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### Connecticut Thrives: Reimagining Community Health Workers - A Gap Analysis For Pediatric Behavioral Health In Connecticut And Proposed Workforce Recommendations

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CONNECTICUT THRIVES: REIMAGINING COMMUNITY HEALTH WORKERS

A Gap Analysis for Pediatric Behavioral Health in Connecticut and Proposed Workforce  
Recommendations

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Master of Public Health Thesis

Yale School of Public Health

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May 1, 2019

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### **Abstract**

Children and families across the United States are facing incredible obstacles as they navigate siloed systems, like healthcare and education, to achieve overall health. This program projection analyzes current local and national trends in pediatric mental and behavioral health services in order to make a recommendation for the state of Connecticut to achieve more supportive and holistic care for children, with behavioral health needs, and their families. The program projected here is: Connecticut Thrives. This program is intended to work with existing state structures to utilize Community Health Workers for the intended purpose of ensuring seamless healthcare. Taking a social determinants of health lens, the program operates in a sustainable function to promote overall wellbeing for children and families in the state. CT Thrives is committed to help sustainably ensure children and families across Connecticut receive adequate services to meet mental health needs with the understanding that there is a multilayer system at play. This objective is met by implementing barrier reduction to social services, with comprehensive care coordination and support for the entire family. In partnership with a proposed framework called the Health Enhancement Communities (HEC), CT Thrives will comprehensively and sustainably meet the needs of Connecticut families to create the conditions for thriving children. The program functions on 4 essential components: connections between schools, families and home, use of community health workers, an innovative funding stream, and operating on positive aspects of previous models.

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### **Program: CT Thrives**

It has long been documented that the path to life-long well-being begins in childhood.<sup>1,2,3,4</sup> Although there exist a number of systems which my influence development for children, the healthcare system is one that almost guarantees a near-universal reach to all children regardless of race, socioeconomic status, or zip code. It is therefore imperative that healthcare and health delivery systems strategically evolve to a more holistic entity. CT Thrives seeks to ensure a future in Connecticut where all children have opportunities to thrive in all aspects of health. National averages in pediatric mental and behavioral health statistics demonstrate that 1 in 5 or approximately 20% of children in the US are living with at least one behavioral health disorder.<sup>5</sup> Approximately 20% of the 3,570,000 residents of Connecticut are between the ages 0-18.<sup>6</sup> This means that approximately 142,800 children and adolescents living in Connecticut are currently in need of services for at least one mental or behavioral health need. We are in a position as a state to cultivate sustainable innovations to help address this vast need, and CT Thrives will be part of this vision.

CT Thrives is committed to help sustainably ensure children and families across Connecticut receive adequate services to meet mental health needs with the understanding that there is a multilayer system at play. This objective is met by implementing barrier reduction to social services, with comprehensive care coordination and support for the entire family. In partnership with a proposed framework called the Health Enhancement Communities (HEC), CT Thrives will comprehensively and sustainably meet the needs of Connecticut families to create the conditions for thriving children. The model has 4 essential components that will become clear throughout this paper. The four essential components are as follows:

1. Fostering connections between family, schools, and home

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2. Use of Community Health Workers to ensure comprehensive care in light of social determinants of health
3. Utilizes innovative funding streams for said coordinators based on state innovation model and potential of certifiable workforce who can bill for services
4. Incorporates pieces of previous models implemented both locally and nationally like ensuring CHWs have access to flex funding (money to allocate in certain circumstances to families in need) to help tackle social determinants of health for families

### **I. Definition of the Problem that the Program Addresses**

Nationally the prevalence of mental disorders in children and adolescents, especially those living in poverty, is on the rise.<sup>7,8</sup> Although services may exist in some capacity for children and families, there is a distinct siloed nature to them.<sup>7</sup> Siloed mental and behavioral health resources need to be bridged in some capacity in order to improve outcomes for children. In Connecticut, like much of the country, families are struggling to find the correct services for children who may need behavioral health care, developmental services, or other supports to help children thrive. Services for children and families may currently exist, but the cumbersome search in fragmented systems adds an access barrier to care for children and families across the state.<sup>9</sup> Barriers to access include myriad payers, various eligibility criteria, restrictions on covered services, and variability of standards in individual pediatric clinic practices.<sup>9</sup> These barriers are compounded by a lack of trained behavioral health personnel in the state.<sup>10</sup> These barriers create gaps in comprehensive health delivery for children and families.

