

## From Service to Center: Leading Palliative Innovations for Complex Populations

Submitted by: University of Mississippi Medical Center

**Bronze Winner**

Category: Access to Palliative Care

### Overview

After establishing a Palliative Care Service in Pediatrics, our team at [The University of Mississippi Medical Center](#) realized that the majority of patients needing compassionate goals of care and symptom management were children with medical complexity. We discovered that, in order to support our patients' and families' quality of life, we had to re-imagine the scope of a Palliative Care team. Additionally, we began leading care for vent-dependent children who live at home or in our hospital without the means to get home. We evolved our service into an inpatient and outpatient medical 'Center' for these children, and we grew from a service of 70 to 1200 over 5 years. Now, we are now partnering with the Mississippi State Legislature, Medicaid, and institutional leaders to build a home for medically complex children. We are also launching an accountable care coordination pilot project with Medicaid to serve this population with an initial budget of \$160,000.

### Impact

In order to provide the holistic care and a comprehensive approach to the total suffering of this under-resourced population, one must take a whole-system view of the care gaps. Though medically complex children account for the 'lion's-share' of Medicaid expenditures nationally, their quality needs are often left unaddressed. These children often lack the resources they and their families need most to have quality of life in a home environment and with the means to stay out of the hospital as much as possible. Our initial growth from consult service to inpatient and then outpatient medical home expanded care coordination for these children dramatically. From an initial cohort of 70 children, our team now leads care for a population of over 1200 - close to 100 of whom are vent-dependent, living at home. Our palliative model involved leveraging the skills and passions of social work, respiratory therapy, a nurse coordinator, an advanced practice provider and two physicians. In launching and growing the service, we noticed two huge needs. First, there was no home ventilation service and there were children living on ventilators in the hospital without a means to get home. Second, the Medicaid system in our state did not have the coordination structure or approach necessary to best serve our children. Instead, what we found was a complex obstacle course of paperwork and plans that often left parents fighting for basic resources for their children while continually having to return to the hospital.

Our growth into a clinical Center and our establishment of an accountable care system with Mississippi Medicaid seeks to impact all children living with medical complexity in our state. Our pilot project has entailed the building of a population health information technology model utilizing EHR functionality, establishing a new 'SUPPORT' score

which quantifies need based on various sources of patient complexity, and building a framework for coordination between our institution and Medicaid for coordinated care management using the Palliative Care team model. With the success of this pilot project, which trials the coordinated care model for a cohort of 135 of the most resource-intensive children under our care, the plan is to expand to the Mississippi Medicaid complex care population as a whole. We are partnering system and statewide with other specialists, primary care providers, and therapy and service companies to facilitate efficient, effective, and compassionate care for these children. With the testimonials shared with us by our patients' families and the results we have seen in the growth and scope of our service and others like it nationally, we are confident in the success of our model. Another need we are addressing is the care of ventilated children who for resource or other reasons are unable to live at home with their families. We have recently had a 'ground-breaking' for a Mississippi Center for Medically Fragile Children' which seeks to be a home away from home for children who are living in hospitals and institutions around the state.

## Evidence-Base

Though we are in the initial phases of the pilot and have only broken ground on the 'home away from home', there are multiple signs pointing to a positive result for our children, our institution, our state and our model. The first indicator would be the massive growth and needs of the pediatric complex care population nationally. Much has been written about the need for better models of care for this population, including by the Children's Hospital Association, who partnered with Medicaid to find solutions to the growing gap in these children's needs versus the care available. A second, more local, indicator of success would be the growth in just 5 years from 70 patients to over 1200 on our service. Clearly, there is a need for comprehensive health services for these children. Similarly, we have visited other health systems with similar purposes - providing care for complex populations or building medical homes for technologically-dependent children - and have seen the successes they have had in developing care for these kids.

