Systems for Action
National Coordinating Center
Systems and Services Research to Build a Culture of Health

colorado school of public health

Using Global Budgets and Multi-Sector Teams to Align Systems in Vermont

Strategies to Achieve Alignment, Collaboration, and Synergy Across Delivery and Financing Systems

Research-in-Progress Webinar
October 12, 2022
12-1pm ET

Agenda

Welcome: Deena Brosi, MPH

Presenters: Adam Atherly, PhD • Virginia Commonwealth University
Julie Parker • Vermont Blueprint for Health

Q&A: Deena Brosi, MPH

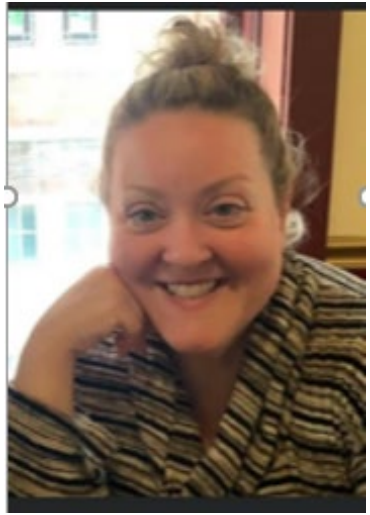
Research Team

Adam Atherly, PhD

Eline van den Broek-Altenburg, PhD

Jamie Benson, BS

Commentary



Julie Parker, MA
Blueprint for Health

Julie Parker has worked in the health care field for over 25 years. She is a Licensed Mental Health Counselor and a Certified Case Manager. After working as a psychotherapist, crisis clinician, and clinical supervisor in local mental health agencies, she transitioned to working for the State of Vermont /Blueprint for Health in 2019. Her hope is that she can take her practice/field experience to be able to give input on policy and impact change on a larger level. She is passionate about engaging with communities to support Vermonters in improving whole person health. She loves to swim, bake and spend time with friends and family.

The purpose of this project is to evaluate the effect of the combining ***Global All-Payer Reimbursement*** with ***Community Health Teams*** responsible for ***Coordinating Care and Service Delivery*** between the medical, social services and public health sectors on system alignment, health, access to healthcare and health equity.

Setting: Vermont All-Payer Model

- Statewide five-year waiver from the CMS Innovation Center to allow all-payer Accountable Care Organizations (ACOs)
- The waiver intended to:
  - Incentivize a focus on value, quality and population health
  - Create alignment between the health system payers, providers and CHTs,
- Layered upon reforms that established regional Community Health Teams (CHTs) and medical homes.
- Preliminary analysis of overall waiver was favorable
  - Enrollment challenges

Community Health Teams

- Statewide network of regional community health teams (CHTs).
  - Multi-disciplinary
  - Regionally headquartered in each service area's central hospital or federally-qualified health center
  - Funded by Medicaid, Medicare, and commercial payer through the Vermont Blueprint for Health initiative ("Blueprint") since 2011
- CHTs supported activities :
  - Patient-centered medical homes
  - Connect patients to community-based services.
  - Support learning collaboratives
  - Work with medical and community providers to align statewide initiatives with the region's available resources and priorities
  - Improve quality of services for health and well-being.

- *CHTs are relied upon to both achieve the goals of the ACO and also fulfill their public health role which creates potential tension between the priorities of centralized payers and community stakeholders*

Research Question Overview

- How do community health teams set priorities for what social, public health and medical services to offer?
- Understand tradeoffs made between health, health equity and healthcare spending
- Does the all-payer model create effective system alignment with the CHTs?
- **Step 1:** Identification of the contextual factors allows development of attributes for the Discrete Choice Analysis
- **Step 2:** Quantitatively estimate how CHTs make trade-offs in priority setting using a DCE / Mixed Logit Model

Identification of the contextual factors

- What contextual factors influence CHT Leader's decision-making process for resources allocation and service offerings?
- Exploratory sequential mixed methods study
- Conducted interviews to identify key factors and processes in decision making and priority setting

