeconomic conditions, transportation, housing, environmental issues, and access to healthy food.** Partnerships among health systems, public health bodies, and community organizations are the most effective ways to address community health. However, most organizations are traveling on separate but parallel paths toward building healthier communities, and as a result, valuable data, information, and resources are often siloed. **Increased collaboration among key stakeholders will unlock tremendous power and drive better health outcomes.”**

*Source: Building the business case for community partnership – Advisory Board*


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## BCHF Community Collaboration Fund Case Study: Bridge House


- **BCH Challenge: Inappropriate emergency department utilization by individuals experiencing homelessness:**
  - Increase in ED visits from our homeless demographic (2016 – 2.6%, 2017 – 3.6%, 2018 – 4.2%, Q1 and Q2 2019 – 4.9%).
  - The ‘average’ homeless patient is 55 years old and visits the ED 5 times per year.
  - 18 homeless individuals are considered our ‘highest utilizers’ making up 15% of all homeless utilization for Q1 and Q2 2019 (visits the ED 14 times per year).
  - For Q1 and Q2 2019, Top Homeless Utilizers cost BCH and average of \$18k per individual.

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## BCHF Community Collaboration Fund Case Study: Bridge House

- **Solution: Partnering with Boulder Bridge House**
  - Provides range of programs and services to help adults experiencing homelessness: basic needs, employment and housing resources.
- **BCHF Partnership Approach:**
  - Better serve those experiencing homelessness through BCH integration into Bridge House's Path to Home Program.
  - Path to Home Navigation program provides 24/7 sheltering and case management services. Lead navigation provider for the City of Boulder's new Homelessness Strategy and Homeless Solutions for Boulder County.
  - BCH's goal in participating is to treat patients where they are and avoid inappropriate emergency room utilization.




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## BCHF Community Collaboration Fund Case Study: Bridge House

- Approach was for BCHF to fund BCH RN Case Manager 16 hours per week working with clients at Path to Home and collaborating with Path to Home staff on best practices of healthcare. Areas of focus:
  - Conducting health assessments
  - Medication reconciliation
  - Scheduling primary care appointments
  - Assisted Living and Skilled Nursing Facility placement
  - Connecting patients with behavioral health specialists
  - Coordination of care plans between various healthcare providers
  - Triage of acute medical complaints



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## The Results

- The pilot has enhanced the quality and availability of health care services for 212 homeless residents in Boulder County.
- We have seen reductions in unnecessary emergency department visits as well as increased levels of engagement with primary medical and mental health services.
- Organizational Impact since start of pilot July 2018 (for the 212 homeless patients / 289 interventions):
  - 23% Decrease in Emergency Department Usage (150 visits to 115)
  - 40% Decrease in Hospital Admissions (72 admits to 43)

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<ul style="list-style-type: none"> <li>• On-Site Medical Assessment &amp; Triage (59% of total interventions)               <ul style="list-style-type: none"> <li>• <b>54% Decrease in Emergency Department Utilization</b></li> <li>• <b>57% Decrease in BCH Admissions</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Case Management and Community Care Coordination (21% of total interventions)               <ul style="list-style-type: none"> <li>• <b>41% Decrease in Emergency Department Utilization</b></li> <li>• <b>47% Decrease in BCH Admissions</b></li> </ul> </li> </ul>
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**HEADLINE:** On-site RN led to timely care and higher likelihood of utilizing important community partners (ex. Clinica, Mental Health Partners, Salud) that ultimately improves healthcare outcomes and provides the right care at the right time in the right place.

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- Continuum of Care from Hospital Discharge (11% of total interventions)
  - **84% Decrease in Emergency Department Utilization**
  - **96% Decrease in BCH Admissions**
- Temporary Relief Services (9% of total interventions)
  - **125% Increase in Emergency Department Utilization**
  - **200% Increase in BCH Admissions**

**HEADLINE:** BCH inpatient case managers were able to collaborate with the Bridge House on-site RN to provide a superior handoff from the hospital to community setting in order to increase compliance with the discharge plan. Best practice to avoid 30-day readmissions.

**HEADLINE:** Temporary relief services such as taxi vouchers to Primary Care offices had an adverse effect on utilization because these services are superficial and not addressing the core issue around access.




