CLINICAL SCHOLARS

A Robert Wood Johnson Foundation program

Toolkit for Improving Access to Pediatric Care: A State-Wide Telemedicine Collaborative

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TABLE OF CONTENTS

ABOUT THE PROGRAM

Clinical Scholars is a national leadership program of the Robert Wood Johnson Foundation led by the University of North Carolina at Chapel Hill. Learn more about RWJF's Leadership for Better Health programs by visiting: rwjf.org/leadershipforbetterhealth

ABOUT THE TOOLKIT

This toolkit is designed to provide insight for medical teams and allied health providers who have an interest in creating a telemedicine network of providers who share the goal of serving unmet medical needs across broad geographic distances.

For more information contact: montanapediatrics.org

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Toolkit for Improving Access to Pediatric Care: A State-Wide Telemedicine Collaborative

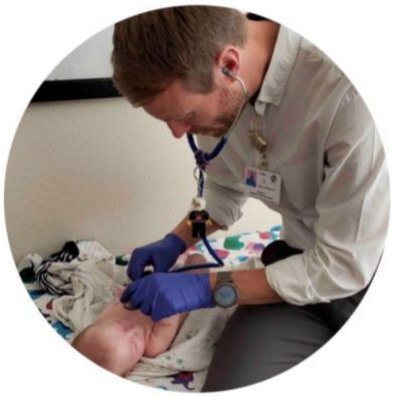
Montana ranks 46th in overall clinical care and 43rd in child mortality.

In the predominantly rural state of Montana, 44 of 54 counties are classified as frontier regions – fewer than 6 persons square mile. The demographics and distribution of healthcare resources in this landscape lead to challenging problems around healthcare access. For special populations, specifically children, limited access to care can be devastating. Montana ranks 46th in overall clinical care and 43rd in child mortality. With approximately 120 pediatricians in the state who are highly concentrated in our more urban areas, children are commonly evaluated in critical access hospital emergency departments not well equipped to handle their needs. After traditional clinical practices close at 5pm, the majority of locations in Montana have no pediatric-specific option to access healthcare. Our team proposed to organize and collaborate with our existing pediatric workforce to design novel solutions that offer more equitable access to pediatric after-hours care in our state.

Building virtual collaboration using technology

Our team proposed that geography need not be a constraint for sharing expertise in pediatric healthcare delivery in Montana. Through connections and relationships with other American Academy of Pediatric Board-Certified providers within our region, we built a virtual team of geographically dispersed Montana-based pediatricians, unified by a goal to provide high quality after-hours medical care. We recruited and collaborated with the state's current pediatric workforce to improve access to pediatric specific after-hours medical care via a virtual healthcare delivery model. We utilized a telemedicine technology platform to improve access for families and build collaborative options for pediatricians. This model was unique in our intentionality around strengthening, rather than competing with, existing pediatric medical homes through diligent communication and electronic sign out tools. The use of collaborative medical providers allowed us to do together what we could not do alone: improve equity of access to quality pediatrics, alleviate strain caused by physician shortage, and build support for practicing pediatricians across our state.

Montana has approximately 100 practicing pediatricians across a span of 150,000 square miles.



Planning

To implement and sustain a provider collaborative we took time to plan and thoughtfully move to align key stakeholders in this important work. First, we worked to understand the problem at hand. As a frontier region, pediatric patients confront unique physical challenges to healthcare delivery and access to care. Across a span of nearly 150,000 square miles, there are fewer than 100 practicing pediatricians, most of whom are not clinically accessible after-hours. Commonly, after hours pediatric care needs are routed through emergency departments where high costs are incurred and pediatric-specific staff is rarely available. Studies suggest this may lead to compromised quality of care. Additionally, our state's small workforce of pediatricians experience both burnout and isolation. Pediatricians practicing in rural areas face responsibilities and demands that can be exhausting and unsustainable.

In this context, the healthcare market has seen rapid expansion in the use of telehealth visits by standalone virtual providers, similar to retail-based clinics that do not promote the established physician-patient relationships of the medical home. The medical home is best described as a model of primary care that is patient-centered, comprehensive, team-based, coordinated, accessible and focused on quality and safety. It is the leading model for how primary care practitioners should offer clinical care. Many of these existing telehealth-only models provide fragmented care outside of an existing medical home. Our goal was to better understand and overcome these barriers to increase after-hours access to pediatric care utilizing innovative telemedicine technology.