  - ***This was the focus of our previous presentation***

Summary: 4 Major Themes

1. Blueprint's stable and flexible structure
   - Blueprint enables local teams to create own structure and services
   - Investment in building team capacity
2. Commitment to offering high quality care coordination
   - Individualized care coordination for all patients
3. Leveraging community partnerships and local resources
   - Strength of community network
   - Availability of local resources and services
4. Use of data in program priority setting
   - Needs of the community and patients
   - Data driven decision making

Methods: Discrete Choice Experiment

- Quantitative approach to elicit individual preferences
  - Goal: Understand CHTs priorities and the relative weights of different attributes
- Create simulated choices to value alternatives that may not exist but could
- Choices are characterized by "attributes" and "levels"
  - Attributes: Characteristic of the choice
  - Level: Different values of the attributes

Methods: Choices Alternatives

- Qualitative survey suggested five key attributes:
  - Program Champion
  - Funding Opportunities
  - Target Population
  - Community Health Plan
  - Availability of data
- Levels identified through a combination of interview responses and expert opinion

Methods: Attributes and Levels

- Cost
  - $50k, $75, $100k
- Group advocating for program
  - Patients
  - Primary Care
  - Local Hospitals
  - Community Partner
  - Blueprint (Reference)
  - OneCare
- Data Supporting the Program
  - None (Reference)
  - Anecdotal
  - Quantitative Data
- Population Affected
  - General Population (Reference)
  - Racial & Ethnic Minorities
  - Persons Experiencing Homelessness
  - Economically Disadvantaged
  - Severe Chronic Health Conditions
  - SUD
- Population Size and Effect
  - Small Population, Large Effect
  - Medium Population, Medium Effect
  - Large Population, Small Effect
- In the Community Health plan
  - Yes, No

Methods: Data

- Provide each respondent choice alternatives that vary in attribute levels
  - Each respondent completes the survey multiple times
- Design has ~2,000 possible combinations of attributes and levels
  - Used iterative computer search algorithms to identify d-efficient design
  - Eliminate dominant choices, etc
- Standardized quality checks

Methods: Sample

- Surveys sent to all CHTs in the state of Vermont
  - February-April 2022
  - Included both leadership and team members
- Each DCE had three choices with six attributes
  - 14 choice tasks per respondent
- Total sample size
  - 180 individual responses
  - 2,520 completed choice tasks

Methods: Survey Structure

- Survey performed online
  - Introductory Email
  - Reminder emails
- Survey Design:
  - 1st part: Socio-Demographic Information
    - Also control over priority setting
  - 2nd part: 14 Choice Tasks, 3 Alternatives
  - 3rd part: Ignored Attributes, Preference Order

Methods: Survey Design

- Brief orientation to the project and the attributes and levels:
- **Vignette:**

> - *"For the purpose of this study, suppose you are in the position to decide the next program for your team. You are receiving $100,000 in new funding for one of three new programs, which vary in cost. All the programs are equal in terms of administrative complexity, and each of the programs has strong evidence for their effectiveness. Any funds left over at the completion of the program may be kept by your CHT to support other programs. The new programs differ in the following ways:"*

Example of Choice Alternatives in DCE

	Option 1	Option 2	Option 3
Program Cost	50,000	75,000	100,000
Population Affected	General Population	Racial & Ethnic Minorities	Persons Experiencing Homelessness
Population Size & Effect	Small Population, Large Effect	Medium Population, Moderate Effect	Large Population, Small Effect
Level of Data Supporting Need	None	Anecdotal	Quantitative Data
Partner Advocating	Patient Requests	Blueprint	OneCare
In the Community Health Plan	No	Yes	No
Which would you choose?	○ Option 1	○ Option 2	○ Option 3