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## The Future of Path To Home Integration

- Continue on-site patient assessments.
- Work inside BCH Emergency Dept. for increased access to homeless patients who may not be linked to Bridge House services.
- Forge collaborations with governmental agencies such as Boulder County Public Health and the City of Boulder.
- Continue to build upon our understanding of the value of the program (e.g., medical outcomes, financial implications).
- Amplify out what we have learned.


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 Boulder Community Health

## Expansion of Partnership

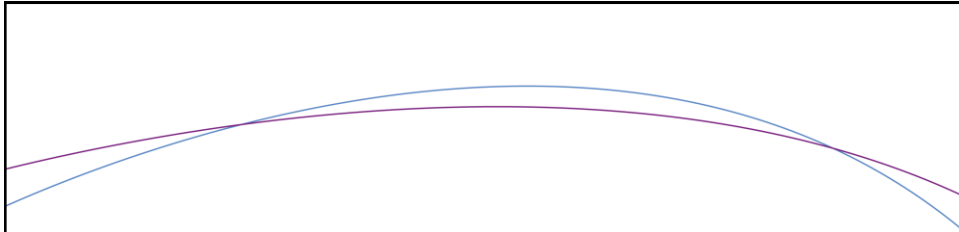
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 Boulder Community Health


## What Did the BCHF Learn?

- Redefining value of Foundation
  - **Convener:** Driving collaboration between existing organizations.
  - **Influencer:** Advocating for change; seat at the table.
  - **Funder:** Devote resources to make collaboration possible.
- Role in investing in social determinants of health.
- BCH champion was essential to success of pilot.
- Quantify efforts, yet keep qualitative view.
- Sustainability – avoid ad hoc efforts.

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“Being able to partner with BCH to provide immediate access to medical care is enormously important for our clients so that they may get the care that they need to address what might be a minor issue today so that it’s not a major issue tomorrow.”  
 -- Isabel McDevitt, CEO, Bridge House



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Patient Safety Leadership Congress 

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# Enhancing Value 2019

Thomas D. MacKenzie, MD, MSPH  
Chief Quality Officer



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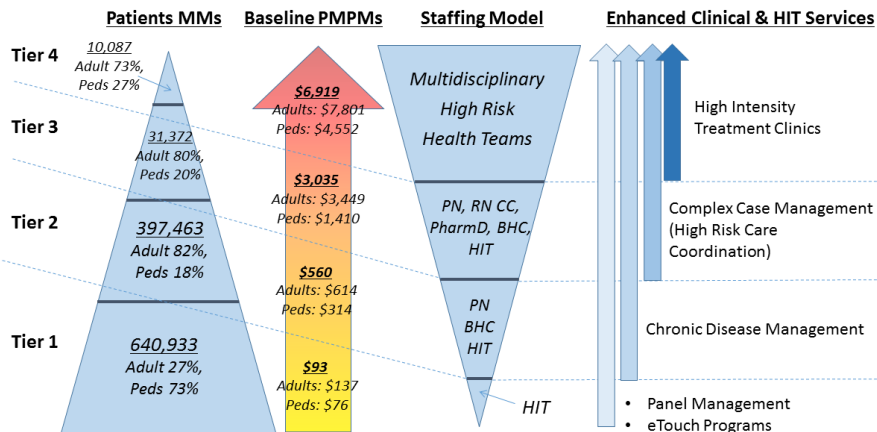
## Denver Health Values

- Excellence
- Compassion
- **Relentlessness**
- **Stewardship**
- **Learning**



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# Primary Health Care Redesign: DH 21<sup>st</sup> Century Care Model



Notes: Baseline period is July 2010 through June 2011. This initial "proof of concept" tiering algorithm was implemented by Milliman using CDPS predictive modeling tool thresholds to define tiers. Tier sizes were pre-determined according to estimated resource capacity. The attributed managed care population was identified through membership files, whereas the fee-for-service population was selected at a single point in time at the beginning of the time period and fixed for the duration. All attributed individuals were tiered. MM: Member months, PMPMs: Per member per month, PN: Patient Navigator, RN CC: Nurse Care Coordinators, PharmD: Clinical Pharmacist, eTouch: Health Text Messages Programs. Grant tiers (Beta version).

