



Delaware Health and Social Services

Division of Medicaid and Medical Assistance

**CHILDREN WITH MEDICAL COMPLEXITY ADVISORY
COMMITTEE
UTILIZATION DATA ANALYSIS**



CLINICAL RISK GROUP (CRG) CATEGORIES

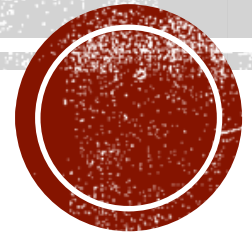
<i>Medically Complex Children</i>					
	Non-Chronic (CRGs 1, 2)	Episodic Chronic (CRGs 3, 4)	Lifelong Chronic (CRG 5)	Complex Chronic (CRGs 6, 7, 9)	Malignancies (CRG 8)
Brief Description	<ul style="list-style-type: none"> • Acute conditions that will not last one year 	<ul style="list-style-type: none"> • Chronic conditions that will last one year and are likely to be episodic in manifestation • Potentially curable with adequate treatment • Not likely to last into adulthood 	<ul style="list-style-type: none"> • More severe primary condition in one body system that is more likely to cause significant long-lasting health impairment 	<ul style="list-style-type: none"> Significant chronic condition in two or more body systems or • Progressive or life limiting chronic conditions or • Conditions requiring a dependency on technology 	<ul style="list-style-type: none"> • Malignancies requiring active treatment
Example Conditions	Fracture, pneumonia, appendicitis, trauma	Asthma, depression, conduct disorders	Type 1 diabetes, congenital heart disease	A child with diabetes, encephalopathy and chronic pulmonary disease. Down syndrome, cerebral palsy, cystic fibrosis	Leukemia, bone tumors, brain tumors

CRG HEALTH STATUS GROUPS

Table 1. The nine core health status groups described by 3M Clinical Risk Groups and their characteristics

3M CRG core health status groups (1-9)	Base 3M CRGs (Total = 330)	Description/Example of base 3M CRG	Severity levels	Number of 3M CRGs (Total = 1,408)
9 - Catastrophic condition status	10	History of major organ transplant	4	40
8 - Dominant and metastatic malignancies	30	Colon malignancy - under active treatment	4	120
7 - Dominant chronic disease in 3 or more organ systems (triplets)	28	Diabetes mellitus, congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD)	6	168
6 - Significant chronic disease in multiple organ systems (pairs)	78	Diabetes mellitus and CHF	6	468
5 - Single dominant or moderate chronic disease	125	Diabetes mellitus	4	500
4 - Minor chronic disease in multiple organ systems	1	Migraine and benign prostatic hyperplasia (BPH)	4	4
3 - Single minor chronic disease	50	Migraine	2	100
2 - History of significant acute disease	6	Chest pains	None	6
1 - Healthy/Non-Users	2	Healthy (no chronic health problems)	None	2