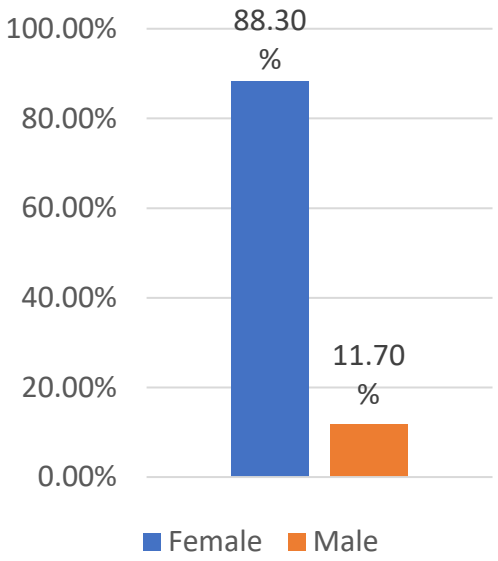
Methods: Analytic Approach: Mixed and Conditional Logit

- MMNL more flexible model: not strong assumption of IIA of standard logit
- Allows “taste coefficients” (betas) to be random so can be different for every individual
  - Derives individual-specific estimates conditional on the observed individual choices
  - Assume specific distribution for each random (taste) coefficient and distributions can vary across the coefficients

$$\text{Prob}(y_{it} = j) = \frac{\exp\left(\alpha_{ji} + \boldsymbol{\beta}_i' \mathbf{x}_{ji}\right)}{\sum_{q=1}^{J_i} \exp\left(\alpha_{qi} + \boldsymbol{\beta}_i' \mathbf{x}_{qi}\right)}. \qquad \beta_{ki} = \beta_k + \boldsymbol{\delta}_k' \mathbf{z}_i + \sigma_k v_{ki},$$

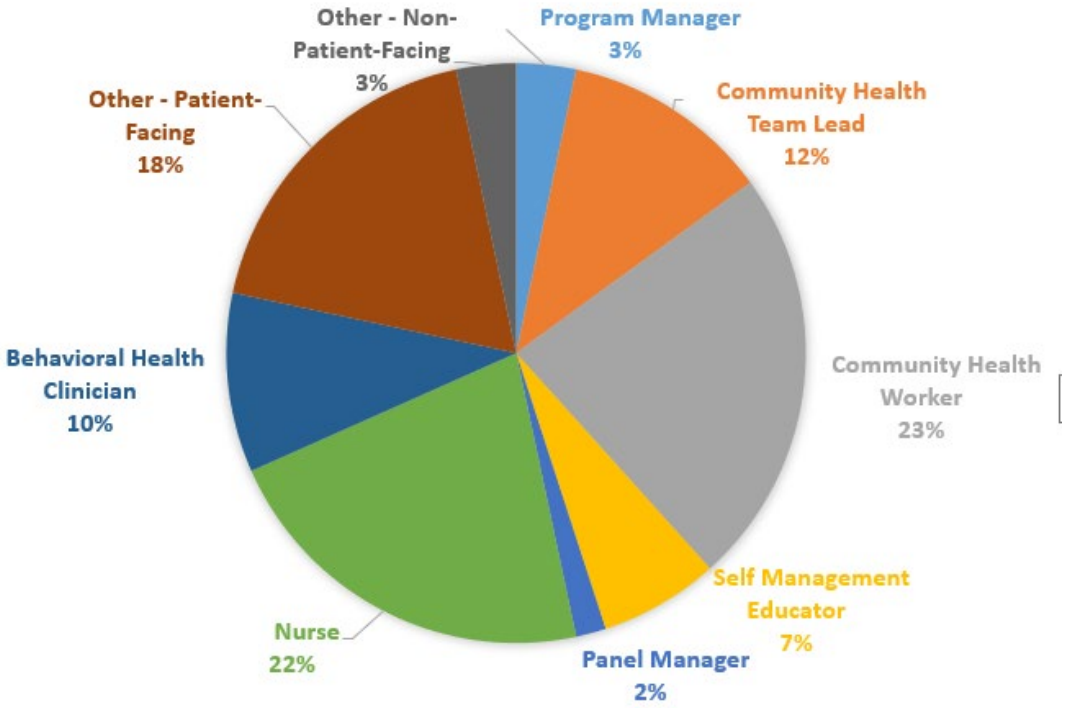
- Results in this presentation from conditional logit
  - Coefficients are marginal probabilities
  - Standard Errors adjusted for multiple responses

