

# Medical Complexity

## Background

To measure medical complexity, we are using the Pediatric Medical Complexity Algorithm (PMCA), which was developed by a team at Seattle Children’s Hospital and validated by the Center of Excellence on Quality of Care Measures for Children with Complex Needs (COE4CCN). This report uses PMCA version 3.2, and OHA will use updated PMCA versions for future reports as they become available. The PMCA was run using three years of data and the more conservative version of the algorithm. **Claims from January 1, 2018 through December 31, 2020 were pulled for a three-year total period.** Please refer to Methodology and Data Sources section on page 10 for more information on updated changes for this data report.

The PMCA takes into account 1) Utilization of services, 2) Diagnoses, and 3) Number of body systems impacted, and assigns children into one of three categories:

1. Children with Complex Chronic Disease
2. Children with Non-Complex Chronic Disease
3. Children without Chronic Disease/Healthy

The three categories are co-linear with cost, so as complexity increases so does cost.

PMCA is based on utilization and coding, so it does not capture children who 1) are not accessing services, 2) cannot access specialized services, and/or 3) have diagnoses that were not coded, meaning medical complexity information is not in the data that we have access to.

For more information about the PMCA:

<https://www.kpashingtonresearch.org/our-research/our-scientists/rita-mangione-smith-md-mph/measurement-tools-research-dr-rita-mangione-smith>

## Medical Complexity: Summary of Data and Key Findings

This dataset includes 518,076 children residing in Oregon as of August 2021.

- 9.7% of children were placed into the PMCA 1 complex chronic disease category.
- 18.3% of children were placed into the PMCA 2 non-complex chronic disease category.
- 72.0% of children were placed into the PMCA 3 healthy/non-chronic category.
- 28.0% of children had some level of medical complexity (PMCA categories 1 or 2).**