### **ED visits as indicator of barriers to appropriate care:**

Connecticut has among the nation's best array of services and supports for children and youth with behavioral health needs.<sup>11</sup> Nothing better acknowledges barriers to appropriate care than the alarming rates of behavioral health linked Emergency Department visits in Connecticut given the existing services. Emergency Departments in Connecticut see more than 14,000 children covered by Medicaid annually for behavioral health events.<sup>11</sup> Perhaps a more significant indicator of gaps in services for children and families in regards to behavioral health is the lack of follow up from these ED visits. "Claims data from 2016 suggests that 35% of Medicaid-covered children and youth in Connecticut did not have a follow-up visit in the community within 30 days of being seen in an ED."<sup>11</sup> Families in Connecticut need support that includes and reaches beyond the healthcare sector for their children who need behavioral health services.

### **Calls to action as indicator of barriers to appropriate care:**

A number of reports have surfaced recently calling for an increase in care coordination for Connecticut children and families and innovative solutions working to ensure excellent health. The Child Health and Development Institute of Connecticut in collaboration with the Connecticut Health Foundation recently released recommendations for behavioral health practices complete with innovative payment models.<sup>4</sup> Additionally the Child Health and Development Institute of Connecticut in collaboration with Beacon health Options recently released a report on ED use by Connecticut children and youth with behavioral health conditions, highlighting the cost and service burden of not supporting families in our state.<sup>11</sup>

Alongside the work driven by the Child Health and Development Institute of Connecticut the Connecticut Office of Health Strategy is also calling for innovation. As part of the State Innovation Model, which aims to "establish a whole-person-centered healthcare system that



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improves community health and eliminates health inequities; ensure superior access, quality, and care experience; empowers individuals to actively participate in their health and health care; and improves affordability by reducing healthcare costs,”<sup>12</sup> the state created Primary Care Modernization design groups. One of the groups focused specifically on addressing behavioral health needs in the state. The Primary Care Modernization for Pediatric Behavioral Health Integration group prioritized a model of care that keeps the child and family centered in a model of care. “Child, family and pediatric clinician are at the center of a well-coordinated, set of behavioral health services integrated within the practice, available in the network and tied to services and resources in the community.”<sup>13</sup> The design group’s attention to well-coordinated services for children and families is integral to the success of the proposed model of care. For the design group, “care coordination connects children and their families to specialty services and community supports to ensure optimal health and development, address social determinants of health needs and provide culturally and linguistically appropriate health promotion and self-care management education.”<sup>13</sup> In order to cultivate a healthier and more equitable Connecticut, we should heed these calls to increase supports for children and families in a comprehensive way. One space in particular where the state of Connecticut is focusing efforts that align nicely with Connecticut Thrives is via the Health Enhancement Community Initiative.

### Connecticut SIM Health Enhancement Community Initiative

The State Innovation Model in Connecticut has proposed a Health Enhancement Community framework to help ensure some broad over-arching state goals. The HEC will implement multiple, interrelated strategies to address the social determinants of health that cause or contribute to poor health, health inequities and health disparities in Connecticut communities.<sup>14</sup>

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The proposed framework is the ideal home for CT Thrives as it is focused on much of the same outcomes, and is inherently linked to financing that can support and sustain community programs like CT Thrives. The overarching goals of the HEC framework is to make Connecticut the Healthiest state in the country, and to make Connecticut the best state for children to grow up.<sup>14</sup>

### **i. Current National Trends in Care Coordination for Behavioral Health**

Care coordination is happening in different forms across the United States. The model of coordination that seems to be most effective is when care coordinators help to coordinate care across systems.<sup>4</sup> Too often there exists a type of fragmentation of care coordinators<sup>4</sup> where families have coordinators for behavioral health, medical care, and other systems. Since children and families do not exist in fractioned aspects of care delivery, but rather in a complex system, it makes sense for the coordination of services to reach all parts of the system so to eliminate gaps or replication. There is a national push to shift coordination toward centralizing care coordinators across child-serving systems.<sup>8</sup> Three successful programs currently in the US that are focusing on this intersystem care coordination were highlighted in a recent report by CHDI, *Transforming Pediatrics to Support Population Health: Recommendations doe Practice Changes and How to Pay for Them*,<sup>8</sup> in Maryland, New York, and Oregon.

