

Optimizing Outcomes through Tailored Pediatric Value Analysis: A Specialized Approach to Enhancing Quality and Efficiency in Child Healthcare

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BACKGROUND

The Premier Kiindo Collaborative was designed with the specific intent of bringing clinical innovation and medical product access to our specialized pediatric patients across the United States. The Collaborative addresses three specific components that strategically improve the ability to provide care to specialized pediatric populations:

- Access to a Pediatric Product Portfolio:** The creation of a national medical products contracting strategy specifically for the niche areas serving the pediatric population, all selected and reviewed by a team of clinical and supply chain subject matter experts.
- Innovation:** The best ideas often come from those with the greatest need and that perform the clinical care at the frontlines. With innovation as the cornerstone of Kiindo, the possibilities of cocreating products and services with members are boundless. This expands access to care
- Collaboration –** Leveraging Premier's proven methodology to clinical value analysis and sourcing,

Those enrolled in the Collaborative develop best practices, establish benchmarks and exchange knowledge sharing unique to pediatrics versus the traditional comparisons to adult acute care or ambulatory entities. Pediatric patients have unique, specific, and individualized needs that were not currently met by existing sourcing contracts. This impeded full access to care and created an opportunity for a quality improvement project.

The Premier Kiindo Clinical Councils were developed to foster a more intimate engagement with clinicians during the clinical sourcing process to support and embrace the importance of subject matter experts and outcomes in product decisions. Our team defined a collaborative Mission and Vision statement that defines our strategic work and drives out approach to outcomes improvement:

- Mission:** To reduce the total cost of healthcare while providing the highest quality care for patients by reviewing clinical outcomes and evidence to make informed supply chain decisions.
- Vision:** By following a systematic clinical evaluation process, the Clinical Councils will collectively determine best practices and contracting strategies to maximize total value.

This collaborative touches over 100,000 patient discharges and patient visits and impacts well over 500,000 lives across the participants.

MATERIALS AND METHODS

The Collaborative facilitated the engagement of all clinical and operational stakeholders, medical device and product innovation rom Industry Partners, and the ability to develop standardized clinical care models for specialized pediatric patient populations. This led to attention on outcomes-focused clinical sourcing, clinical utilization improvement, and the expedited realization of savings across the healthcare continuum in collaborative members.

Healthcare value analysis contributes significantly to pediatric facility safety, access to care, and improved clinical outcomes by ensuring that the products, services, and procedures used within a healthcare setting are not only cost-effective but also clinically efficacious and safe for pediatric patients. The Collaborative has strategically addressed three core elements to improve overall healthcare delivery to pediatric patients including:

- Facility Safety:** For pediatric facilities, safety is paramount. Children are particularly vulnerable to risks associated with medical equipment and supplies that may not be tailored to their unique sizes and physiological needs. Healthcare value analysis rigorously evaluates products to ensure they are suitable for pediatric use. This includes analyzing equipment for safety features that prevent accidental injury and reviewing supplies to ensure they are free from harmful substances that could negatively impact children's health. By systematically assessing risk and establishing protocols for safe product usage, healthcare value analysis minimizes the potential for harm, thereby contributing to safer facility environments.
- Access to Care:** A core objective of healthcare value analysis is to eliminate wasteful expenditure and optimize resource allocation. In pediatric care, this approach can expand access to high-quality medical services by ensuring that investments are made in the most beneficial areas. For example, by evaluating the cost-effectiveness of different medical devices, a value analysis team can prioritize funds for state-of-the-art equipment that supports a wider range of services for pediatric patients. By streamlining operations and inventory management, healthcare value analysis can help reduce overhead costs, potentially leading to lower healthcare prices and expanded access for families.
- Improved Clinical Outcomes:** Healthcare value analysis plays a crucial role in improving clinical outcomes through the promotion of evidence-based practice. By systematically reviewing and integrating clinical data, value analysis teams ensure that the treatments, medications, and procedures used within pediatric care are based on the best available evidence, thereby enhancing the quality of care. This results in the adoption of the most effective therapies and interventions, which can lead to better patient outcomes, such as reduced hospital readmission rates, improved recovery times, and lower incidence of medical errors. By involving clinicians in the value analysis process, there is an assurance that the selected products and services align closely with the needs of pediatric patients, further improving clinical outcomes.