Ultimately, though, the success of our model is built on the proven strength of the Palliative Care team structure. We have designed the model of care around a small Palliative Care team providing care for a panel of patients. Multiple studies have shown that the multidisciplinary Palliative team consisting of social work, nursing, respiratory therapy and providers can holistically serve a population with serious illness while decreasing cost and improving care. We have established two such 'panels' - each with their own cohort of patients. This allows for individual attention and continuity while growing the scope and reach of the team. These teams have proven to be financially advantageous enough to the institution and to the state to the point that a Medicaid MCO approached our team and asked to partner to provide a coordination model for their patients. Similarly, after legislators and the governor came and toured our unit, a working group was formed to build a home for medically fragile children which is entering the building phase. We are confident that this 'multiple-Palliative-team' model can best serve our patients and the state through personalized care, comprehensive coordination, a focus on quality of life, and the resulting resource management strategies which allow for the greatest effect from the most efficient use of clinic, hospital, and therapy modalities.

We have also developed a comprehensive set of coordination tools and population health data reporting systems in conjunction with Medicaid. By using our custom SUPPORT complexity scoring and tracking patients across multiple facets of complexity of care, we will partner with payors to advocate for the resources our patients need most while

providing system value in decreased ER utilization, hospital readmissions, and missed preventive care visits. We are already expanding to incorporate other specialties in our own institution in using the models we have built to facilitate coordination of their resource-intensive patients - including Pulmonology, Neurology, and Behavioral Health.

## Feasibility

Implementation of both aspects of our Palliative and Complex Care project have already begun. The pilot project specifically has followed a very systematic path. First, a cohort of patients were chosen from among those followed both by our institutional specialties as well as a specific Medicaid MCO that will be our partner during the first phase. Next, quality metrics were negotiated to include: 1. A yearly preventative visit for all patients, 2. A yearly EPSDT screen for every patient, 3. Follow-up within 14 days of an emergency room use, 4. Follow-up within 14 days of an inpatient discharge, and 5. An overall decrease in ER visits across the population. Tools were developed in our EHR for a coordination tab with a patient registry which stores longitudinal data for continuous study. Also, a score to quantify complexity was internally developed called 'SUPPORT': social needs, utilization of resources, pharmacy needs, palliative prognosis, overall daily care needs, respiratory requirements, and technology dependence. These metrics will allow for the stratification and assignment of patient panels based on complexity and care gaps. Further, we are developing dashboards based on real-time data sourced from Medicaid with which to form reports and triggers for patient follow-up and scheduling. The coordination staff are being trained on the new tools and a new role of 'Patient Navigator' is being hired to oversee report responsiveness and direct patient outreach to those participating in the pilot. With this mix of proactive and reactive tools, we feel that the 2 panels of coordination staff will collaborate to fulfill oversight of these patients' care. The building of the new home for the medically fragile home followed a similarly systematic process. After consultation with multiple national centers for the care of these children, we also toured one most closely related to our model and our goals. Staffing plans, blueprints, and training strategies were then developed from national benchmarks and targeted reviews as well as meetings with the Mississippi Department of Health.

We are now in final stages of negotiation of the payment model for members with different needs who will spend time in the home. For instance, some children will stay there full-time, while others will undergo transitional care or training, and still others will be undergoing rehabilitation and therapy. Both initiatives have detailed plans for expansion once the initial project sustainability and metrics are met. Again, this will be very much based on the Palliative Care team model and comprehensive approach to care. As each panel of patients is added to the project, subsequent to the pilot, a new 'modular' Palliative Care team structure will be added to manage their coordination of care and quality of life. Contingencies based on staff absences, changes in environment, or lack of success in one or more metrics have been built into the plan in the form of back-ups and cross-coverage. Difficulties have mostly been the result of slow response or conflicting information from Medicaid leadership and is being addressed through a new, collaborative administrative structure.