Maryland: The Johns Hopkin's Children's Center is engaging critically with cross-system care coordination through the Harriet Lane Clinic. The clinic partnered with Health Leads, an organization that partners with community members and community organizations to help create social health programs focusing on social needs of communities as an integrated part of population

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health, to make sure kids get myriad of things they need to be healthy.<sup>15</sup> The Harriet Lane Clinic team works in innovative ways to screen children and families not just for health and development, but also the factors that influence them. The screening includes basic needs like food and heat, and then addresses this with a type of prescription to resources to fill identified needs. The Health Leads team then helps the family get these resources to help ensure health can be met and maintained.<sup>4</sup>

New York: New York State Department of Health has an initiative as part of a Medicaid Redesign called “First 1000 days on Medicaid” launched in 2017.<sup>16</sup> This initiative is part of a plan to make sure that New York’s Medicaid program is working with health, education, and other system stakeholders to maximize outcomes and deliver results for children in the state. The initiative includes a number of pilot programs, one of which is the Peer Family Navigators program. This program is situated as a care-coordination where peer navigators help high risk families access services that include both health and social determinants of health.<sup>4</sup> This model comes from the use of Peer Navigators in HIV and other behavioral health arenas.<sup>16</sup> Yet it also lends itself nicely to a model for care coordination for families and children.

Oregon: The coordinated care organization, All Care, is working to implement pediatric specific care coordination. This model comes from the Oregon Pediatric Improvement Plan, and looks to coordinate care based on a patient’s specific needs.<sup>4</sup> The program will allow providers to identify and take into consideration the child’s medical needs as well as the family’s social needs in order to deliver the most appropriate and best care possible for the child and family.

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These programs are innovative in the ways they tackle social determinants of health, which are constantly at play in the lives of children and families.<sup>17</sup> Social determinants of health, the economic and social conditions that influence individual and group differences in health status,<sup>17</sup> manifest complex systems that make meeting the needs of children and family incredibly difficult. Each of the three previous examples of statewide programs are utilizing a framework that is in conversation with research about social determinants of health. In doing such they are not only acknowledging that systems outside of healthcare delivery are impacting the lives of the people, but they are also creating funding streams with the understanding that there could be a cost savings on expected expenditures down the line. Each of the initiatives functions differently, but provide useful frameworks for how we can tackle social determinants of health to improve outcomes for children and families.

In addition to these state-wide strategies to improve access and coordination of care and services there is one national model of particular interest that comes from Head Start and Early Head Start. Early Head Start is a national program that promotes physical, cognitive, social, and emotional development of infants and toddlers.<sup>18</sup> In addition to this the program was designed to also think about parents, and their own growth toward self-sufficiency.<sup>18</sup> One tenant of both the Head Start and the Early Head Start model is family engagement which they define as, “an interactive process through which staff and families, family members, and their children build positive and goal-oriented relationships.”<sup>19</sup> This family engagement is centered around a role built into the model called a Family Advocate. The Family Advocate “creates, provides, and coordinates services and activities with families and communities that foster strength, healthy living, and overall well-being.”<sup>20</sup> In doing such they provide support as a liaison between families, staff, the community, and other family-related services. This model of care coordination functions outside

of the healthcare sector, but it works in tandem with child's healthcare providers in a partnership to ensure the development and health of the child and the whole family.

There also exists a National Wraparound Initiative which works to build bridges across the vast array of services that help promote children and family health. Wraparound is a way to plan and implement services and supports for children or youth and families.<sup>21</sup> This framework is something that can be implemented into communities to meet specific needs of children and families in the community. It is not a one size fits all, rather a type of framework that can be appropriately tailored on individual community level.