POPULATION BREAKOUT DATA



CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS

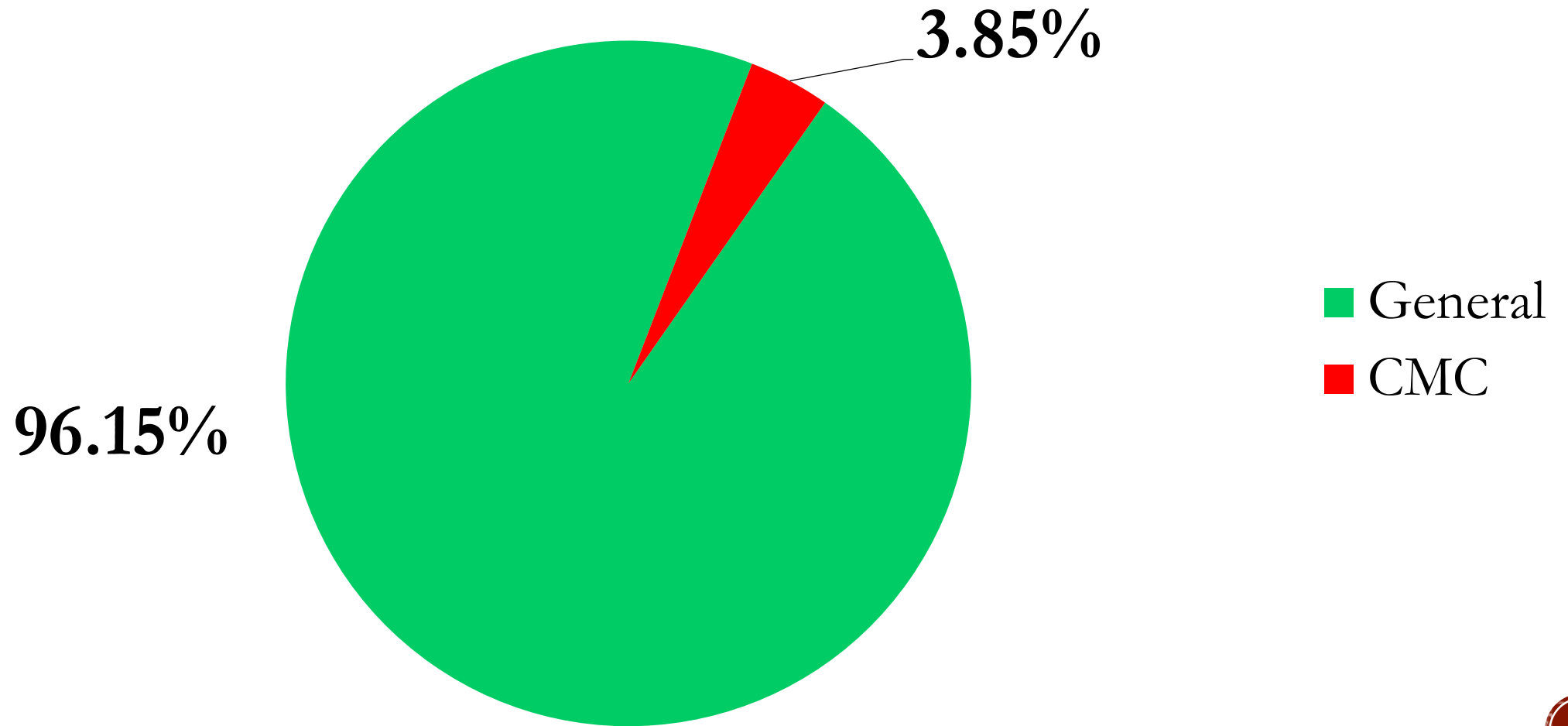
General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

	Total Pediatric Population	General Pediatric Population		Children with Medical Complexity	
	1-9	1-5a		5b-9	
Count	112,224	107,902	96.15%	4,322	3.85%

Total Pediatric Population of Medicaid & CHIP Children with Medical Complexity = 4,322



