

Understanding Medicaid Utilization for Children in New York State

A Chartbook

July 2016

The Medicaid Institute at United Hospital Fund is working to improve the Medicaid program in New York by providing information and analysis and developing a shared vision for change.

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This chartbook presents data on Medicaid spending and utilization for children in New York State. The analysis is based on recent claims data, and focuses on New Yorkers who were under the age of 21 and who were continuously enrolled in Medicaid in 2014—that is, who were enrolled in every month of that year. For comparison, some information on continuously enrolled adults (age 21–64) is presented as well.

Information on Medicaid expenditures and utilization (including emergency department visits, other hospital inpatient visits, and length of stay) is broken out by numerous factors, including characteristics of the Medicaid enrollees (age, race/ethnicity, and diagnosis).

An accompanying data brief highlights some of the findings from this analysis. This chartbook presents more extensive comparisons by subpopulation, as well as notes on methodology.

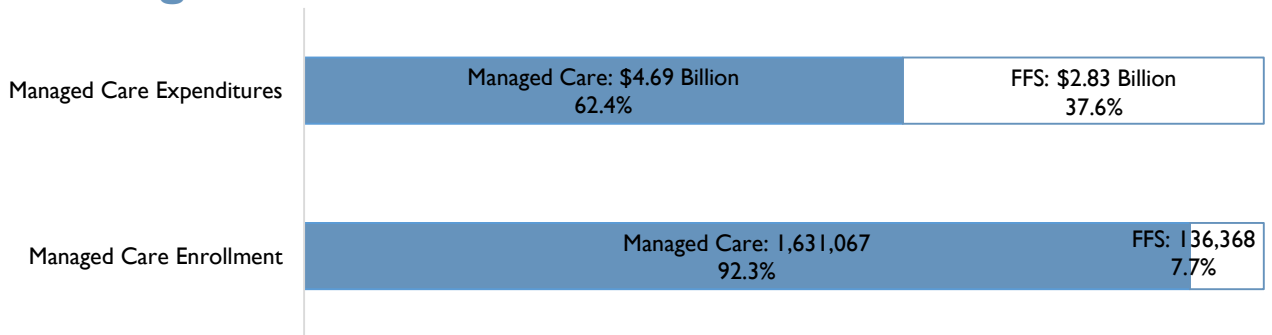
Unless otherwise noted, source: Salient NYS Medicaid System. Includes payment cycles through payment cycle #2001; access dates March 29, 2016 and April 20, 2016.

Fast Facts

- Medicaid covers 2,191,275 of the 5,038,538 children under age 21 in New York (43.5%).*
- Children account for 37% of New York State Medicaid enrollees, but less than 20% of the program’s expenditures.
- 1,767,435 children were continuously enrolled in 2014 (hereafter referred to as “CE Children”).

* Source: New York State Department of Health, *Medicaid Program Enrollment by Month: Beginning 2009*, and United States Census Bureau American FactFinder, *ACS Demographic and Housing Estimates: 2010-2014 American Community Survey 5-Year Estimates—New York*. <https://health.data.ny.gov/Health/Medicaid-Program-Enrollment-by-Month-Beginning-200/m4hz-kzn3>; and http://factfinder.census.gov/bkmk/table/1.0/en/ACS/14_5YR/DP05/0400000US36

Managed Care for CE Children



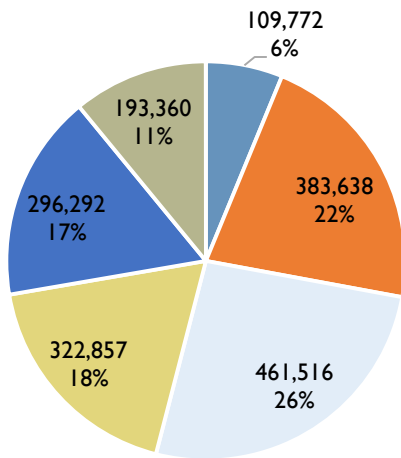
Managed Care Capitation Rate Category	Beneficiaries	% of Total CE	Costs per Claim
TANF/Safety Net	1,585,102	89.7%	\$185.77
SSI	96,176	5.4%	\$1,006.95
Family Health Plus	16,566	0.9%	\$324.91
Aliessa	8,796	0.5%	\$188.14
HIV-SNP	256	0.0%	\$3,440.89

Capitation Kick Payment Rate Category	Beneficiaries	% of Total CE	Costs per Claim
Birth Kick Payments (Newborn)	38,055	2.2%	\$3,889.33
Birth Kick Payments (Maternal)	7,406	0.4%	\$7,766.66
Stop-Loss Payments	290	0.0%	\$65,044.24

Note: For explanation of terms and acronyms, see Methodology section on page 18.

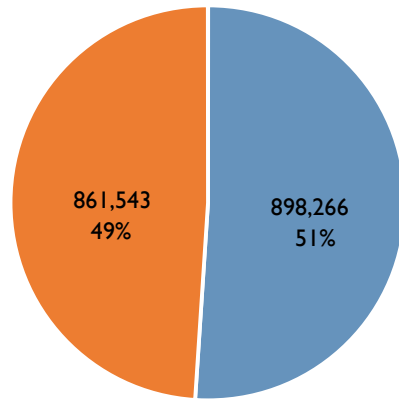
Demographics of CE Children

By Age Group



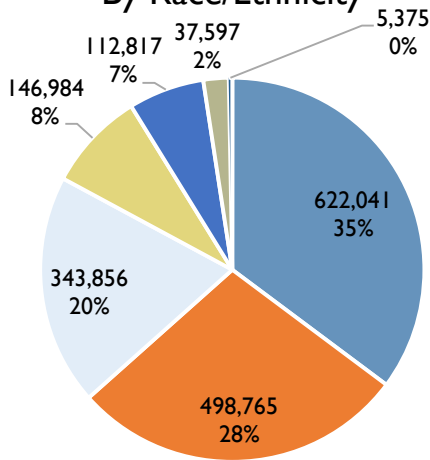
- Under 1
- 1-4
- 5-9
- 10-13
- 14-17
- 18-20

By Sex



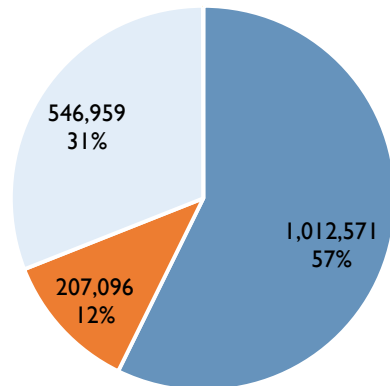
- Male
- Female

By Race/Ethnicity



- Hispanic
- White
- Black
- Asian or Pacific Islander
- Multiple Races
- American Indian
- Unknown