### **ii. Current Connecticut Trends in Care Coordination for Behavioral Health**

Connecticut's state Medicaid program, HUSKY, has a Person-Centered Medical Home (PCMH) facet as a way to provide comprehensive primary care for young children, youth and adults.<sup>22</sup> The purpose of the PCMH is to bring a holistic, person-centered approach to supporting the needs of patients, while reducing barriers to access that may hold people back from utilization of services. The program includes medical care coordination, but is somewhat limited to medical needs without taking into full account the social determinants of health for children and families across the state. The care coordination is much more focused on electronic medical records which prevent services from being duplicated and have cost-saving benefits but really only function within the medical sector.

The Child Health and Development Institute also piloted a care coordination program in Hartford called Health Outcome for Medical Equality, H.O.M.E., which later grew into a care coordination collaborative.<sup>23,24</sup> When the state conducted the pilot in 2011, they found that when

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care coordinators are involved at pediatric primary care sites there are overall better outcomes for children in other areas such as dental care and mental health care.<sup>23</sup> The findings combined with findings that demonstrated families experienced improved linkage to services and greater confidence in obtaining health services for children, led to the Hartford Care Coordination Collaborative. This Collaborative specifically worked to bring together services and resources from a slew of state and local children centered supports.<sup>23</sup> The success from the Hartford program was recognized in 2014 by the State Department of Public Health which allocated funds to five other regional care coordinator centers to replicate the Hartford model.<sup>23</sup> In 2015, the funding then grew to encompass the entire state.

Individual towns/areas in the state have orchestrated care coordination through various non-profit and healthcare delivery collaborations. One such program came from Clifford Beers Clinic as part of a Centers for Medicare & Medicaid Services Health Care Innovations Award; Wraparound New Haven. Wraparound New Haven (WANH) worked to provide multigenerational care coordination for children with both medical and behavioral health needs.<sup>25</sup> The grant was \$10 Million which paid for 34 new staff people, “flex funds,” and other incentives like new air conditioners for families of children with asthma.<sup>26</sup> The idea behind WANH was to reduce the cost burden of excess visits to the Emergency Department. Services included assistance with basic needs, mental health treatment, development of a family-centered care team and plan of care, and care coordination with providers and other community programs. The program ultimately did not have the anticipated cost-savings expected, but had some tenants that were found to be effective techniques in coordinating care.<sup>25</sup> These tenants include aspects of the model that should be noted for preservation include flex funding, coordinators resembling the culture, race, and primary language of the families and children, and a goal of cost-savings.

**iii. Historical Context of Behavioral Health Trends in Connecticut**

Public Act 13-178

A larger frame of Connecticut’s history of behavioral health trends may offer some useful insight for the proposition of Connecticut Thrives. In December of 2012, there was a devastating and fatal mass shooting at an elementary school in Connecticut.<sup>27</sup> This tragedy spurred legal action in the form of a Public Act passed by the General Assembly. Public Act 13-178 was passed by the state of Connecticut Senate and House of Representatives in general assembly effective July 1, 2013.<sup>28</sup> This act was called “An Act Concerning the Mental, Emotional and Behavioral Health of Youths,” and it directed the Department of Children and Families to create a children’s behavioral Health Plan for the state.<sup>28</sup> The Act required the plan to be both comprehensive and integrated in how it met the behavioral and mental health needs of all children in the state. It was finalized in October of 2014.<sup>29</sup>

Connecticut Children’s Behavioral Health Plan

The plan had nine main strategies to meet the goal for promoting mental and behavioral health. Among the nine strategies acknowledged one in particular is pertinent here, “Improving the integration of school and community-based behavioral health services.”<sup>29</sup> This plan served as a road map for a number of state-wide initiatives to improve mental and behavioral health for both children and families. The overarching vision for the state, found in the plan, is to be a place where there is a “coordination and integration of health and mental health services across child serving systems, meaning no matter which door or system a child enters through (such as pediatrics, school, juvenile justice, or child welfare), they can be matched to the treatment, services, and

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supports needed.”<sup>29</sup> This understanding of a multi-system mechanism that creates unequal outcomes for children in Connecticut can be understood as rooted in a social determinants of health framework, not dissimilar to the programs other states previously mentioned have successfully implemented.