**CHILDREN ENROLLED IN DELAWARE
MEDICAID AND CHIP PROGRAMS
CALENDAR YEAR 2017**



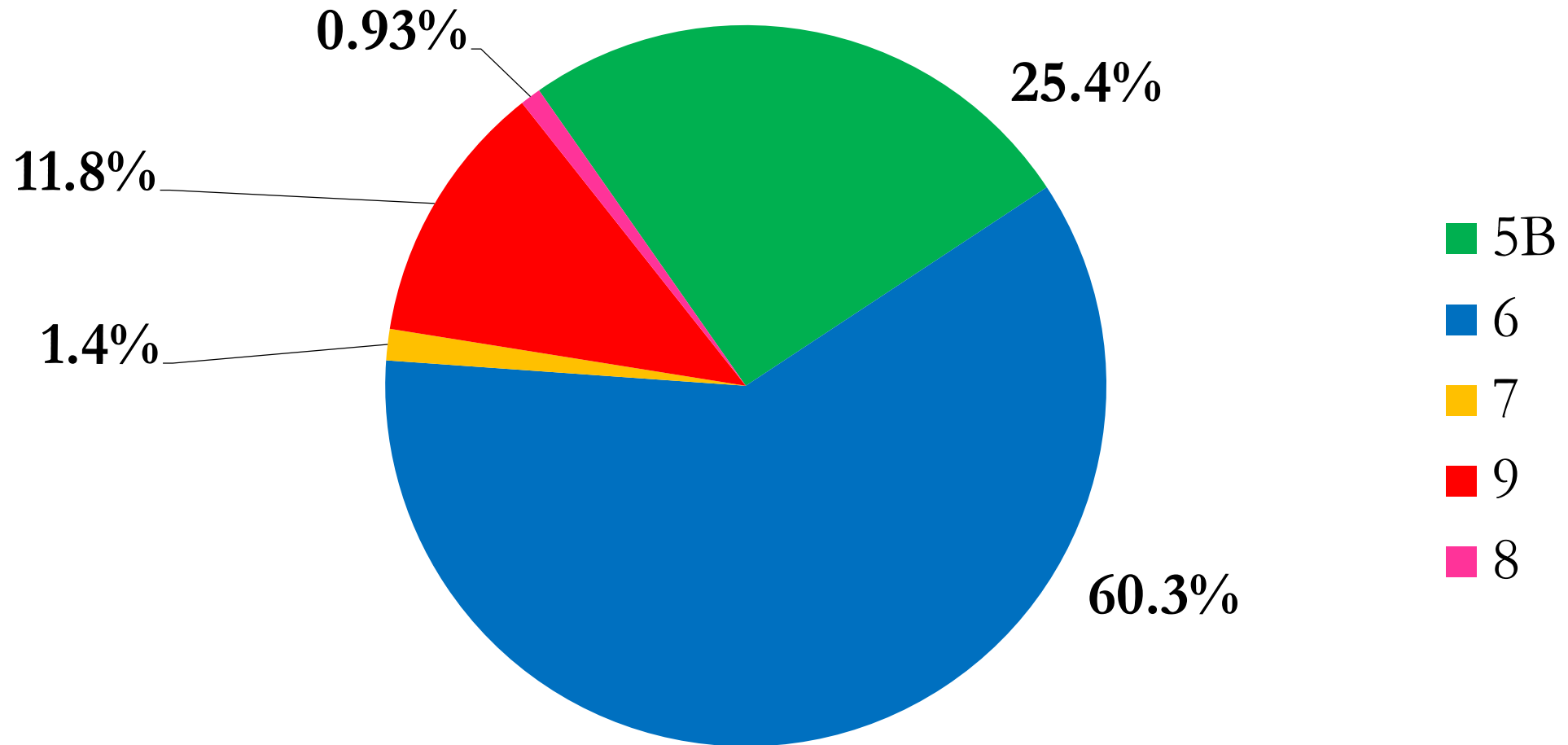
CHILDREN WITH MEDICAL COMPLEXITY ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS

Population Count Breakout for Children With Medical Complexity Calendar Year 2017

	Total CMC	Children with Medical Complexity									
CRG	5b-9	5b		6		7		9		8	
Count	4,322	1,104	25.4%	2605	60.3%	62	1.4%	511	11.8%	40	0.93%