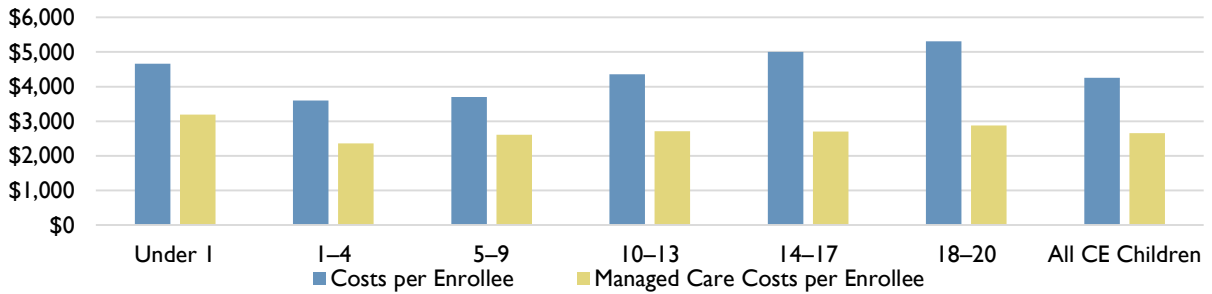
By Region



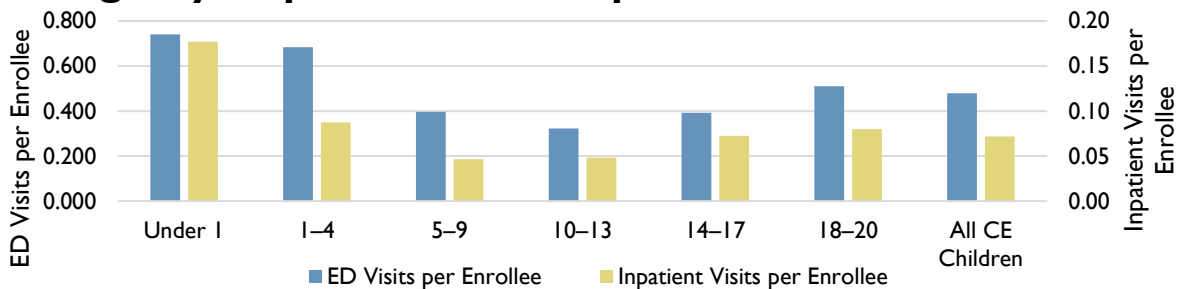
- NYC
- Nassau, Suffolk, and Westchester Counties
- Rest of State

Utilization of CE Children by Age Group

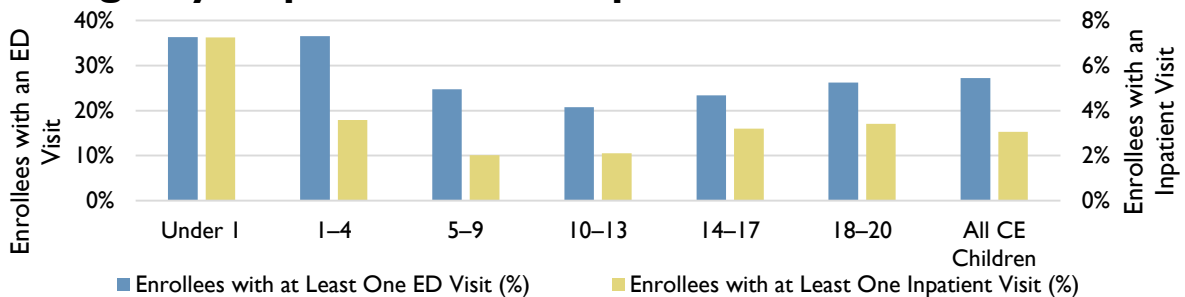
Expenditures



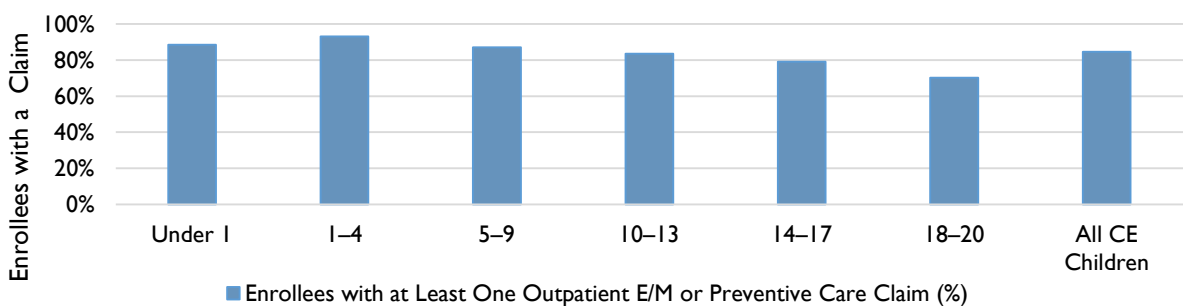
Emergency Department and Inpatient Visits



