The Impact of Global Budgets and Community Health Teams on Health, Health Equity and Cross-Sector Interconnectedness in Vermont

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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.

Our projects aims:

Aim 1: What is the impact of the alignment on formal system linkages between the health care sector and the social services and public health sectors in Vermont?

Aim 2: How do CHTs set priorities for what social, public health and medical services to offer? What are the tradeoffs made between health, health equity and healthcare spending?

Aim 3: What is the impact of Vermont's CHTs and global payment alignment on changes in health risk, health outcome, health equity and access to care?

Research Aims Overview

RQ: 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

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

Step 1: Qualitative Methods Overview

Question: What contextual factors influence Community Health Team 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

Sampling Frame

- Community Health Teams (CHTs) are organized and funded by Health Service Areas (13 statewide)
  - Purposively selected Program Managers representing all 13 Health Service Areas
  - Program managers invited to include team members
- 1-hour semi-structured interviews
- Key targeted topics included:
  - Current service offerings
  - Decision making process
  - Use of data for decision making
  - Community partners

Methods: Qualitative Analysis

- Review of relevant background documents and Health Service Area (HSA) reports
- Interviews were recorded and transcribed for analysis
- Inductive coding: the list of codes (codebook) was developed by reviewing interview guide and transcripts
- Data was thematically analysis through progressive cycles of coding
    1. At the individual HSA level to identify region-specific contextual factors
    2. Across all regions to identify common themes
- Project team members and partners provided feedback on several iterations of emerging categorizations and themes

Results: Key Contextual Factors that Influence CHT Decision-Making

Four Major Emergent Themes:

1. Blueprint's stable and flexible structure
2. Commitment to care coordination
3. Use of data in program priority setting
4. Leveraging community partnerships and local resources

Theme 1: Blueprint's stable and flexible structure

- **Blueprint enables local teams to create own structure and services**
  - Each HSA organizational structure and funding arrangements are unique
  - Stability of the Blueprint funding supports staff salaries
  - CHT services are free to all patients
- **Investment in building team capacity**
  - Host trainings to build staff capacity and learn about best practices

*"The beauty of Blueprint is, it is **quite flexible in terms of how we deploy that funding and turn it into staff**. Their emphasis is at a community level, we are **responsive to the community needs**."*

*"I appreciate that we **provide non-billable services**. I think that offers our team flexibility. We r**espond to the needs of the patient**."*

Theme 1: Blueprint's flexible structure and local team empowerment

- **Blueprint enables local teams to create own structure and services**
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"I think that the Blueprint has been the bedrock. There was a ***series of learning collaboratives that brought national experts to build capacities and understand best practices in care coordination****. It is being able to work from a grounding of research instead of what just feels good. There has been* ***a lot of latitude in how you develop who you hire for the staffing through the Blueprint and in the care coordination work.****"*

Theme 2: Commitment to offering high quality care coordination

- **Individualized care coordination for all patients**
  - Working with patients on what is most important to them
  - Providing free care coordination services to all patients
- **Access to supplemental funding for staff and programs**
  - Grants, community partners, primary care practice, and hospital funding supplement
  - Everyone doing care coordination working together as a cohesive team

*"The physician that is in the Emergency Department is a **shared position between our FQHC and the hospital.** That position came out of a **community conversation about needing more support** for folks that come to the ED. Maybe patients are really there for social needs or they need support in getting connected to follow-up care. We have positions that were **a decision from the community and responsive to a community need.** That is certainly emphasized in our Blueprint contract."*

Theme 3: Use of data in program priority setting

Needs of the community and patients

- CHT assessment of community and patient needs
- Formal Community Needs Assessment

Data driven decision making

- Some teams create data reporting systems and dashboards to track progress and inform strategic planning.