## Scalability

Both aspects of this project are designed to be scaled by the nature of their development. Also, both have, similarly, been devised with the intent of expanding to new and even more diverse populations who share similar needs. First, the pilot project is designed around the idea of patient panels. For each panel of around 400 patients there is a nurse coordinator, social worker, respiratory therapist, two patient navigators, and two providers. Each time patients are added up to a threshold of 200 patients, a new panel will be constructed and grown to around 400. This maintains a 'small team' feel for increasingly larger cohorts. Specifically, the patient navigator will be reaching out proactively through the weeks based on reports or time since last contact. These models are also being adapted to varying degrees with other specialties collaborating in the pilot project in order to care for patients that they see as primary coordination managers. Neurology, Pulmonology, and Behavioral Health have agreed to leverage the Palliative model and population health tools developed in order to manage their own assigned smaller cohorts as part of the pilot. The initial Certificate of Need for the medically fragile home was for sixty beds. The preliminary plans involve a structure that will serve 20 concurrent patients of various types. There are plans for expansion both 'back' and 'up' once the initial contingent is reached. In addition to the multiple types and stages of patients who will be served by the home, outreach has already been underway to specialties and leaders throughout the institution and state for other patients who would be better served in a less acute environment while still receiving excellent and appropriate care. For each of these, the initial budgets have been setup in a modular fashion to show the cost per unit as the projects grow. Assuming the success of the Palliative model, there are already conversations ongoing for following years and further outreach across the state and the region.

## Sustainability

For the care coordination pilot, a modest improvement of five percent has been agreed to for each metric. This allows for gradual improvement while still proving the structure and design of the coordination team. The budget was constructed by paying for the non-billable portions of each staff member on the Palliative Care team utilizing a 'per-member-per-month', capitated payment arrangement. As these patients are already receiving care from our team, this represents added value for both the payor and our institution. Our team has proven financial viability based on our internal value to the hospitalist and intensive care groups and our wRVU generation. The goal would be to continue to shift dollars to the outpatient setting and to save resources by facilitating more time at home and in clinic rather than in hospital or emergency room. Our team already has a proven track-record in this regard, and the processes we are streamlining should only increase this overall effectiveness.

If successful in this pilot project, partnering with the Medicaid MCO, it has been expressed to our team and institution that the whole of Mississippi Medicaid would be interested in collaborating on much larger and more diverse complex populations. This model would then also be spread through the Complex Care Center to inform the care of children in other institutional specialties and to facilitate collaboration with primary care statewide. Effects will therefore be both immediate and long-term as the population under comprehensive Palliative management expands across the state. This team has experience in coordination of complex population, including children with multiple chronic conditions, vent dependence, and life-limiting illness. They also possess relationships throughout the Pediatrics Department and the state, with specialists, durable medical equipment providers, therapy providers,

nursing companies, primary care providers and hospices. This has been accomplished through their tireless work on behalf of these children and through multiple quality improvement and marketing associations within the institution.

We are also preparing a statewide marketing effort to include families, legislators, providers, and relevant healthcare organizations. Institutional leadership and Medicaid leadership have been in constant contact throughout the process and are both supportive of the continued success of the growth of these initiatives. In fact, a Pediatric medical director has been placed on the executive panel of both the Pediatric Hospital and the overall health system to oversee and report on the success and expansion of this and similar projects. Similarly, the home for medically fragile children has institutional buy-in from the same relationships mentioned above. All Complex Care and Palliative initiatives will be overseen by the 'Center'. The growth of the 'home' will also provide for a wide variety of transitional and rehabilitating patients who would not traditionally be thought of as 'palliative' patients. In short, the establishment of the Center and the growth of the pilot as well as the medically fragile home have the potential to prove that the Palliative model is the premier structure to care for diverse, complex, resource intensive, and under-resourced populations. Palliative Care can ensure population health.

## Project Team

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## About the Challenge

The John A. Hartford Foundation Tipping Point Challenge is a national competition to catalyze the spread of skills, ideas, and solutions that will improve health care delivery for all people living with a serious illness. It is sponsored by the [Center to Advance Palliative Care](#) and [The John A. Hartford Foundation](#).

For more information, visit [tippingpointchallenge.capc.org](http://tippingpointchallenge.capc.org).