Emergency Department and Inpatient Beneficiaries

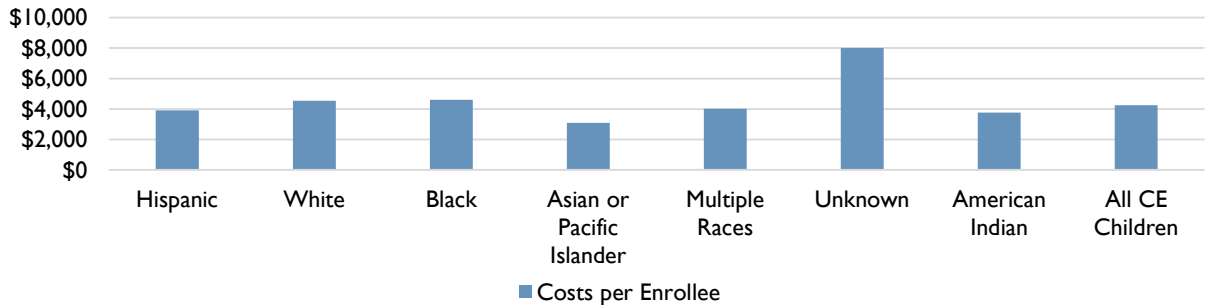


Outpatient Evaluation/Mgmt. and Preventive Care Beneficiaries

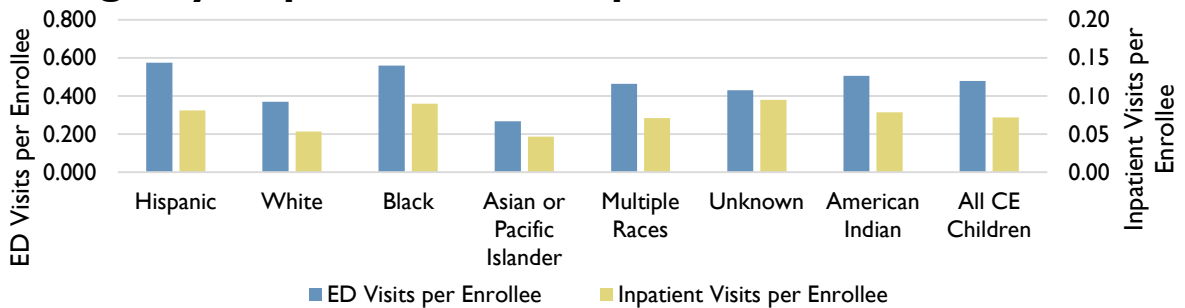


Utilization of CE Children by Race/Ethnicity

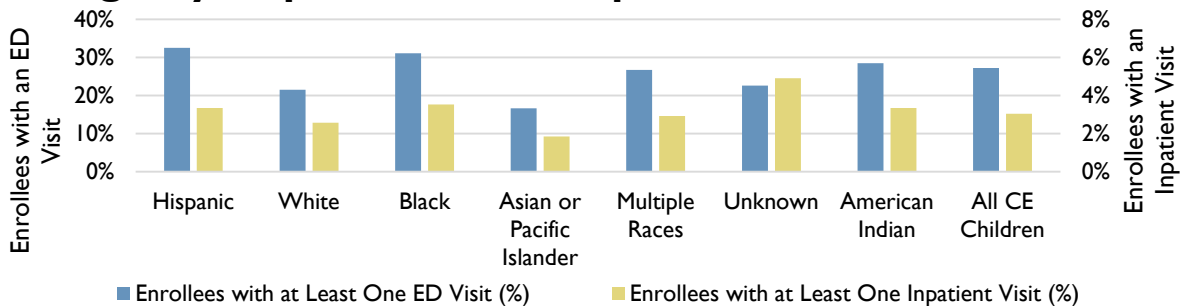
Expenditures



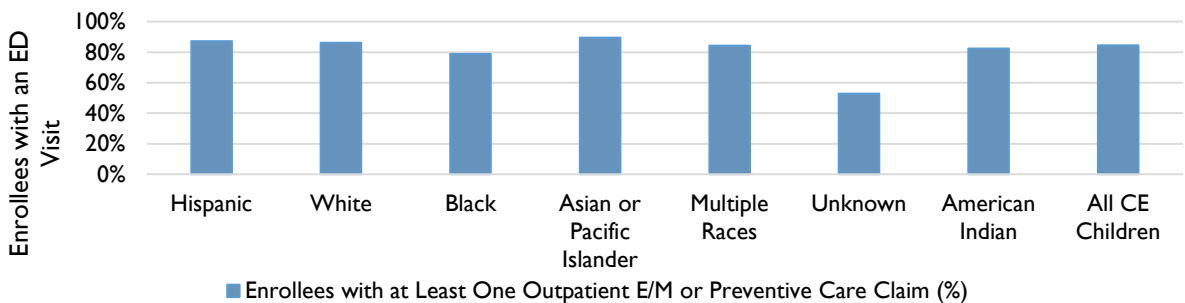
Emergency Department and Inpatient Visits



Emergency Department and Inpatient Beneficiaries

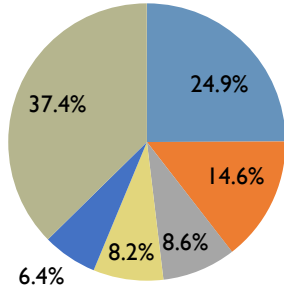


Outpatient Evaluation/Mgmt. and Preventive Care Beneficiaries



Top Diagnoses of Inpatient Visits of CE Children

All CE Children

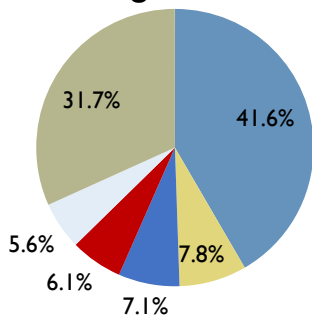


Legend:

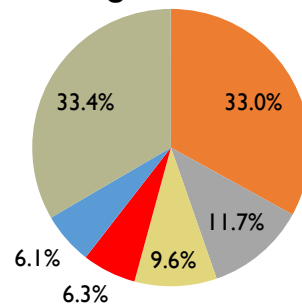
- Respiratory System Diseases
- Mental Disorders
- Digestive System Diseases
- Injury and Poisoning
- Nervous System Diseases
- Endocrine, Nutritional, and Metabolic Diseases
- Infectious and Parasitic Diseases
- Blood and Blood-Forming Organs Diseases
- Categories Outside the Top Five

CE Children by Age Group, All Races/Ethnicities

Ages 1–4

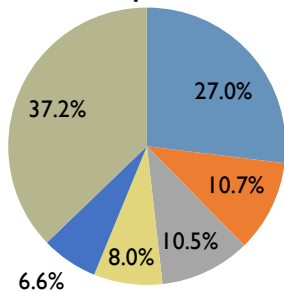


Ages 18–20

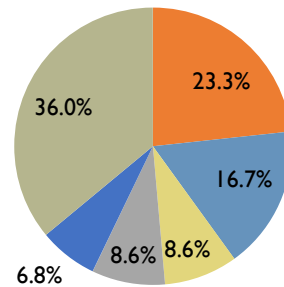


CE Children by Race/Ethnicity, All Age Groups

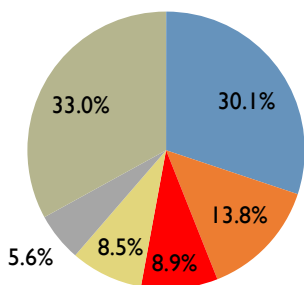
Hispanic



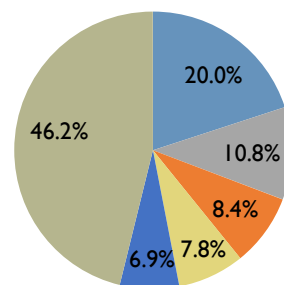
White



Black

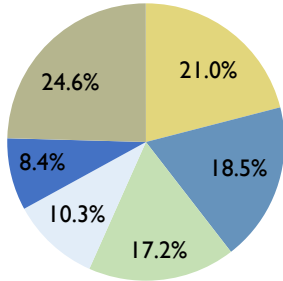


Asian or Pacific Islander



Top Diagnoses of ED Visits of CE Children

All CE Children

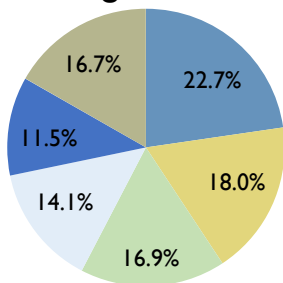


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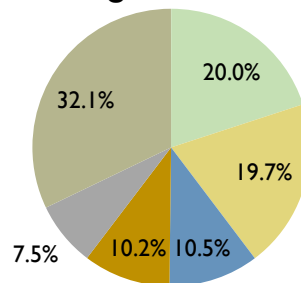
- Injury and Poisoning
- Respiratory System Diseases
- Symptoms, Signs, and Ill-Defined Conditions
- Infectious and Parasitic Diseases
- Nervous System Diseases
- Genitourinary System Diseases
- Digestive System Diseases
- Categories Outside the Top Five