*"I was looking at the **Youth Risk Behavior Survey and resiliency was identified as one of the priorities**. The Health Department and our designated agency, came together to spearhead the Okay Resiliency Campaign. Different community partners started getting involved to identify different tools to help parents support resiliency in the household. During the past two years, there has been **a network of volunteers that have helped create a curriculum for parents and in schools**."*

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*"Previously, **we used the Blueprint profiles**. We shared those with the practices. But those profiles have since been retired. That definitely presented this vulnerability for our team, so my team just recently **created this Blueprint Data Brief, where we pulled out our most important information that would attest to the work that we are doing.** We are still refining those measures that we chose because we want it to be reproducible data every month."*

Theme 4: Leveraging community partnerships and local resources

Strength of community network

- Community collaboratives are important networking vehicles for cultivating partnerships and exchanging information
- Strength of network varies

Availability of local resources and services

- Each HSA has a unique make up of staff credentials and FTE based on local needs and other service offerings
- Each community has different availability of resources that influence their resource allocations

*"It is important for us to also have **a strong infrastructure and Community Health network**. In recognizing that we have limited finances, we **try to maximize the resources of the community working together**. We recognize the strengths of own community partners and have an infrastructure so that we have access to them."*

*"The leaders are at the table who have all decided to **commit to working together in our region to improve health**."*

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*”**We have no homeless shelter. We have a gap in that area compared to the rest of the state.** Obviously, there are risk factors for people that our care team works with. We have nurses that are highly trained not working to the top of their license because they are **making ride arrangements or filling out their housing application.** It is a crazy use of time for a nurse, but that is the best that we can do with the staffing we have.”*

Global Alignment and CHTs

- Disconnection between Blueprint and All-Payer Model (APM) priorities:
  - APM is only for attributed lives
  - APM focus on medically high-risk patients vs Blueprint SDH
- ACO has requirements for care coordination (flexibility)
  - Licensure
  - Working with practices / hospitals
- ACO funding is after care coordination is documented
  - New Navigator System
  - Through practices / hospitals

"The **bulk of the ACO work falls on the Community Health Team**, which is a new thing. The Care Navigator, which is OneCare's care management platform, is great but it is **essentially double documentation.** There are some expectations around how many touches you have with the high and very high-risk ACO attributed lives. **It is all layered on top of what we were already doing with the same number of FTE's.** We are trying to figure out over time if payments from **OneCare are consistent enough to support additional positions down the road**."

Step 2: Methods Overview Discrete Choice Experiment

- Methodological approach to measure individual preferences
- Choices are characterized by "attributes" and "levels"
- Survey Design:
  - 1st part: Socio-Demographic Information
  - 2nd part: 14 Choice Tasks, 3 Alternatives
  - 3rd part: Ignored Attributes, Preference Order

Discrete Choice Experiment

- Goal: Identify the key attributes used by CHTs in setting priorities
- Qualitative survey suggests key attributes:
  - Program Champion
  - Funding Opportunities
  - Target Population
  - Community Health Needs Assessment
  - Availability of data

6 Attributes

- Cost
- Population Affected
- Data Supporting the Program
- Group advocating for program
- Population Size and Effect
- In the Community Health Needs Assessment

Methods: Survey Design

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

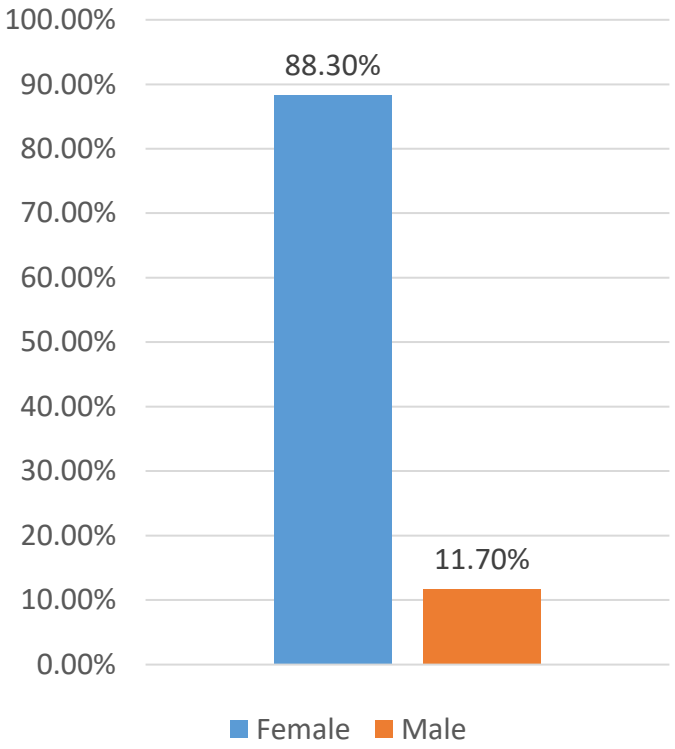
Vignette:

"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

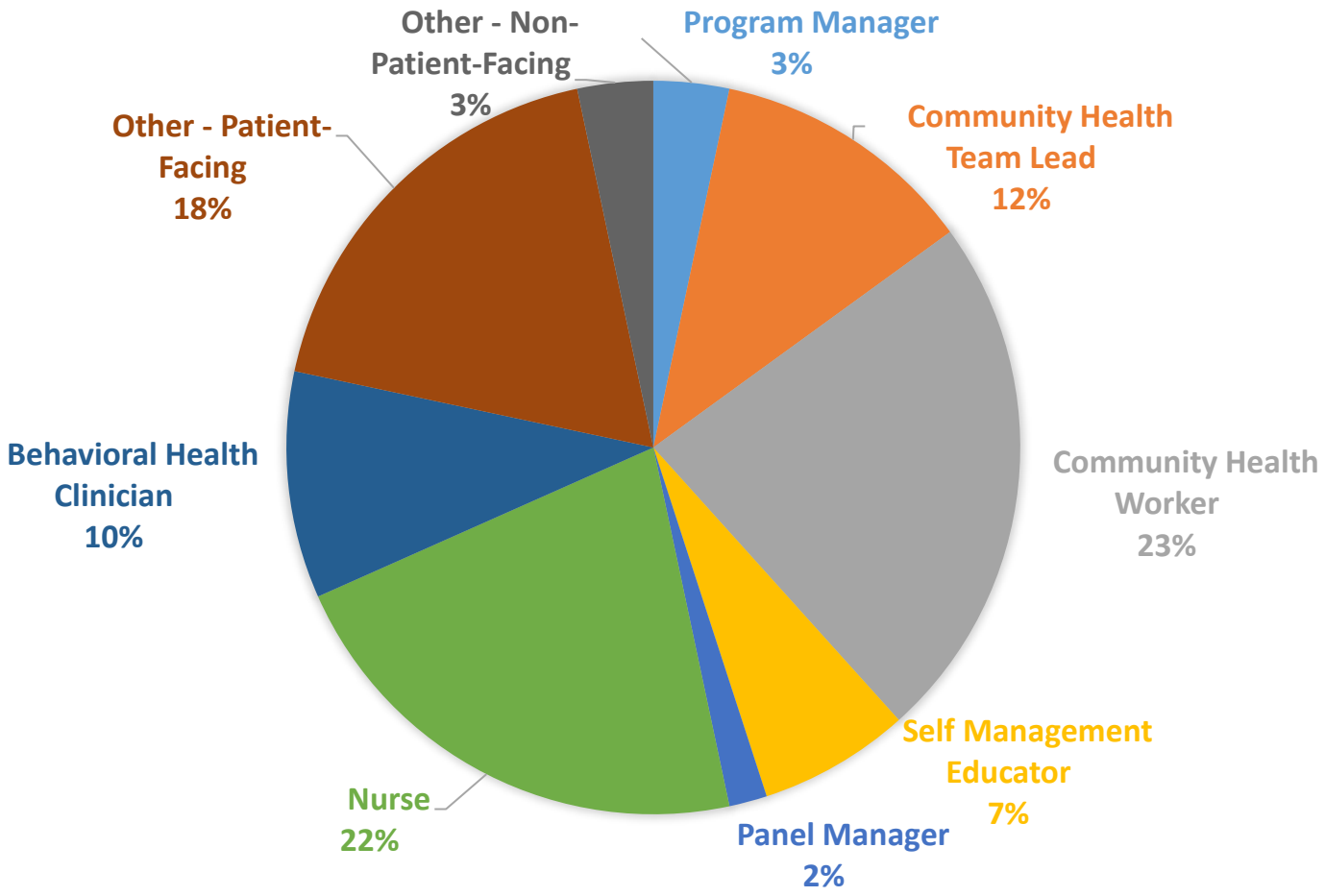
	Option 1	Option 2	Option 3
Program Cost	50,000	75,000	100,000
Population Affected	General Population	Racial & Ethnic Minorities	Persons Experiencing Homelessness
Population Size & Effect	Small Population, Large Effect	Medium Population, Moderate Effect	Large Population, Small Effect
Level of Data Supporting 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