**CHILDREN WITH MEDICAL COMPLEXITY
ENROLLED IN MEDICAID AND CHIP PROGRAMS
CALENDAR YEAR 2017**

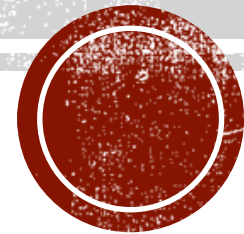


CRG HEALTH STATUS GROUPS

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HOSPITAL ADMISSION DATA



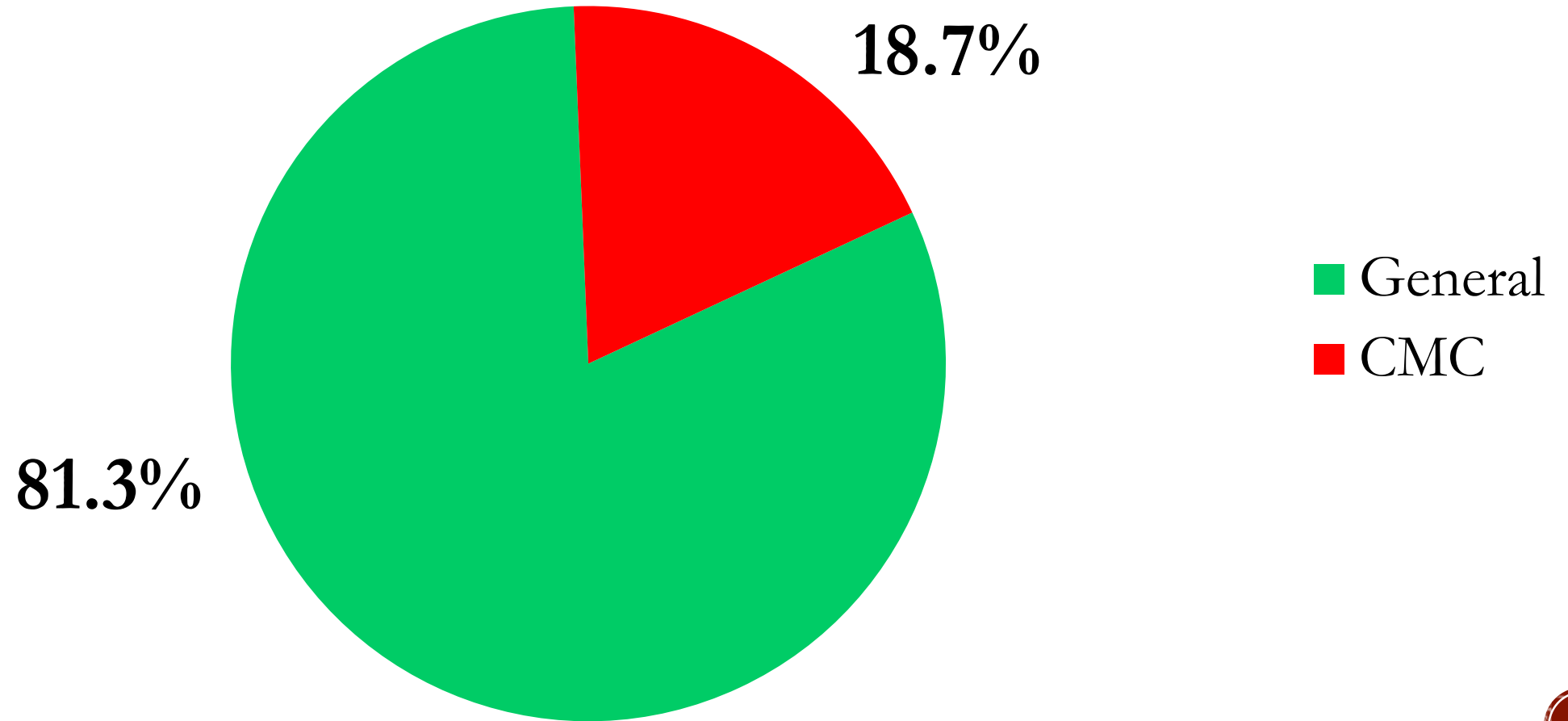
NUMBER OF HOSPITAL ADMISSIONS FOR CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

	Total Pediatric Population	General Pediatric Population		Children with Medical Complexity	
	1-9	1-5a		5b-9	
Total Admissions	8,828	7,176	81.3%	1,652	18.7%