KEY PLANNING QUESTIONS

The key planning questions focused on our key stakeholders in this work: families, providers, and payers. As we embarked on this work, we realized that successful initiatives require stakeholder participation and validation in order to build sustainable solutions. Our initial approach in planning the collaboration focused on:

- **Families:** How can patients and their families drive our innovation? How will we collect and be responsive to patient experience and feedback? In what ways will our intervention be adaptable to meet unique needs of pediatric patients, such as cultural considerations or serving children with special healthcare needs? How can we engage families in both the development and utilization process?
- **Providers:** How can we incentivize providers to participate? In what ways can we expect providers to engage while respecting their already high clinical responsibilities? Will collaboration improve burnout? How can we support interprofessional networking among physicians through this collaborative? How can we strengthen, rather than compete, with existing pediatric medical homes? In what ways can we sustain provider engagement?
- **Payers:** In what ways can we demonstrate to payers the value of this work? How can we collect and present data regarding cost savings? Is there possibility for a shared innovative solution to improve healthcare cost, efficiency, and care coordination in our state? Is there interest in a partnership to lead this work? How can we share data analytics to inform program pilots for utilization?

OUR TEAM

Our project was led by pediatricians and idea-makers who came together through the Robert Wood Johnson Clinical Scholars Program which focuses on supporting leaders to build a Culture of Health in the United States, where everyone has the opportunity to live the healthiest life possible. Team leaders include:

- Emily Hall DO, FAAP Pediatrician and Pediatric Hospitalist dedicated to transforming healthcare delivery for low resource communities and improving pediatric quality utilizing innovative healthcare delivery models
- Allison Young MD, FAAP Pediatrician at Missoula Valley Pediatrics and a statewide Montana leader through the American Academy of Pediatrics, embracing high impact initiatives that bolster the pediatric medical home
- Chelsea Bodnar, MD, MPhil, FAAP, CEO and founder of Ohana Pediatrics, a pediatric telemedicine platform designed to improve collaborative pediatric care

COLLABORATION

Strategic partnerships and alliances in our state were at the heart of our mission to collaborate across healthcare systems to serve the after-hours pediatric medical needs of children and youth and support their families. Through highly engaged families recruited through our clinical realms we were able to incorporate patient and family voices into shaping our program design and gaining feedback and insight. We utilized various existing parent platforms for this feedback and engagement including Circle of Parents and Parent Partners, both of which are well-established across our state. Health systems joined in our collaboration by supporting the mission and their medical providers' participation in this work. State leadership, specifically the Montana Department of Public Health and Human Services (MD DPHHS) as well as the Rural Institute of Montana through the University of Montana, contributed policy-level perspectives which were valuable to our initiative. Payer voices guided fiscal policy to support the sustainability of this transformational initiative. We were fortunate to have diverse community and state collaboration allowing for robust program development.

FUNDING

Our team was fortunate to have the support of the following donors for which much of this work would not have been possible:

- Over $400K Clinical Scholars grant, a program of RWJF
- $400K RWJF Pioneers Grant
- $400K Health Care Services Corporation (HCSC) investment in Ahana technology
- $180K Headwaters Foundation
- $20K Montana Health Care Foundation for Fort Peck telemedicine consultation
- $25K Montana Small Business grant to provide educational webinar series
- $30K HRSA MCHB Care Coordination Innovation Challenge
- $50K MT DPHHS to support development of cloud-based care coordination tool
- $2K Mountain States Regional Genetics Network (MSRGN)
- $4K MT DPHHS Intermountain Regional EMS Children Coordinating Council (IRECC)

KEY PARTNERSHIPS

- University of Montana Rural Institute for Inclusive Communities for partnership in: Fort Peck Community engagement; HRSA Care Coordination Innovation; and National Care Coordination Academy
- Parent Advisory Committee
- Fort Peck Health Promotion Disease Prevention
- Families 2 Families
- Montana Parent Partners Project
- Circle of Parents Program
- Montana Department of Public Health & Human Services
- University of Montana Department of Public Health
- Montana Medicaid
- Blue Cross Blue Shield of Montana
- Montana Chapter of the American Academy of Pediatrics
- MONIDA healthcare networks