Results: Respondent Characteristics

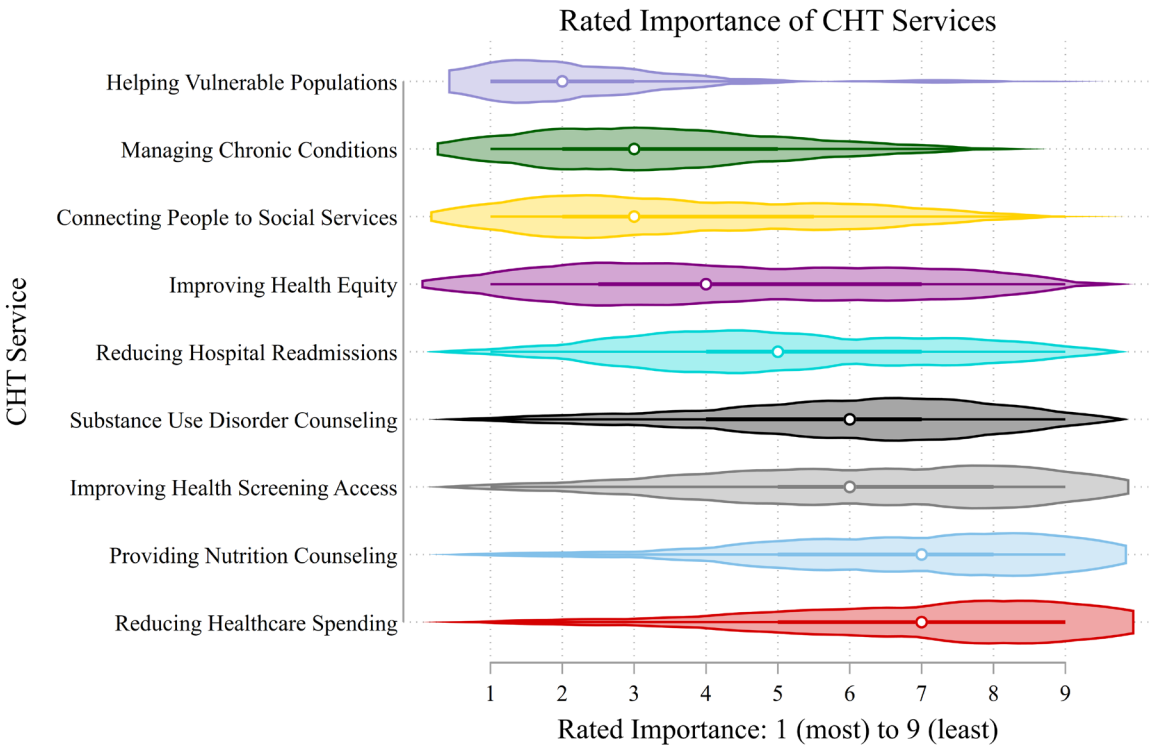


Variable	Mean	Standard Dev
Age (years)	47.07	(12.49)
Years Experience (years)	5.27	(5.09)
Control of Priority Setting (1-5)	2.73	(1.10)
Control of Funding Allocation (1-5)	1.70	(0.87)
Survey Duration (seconds)	2071.34	(2691.69)