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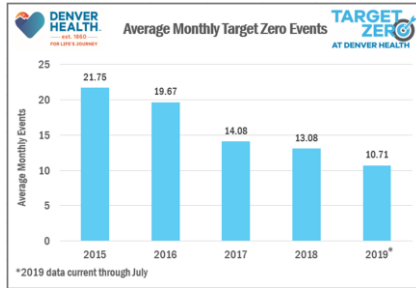
# Primary Health Care Redesign: DH 21<sup>st</sup> Century Care Model

- Outcomes
  - Modest improvement in primary care quality outcomes and patient experience scores
  - Achieved \$10.9M reduction in total cost of care for federal/state payers
    - \$8.2M savings to Medicare (FFS)
    - Most savings for tier 4 patients was inpatient utilization
  - DH had an addition \$5M reduction in total costs of our Medicaid managed care patients
  - Increased cost of personnel \$1.8M
  - DH has sustained nearly all the components of the program

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## Target Zero: Relentlessness

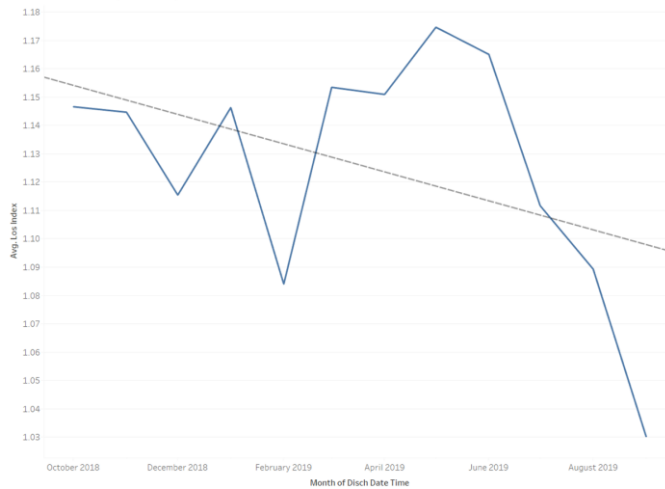


Event Category	2015	2016	2017	2018	2019 July Annualized	% Change Since 2015
C. Diff	95	93	68	81	45	-53%
CAUTI	40	33	21	11	27	-31%
CLABSI	32	20	10	11	5	-84%
Falls with Injury	22	8	7	8	14	-38%
Med Safety Events	7	17	8	7	0	-100%
Hospital Acquired VTE	43	46	30	28	27	-36%
Surgical Site Infections	24	25	27	12	14	-43%
<b>Total</b>	<b>263</b>	<b>242</b>	<b>171</b>	<b>158</b>	<b>132</b>	<b>-50%</b>
Lives impacted:	<b>349</b>					

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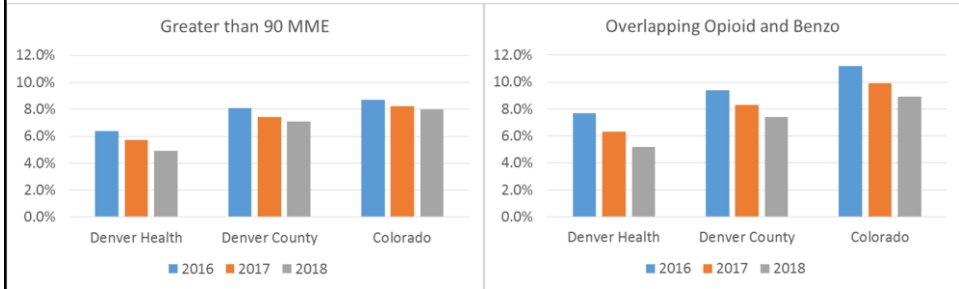
## OB Length of Stay: Learning

LOS Index monthly trend by Service All and DRG 540 - CESAREAN DELIVERY & 560 - VAGINAL DELIVERY



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# Opioid Prescribing: Relentless Transparency



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The slide features the Denver Health logo on the left, which includes a stylized heart shape with a mountain peak and a star. To the right of the logo, the text reads 'DENVER HEALTH™', 'est. 1860', and 'FOR LIFE'S JOURNEY'. Below this text is a graphic of several colorful question marks (blue, green, red, purple) of varying sizes and orientations, set against a white background.

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