Results: Respondent Characteristics

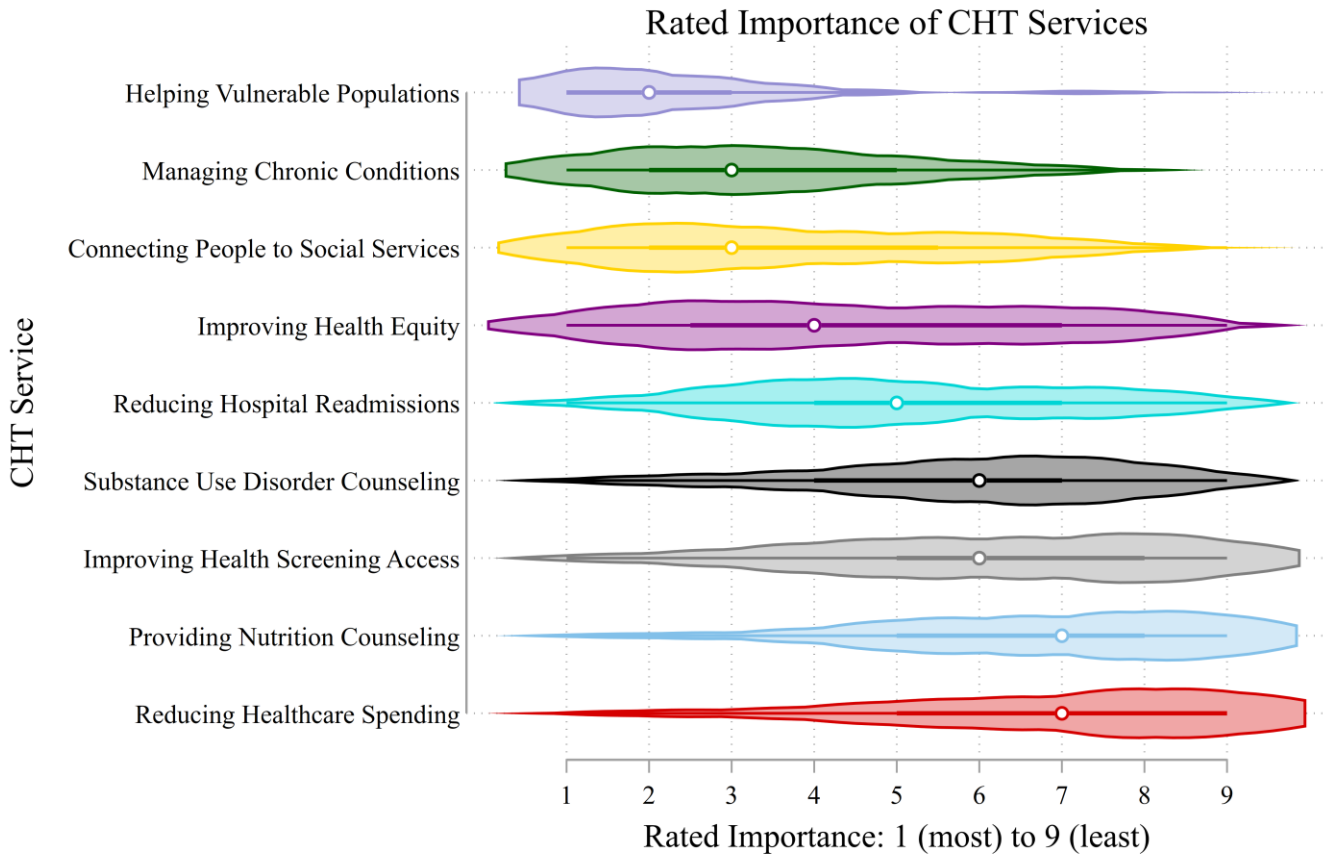


Variable	Mean	Standard Dev
Age (years)	47.07	(12.49)
Years Experience (years)	5.27	(5.09)
Control of Priority Setting (1-5)	2.73	(1.10)
Control of Funding Allocation (1-5)	1.70	(0.87)

