Health Care Delivery System Innovations for Children with Medical Complexity (CMC) Collaborative Improvement & Innovation Network (CoIIN)

Evaluation Design Overview

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Agenda

- Introduction to the evaluation team
- Program Objectives and Evaluation Research Questions
- Evaluation Data & Methodological Approach
- Timeline
- Current progress with each state in gaining access to Medicaid/APCD data
- Next Steps
- Q&A

Evaluation Team

Evaluation Team Members

Chris Louis, PhD

Lead Evaluator

Relevant Experience:

- Lead evaluator on multiple mixed methods evaluations
- Qualitative Research Methods
- Nearly a decade of hospital industry experience

Randy Ellis, PhD

Senior Economist

Relevant Experience:

- Three decades of research experience in health economics
- Expert in risk adjustment
- Quantitative Methods

Other Evaluation Team Members

Steve Fitton

- Decades of State Medicaid program leadership experience
- Main point of contact with states

Miaoqing Jia, PhD Student

- Programming and Analysis Support

Program Objectives & Evaluation Research Questions

NOFO Program Objectives

1. By July 2021, increase by 50 percent from baseline (the total number of CMC in the cohort), the number of CMC reporting a single point/locus of management in a patient/family centered medical home.
2. By July 2021, increase by 50 percent from baseline (the total number of CMC in the cohort), the number of CMC with shared plan of care due to CoIIN activities.
3. By July 2021, increase by 25 percent from baseline, the number of families of CMC in the cohort reporting unmet needs are being met due to CoIIN activities.
4. By July 2021, increase by 50% the number of families of cohort-enrolled CMC who report being engaged on the individual clinical level
5. By July 2021, 25 percent of participating state teams will have piloted an innovative payment model. (Excerpted from CMC FOA, HRSA-17-100)

Evaluation Research Questions

1. What CoIIN innovations were implemented in each state, when were they phased in, and how many patients, families, providers, and clinics were targeted?
2. What fraction of participating state teams have piloted an innovative payment model by 2021?
   - What specific approaches were used by states who implemented innovative payment models?
3. What services, providers, patient subgroups and geographic areas were targeted by the CoIIN innovations implemented?
   1. How did base line disease, demographics and utilization patterns of these targeted groups differ from groups not targeted?
   2. How many CMC were impacted, and how many were outside of the intervention group?
   3. What is the extent of communication between the primary care physician and the CMC specialist?
4. How do demographic and disease patterns of CMC in the CoIIN innovations compare to the control population not subject to CoIIN innovations?
5. How did the engagement of PCPs as a part of the team serving the CMC and family change in response to CoIIN innovations? What improvements to care coordination between the PCP and subspecialties were found?
6. How did utilization patterns in claims data change in response to the CoIIN innovations?
   - How do patterns differ between the treated and untreated (control) populations?

Evaluation Research Questions

7. What is the evidence of rates of use of emergency department and readmissions, avoidance of duplicate testing and imaging, and increased use of community based care among CMC?
8. What percentage of responding households with at least one CMC participating in CoIIN activities report a shared plan of care?
9. What percentage of responding households with at least one CMC participating in CoIIN activities report previously unmet needs that are being met?
10. What percentage of responding households with at least one CMC participating in CoIIN activities report having a patient/family centered medical home?
11. What percentage of responding households with at least one CMC participating in CoIIN activities report receiving family centered care on the individual clinical level?
12. What are the key barriers, successes, and lessons learned for families and states in improving child quality of life and family well-being? What are the potential drivers for such barriers or successes (e.g., managed care)?
13. What are the key barriers, successes, and lessons learned for states implementing the CoIIN processes?
    - What components of the methodology were easiest to implement?
    - What components of the methodology were hardest to implement?
    - Where relevant, why did state teams not fully implement the CoIIN methodology/approach?

Data

Evaluation Data – Three Types

Quantitative Data

- Claims Data
- Eligibility Data
- Health Plan Data
- Quality & Performance Measures

- Will likely need two data transfers from each state

Survey Data

- ~40 CMC families 2x/year
- Involvement in a medical home
- Engagement in a shared plan of care
- Previously unmet needs being addressed
- Child quality of life
- Family wellbeing
- Family engagement
- Care coordination
- Transition to adult system of care
- Access to care for children living in rural areas via technology-based solutions

CoIIN leaders/staff Interviews & CMC Family Focus Groups

- Assessment of CoIIN methodology and processes
- ~3-5 interviews from each state with people who are knowledgeable about CoIIN processes and implementation efforts (phone or in-person)
- Focus groups with family members of CMC re: child quality of life & family well-being
- 1 focus group from each CoIIN

Research Question	Data Set(s) Needed
1. What CoIIN innovations were implemented in each state, when were they phased in, and how many patients, families, providers, and clinics were targeted?	State administrative data
2. What fraction of participating state teams have piloted an innovative payment model by 2021? What specific approaches were used by states who implemented innovative payment models?	State administrative data
3. What services, providers, patient subgroups and geographic areas were targeted by the CoIIN innovations implemented? How did base line disease, demographics and utilization patterns of these targeted groups differ from groups not targeted? How many CMC were impacted, and how many were outside of the intervention group? What is the extent of communication between the primary care physician and the CMC specialist?	State administrative, claims, and eligibility data
4. How do demographic and disease patterns of CMC in the CoIIN innovations compare to the control population not subject to CoIIN innovations?	Claims and eligibility data (risk-adjustment modeling used)
5. How did the engagement of PCPs as a part of the team serving the CMC and family change in response to CoIIN innovations? What improvements to care coordination between the PCP and subspecialties were found?	Claims and eligibility data, surveys
6. How did utilization patterns in claims data change in response to the COIIN innovations? How do patterns differ between the treated and untreated (control) populations?	Claims data