### CONNECT Initiative

While the Connecticut Children’s Behavioral Health Plan was being created the state simultaneously was awarded a federal grant via the Substance Abuse and Mental Health Services Administration. This grant created what was known as CONNECT from 2014- 2018, and an abridged version into 2019.<sup>30</sup> CHDI served as the CONNECT Initiative’s Coordinating Center, and the program worked to support children and families across the state. The grant helped to create partnerships between families, state agencies, and service providers at the local, regional and state levels. It has since evolved into *CONNECTing Children and Families to Care*, which is functioning as a statewide effort to blend and integrate all child-serving systems into a Network of Care which will ideally equally and effectively serve all children and families.<sup>30</sup>

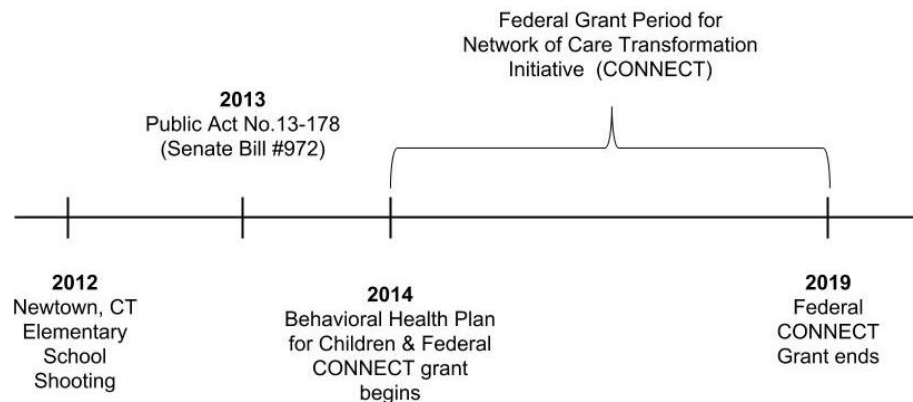


Figure 1 Timeline of Historical Context



## II. Statement of Program Goals and Objectives

The idea behind CT Thrives is to build off of the momentum these previous programs and initiatives have been creating in a manner that critically addresses the potential gaps and continues to move the innovative work forward. One such gap that has been seen time and again is the lack of sustainability in programs and funding. Building off of a shared history of innovation and work in improving outcomes for children with behavioral health needs in collaboration with the State Innovation Model's Health Enhancement Community Initiative there is potentially room for CT Thrives to become the states first sustainable program to work in a systematic way in opposition of social determinants of health to improve mental and behavioral health for children and families.

CT Thrives Program Objective: To help sustainably ensure children and families across Connecticut receive adequate services to meet mental health needs with the understanding that there is a multilayer system at play. This objective is met by implementing barrier reduction to social services, with comprehensive care coordination and support for the entire family. In partnership with the HEC, CT Thrives will comprehensively and sustainably meet the needs of Connecticut families to create the conditions for thriving children.

### Goals:

1. Eliminate gaps in behavioral health services for children in CT
2. Provide culturally and linguistically appropriate care coordination for children with identified behavioral health needs and their families across the state
3. Coordinate care between school, home, and medical providers

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4. Connect families to resources that impact health outside of healthcare, like housing, food, cash assistance

### Outcomes:

1. Reduce ED utilization in target population for behavioral health related visits
2. Increase patient activation
3. Reduce substantiated reports of abuse and neglect

## **III. Specification of Data**

### **i. Target Population**

Connecticut has a population of 3.58M people.<sup>31</sup> The population of the state is 67.4% white, 15.7% Hispanic, and 9.9% Black.<sup>31</sup> An estimated 22.7% of people in Connecticut speak a non-English language, and approximately 93% are US Citizens.<sup>31</sup> Current state estimates put 14.5% of children under the age of 18 in Connecticut as living below the Federal Poverty Line.<sup>32</sup> This means 110,682 children across the state (nearly the entire population of Hartford, our capitol) are experiencing childhood poverty. Although poverty is not the only indicator of need for behavioral health services, it is often linked to increased risk for mental health problems in both children and adults.<sup>33</sup> It is well documented that as social risk factors increase in number, so does the risk of poor mental health.<sup>34,35</sup> The state of Connecticut has one of the largest wealth gaps in the country<sup>34</sup>, so the landscape of the target population may change based on the location of service.

