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### Virtual-First Comprehensive Care for Children with Medical Complexity (CMC) Under a Population-Based Payment Model

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#### Background

- CMC <1% of children but >30% of pediatric healthcare costs
- Care for CMC fragmented, uncoordinated, or inaccessible
- Few small pilot programs have demonstrated:
  - reduction in ED visits, hospitalizations, mortality rates
  - improvement in caregiver satisfaction

#### Objective

- To establish a virtual-first comprehensive care program
  - acute medical care via telehealth
  - integrated behavioral health
  - care coordination
  - social support to patients
- Financed through a population-based payment model

#### Methods

- Payer-assigned
- Medicaid status
- Adapted version of pediatric complex chronic condition classification system
- Enrollment via mobile app download
- Intake with RN
- Onboarding visit with Provider
- Stability score calculated; weekly RN visits for 1-4 weeks, then monthly
- Daily digital touchpoints via app to identify care gaps
- Care gap triaged to appropriate team member
- In-person visit, if needed, by mobile integrated care team (in select areas)
- Outcomes:
  - enrollment
  - diagnoses
  - healthcare utilization diversion
  - Population-based payment model arranged with managed care Medicaid

#### Results

OUTCOME MEASURE	# OF PATIENTS
Patients Assigned (by payer)	<b>20,706</b>
Patients Enrolled (1/1/2023 – 8/31/2023)	<b>2,884 (14%)</b>
Avoided (unplanned) Urgent Care visits	<b>506</b>
Avoided (unplanned) ED visits	<b>225</b>
Total avoided unplanned (UC + ED) visits	<b>761</b>

**TOP FIVE CHRONIC CONDITIONS FOR ASSIGNED PATIENTS**

Asthma	37.7%
Cardiovascular Disorders	30.8%
ADHD	30.3%
Technology Dependence	27.3%
Anxiety Disorders	26.8%

#### Conclusion

This novel program financed by a population-based payment model demonstrates promising engagement and utilization prevention for CYSHCN.

#### References

• Cohen E, Berry JG, Camacho X, Anderson G, Wodchis W, Guttman A. Patterns and costs of health care use of children with medical complexity. *Pediatrics*. 2012 Dec;130(6):e1463-70. doi: 10.1542/peps.2012-0175. Epub 2012 Nov 26. PMID: 23184117; PMCID: PMC328341.

• Kuo DZ, Cohen E, Agrawal R, Berry JG, Casey PH. A national profile of caregiver challenges among more medically complex children with special health care needs. *Arch Pediatr Adolesc Med*. 2011 Nov;165(11):1020-6. doi: 10.1001/archpediatrics.2011.172. PMID: 22065182; PMCID: PMC323457.

• Foster CC, Agrawal RK, Davis MK. Home Health Care for Children With Medical Complexity: Workforce Gaps, Policy, And Future Directions. *Health Aff(Millwood)*. 2019 Jun;38(6):987-993. doi: 10.1377/hlthaff.2018.05531. PMID: 31158008.

• O'Mahony L, O'Mahony DS, Simon TD, Neff J, Klein EJ, Quan L. Medical complexity and pediatric emergency department and inpatient utilization. *Pediatrics*. 2013 Feb;131(2):e559-65. doi: 10.1542/peds.2012-1455. Epub 2013 Jan 14. PMID: 23319525; PMCID: PMC4528336.

• Mosquera RA, Avritscher EB, Samuels CL, Harris TS, Pedrosa C, Evans P, Navarro E, Wootton SH, Pacheco S, Clifton G, Moody S, Franzini L, Zupancic J, Tyson JE. Effect of an enhanced medical home on serious illness and cost of care among high-risk children with chronic illness: a randomized clinical trial. *JAMA*. 2014 Dec;24-31:312(24):2640-8. doi: 10.1001/jama.2014.16419. PMID: 25336255.

• Casey PH, Lih RE, Bird TM, Robbins JM, Kuo DZ, Brown C, Lal A, Tanios A, Burns K. Effect of hospital-based comprehensive care clinic on health costs for Medicaid-insured medically complex children. *Arch Pediatr Adolesc Med*. 2011 May;165(5):392-8. doi: 10.1001/archpediatrics.2011.5. Epub 2011 Feb 7. PMID: 21300650.

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