**NUMBER OF HOSPITAL ADMISSIONS FOR
CHILDREN ENROLLED IN DELAWARE
MEDICAID AND CHIP PROGRAMS
CALENDAR YEAR 2017**



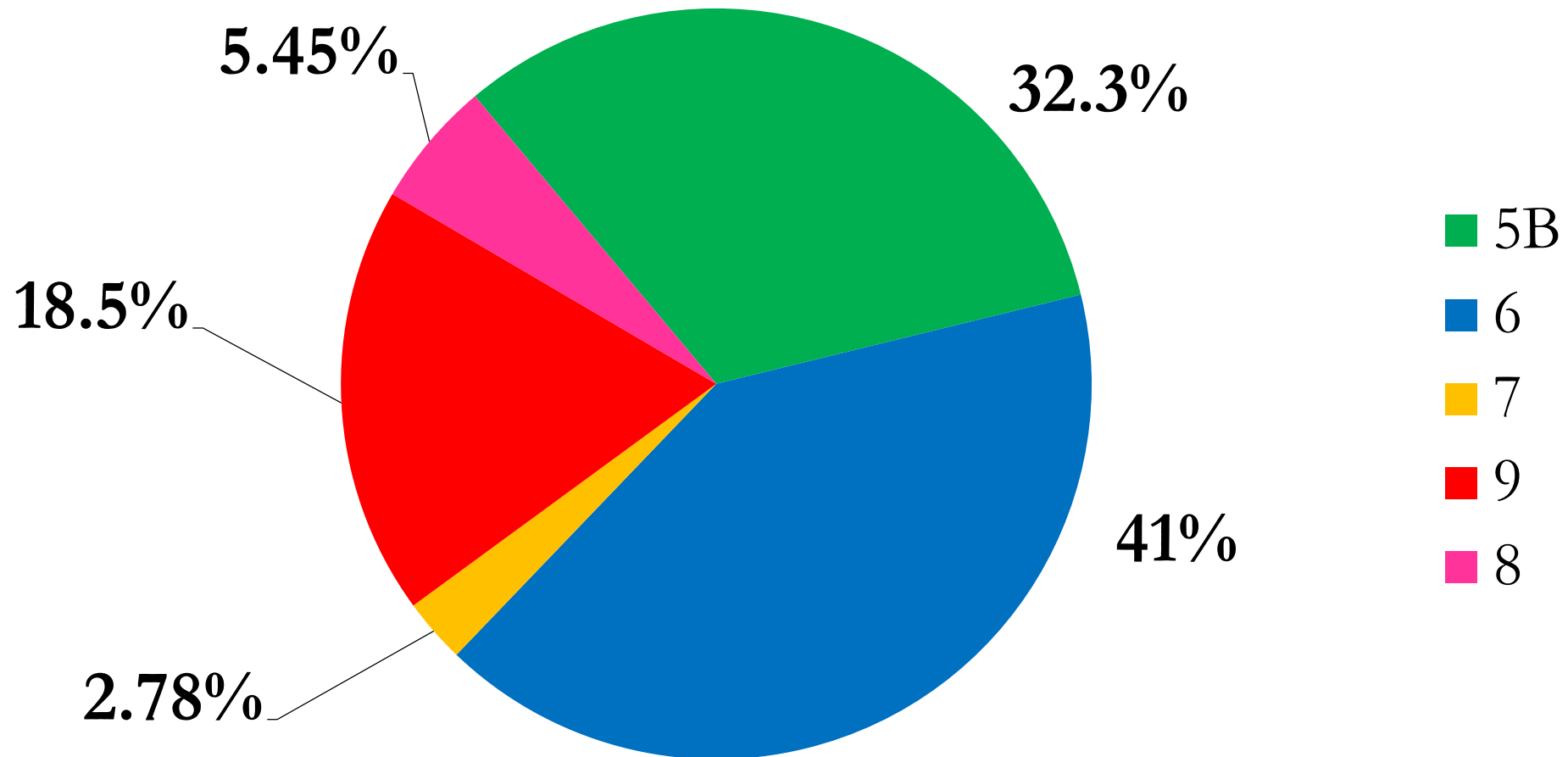
NUMBER OF HOSPITAL ADMISSIONS FOR CHILDREN WITH MEDICAL COMPLEXITY ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS BY CLINICAL RISK GROUP (CRG)