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### Target Patient Population:

The target patient population will be children and families who reside in Connecticut, and receive any form of referral for behavioral health services from clinics, physicians, school counselors or any other place where evaluations of a child's behavioral health may be evaluated.

### Target Community Health Worker Population:

Community Health Workers should reflect as best as possible the families with whom they will work. This should include languages spoken, and shared racial, cultural, or ethnic identities. Ideally CHWs are people who live in the community in which they will be working, and have a high school degree. They will undergo a training after being hired, or come from a pool of already trained and certified Community Health Workers.

Sample Job Description

**Position: CT Thrive Community Health Worker**

**Role:** The role of the community health worker is to build strong rapport with families, community partners, clinics, and schools in the region. The CHW is responsible for meeting with children and families once they have been referred, and completing an initial intake of familial needs utilizing a social determinants of health model. The CHW will assess needs of the entire family, and help connect the family to necessary resources as needed including housing, food assistance, school assistance etc. The CHW will need to meet with the families at least twice a month, but can meet with them as many times as needed. If the child or children in the family are in school they should meet with teacher or guidance counselor when appropriate. The CHW must accompany the family at least one doctors visit regarding the behavioral health need of the family, but can attend more if requested by either party. The CHW will regularly engage families in the community and regularly conduct home visits. The CHW will be responsible for linking multiple services, healthcare providers, and community resources to meet families' needs

**The ideal candidate will:**

- Live and work within the geographic space of the Health Enhancement Community in the state of Connecticut.
- Have strong interpersonal communication skills
- Have strong teamwork skills/ demonstrate ability to work well on teams
- Be detail oriented
- Have strong ties to community
- Share either/both racial/ethnic heritage or/and primary language spoken of family with whom they work

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**ii. Resources and use of resources**

In order to maintain the sustainable vision for this program, the program will be housed under the HEC framework proposed by the State Innovation Model. This calls for regional oversight which will be fractioned off into 8-12 non-overlapping yet comprehensive regions of the

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state.<sup>14</sup> These regional areas will have target population lines, as well as a minimum of 20,000 Medicare beneficiaries per region in order to maintain a somewhat equitable distribution of people in a state known for one of the largest wealth gaps.<sup>14,36</sup> HECs themselves will be able to pool or reorient existing funding as well as a number of other proposed financing models. The resources that will be generated via these existing partnerships with a number of entities but likely rely heavily on purchasers of health care and other services like Medicare, Medicaid, and the state employee health plan.<sup>14</sup> This will hopefully cover anticipated overhead costs of the program that include things like the flex funding Community Health Workers will be able to distribute to families in need.

The salary for the CHWs themselves will likely come in a braided mechanism from both the HEC's funding streams and billable hours worked via Medicaid and insurance companies based on certification for the coordinators. The certification plan would be for community health workers, a model that is currently taking place in a number of other places.<sup>37</sup> Although a push to certifications can be somewhat daunting and convoluted, it has been shown to help give the field more recognition and provide a set of standards for organizations that might hire or fund the health workers.<sup>37</sup> The move for certification comes from the larger issue of maintaining sustainable funding sources. The push is likely something other states will see great rewards on such as the following:

Minnesota: the first state to reimburse community health workers through its Medicaid Program<sup>39,40</sup>

Massachusetts: included efforts to make the community health worker workforce viable in their 2006 healthcare reform law, and have recently begun a voluntary certification program<sup>37</sup>

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Texas: has been a leader in exploring the use of community health workers and has an active certification program<sup>39,40</sup>

Oregon: requires the coordinated care organizations that oversee Medicaid populations to also include community health workers in their care teams.<sup>39,42</sup>

Although the above mention states are not necessarily Connecticut, there has been a large push to create viable space for a community health worker workforce here too.

This is made much more viable by the same SIM that created HECs as the SIM created a Model Community Health Worker Advisory Committee<sup>38,42</sup> which recommended in 2018 that Connecticut establish a voluntary certification process for community health workers.<sup>42</sup> This is promising momentum towards a funding stream that could be one of the most sustainable options to maintain Community Health Workers and improve the overall health of Connecticut children and families. CT Thrives in partnership with HECs will recruit, train, and certify CHWs in the model which will eliminate the certification barrier often encountered when professionalization of careers occurs.