Research Question	Data Set(s) Needed
7. What is the evidence of rates of use of emergency department and readmissions, avoidance of duplicate testing and imaging, and increased use of community based care among CMC?	Claims data
8. What fraction of responding households with at least one CMC report a shared plan of care due to CoIIN activities?	Survey data
9. What fraction of responding households with at least one CMC report previously unmet needs that are being met due to CoIIN activities.	Survey data
10. What fraction of responding households with at least one CMC report activity in a patient/family centered medical home?	Survey data
11. What fraction of responding households with at least one CMC report being engaged on the individual clinical level?	Survey data
12. What are the key barriers, successes, and lessons learned for families and states in improving child quality of life and family well-being? What are the potential drivers for such barriers or successes (e.g., managed care)?	CMC Family Focus group data
13.What are the key barriers, successes, and lessons learned for states implementing the CoIIN processes? What components of the methodology were easiest to implement? What components of the methodology were hardest to implement? Where relevant, why did state teams not fully implement the CoIIN methodology/approach?	CoIIN leaders/staff Key informant interview data

Methods

Quantitative Methods

- Establish Intervention and Control Groups within each state using Medicaid or APCD data
  - Prefer data from 2015 to as present as possible
- Assess comparative performance between these groups among a number of measures and outcomes of interest

1. Time-path event studies of interventions
2. Propensity-score matching
3. Risk adjustment regression modeling

Note: BU does not want any patient names or identifiers sent to us. Those should be communicated directly to your state Medicaid or the State for linking of the data.

Survey Analysis

- Surveys were collaboratively designed in 2018 with the input of each state team, quality improvement experts, the evaluation team, and other key stakeholders with extensive knowledge of CMC.
- The questions were based on, when available, prior surveys of CMC, relevant content areas, and proven empirically-based studies.
- Data will be collected by each state team on a rolling basis.
  - State teams will engage a minimum of 40 patients' families (out of their cohort of 150-300 CMC) twice per year.
- Surveys will be collected either by telephone, in-person interview, or by web-based survey by trained representatives of each state team.
- Descriptive analyses will be performed based on survey data available, with both mean and median responses available

CoIIN leaders/staff Interviews & CMC Family Focus Groups

- Interviews will be conducted by a member of the evaluation team or administrative staff
- Interviews/focus groups will be audio-recorded and transcribed by an independent third-party
- Analytic methods will involve directed content analysis, multiple coders, and an inter-rater reliability process to ensure validity of the findings
- Results will be presented with an emphasis on thematic findings and key lessons learned, and will be supported by exemplary quotes where applicable (anonymously presented)

Timing

Quantitative Data:

- 1/1/19 – 12/31/19: State Medicaid/APCD Data requests and DUAs completed
- 8/1/19 – 3/31/20: First data transfer from each state to BU
- End of Evaluation (Date TBD): Second data/claims transfer from each state

Survey Data:

- State teams will send raw survey data to BU twice per year for analysis (ongoing)

CoIIN leaders/staff Interviews & CMC Family Focus Groups:

- Ongoing: Focus groups currently underway re child QOL and family well-being
- 1Q 2020: Round 1 Interviews with each State team (Implementation-focused)
- 2Q/3Q 2021: Round 2 Interviews with each State team (Lessons learned & Sustainability)

Current Progress toward Data Acquisition with each State

State	Update
Alabama	Data acquisition will almost certainly be from the Medicaid agency since this is still a fee-for-service state. Discussions are underway but little progress has been made.
Colorado	Preliminary discussions with state agency to obtain CO APCD. Beginning paperwork process this summer to obtain the data. Following formalized state processes to obtain these data. Will need patient list to be sent from state team to state to link data.
Indiana	There is ongoing communication between central project staff, state team staff in Indiana, and the Indiana Medicaid agency. Medicaid staff have initiated drafting of the contractual requirements and technical details for data extract.
Kentucky	Little progress to this point. Ongoing efforts to connect effectively with the relevant state agencies.
Massachusetts	Central project staff exploring APCD process; very recent connection to state staff conversant with project and Massachusetts data environment that needs follow up.
Minnesota	The designated staff evaluator for the State project team is working with other agencies to draft the proposal for data acquisition from the Minnesota APCD.
Oregon	Oregon's Office of Analytics has provided the process for obtaining data from Oregon's APCD. Next steps will be undertaken by central project team.
Texas	State staff are drafting the documentation necessary for executive approval to move forward with data acquisition. There has been considerable information exchange about the structure of the Texas project. It is encouraging that their entire cohort is enrolled in the project.
Washington	The central project team has connected with the Analytics area of the Washington Health Care Authority. They have provided the process for acquiring data from their state's APCD. Next steps will be undertaken by central project team.
Wisconsin	There has been excellent communication with the project team and Medicaid agency on data acquisition. We are addressing concerns related to the research questions and evaluation methodology before taking steps to actually acquire the data.

Next Steps

- Continue to work with States to obtain Medicaid/APCD data as timely as possible
- Set up calls with individual States to discuss issues with data transfers, as needed
- Toward the end of 2019, work with States to set up CoIIN leader/staff interviews (calls) for 1Q20
- Continue CMC family focus groups
- Survey data analysis once first data transfer is received from each State

Questions