CE Children by Age Group, All Races/Ethnicities

Ages 1–4

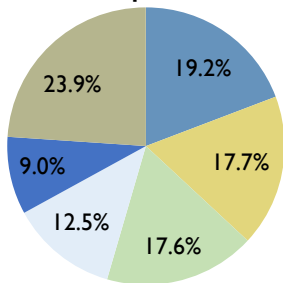


Ages 18–20

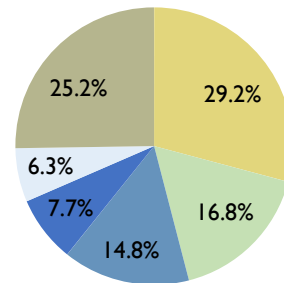


CE Children by Race/Ethnicity, All Age Groups

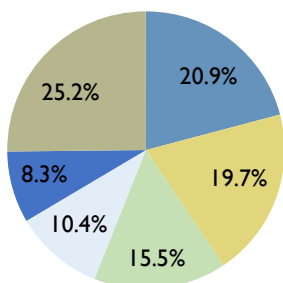
Hispanic



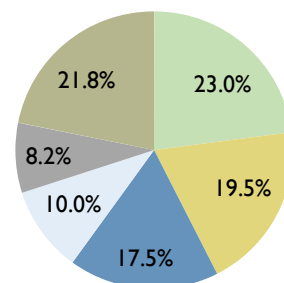
White



Black

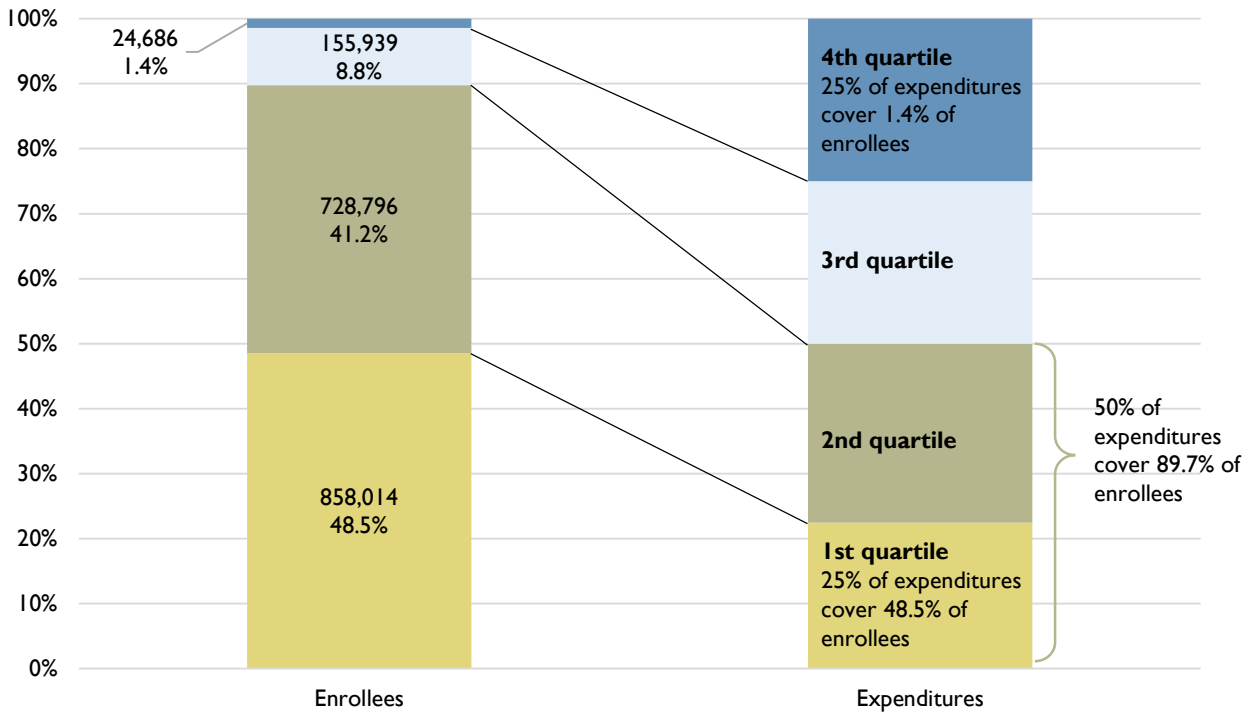


Asian or Pacific Islander



Expenditures of CE Children

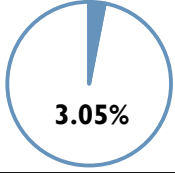
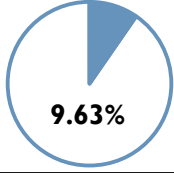
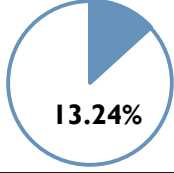
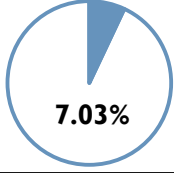
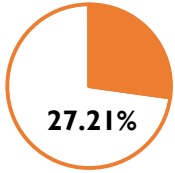
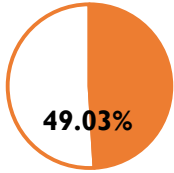
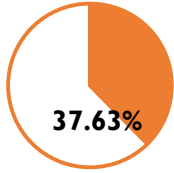
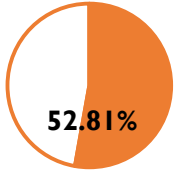
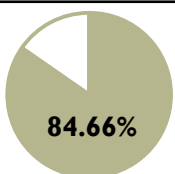
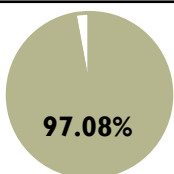
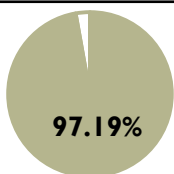
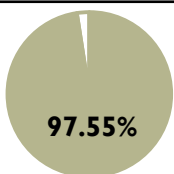








Expenditure Quartiles



Expenditures of Selected Subcohorts

	Number of Enrollees	Percent of Total CE Children	Average Cost/Enrollee
All CE Children	1,767,435	100.0%	\$4,253
SSI Beneficiaries	104,656	5.9%	\$19,758
Enrollees with a DD Claim	117,721	6.7%	\$13,945
Enrollees with a CCC Claim	96,722	5.5%	\$15,938
SSI Beneficiaries with a DD and CCC Claim	9,842	0.6%	\$42,996


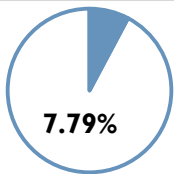
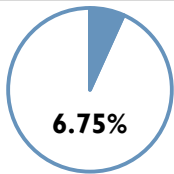
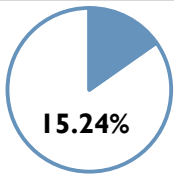
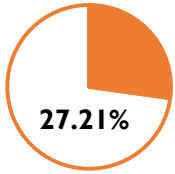
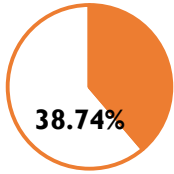
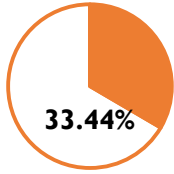
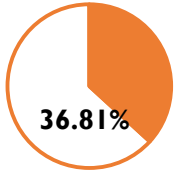
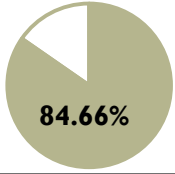
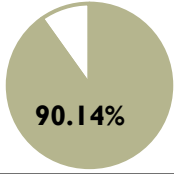
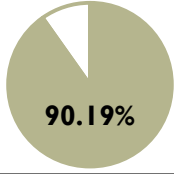
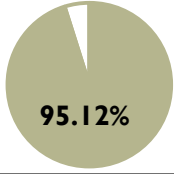








Diagnosis-Based Cohorts of CE Children: Physical Conditions, Utilization of Selected Subcohorts

	CE Children	CE Children with a Primary Diagnosis of ...		
		Asthma	Diabetes	Gastroenteritis
Number of Enrollees	1,767,435	138,936	10,850	82,886
Percent of Total CE Children	100.0%	7.9%	0.6%	4.7%
Enrollees with an Inpatient Visit (%)	 3.05%	 9.63%	 13.24%	 7.03%
Enrollees with an ED Visit (%)	 27.21%	 49.03%	 37.63%	 52.81%
Enrollees with an Outpatient E/M or Preventive Care Visit (%)	 84.66%	 97.08%	 97.19%	 97.55%
Average Inpatient Visits/Enrollee	 0.072	 0.244	 0.403	 0.182
Average ED Visits/Enrollee	 0.479	 1.076	 0.816	 1.172