### **iii. Basis of Intervention**

The basis for this intervention comes from the majority of the afore mentioned trajectory of current trends in the state. There is no one source of inspiration or basis for this intervention, but rather a growing collective history and promising direction for this model. The largest tenant on which the intervention relies is the funding streams proposed in the previous section which differentiates this intervention from others that have been happening across the state. There is a compelling demonstration of need for a sustainable program to serve the children and families in this state, and motivating evidence that people across the state are paving the way to make this

intervention possible. It is built not in isolation but in the context of a lot of forward motion both nationally and at the state level.

#### **iv. Cost Analysis**

Although there is no current known cost for the implementation and sustainability for this proposed workforce, I can speculate what anticipated costs and benefits may look like. Given the financial landscape of Connecticut these speculations are subject to change. In one study of the cost of Community Health Workers in rural Vermont. Although the demographics, and economic landscape may differ one may assume costs could be similar. The model used for their cost-benefit analysis placed a total cost per Community Health Worker at approximately \$49, 217 per year.<sup>43</sup> The overall structure of the program from 2010 – 2011 estimated a personnel cost of \$281,063, which included leadership, 4 Community Health Workers and overhead cost.<sup>43</sup> The Operational costs for the program totaled around \$140,000.<sup>43</sup> The overall program cost was \$420,640.<sup>43</sup> This cost was associated with a program that was not exactly the same as the one proposed here, but it is a useful ballpark to think through the cost for one year of a program that functions in a similar capacity. With inflation, as well as the nuanced needs of Connecticut v. rural Vermont, one may anticipate this cost increasing. The most extractable piece is the percentage breakdown of the overall cost. In this particular program the divide in percentage spent for personnel versus operations could be useful insight. Personnel was 67% of the total overall cost, while operations accounted for about 33%.<sup>43</sup> This may be useful in building out a financial model for Connecticut Thrives.

Although there needs to be further data collected on the exact cost of the program, which is identified in the subsequent section, there seems to be evidence to suggest that the outcomes the program aims to improve are creating huge burdens on both health as well as cost. Connecticut

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Thrives will ultimately try to 1) reduce ED utilization in target population for behavioral health related visits, 2) increase patient activation, and 3) reduce substantiated reports of abuse and neglect. The current cost burden of child abuse and neglect alone is one worth attention. As of 2010 the average lifetime cost per victim of nonfatal child maltreatment is \$210,012 in the US.<sup>43</sup> Data from 2015 suggest that Connecticut had 39,315 referrals for child abuse and neglect, of which 17,434 reports were referred for investigation.<sup>44</sup> In 2015, data indicates that 6,970 children were victims of abuse or neglect in Connecticut.<sup>44</sup> This means that approximately 9 out of every 1,000 of the state's children have in some circumstances faced irreparable harm, which come at high psychological as well as financial costs. If this many children in Connecticut annually experience abuse and neglect currently, we would see a life-time cost-burden of approximately \$1.4 billion for just that year alone.

Connecticut Thrives has the ability to radically transform lives of children and families in the state of Connecticut. If the program is successful, it also could have significant cost-saving capabilities for healthcare cost in the state in the long-run.

### **v. Specification of further data needs**

This intervention relies heavily on a number of assumptions which should be made clear here. The first of those assumptions is rooted in the understanding that there will be Health Enhancement Communities that are interested in implementing this model. The second assumption is that there will be a local push to certify community health workers who can encompass Community Health Workers for the program. The third that payment reform models currently being orchestrated at the state level will include said workforce into the billable roles via insurance and healthcare payment plans.



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The most significant need for data is around the anticipated cost of the program. There is evidence to suggest that cost-savings could be made possible with a program like Connecticut Thrives, but the underlying assumptions of this program prevent it from being fully explored. In the future, when the framework of the Health Enhancement Communities as well as certification protocol in Connecticut is set it is advised to revisit the anticipated cost. As it currently stands, one could easily predict this program could radically improve outcomes for children and families while saving money in the long-term but that is not absolute.

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