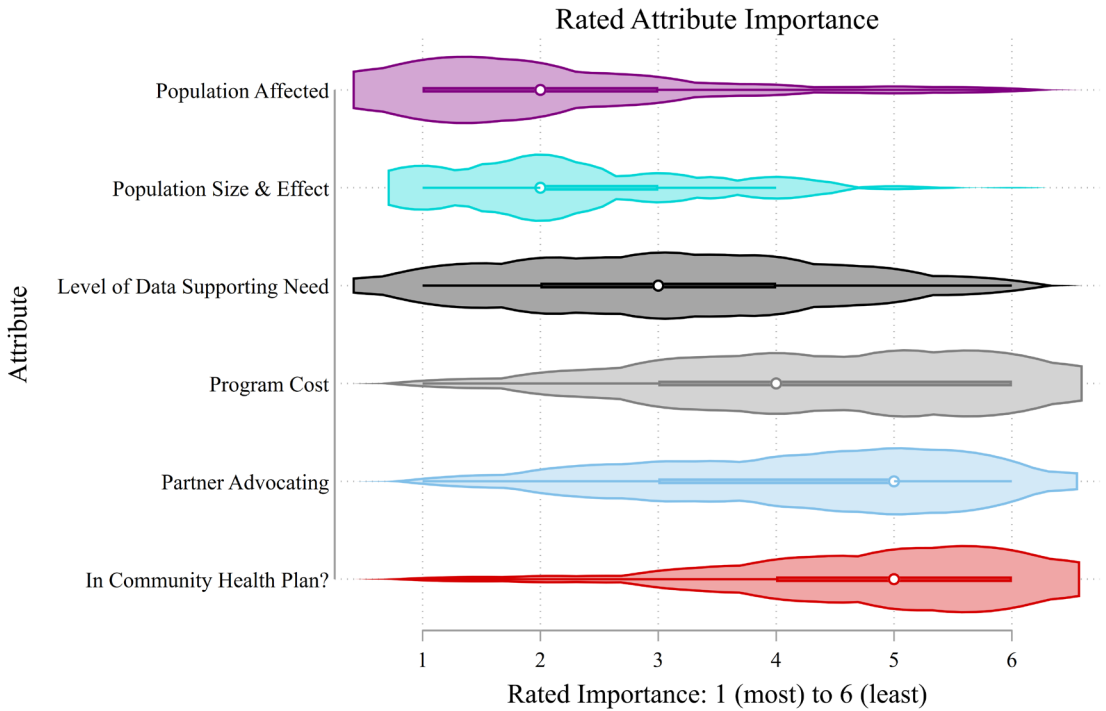
Results: Respondent Characteristics



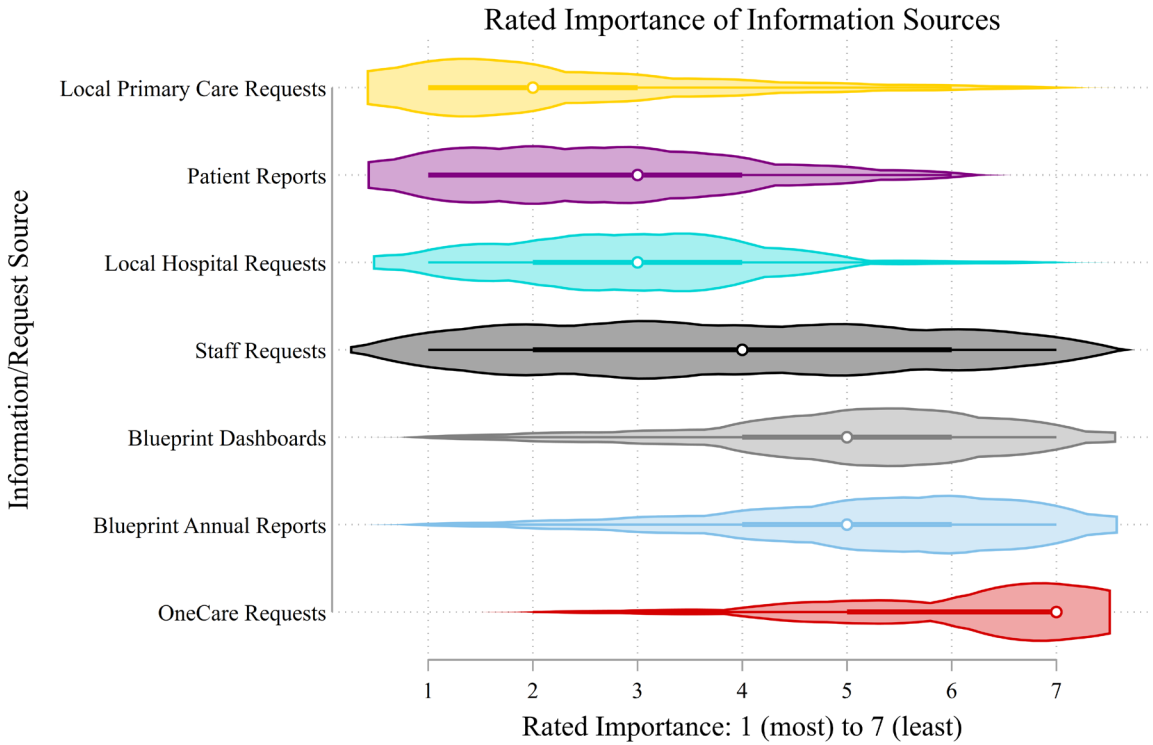
Results: Importance of types of services