Project work

Our project work had three equally valued spokes: patients/families, providers, and payers. Outlined below is a stepwise approach to this work you can modify and implement for your own team in a sequential fashion. Our goals from a patient and community engagement perspective were to be able to demonstrate impact and value by reducing unnecessary emergency department visits after hours by providing a localized and trusted telemedicine alternative. From the provider perspective, we worked to build relationships and create sustainable collaboration. We identified pediatric champions inclined to early adoption of technology in healthcare practice and completed a 26-week test of concept with 15 providers serving in a virtual care capacity. We then expanded and offered incentives for more provider engagement by providing a grant-funded stipend as well as maintenance of certification opportunities for participating providers. This work was recognized by the Montana American Academy of Pediatrics (AAP) Chapter and our team later presented at the National AAP conference.

Overall, five healthcare systems in our state engaged in supporting this model either by offering financial support or by auxiliary medical provider engagement. Our work with payer engagement proved to be of mutual value as encounters were reimbursed as expected, consistent with current policy in our state. We continue to advocate for payment models that promote the use of the medical home and strengthen the patient-provider-family relationship. Additionally, our work brought to light known inequities in broadband internet access and the need for ongoing advocacy specifically related to infrastructure development in rural and Reservation lands.

BUILDING CAPACITY

Families:

- Identified families who are in particular need of after-hours pediatric care through partnerships with pediatric specialists, hospitalists, and primary care pediatricians
- Conducted family needs assessment around feasibility of telemedicine use for after-hours care

Providers:

- Identified 15 lead pediatricians representing diverse regions, through the MT American Academy of Pediatrics Chapter, who are committed to utilization of this model to serve pediatric patients
- Conducted focus groups with provider champions and provider groups around telemedicine use for after-hours care among pediatric populations
- Conducted needs assessment among our 10 lead pediatricians and their respective practices
- Provided the technical platform training and team building to launch a pilot initiative
- Established a liability insurance solution for physicians in the pilot program

"My AHAna moment came the weekend after my son's g-tube surgery. I was concerned about his post-op recovery but really wanted to avoid yet another trip to the emergency room for him.

Being able to access Ohana and speak directly to his pediatric hospitalist allowed my concerns to be put to rest: *his hospitalist was able to assess how his recovery was going, make necessary modifications to his treatment plan, and quickly make him more comfortable, all from the comfort of my living room.*

This system is absolutely incredible, and as a mother to a medically fragile child, the reality of being able to access medical care on weekend without making a visit to the ER is life changing."

– Joanna K., Montana mom

- Developed credentialing, employment contracting, payroll, technology and medical billing capability allowing the group of providers to function in a business-neutral context for cross-coverage and collaboration

Payers:

- Met with major payers/stakeholders to identify trackable outcome measures of pediatric-focused telemedicine use for after-hours care
- Formalized contracts with Blue Cross Blue Shield and other relevant insurance providers to establish a reimbursement model

TEST OF CONCEPT

Families:

- Completed trial visits using the telemedicine platform
- Created an information page about the child, including special healthcare needs or preferences the family may have regarding their medical care
- Provided feedback both in individual and in group sessions to share insights and shape development of the healthcare delivery model

Providers:

- Utilizing platform, piloted after hours care among 100 families
- Provided feedback to the telemedicine technology development team to further develop the established electronic communication system among providers to create seamless communication with the medical home
- Sought feedback from pilot telehealth providers and primary care providers to gain insights regarding the capacity of the model to meet pediatric needs

Payers:

- Tracked reimbursements
- Partnered with data analyzer experts to study utilization patterns

IMPLEMENTATION

- Launched the Web RTC platform to provide after-hours pediatric care services among our lead pediatricians in the context of collaboration across geographic regions/practice sites
- Examined the data regarding the patient/family telehealth experience on a quarterly basis
- Refined the model of care based upon feedback received
- Continued to monitor healthcare utilization patterns and costs with payers
- Expanded physician involvement and geographic region to meet larger needs

"My AHAna moment was recognizing that having the ability to do Ohana visits is just as beneficial to me as a provider as it is for families.