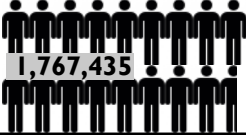
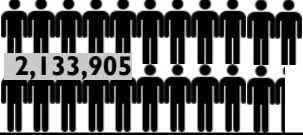












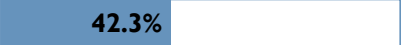


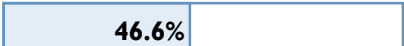
Prevalence of these diagnoses varies substantially by age. For example, 10 percent of CE children ages 1-10 have a primary diagnosis of asthma on at least one claim during the year. For diabetes the highest prevalence increases with age, reaching 1.5 percent for ages 18-20. The highest prevalence of gastroenteritis appears in children under age 4 at 8.2 percent of CE under that age.

Diagnosis-Based Cohorts of CE Children: Behavioral, Developmental, and Complex Chronic Conditions

Utilization of Selected Subcohorts

	CE Children	CE Children with a Primary Diagnosis of ...		
		Behavioral Health Condition	Developmental Disability	Complex Chronic Condition
Number of Enrollees	1,767,435	219,477	117,721	96,722
Percent of Total CE Children	100.0%	12.4%	6.7%	5.5%
Enrollees with an Inpatient Visit (%)	 3.05%	 7.79%	 6.75%	 15.24%
Enrollees with an ED Visit (%)	 27.21%	 38.74%	 33.44%	 36.81%
Enrollees with an Outpatient E/M or Preventive Care Visit (%)	 84.66%	 90.14%	 90.19%	 95.12%
Average Inpatient Visits/Enrollee	 0.072	 0.181	 0.181	 0.485
Average ED Visits/Enrollee	 0.479	 0.789	 0.657	 0.792
<p>Prevalence of these conditions varies substantially with age. Behavioral health conditions are most prevalent for ages 14-17, where 18.3 percent of CE children in that age group have at least one claim with an associated behavioral health condition diagnoses during the year. Note the prevalence drops to 15 percent for ages 18-20, but that may be due to more to home and community based behavioral health services waiver eligibility restrictions than the underlying prevalence of behavioral health conditions. Children ages 1-4 have the highest prevalence of developmental disability diagnoses. The youngest and oldest children have the highest prevalence of complex chronic conditions with 6.5 percent of CE children under age 1 and 7.5 percent of those age 14-17 having a service with a complex chronic condition diagnosis.</p>				

Comparison of CE Children and CE Adults

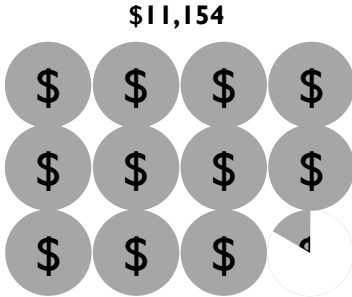
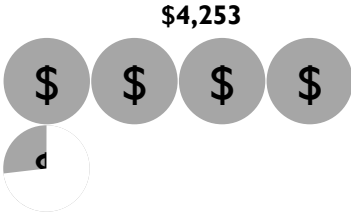
	CE Children	CE Adults
Number of Enrollees	 1,767,435	 2,133,905
Total Expenditures	 \$7.52 Billion	 \$23.80 Billion
Inpatient Discharges Per 1,000 Enrollees	 123	 303
Inpatient Days Per 1,000 Enrollees	 655	 2,474
Average Length of Inpatient Stay	 5.32 Days	 8.17 Days
ED Visits Per 1,000 Enrollees	 487	 648
Enrollees with at least five/three/two/one Inpatient Visits (%)	0.2% / 0.8% / 4.3% / 5.8%	1.0% / 2.8% / 8.3% / 12.3%
Enrollees with at least five/three/two/one ED Visits (%)	1.2% / 4.8% / 11.0% / 27.4%	2.5% / 6.8% / 13.1% / 28.3%
Enrollees with at least one Outpatient E/M or Preventive Care Claim (%)	 84.7%	 77.8%
Enrollees with a Chronic Condition Diagnosis (%); Inpatient Visits with a CC Primary Diagnosis (%)	 42.3%	 70.1%
	 27.4%	 46.6%

Comparison of CE Children and CE Adult Expenditures

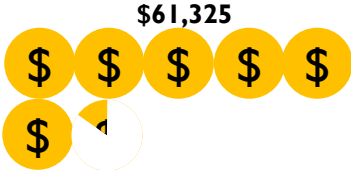
CE Children

CE Adults

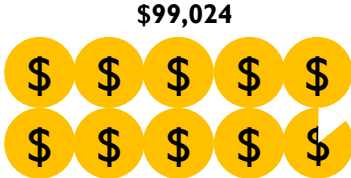
Average Expenditures per Enrollee



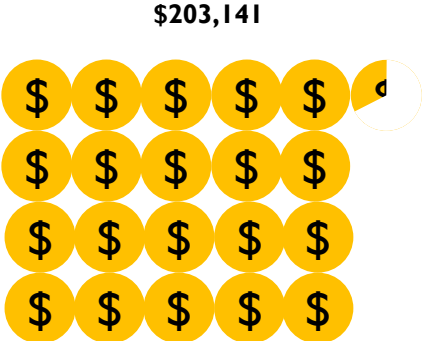
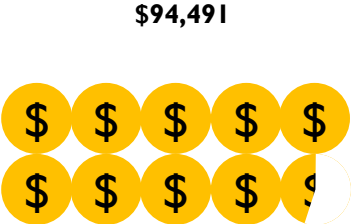
Average Expenditures per Enrollee in the Top 10% of Spending



Average Expenditures per Enrollee in the Top 5% of Spending



Average Expenditures per Enrollee in the Top 1% of Spending



Top Primary Diagnosis Categories of All Service Claims

CE Children with a Service Claim			CE Adults with a Service Claim	
Rank	Enrollees with a Claim (%)	Diagnostic Category	Rank	Enrollees with a Claim (%)
1	84.1	Factors Influencing Health Status/Health Services Contact*	1	71.2
2	52.7	Unclassified/Unknown	5	40.1
3	44.6	Respiratory System Diseases	7	32.3
4	41.6	Symptoms, Signs, and Ill-Defined Conditions*	2	62.6
5	37.1	Nervous System and Sense Organs Diseases	3	41.9

Top Chronic Condition Primary Diagnosis Categories of All Service Claims

CE Children with a Chronic Condition			CE Adults with a Chronic Condition	
Rank	Enrollees with a Claim (%)	Diagnostic Category	Rank	Enrollees with a Claim (%)
1	37.8	Mental Disorders	2	37.1
2	34.1	Respiratory System Diseases	6	20.3
3	18.8	Nervous System and Sense Organs Diseases	4	30.7
4	13.5	Endocrine, Nutritional, Metabolic, and Immunity Diseases	1	44.4
5	10.3	Congenital Anomalies	15	3.0

* “Factors Influencing Health Status/Contact with Health Services” includes the ICD-9 “V Codes,” which cover live births and monitoring of newborns, as well as potential health hazards related to family history or infectious diseases, general medical examinations, some elective procedures, and other contacts without specific symptoms. “Symptoms, Signs, and Ill-Defined Conditions” includes general symptoms, such as fever, headache, insomnia, fatigue, rash, muscle movements, cough, chest pain, nausea or vomiting, or abdominal pain, as well as nonspecific abnormal findings on blood tests or other medical tests that do not result in a more specific diagnosis.

