Oregon APAC-Novel Use of Pediatric Medical Complexity Algorithm

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Collaboration & Acknowledgement

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Pediatric Medical Complexity Algorithm (PMCA)

• Developed by the Seattle Children's Hospital Center of Excellence

• Valid and reliable measure with good sensitivity & specificity

• Used to identify children by **level** of medical complexity (complex chronic, noncomplex, not chronic)

• 18 different body system conditions (diagnosis codes):
  - Cardiac
  - Genetic
  - Mental Health
  - Otolaryngologic
  - Cranium
  - Genitourinary
  - Metabolism
  - Pulmonary-Respiratory
  - Dermatological
  - Hematological
  - Musculoskeletal
  - Renal
  - Endocrine
  - Immunological
  - Neurological
  - Ophthalmic
  - Gastric
  - Malignancy
  - Ophthalmic

or

• Any progressive condition (diagnosis codes)

Project Objectives

- **Provide**: Provide PMCA status to Medicaid coordinated care organizations (CCO) for new/all enrollees up to age 21
- **Target**: Help CCOs target services and for care coordination and complex health management
- **Help**: Help CCOs improve health outcomes
- **Develop**: Develop core elements for Integrated Care for Kids grant
- **Explore**: Explore novel use of PMCA with APAC data
Opportunity

• Oregon’s All Payers All Claims data (APAC) 2011-2018
  • Commercial, Medicaid and Medicare payers
  • Inpatient, outpatient and professional claims
  • Monthly enrollment data (includes people with no claims)

• APAC may improve identification of children with medical complexity who:
  • Move in-out of coverage (uninsured, out-of-state)
  • Move from one insurance type to another
  • Move from one CCO to another
How Many People Are in APAC and How Are They Insured?

- **Oregon Population**
  - 2011: 3,857,625
  - 2018: 4,190,713

- **People in APAC**
  - 2011: 3,369,197 (86%)
  - 2018: 3,882,503 (92%)

- **Commercial insured**
  - 2011: 2,338,070
  - 2018: 2,076,387

- **Medicaid**
  - 2011: 798,542
  - 2018: 1,223,304

- **Medicare**
  - 2011: 732,068
  - 2018: 976,062

Data points for years 2012, 2013, 2014, 2015, 2016, and 2017 are included in the chart.
What is the Age of People in APAC?

- **Birth up to 21**: 29% in 2011, 28% in 2012, 26% in 2013, 24% in 2018
- **21 to 64**: 52% in 2011, 52% in 2012, 56% in 2013, 53% in 2018
- **65+**: 19% in 2011, 20% in 2012, 18% in 2013, 23% in 2018
Study Cohorts & Options

• Evaluated multiple models
  • Different time periods: Look back & forward, look back only
  • Different number of years of claims
  • Different age cohorts and age limits
  • Different enrollment requirements

• Abstract: APAC claims 2016-18 (children up to age 18)
• Selected: APAC claims 2017-2019 (children up to 21 enrolled 2019)

• PMCA conservative version
  • Complex chronic (more than 1 condition and more than one visit each or progressive/malignant)
  • Non-complex chronic (1 condition and more than one visit)
  • Non-chronic (no condition or no more than one visit)
Discussion & Issues

- PMCA scores a bit higher than 2014 publication
- APAC has more claims data and more payers
- APAC multiple claims for a single ‘visit’
- No continuous enrollment limitation
- Up to 3 year look back
Acknowledgement-Funding

- Lucile Packard Foundation for Children’s Health - supports work with state policymakers, communities, health care partners and CCOs and using data

- Ford Family Foundation - supports data knowledge and use in Douglas, Klamath, Coos and Curry counties and other regions

- COHC - supports using data to target best match services

- OHA Transformation Center to provide technical assistance to CCOs
Contact & Information

APAC Website:
https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx

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