Results: Attribute Importance



Results: Importance of Information Sources



Conditional Logit Model Results

Attribute	Variable	Marginal Effect	t statistic	Reference Group
Cost	Program Cost	0.000358	0.87	
Population Affected	Racial & Ethnic Minorities	-0.0963**	2.79	General Population
	Persons Experiencing Homelessness	0.0706*	2.17	
	Economically Disadvantaged	0.0519	1.46	
	Persons with Severe Chronic Health Conditions	0.0307	0.89	
	Persons with Substance Use Disorder	0.0299	0.96	
Population Size and Effect	Medium Population, Moderate Effect	0.0219	1.25	Small Population, Large Effect
	Large Population, Small Effect	-0.226***	9.24	
Data Supporting the Program	Anecdotal	0.00747	0.33	None
	Quantitative Data	0.130***	6.60	
Group Advocating for the Program	Patient Requests	-0.0362	1.11	Blueprint
	OneCare	-0.0836*	2.44	
	Local Primary Care	0.0142	0.41	
	Local Hospitals	0.0263	0.73	
	Community Partner	-0.000448	0.01	
In CHP?	Yes	0.0912***	5.15	No

* $p < 0.05$,
** $p < 0.01$,
*** $p < 0.001$

Mixed Logit Results

- Consistent with Conditional Logit Results
  - IIA may not be a problem
- Interaction terms statistically insignificant
  - Patient facing role * Population
  - Years of Experience * Population & Size and Effect
  - Community Factors – ED Use, Housing * Population & Size and Effect
  - Leadership * Cost

Leadership vs Staff Preferences

Information sources by CHT Role

	CHT Role					
	Staff		Leadership		Total	
OneCare Requests	6.5	(1.37)	7	(1.20)	7	(1.34)
Blueprint Annual Reports	6	(1.72)	5	(1.13)	6	(1.63)
Blueprint Dashboards	5	(1.45)	5	(1.00)	5	(1.39)
Staff Requests	4	(1.92)	3	(1.94)	4	(1.90)
Local Hospital Requests	3	(1.40)	2	(1.13)	3	(1.36)
Patient Reports	3	(1.57)	3	(0.88)	3	(1.47)
Local Primary Care Requests	2	(1.59)	1	(1.94)	2	(1.63)

Attribute Importance by CHT Role

	CHT Role					
	Staff		Leadership		Total	
In Community Health Plan?	5	(1.48)	5	(1.30)	5	(1.46)
Partner Advocating	5	(1.43)	5	(0.86)	5	(1.36)
Program Cost	4	(1.43)	6	(1.27)	4.5	(1.44)
Level of Data Supporting Need	3	(1.50)	3	(1.05)	3	(1.44)
Population Size & Effect	2	(1.34)	2	(1.11)	2	(1.31)
Population Affected	2	(1.56)	1	(0.71)	2	(1.49)