Hospital Admissions Breakout for Children With Medical Complexity Calendar Year 2017

	Total CMC	Children with Medical Complexity									
CRG	5b-9	5b		6		7		9		8	
Total Admissions	1,652	533	32.3%	678	41%	46	2.8%	305	18.5%	90	5.4%



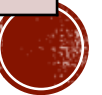
**NUMBER OF HOSPITAL ADMISSIONS FOR CHILDREN WITH MEDICAL COMPLEXITY
ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS BY CLINICAL RISK GROUP (CRG)
CALENDAR YEAR 2017**



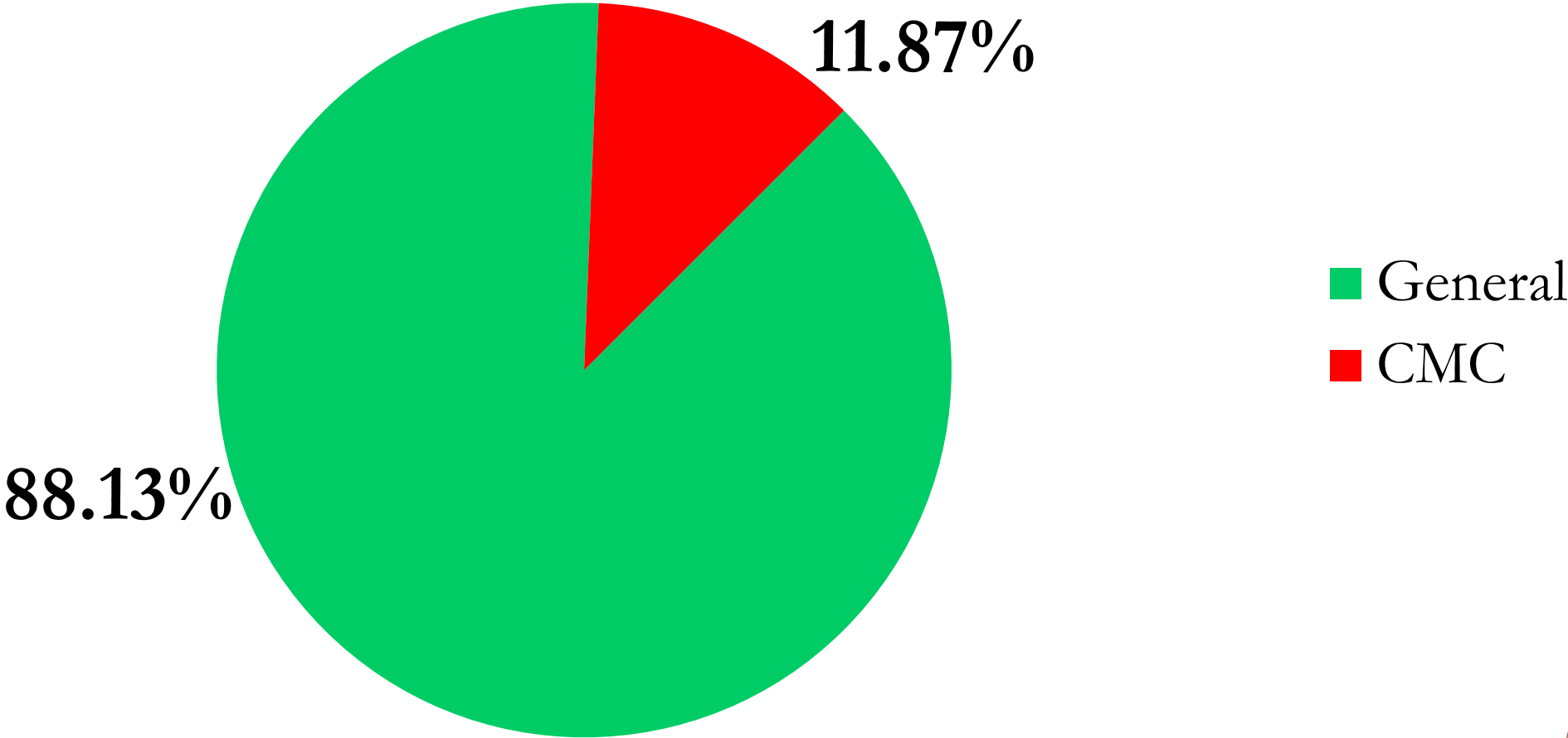
CHILDREN WITH HOSPITAL ADMISSIONS FOR ALL CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