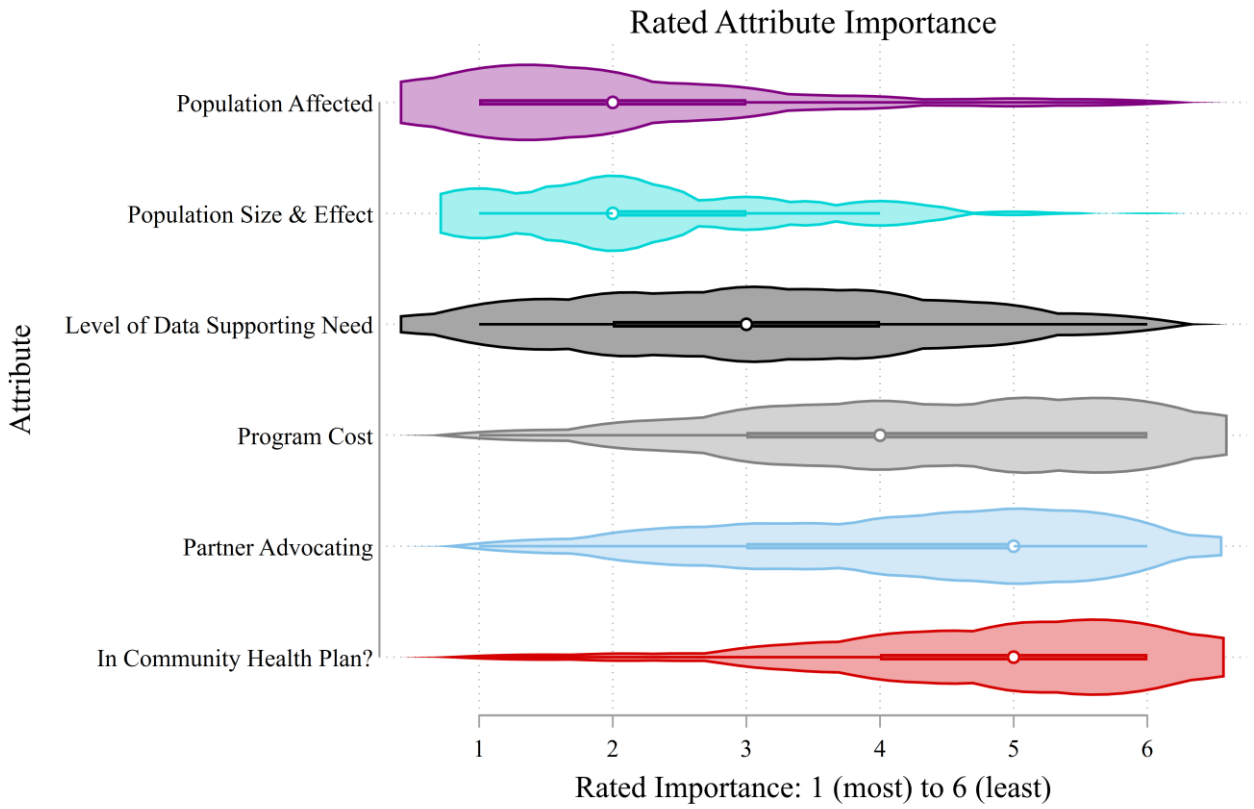
Results: Respondent Characteristics



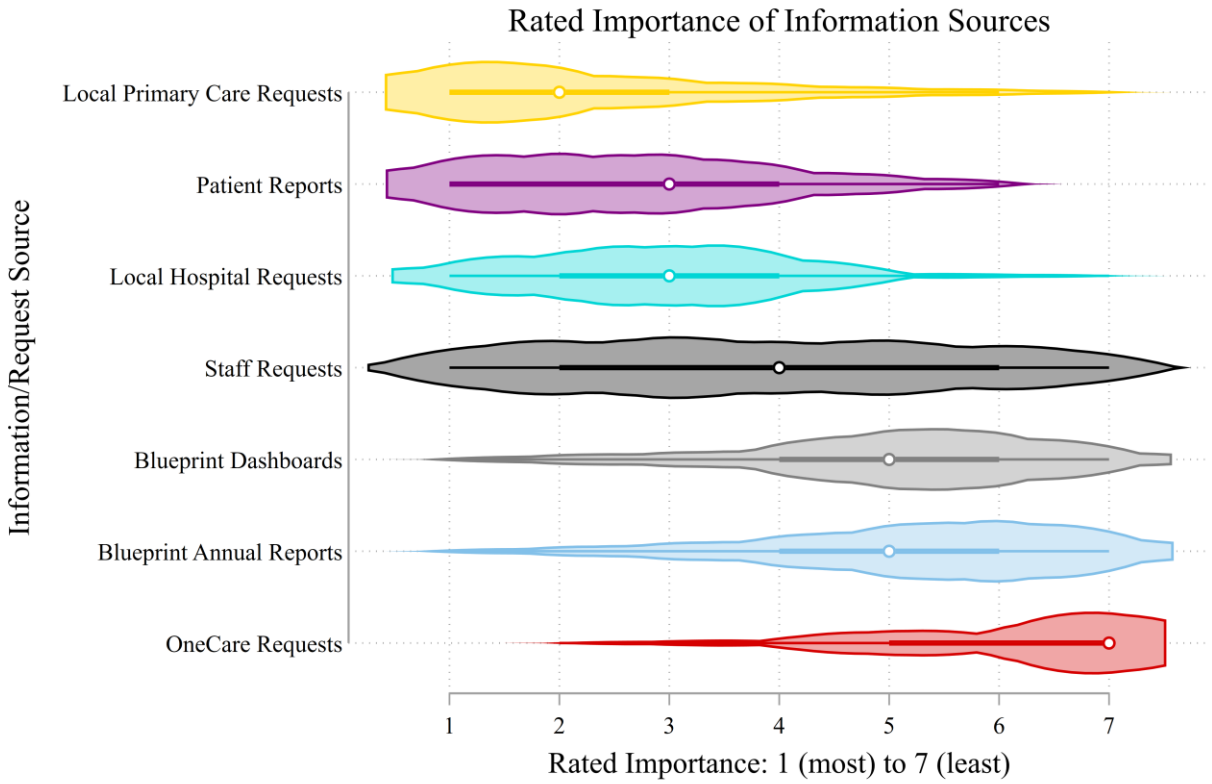
Results: Importance of types of services



Results: Attribute Importance



Results: Importance of Information Sources



Results: Analytic Model

Model:

- Prob(x) = f(Cost, Population Affected, Population Size & Effect, Data, Advocates, Community Health Plan)

- Model run as Conditional Logit
- Coefficients represent marginal effects
- N=2,520

6 Attributes and 2-6 Levels

- Cost
- Population Affected
  - **General Population (Reference)**
  - Racial & Ethnic Minorities
  - Persons Experiencing Homelessness
  - Economically Disadvantaged
  - Severe Chronic Health Conditions
  - SUD
- Data Supporting the Program
  - **None (Reference)**
  - Anecdotal
  - Quantitative Data
- Group advocating for program
  - Patients
  - Primary Care
  - Local Hospitals
  - Community Partner
  - **Blueprint (Reference)**
  - OneCare
- Population Size and Effect
  - **Small Population, Large Effect (Reference)**
  - Medium Population, Medium Effect
  - Large Population, Small Effect
- In the Community Health Needs Assessment

Results: Conditional Logit Model

		dy/dx	std. err.	z	P>z
	Racial & Ethnic Minorities	**-0.096**	**0.03453**	**-2.79**	**0.005**
Reference Group: General Population	**Persons Experiencing Homelessness**	**0.070**	**0.0325**	**2.17**	**0.03**