Conclusions

- CHTs prioritized programs that were in the community health plan
  - Did not necessarily prioritize programs championed by the all-payer ACO
- Also supported:
  - Programs with evidence of effectiveness
  - Programs targeting persons experiencing homelessness.
- Strong desire for, willingness to use more data
- Excellent alignment within CHTs on priorities

Discussion

- *The new APM does not automatically create system alignment*
- CHTs prioritize local needs, local voices
  - Statewide priorities less important
  - Strong alignment within CHTs
- Disconnection between state and community health system goals
  - But not completely…
- Creating Alignment requires:
  - Consistency between statewide population health goals and community health plans
  - Commonality in covered populations
  - Common data on program effectiveness

Next Steps

- Two manuscripts in process:

1. Results of qualitative interviews (LN lead)
2. Results of DCE (EvdB lead)

- Analyzing data on OneCare provider engagement survey

- Two more surveys:

1. Second DCE to better understand how to support CHTs
2. Provider survey with OneCare

Acknowledgements

- Funding from the Robert Wood Johnson Foundation under the Systems for Action initiative
- Performed in partnership with the Blueprint for Health
- Preliminary results
- Authors (AA, EvdB, JB) solely responsible for contents

Vermont Blueprint for Health

Commentary by: Julie Parker, MA

Assistant Director

Licensed Clinical Mental Health Counselor/Certified Case Manager

Core Components of All-Payer ACO Model

A statewide move away from fee-for-service to value-based payment, to moderate growth in health care costs, to improve quality and experience of care, and to improve population health.

Include majority of residents by model end

Limit per capita health care growth to align better with State economic growth

Improve population health outcomes:

1. Increase access to primary care
2. Decrease deaths due to drug overdose and suicide
3. Reduce prevalence and morbidity of chronic disease

Align Significant Payer Programs for ACOs in Value-Based Payment and Care Model

- Medicare
- Medicaid
- Commercial Payers

Build on Advanced Primary Care and Integrated Care Model Foundation

- Patient-Centered Medical Homes
- Community Health Teams
- Care Coordination Model to Integrate Health and Community Services

Community Health Team in Patient Centered Medical Home

- Nurses
- Mental Health Clinicians
- Case managers
- Care Coordinators
- Panel managers
- Dieticians
- Community Health Workers

CHT Care coordination

- **What is important to CHT?**
  - -Serving all patients- not just attributed
  - -Coordinating Care
  - -Understanding needs of community
  - -Whole Person Health
  - -Patient goals/empowerment
  - -Understanding and responding to Patient Experience Survey (Consumer Assessment Health Care Providers)

Linkage with Community

- Designated Mental Health Agency's
- Vermont Chronic Care initiative
- Support and services at Home (SASH)
- VNA
- Home Health
- Peers
- Food shelf
- Housing
- Many more…

Community Health Needs Assessment

What are unmet needs and barriers to Health Care? What is impacting our community needs?

- SDOH
  - Medical
    Dental
    Housing
    Food
    Depression/Risk
    Trauma
- Reproductive health
- Mental health
- Unique community needs
  - Example: Transportation needs varies in each community

Impact/Data

PCMH/ ACO/ APM/ Other Cross walk- Align Measures

Measuring CHT impact- data collection challenges

How well are we doing?

How do we measure if someone is better off?

- Art/science

Community Profiles- Last completed 2018

Blueprint Community Profiles are based primarily on data from Vermont's all-payer claims database, the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES). Data include all members from commercial, Full Medicaid, and Medicare providers contributing to VHCURES.

Example- ED visits, MRI, Diabetes Eye exams

Continuous Quality Improvement- Evaluate, Plan, Do, Study, Act

Timely and accessible data

Upcoming Webinars

Connecting Vulnerable Seniors to Nutrition Assistance Through a Managed Care Plan

Wednesday, October 26th at 12pm ET

Register at:
https://systemsforaction.org/research-progress-webinars

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