It improves access to care and is more convenient for both of us. *It's a win-win."*

– JP Vilai, Montana MD

Evaluation and dissemination

Families and providers across Montana were surveyed regarding their access to medical care, use of technology and whether they cared for a child of special healthcare needs. Caregivers reported high rates of mobile technology ownership:

- 97% have smartphones and 81% have laptop computers.
- Of the smartphone owners, 95% use apps on their phones. This high rate of technological connectivity is not without caveats: when asked if they had ever needed to stop using their smartphones, 32% of the total affirmed this was the case due to running out of data, and 19% of the total affirmed this experience due to an inability to pay their phone bill. Nearly all (90% of) caregivers reported having access to Internet at home.
- 36% reported having limited to no access to needed pediatric medical services in their area; of these, 94% responded to having to seek medical care for a child when their regular doctor was unavailable.
- 85% of caregivers reported having a child who receives medical care from a specialist; of these, 57% report the specialist is located more than 61 miles from where they live; only 33% report their child's specialist is located within 20 miles of home, and another 10% report the specialist is between 21-60 miles from home

Our core group of 10 healthcare providers who participated in our ABP Maintenance of Certification project completed four webinars and three surveys at three different time points during our nine-month pilot use of telemedicine in an after-hours setting. Over the course of this time period, all providers reported significant improvement in their comfort with and perception of telemedicine to improve access for children and families. The highest concern was around the technology and broadband access for our most rural populations. All providers indicated they would be comfortable continuing to provide care in a collaborative model moving forward.

ENGAGING MEDICAL PROVIDERS

First, we expanded our provider collaborative by creating a curriculum and leading an AAP Maintenance of Certification (MOC) initiative for participating providers. This CME opportunity assessed provider perspectives on access to care, comfort in telemedicine/technology, burnout, and experience in collaboration. We provided literature review, quarterly webinars and unidentified data feedback of colleague perception and experience before and after COVID regarding the topics.

Second, we partnered with the AAP, unifying both Montana and Utah Chapters to lead a 3-month learning collaborative aimed to educate and support primary care providers on telehealth workflow, billing and coding, best practices, and measuring and reporting quality of telehealth encounters. This followed the ECHO (Extension for Community Healthcare Outcomes) Model™, a telementoring platform that leverages video conference technology to connect subject matter experts with primary care teams in local communities, fostering an "all teach, all learn" approach. Through sharing our knowledge gained, we hope to inspire others to utilize telehealth technology to meet the needs of the pediatric patient population.

KEY MESSAGES

- Medical providers are eager and willing to join in collaborative effort for a shared goal of improving pediatric healthcare equity.
- Often, healthcare systems, though competitive entities, will support unified, clear, and mission-driven initiatives.
- Creating and maintaining a patient advisory board is important for feedback, perspective, and dissemination.
- Partnering with healthcare networks can provide the framework for credentialing and payer contracting, which is integral.
- Engaging already existing parent groups throughout the region provides feedback and assists in getting the word out about the project.
- Payor engagement and partnership is critical for project sustainability.

Challenges, successes, and lessons learned

Our early strategy was based on a three-pronged, key stakeholder approach: patients, providers, payers. We demonstrated early and consistently positive interaction with provider engagement and payer support. Our team learned that we may have missed opportunities to engage families and/or health systems around opportunities to increase referral to the after-hours collaborative. We moved forward without sufficient understanding of the patient/parent perspective, thinking we could develop this engagement as the project went forward. However, by moving forward without fully engaging our stakeholder populations on the promotion of use, we consistently lacked our patients' spontaneous engagement. Additionally, several of the patient/parent barriers were not recognized and therefore not fully addressed through our project. These included establishing trust with the provider community, patient-friendly design, and some confusion around billing/payment expectations. Families are asked to enter insurance information at the start of the encounter. Insurance providers evolved to provide more adequate and consistent coverage of telemedicine services since the onset of the pandemic.

As such, our reach and impact for patients was lower than anticipated. Over the project's two years, the after-hours average medical encounters were 1 per 36 physician on-call hours. Additionally, we set out to ultimately incorporate a rural and low-resourced population in this work; however, the most frequent utilizers of our technology were families who were connected to us via hospital colleagues or various other connections that could not apply more broadly. Ultimately, we remain hopeful that word of mouth will continue to expand our utilization. If we were to do this again, we would try to strategize around and mitigate some of the barriers to use and more fully engage the population we were hoping to serve. Examples include:

- Demonstrations at HeadStart parent nights or other child centers;
- Better dissemination of testimonials to our rural populations;
- Offering free coupons for trial sessions;
- Exploring options to link to hospital/clinic websites;
- Better partnering with phone nurse triage systems; and
- Incorporating regular parent feedback sessions.