Top Primary Diagnosis Categories of Inpatient Visits by Number of Visits

CE Children			CE Adults	
Rank	Visits (%)	Diagnostic Category	Rank	Visits (%)
1	35.3	Factors Influencing Health Status/Health Services Contact*	16	1.6
2	14.4	Respiratory System Diseases	5	6.0
3	8.5	Mental Disorders	2	19.4
4	7.6	Complications of Pregnancy, Childbirth, and the Puerperium	1	21.6
5	5.0	Digestive System Diseases	4	8.0

Top Primary Diagnosis Categories of Inpatient Visits by Number of Enrollees with an Inpatient Visit

CE Children with an Inpatient Visit			CE Adults with an Inpatient Visit	
Rank	Enrollees with a Claim (%)	Diagnostic Category	Rank	Enrollees with a Claim (%)
1	43.4	Factors Influencing Health Status/Health Services Contact*	15	2.5
2	13.9	Respiratory System Diseases	6	7.1
3	9.7	Mental Disorders	2	19.7
4	8.7	Complications of Pregnancy, Childbirth, and the Puerperium	1	27.7
5	5.3	Digestive System Diseases	3	9.8

* “Factors Influencing Health Status/Contact with Health Services” includes the ICD-9 “V Codes,” which cover live births and monitoring of newborns, as well as potential health hazards related to family history or infectious diseases, general medical examinations, some elective procedures, and other contacts without specific symptoms

Top Primary Diagnosis Categories of ED Visits by Number of Visits

CE Children			CE Adults	
Rank	Visits (%)	Diagnostic Category	Rank	Visits (%)
1	20.6	Injury and Poisoning	2	14.4
2	18.2	Respiratory System Diseases	4	8.8
3	17.4	Symptoms, Signs, and Ill-Defined Conditions*	1	21.5
4	10.1	Infectious and Parasitic Disease	12	2.3
5	8.3	Nervous System and Sense Organs Diseases	9	4.9

Top Primary Diagnosis Categories of ED Visits by Number of Enrollees with an ED Visit

CE Children with an ED Visit			CE Adults with an ED Visit	
Rank	Enrollees with a Claim (%)	Diagnostic Category	Rank	Enrollees with a Claim (%)
1	30.9	Injury and Poisoning	2	25.4
2	25.0	Symptoms, Signs, and Ill-Defined Conditions*	1	32.0
3	24.7	Respiratory System Diseases	4	14.5
4	15.5	Infectious and Parasitic Disease	12	4.7
5	12.5	Nervous System and Sense Organs Diseases	8	8.5

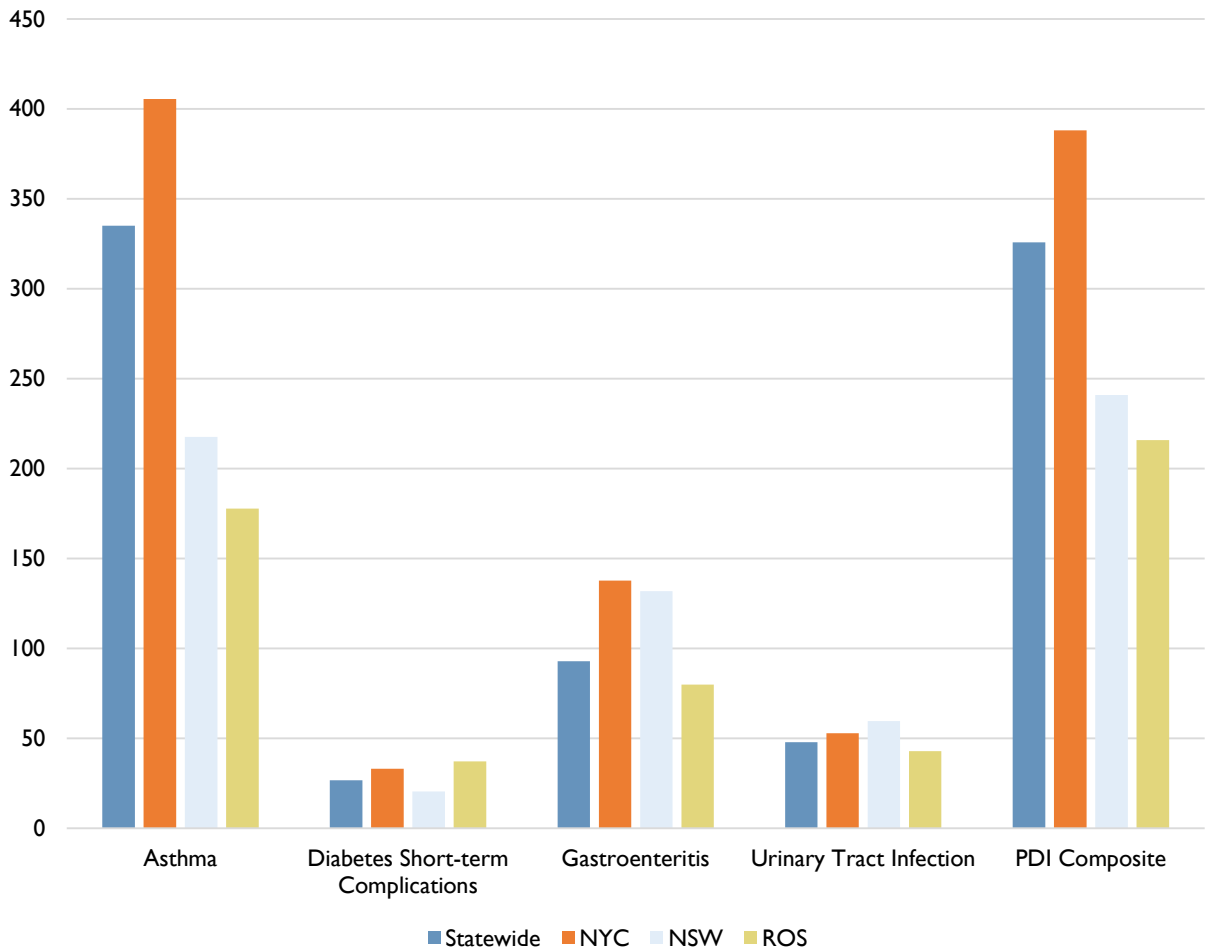
* “Symptoms, Signs, and Ill-Defined Conditions” includes general symptoms, such as fever, headache, insomnia, fatigue, rash, muscle movements, cough, chest pain, nausea or vomiting, or abdominal pain, as well as nonspecific abnormal findings on blood tests or other medical tests that do not result in a more specific diagnosis.