	Total Pediatric Population	General Pediatric Population		Children with Medical Complexity	
	1-9	1-5a		5b-9	
Total Children	7,329	6,459	88.13%	870	11.87%



**CHILDREN WITH HOSPITAL ADMISSIONS
GENERAL PEDIATRIC VS. CMC POPULATIONS
CALENDAR YEAR 2017**



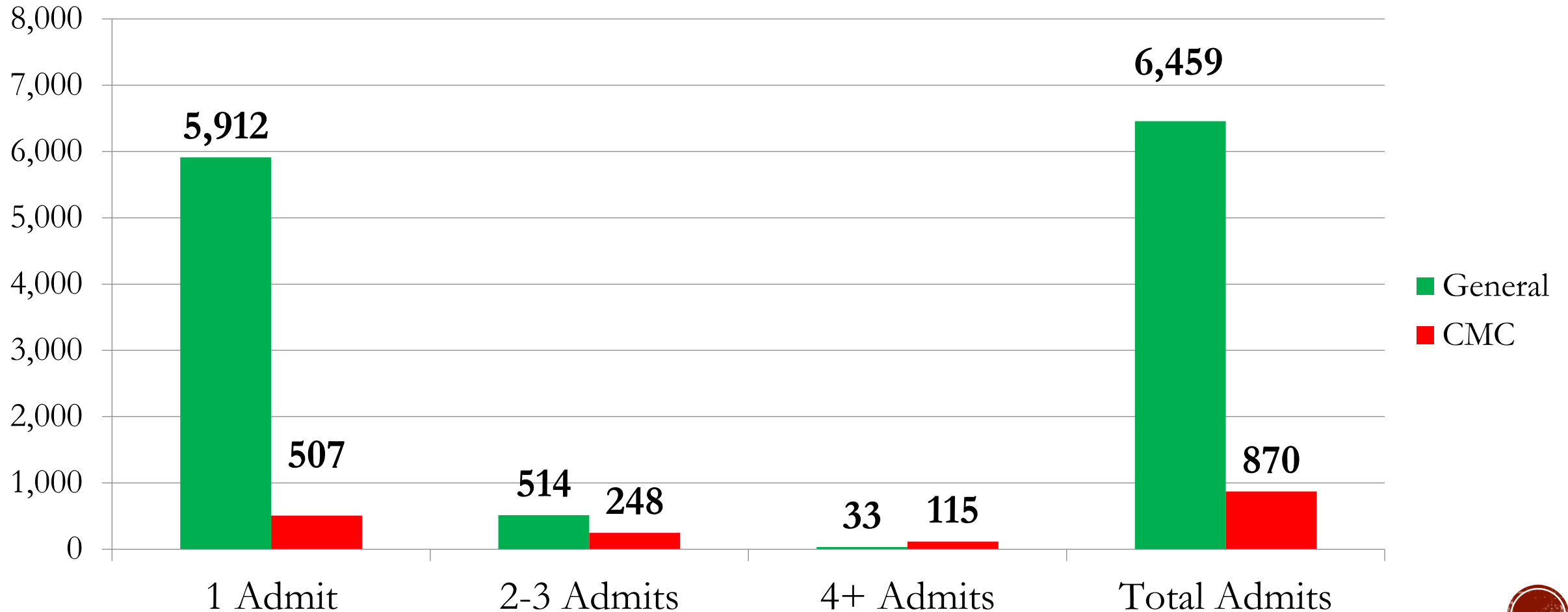
NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR ALL CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