Without question our team's greatest success was the demonstrated achievement of unifying over half of the pediatricians in our state to work in a collaborative healthcare delivery design. This is notable across geographical regions and competing healthcare entities. As this work moves forward, one of our team members, Dr. Bodnar has created a 501c3 in partnership with two children's hospitals in the state. They will further develop and maintain the collaborative, among other key issues around access to quality pediatric care in Montana.

SHIFTS IN THINKING

- Appreciating the depth of willingness among like-minded healthcare professionals to take additional time to support an initiative unified by a common value.
- Understanding that if family voices and patient perspectives are not intentionally and regularly obtained, the utilization of telemedicine services will not be maximized.
- Recognizing the need for ongoing work through advocacy and policy change to create infrastructure to achieve equitable internet access for the most vulnerable where both cost and geographical landscape continue to be obstacles to obtaining medical care for children.
- Realizing the partnership potential in payers focusing on shared goals to decrease cost and increase quality.

Recommendations

From our experience, we recommend a steady and paced investment during an initiative such as this effort to build a collaborative workforce and scale-up pathway. It is valuable to identify leaders who already have a high level of relational and networking capacity in your field. Even with strong professional respect and reputations, plan for a year of capacity building work to identify and engage key stakeholders for your initiative. Next, begin with a small-scale pilot model to confirm positive patient experience, provider satisfaction, and payment sustainability. Pause in the small-scale model until you really have established the quality you desire, and all stakeholders agree. The most challenging critics in the small-scale phase will be your best driver to achieve long-term success and sustainability. Do not rush into full scale production until each sector is truly excited and engaged with expansion. By thoughtful and paced implementation you will likely be more successful and well positioned to achieve longitudinal impact.

In contrast, there is excitement, often funding pressures, and momentum to launch into a larger scale initiative as early as possible. As you embark on your project, embrace those who drive your initiative forward, but include voices of diversity in your team, especially those who are more analytical and measured in the context of driving change. It would have helped our team to have more initial conversations regarding expected timelines and agree on action steps that need to be completed before onward movement. Don't feel rushed – sustainable culture change is slow, steady, and meaningful work.

BEST PRACTICES

As a team, we look back at the opportunities for engagement and innovation in our own professional circles when addressing the culture of health. Our team members reflect on what advice they would give future leaders in advancing health equity.

- **Dr. Bodnar:** Meaningful changes to wicked problems require patients and invested work at the intersection of siloed disciplines. They require deep respect for the work that has come before, both as an example of what may be effective and what should be avoided. Be curious about the expertise of others, willing to roll up your own sleeves, lead by example, and take down the barriers you encounter with your bare hands no matter what you have come to believe about your own worth or your own station in life. Stay fiercely attached to the "why" of your work and constantly strive to improve the "how" of each effort. Leadership toward meaningful change will not always be a popular process, surround yourself with champions for a better future who can disagree, debate, and engage with honesty and resilience. There is an elusive yet golden balance between trusting yourself and humbly admitting when you need to cling to more self-centered, self-serving or self-preserving patterns. It is okay - it is with realistic, self-reflective strength that we find the connections and safe spaces for transformative solutions to emerge, grow and serve those for whom lack of access to healthcare and health equity is not an academic exercise, but an urgent life or death need.
- **Dr. Hall:** Be curious about how your idea is being received within the broader context in your field. Be open to changing course and be an engaged listener. Listen not only to those you have identified as key stakeholders, but to anyone who challenges your work. If they are sharing criticism, then they are engaged participants and will provide you with the most valuable insight for achieving sustainability. Your project will be stronger and more sustainable if there is a framework for transparency and authentic collaboration unified by a shared purpose.
- **Dr. Young:** Ultimately, we are best served by uplifting each other in areas in which we excel and recognizing when we may be reaching the limits of our capabilities. Honor the many facets of this work by developing an efficient support team, clear roles and achievable goals. Celebrate successes and designate time for critical revision.