Child Core Set of Health Care Quality Measures for Children in Medicaid and CHIP, FFY 2014

Measure	Median of Reporting States	New York Performance	NY Ranking Among US States, by Quartile
Primary Care Access and Preventive Care			
			1 2 3 4 (top)
Access to Primary Care: 12–24 Months	96.4	96.9	
Access to Primary Care: 25 Months–6 Years	88.6	94.2	
Access to Primary Care: 7–11 Years	91.2	96.6	
Access to Primary Care: 12–19 Years	90.6	93.9	
Well-Child Visits: First 15 Months	62.1	68.5	
Well-Child Visits: 3–6 Years	67.4	83.1	
Well Care Visits: 12–21 Years	43.5	63.9	
Childhood Immunization Status: 2 Years	66.9	73.2	
Immunization Status for Adolescents: 13 Years	67.1	71.0	
HPV Vaccine for Female Adolescents	17.6	24.6	
Chlamydia Screening: 16–20 Years	48.3	70.6	
Body Mass Index Assessment: 3–17 Years	42.6	76.9	
Maternal and Perinatal Health			
Timeliness of Prenatal Care	81.4	87.8	
Frequency of Ongoing Prenatal Care	65.8	67.9	
Live Births Weighing Less than 2,500 Grams*	9	8	
Care of Acute and Chronic Conditions			
Emergency Department Visits: 0–19 Years*	45.7	40.5	
Medication Mgmt. for People with Asthma: 5–11 Years	30.3	29	
Medication Management for People with Asthma: 12–18 Years	28.2	28.2	
Medication Management for People with Asthma: 19–20 Years	33.2	26.7	
Medication Management for People with Asthma: 5–20 Years	31.2	28.6	
Behavioral Health			
Follow-Up Within 7 Days After Hospitalization for Mental Illness: 6–20 Years	43.9	70.4	
Follow-Up Within 30 Days After Hospitalization for Mental Illness: 6–20 Years	65.2	84.5	
Follow-Up Care for Children Prescribed ADHD Medication: 6–12 Years (Initiation Phase)	44.1	56.3	
Follow-Up Care for Children Prescribed ADHD Medication: 6–12 Years (Continuation Phase)	56.5	64.7	
Dental and Oral Health Services			
Preventive Dental Services: 1–20 Years	47.6	43.3	
Dental Treatment Services: 1–20 Years	22.3	20.7	

Source: United States Department of Health and Human Services, “2015 Annual Report on the Quality of Care for Children in Medicaid and CHIP,” <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/2015-child-sec-rept.pdf>, 5/13/2016. Note: * indicates lower values of the measure are preferable.

Medicaid Pediatric Quality Indicators (PDIs): Risk-Adjusted Inpatient Discharge Rate per 100,000 Medicaid Enrollees, 2014



Note: Data are adjusted for age, race/ethnicity, and sex, assuming that each county has the same composition as the state as a whole. NSW: Nassau, Suffolk, and Westchester Counties. ROS: Rest of state.

Source: New York State Department of Health, “Medicaid Inpatient Prevention Quality Indicators (PDI) for Pediatric Discharges by Patient County: Beginning 2011,” <https://health.data.ny.gov/Health/Medicaid-Inpatient-Prevention-Quality-Indicators-P/64yg-akce>, 5/13/2016.

Methodology

Medicaid claims data were used to analyze the enrollment, demographics, utilization, and expenditures of children enrolled in New York's Medicaid program. CE children refers to individuals enrolled in Medicaid in each month of 2014 who were under the age of 21 as of July 1, 2014. The CE requirement for children disproportionately affects newborns because the age cutoff undercounts age 0 beneficiaries who didn't have 12 continuous member months in 2014. There were 84,428 age 0 individuals with a primary diagnosis category of liveborn infant excluded from the CE cohort due to failing the 12 continuous months enrollment test. There were, however, 7,626 individuals listed as unborn in the CE cohort, likely due to prenatal coverage associated with the unborn child's eligibility; therefore not all age 0 CE children were necessarily born in January. CE adults were enrolled in Medicaid in each month of 2014 and were between 21 and 64, inclusive, as of July 1, 2014.

Utilization figures for pages 4–10 and Appendix 1 exclude claims with a primary diagnosis class of “Delivery and Complications of Pregnancy” for 20,458 parents within the CE children cohort and claims with a primary diagnosis class of “Liveborn Infants According to Type of Birth” for 45,774 newborns within the CE children cohort. All expenditure figures and other utilization figures include claims with these primary diagnoses.

Expenditures presented are the total paid by Medicaid on behalf of the relevant individuals. These figures include spending on managed care capitation payments and fee-for-service services and drugs, but they do not include administrative or Medicaid Disproportionate Share Hospital (DSH) payments. Expenditure figures include the costs of pregnancy and childbirth services. Because such a large portion of the expenditures for CE children is through MCOs, data on expenditures for specific services and diagnoses are unavailable.

Age and region subcohorts are mutually exclusive and both dimensions were determined as of July 1, 2014. Individuals with retroactive enrollment prior to their birth were considered under age 1. Demographics by region on page 3 excluded 809 individuals classified as no beneficiary county, primarily children with developmental disabilities or mental health needs residing in State-operated facilities. Race and sex were updated with any new information on the enrollment file and so are current as of the access date. Demographics by sex on page 3 excluded 7,626 classified as unborn. Note that 37,597 enrollees are listed as “Unknown Race.” These are often individuals enrolled prior to birth or with missing demographic data; because they are such a different population from any other group, they are excluded from analyses by race.

Managed care enrollment status is presented as of December 2014. The capitation rate categories are based on Medicaid eligibility categories, which results in different managed care capitation payments from the state to the managed care organizations. Temporary Assistance for Needy Families (TANF) and the Safety Net Program refer to the historic link between Medicaid and public assistance eligibility and have since been converted to modified adjusted gross income equivalent percentages of the federal poverty level. SSI refers to those eligible for Medicaid as a function of participation in the Federal Supplemental Security Income (SSI) program. Aliessa refers to a population of lawful immigrants eligible for Medicaid as a result of a 2004 court settlement. The HIV Special Needs Plan (HIV-SNP) refers to individuals with an HIV/AIDS diagnosis enrolled in these plans with special services. The table excludes 47 enrollees who are categorized as Managed Long-Term Care (MLTC), another special type of plan for those enrollees requiring more than 120 days of long-term services and supports; it is not generally available for children.

Capitation kick payments are additional payments made to managed care plans for specific services and events. Birth kick payments are designed to cover the additional costs of labor and delivery services associated with both mothers and newborns, especially with regards to babies with low birth weight. Stop-loss kick payments are payments to plans to cover 80 percent of inpatient claims for an individual enrollee over \$100,000 per year, and 100 percent of those costs above \$250,000 per year.

Methodology (continued)

Inpatient visits are calculated as the number of fee-for-service (FFS) claims and MMC encounters with an Invoice Type Group of “Inpatient” and a valid non-null discharge date. Emergency Department (ED) visits are visits that do not lead to hospitalization, known as “treat-and-release” visits, calculated as the number of FFS claims and MMC encounters with a Claim Type Class of “Institutional” and an ED rate code (1402, 1419, 2879) or CPT procedure code (99281–99285). These methodologies count actual visits rather than claims; in other instances, claim count should not be interpreted as the number of visits to a health care provider.

For the top diagnoses of inpatient and ED visits (pages 6–7), the final category (“Categories Outside the Top Five”) includes all diagnoses not in the top five diagnostic categories for that specific subgroup of CE children. For example, if Infectious and Parasitic Diseases is one of the top five categories for CE Children Age 1–4 but not for CE Children Age 18–20, it will be included in the Categories Outside the Top Five for Age 18–20 but not for Age 1–4.