	Economically Disadvantaged	0.051	0.0356	1.46	0.145
	Persons with Severe Chronic Health Conditions	0.030	0.0342	0.89	0.375
	Persons with Substance Use Disorder	0.028	0.0312	0.96	0.339
Reference Group: Small Population, Large Effect	Medium Population, Moderate Effect	0.021	0.0176	1.25	0.213
	Large Population, Small Effect	**-0.226**	**0.0244**	**-9.24**	**<0.01**
	Anecdotal	0.007	0.0229	0.33	0.745
	Quantitative Data	**0.129**	**0.0192**	**6.6**	**<0.01**
	Patient Requests	-0.036	0.0325	-1.11	0.266
Reference Group: Blueprint	**OneCare**	**-0.083**	**0.0343**	**-2.44**	**0.015**
	Local Primary Care	0.014	0.0348	0.41	0.683
	Local Hospitals	0.026	0.0357	0.73	0.463
	Community Partner	-0.00044	0.0348	-0.01	0.99
	In Community Health Plan'	**0.091**	**0.0176**	**5.15**	**<0.01**
	Cost	.3.58E-07	4.13E-07	0.87	0.386

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

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…
- Strong desire for, willingness to use more data

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- Authors (AA, EvDB, JB, LN) solely responsible for contents

Next Steps

Two manuscripts in process:

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

Three more pieces:

1. Assessment of formal linkages
2. Second DCE
3. Claims / BRFSS analysis