**Background**

- Children with medical complexity (CMC) comprise 3% of the pediatric population and account for 30% of US pediatric healthcare expenditures.
- Value based initiatives are urgently needed to keep these programs financially viable in the future.
- In a 6-month pre-post analysis, the Comprehensive Care Program (CCP) was associated with decreases of 15% in ED visits, 32% in hospital admissions, 68% in lengths of stay, and 69% in total hospital costs.
- CCP has been supported by the University of Utah's Dept. of Pediatrics, Primary Children's Hospital and Intermountain Healthcare’s integrated health plan.
- Recent changes demand a re-designed approach to healthcare delivery for CMC.

**Objectives**

1. To qualitatively describe stakeholder perspectives on healthcare delivery for CMC.
2. To gain input from primary care and pediatric subspecialists regarding CCP.
3. To propose a strategy to sustain CCP for CMC in the Intermountain West.

**Methods**

1. Conduct in-depth qualitative interviews with key stakeholders, including an advisory committee of experts in healthcare delivery, financing, contracting, and policy.
2. Measure perceptions of CCM for CMC via survey of generalist and specialist pediatricians in the department and community.

**Results**

**Aligning Stakeholder Incentives: What matters the most?**

<table>
<thead>
<tr>
<th>Priorities</th>
<th>CMC and Families</th>
<th>Providers</th>
<th>Payers</th>
<th>Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Care</strong></td>
<td>Quality, personalized</td>
<td>Quality, partnerships</td>
<td>Quality, value</td>
<td>Quality, integrated</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Responsive, continuous</td>
<td>Responsive, equitable</td>
<td>Urgent access</td>
<td>Just-in-time care</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>QOL, fewer admissions</td>
<td>Optimal CCM wellness</td>
<td>High value care</td>
<td>Equity, integration, participation</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Zero Harm</td>
<td>Wellness, less burnout</td>
<td>Risk, reputation</td>
<td>Community engagement</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Fair, affordable</td>
<td>Fairly compensated</td>
<td>Lower costs w/o risks</td>
<td>Balance health w/ social svcs</td>
</tr>
<tr>
<td><strong>Future</strong></td>
<td>Be there</td>
<td>Well-prepared workforce</td>
<td>Efficient, aligned</td>
<td>Equity, sustainability</td>
</tr>
</tbody>
</table>

**Primary Care and Subspecialist Perspectives: How are we doing?**

- **Strengths**
  - "I love this clinic, and with all of the special needs kids were attached to it."
  - "Excellent resource for families...better care when CMC are in comprehensive care vs. community based practices only."
  - "Expertise in directing care with numerous subspecialists and procuring DME and resources for families is invaluable."
  - "My patients are receiving better care than I would be able to provide on my own."
  - "I have learned things from certain patient encounters that I have been able to apply to other patients in my care."
  - "Centralizes care, manages complex, multi-system conditions, reduces burden on our other subspecialists, supports families."

- **Opportunities**
  - "Improved communication would be greatly beneficial."
  - "I have not referred as much as I would like because...they needed more clinicians."
  - "We have seen an increase in referrals...we should reach consensus on how to address it."
  - "More information to the ED on what services are provided, what patients should be referred, how to refer."
  - "A disconnect when patients are in ED or hospital"
  - "A stronger in-patient presence would be great."
  - "Its clinic volumes are too low, and its costs are too high."
  - "I'm not sure when to refer to comp care vs PM&R."

- **Actions**
  - Consistent communications with all PCPs/medical homes
  - Refresh with updates to stakeholders
  - Chronic condition management, non-face-to-face billing, payer contracting
  - Engage with ED proactively
  - Enhance/buid an effective consult service
  - Collaborate on ambulatory care process models

**Limitations**

- The unprecedented interruptions of COVID19
- Changes in leadership in Dept. of Pediatrics and organization of Intermountain Healthcare introduced some delays in project progression.

**Conclusions and Future Directions**

- Family, provider, payer and community stakeholders are committed to further developing and sustaining CCP for CMC, aligning around priorities of quality, safety, value, equity and sustainability.
- Models of population health, shared costs and savings, value-based care, extramural grants and philanthropic support are strategies to sustain complex care programs for CMC.
- Robust surveying/analysis of patient population.

**Acknowledgements:** I thank Aaron Gewecke, Mary McKinlay, Kelsey Smith and Janceton Lunceford for their assistance with provider surveys and data analysis, with their Capstone Director, Dr. Steve Walston; Lucia Blasko for her administrative support; and Jason Fox MPA, MHA for his encouragement, wisdom and friendship during every stage of this IAP.