For the six diagnosis subcohorts (pages 9–10), a beneficiary was included if they had at least one claim with a primary diagnosis of the relevant condition at any point in 2014. Note that these are not mutually exclusive groups, as an individual may have a claim with a primary diagnosis of, for example, asthma in one month and diabetes in the next month, and thus be counted in both cohorts. Asthma, diabetes, gastroenteritis, BH conditions, and DD conditions are mutually exclusive diagnosis categories. Pediatric complex chronic conditions has three ICD-9 diagnoses in common with each of diabetes, BH conditions, and DD conditions.

For the comparison of utilization for children and adults (page 11), all visits are included regardless of diagnosis.

For the comparison of diagnoses for children and adults (pages 13–15), diagnosis comparisons were made looking at all service claims, inpatient visits, and ED visits (all excluding capitation claims paid to managed care organizations). The AHRQ Chronic Conditions Indicator (CCI) for ICD-9-CM was used to determine which diagnoses represent chronic conditions and to roll chronic and non-chronic diagnoses up to the CCI body system indicator, which is presented here as Diagnostic Category. Note that these categories are different from those presented in the Top Diagnoses of Inpatient and ED Visits of CE Children (pages 6–7). See <https://www.hcup-us.ahrq.gov/toolssoftware/chronic/chronic.jsp> for more details. “Factors Influencing Health Status/Contact with Health Services” includes the ICD-9 “V Codes,” which cover live births and monitoring of newborns, as well as potential health hazards related to family history or infectious diseases, general medical examinations, some elective procedures, and other contacts without specific symptoms. “Symptoms, Signs, and Ill-Defined Conditions” includes general symptoms, such as fever, headache, insomnia, fatigue, rash, muscle movements, cough, chest pain, nausea or vomiting, or abdominal pain, as well as nonspecific abnormal findings on blood tests or other medical tests that do not result in a more specific diagnosis.

The Child Core Set Measures include children enrolled in Medicaid and Child Health Plus in New York and generally include both Medicaid and S-CHIP in other states. These data are not risk-adjusted.

“PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for ‘ambulatory care sensitive conditions.’ These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The PQIs are population-based and adjusted for covariates.” (Source: http://www.qualityindicators.ahrq.gov/modules/pdi_resources.aspx) The PDIs, PQIs for pediatric conditions, are presented as hospitalization rates per 100,000 members based on Medicaid inpatient discharges in 2014 for beneficiaries under 18 whose listed ZIP code at discharge is within the particular region. These values are risk-adjusted by age, race/ethnicity, and sex.

Appendix I. Utilization of CE Children by Demographic Factors, Excluding Birth- and Pregnancy-Related Visits

Demographic	Continuous Enrollees	Costs per Enrollee	Inpatient Visits per Enrollee	Inpatient Visits per Enrollee with a Visit	Enrollees with at Least One Inpatient Visit (%)
All CE Children	1,767,435	\$4,253	0.072	2,355	3.05%
Under 1	109,772	\$4,661	0.177	2,442	7.25%
1-4	383,638	\$3,601	0.087	2,443	3.58%
5-9	461,516	\$3,701	0.047	2,296	2.03%
10-13	322,857	\$4,354	0.048	2,294	2.11%
14-17	296,292	\$5,004	0.072	2,262	3.20%
18-20	193,360	\$5,312	0.080	2,343	3.41%
Hispanic	622,041	\$3,922	0.081	2,422	3.35%
White	498,765	\$4,534	0.053	2,067	2.58%
Black	343,856	\$4,612	0.090	2,550	3.53%
Asian or Pacific Islander	146,984	\$3,092	0.047	2,536	1.85%
Multiple Races	112,817	\$4,022	0.071	2,420	2.93%
Unknown	37,597	\$8,013	0.095	1,935	4.90%
American Indian	5,375	\$3,772	0.079	2,344	3.35%
Male	898,266	\$4,638	0.075	2,328	3.23%
Female	861,543	\$3,886	0.069	2,386	2.89%
Unborn	7,626	\$370	0.007	1,486	0.49%
Demographic	ED Visits per Enrollee	ED Visits per Enrollee with a Visit	Enrollees with at Least One ED Visit (%)	Outpatient E/M and Preventive Care Claims per Enrollee	Enrollees with at Least One Outpatient E/M or Preventive Care Claim (%)
All CE Children	0.479	1.759	27.21%	4.528	84.66%
Under 1	0.739	2.038	36.29%	8.951	88.45%
1-4	0.683	1.872	36.51%	6.030	93.06%
5-9	0.397	1.606	24.73%	4.131	87.10%
10-13	0.323	1.557	20.72%	3.579	83.61%
14-17	0.393	1.678	23.39%	3.416	79.12%
18-20	0.510	1.949	26.19%	3.274	70.23%
Hispanic	0.575	1.771	32.48%	4.608	87.31%
White	0.370	1.723	21.50%	5.021	86.34%
Black	0.560	1.803	31.09%	3.341	78.90%
Asian or Pacific Islander	0.268	1.609	16.67%	5.818	89.64%
Multiple Races	0.464	1.733	26.77%	4.268	84.37%
Unknown	0.430	1.901	22.61%	3.252	52.79%
American Indian	0.506	1.777	28.48%	4.509	82.42%
Male	0.478	1.737	27.49%	4.477	83.73%
Female	0.484	1.782	27.15%	4.619	86.33%
Unborn	0.019	1.543	1.21%	0.194	4.43%

Appendix 2. Expenditures of Select High-Cost Populations

Subcohort	Number of Enrollees	% of All CE Children	Total Costs	% of All CE Children	Average Cost/ Enrollee
All CE Children	1,767,435	100.0%	\$7,516,998,334	100.0%	\$4,253.06
SSI Beneficiaries	104,656	5.9%	\$2,067,801,684	27.5%	\$19,758.08
CE Children with a Developmental or Childhood Disorder Primary Diagnosis	117,721	6.7%	\$1,641,601,480	21.8%	\$13,944.85
SSI Beneficiaries with a DCD Primary Diagnosis	33,916	1.9%	\$865,007,760	11.5%	\$25,504.42
CE Children with a Complex Chronic Condition Primary Diagnosis	96,722	5.5%	\$1,541,548,246	20.5%	\$15,937.93
SSI Beneficiaries with a CCC Primary Diagnosis	21,227	1.2%	\$804,369,227	10.7%	\$37,893.68
CE Children with a DCD Primary Diagnosis and a CCC Primary Diagnosis	19,450	1.1%	\$696,593,834	9.3%	\$35,814.59
SSI Beneficiaries with a DCD Primary Diagnosis and a CCC Primary Diagnosis	9,842	0.6%	\$423,169,037	5.6%	\$42,996.24
CE Children who either were SSI Beneficiaries, had a DCD Primary Diagnosis, or had a CCC Primary Diagnosis	254,348	14.4%	\$3,308,149,626	44.0%	\$13,006.39
CE Children who were not SSI Beneficiaries and did not have a DCD Primary Diagnosis or a CCC Primary Diagnosis	1,513,087	85.6%	\$4,208,848,708	56.0%	\$2,781.63