ADVANCING QUALITY, ACCESS, AND SAFETY

Creating a pediatric-specific collaborative approach to healthcare value analysis can significantly advance access to care, promote better clinical outcomes, and drive clinical standardization in several key ways:

- A pediatric-specific approach in healthcare value analysis prioritizes the unique needs of children, from neonates to adolescents. By tailoring this process, healthcare facilities can identify and invest in medical equipment and supplies that are designed for various pediatric age groups, ensuring that the right resources are available when needed. For instance, a value analysis team might focus on securing pediatric-sized medical devices or ensuring that facilities have access to child-appropriate pharmaceuticals. This attention to detail reduces delays in providing care and eliminates the need to adapt adult equipment, which may not be suitable or safe for pediatric use. As a result, children gain quicker and more direct access to the healthcare resources they require, and barriers to care are minimized, particularly for specialized pediatric services.
- A collaborative, pediatric-specific value analysis approach integrates the expertise of diverse healthcare professionals who understand the complexities of pediatric healthcare. Such teams typically include pediatricians, pediatric nurses, pharmacists, and other specialists who work together to evaluate clinical practices, technologies, and treatments. Their combined expertise ensures that the products and services used are the most suitable for pediatric patients, improving the efficacy of treatments and minimizing the risk of adverse events. By focusing on evidence-based practices, this collaborative approach also facilitates the selection of interventions that have been proven to yield better health outcomes for children, leading to improvements in recovery times, reduction in complication rates, and overall enhancement of the quality of pediatric care.
- When pediatric care is standardized, it means that every child is receiving care based on the best-known methods, which reduces variability and improves reliability in clinical outcomes. A pediatric-specific value analysis team works to create standardized protocols for everything from medication dosing to equipment usage, tailored to the needs of pediatric patients. By implementing these standardized practices across an entire healthcare system, the team ensures that every child receives the same high level of care, regardless of where they are treated. This standardization not only enhances the quality of care but also streamlines training processes for healthcare providers and simplifies inventory management for pediatric supplies, further contributing to operational efficiency and consistency in patient care.

In essence, a pediatric-specific collaborative approach to healthcare value analysis takes into account the distinct physiological and developmental requirements of children, ensuring that healthcare systems are better equipped to meet these needs. This results in improved access to pediatric care services, superior clinical outcomes for young patients, and the establishment of standardized care protocols that ensure consistency and quality across the healthcare continuum.

RAISING THE BAR FOR PEDIATRIC CARE

Pediatric patients are not simply "small adults." As such, they required specialized solutions. Through this new collaborative, the scalability across the entire Premier Children's Hospital network has endless potential and could easily reach over 1,000,000 patients on an annualized basis. The focus with this Collaborative now is to increase participation, drive clinical innovation in both medical products/devices and clinical processes, and to maintain a data-driven approach to clinical contracting for the pediatric subspecialty. The work of the Collaborative has driven tremendous success with new device and product innovation with multiple Industry Partners, all while maintaining a focus on the IHI Quintuple Aim.

Pediatric patients are not just small adults; their bodies and health needs are unique and constantly changing as they grow. Their physiological, psychological, and developmental differences necessitate specialized innovation and solutions for their care. From infancy through adolescence, children experience rapid changes that influence how illnesses affect them and how they respond to treatments. Medications, medical devices, and treatments must be specifically designed and dosed to be both safe and effective for children, whose organ systems may metabolize and react to drugs differently than those of adults.

The need for specialized pediatric care extends beyond pharmacology. Medical equipment and devices must be tailored to fit children's smaller anatomy and accommodate their growth. Most medical devices used in hospitals are designed with adults in mind, which can pose significant challenges in terms of fit, effectiveness, and safety when used for children. Innovations in pediatric-specific medical devices not only improve safety and comfort but can also provide more accurate diagnoses and treatments suited to the unique physiology of children. For example, a pediatric blood pressure cuff or an appropriately sized airway management tool can make critical differences in the provision of emergency care.

The hospital environment and the approach to care delivery must be adapted to meet the emotional and psychological needs of pediatric patients. Children may experience higher levels of anxiety and fear when faced with hospitalization or medical procedures. Pediatric care innovation must also extend to the broader health system level, addressing the need for specialized training among healthcare providers and ensuring that healthcare policies account for the unique needs of children.

Pediatric specialists, such as pediatric nurses, pediatricians, and pediatric surgeons, undergo extensive training to understand and treat the complex health issues of children. As research continues to advance our understanding of pediatric health, ongoing education and training become essential to apply new knowledge effectively. This holistic approach ensures that from the individual caregiver to the entire healthcare system, the unique needs of pediatric patients are met with thoughtful, specialized solutions.

APPLICATIONS TO PRACTICE

The Premier Kiindo Collaborative is a first of its kind approach to engaging clinicians, Industry Partners, regulators, and other stakeholders in an innovative approach to clinical contracting for specialized pediatric populations. Clinical value analysis has truly emerged as a specialty that leverages the lens of clinical, operational, and financial across the entire healthcare continuum. Additional resources and focus must be dedicated to support the unique needs of our specialized patient populations such as pediatrics, geriatrics, and oncology as key examples. These patients often require innovation that does not currently exist today, and these programs can drive a much-improved quality of care experience for each patient that experiences healthcare in the pediatric care setting.



FOR MORE INFORMATION

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