Number of Admissions per Child	Total Pediatric Population 1-9	General Pediatric Population 1-5a		Children with Medical Complexity 5B-9	
		Count	Percentage	Count	Percentage
1	6,419	5,912	91.5%	507	58.3%
2-3	762	514	8.0%	248	28.5%
4+	148	33	0.5%	115	13.2%
Total Children	7,329	6,459		870	



**NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR
ALL CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP PROGRAMS
GENERAL PEDIATRIC VS. CMC POPULATIONS
CALENDAR YEAR 2017**



**NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR
 ALL CHILDREN ENROLLED IN DELAWARE MEDICAID AND CHIP
 PROGRAMS
 GENERAL PEDIATRIC VS. CMC POPULATIONS
 CALENDAR YEAR 2017**

**General Pediatric Population vs. Children with Medical Complexity
 Calendar Year 2017**

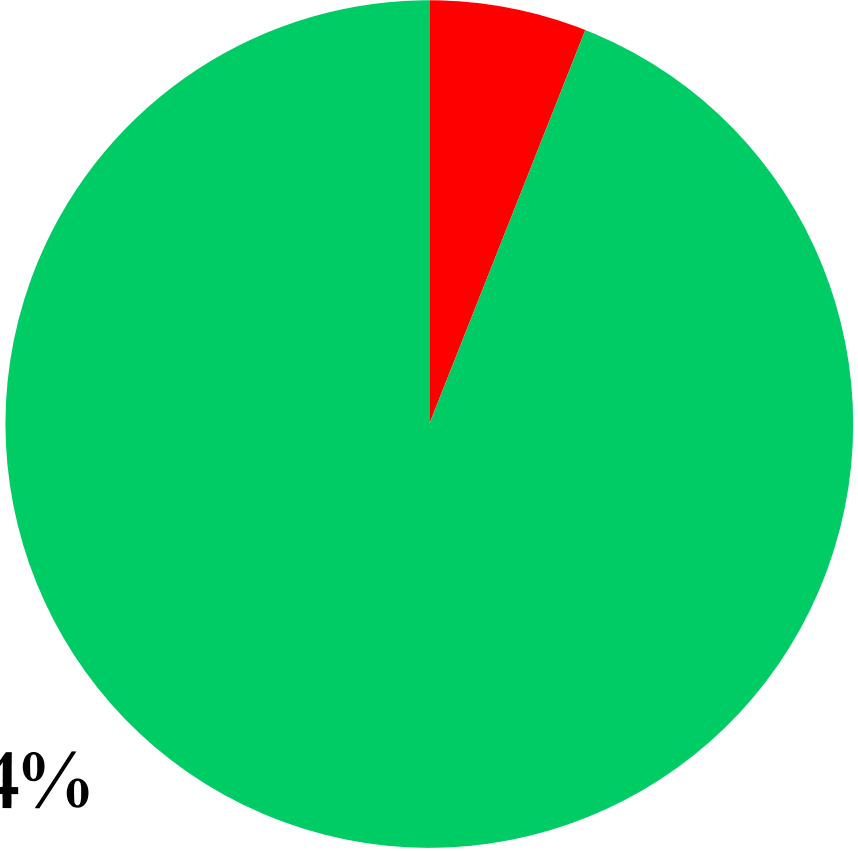
	General Pediatric Population 1-5a		Children with Medical Complexity 5b-9	
1 Admit	5,912	5.48%	507	11.73%
2-3 Admits	514	0.48%	248	5.74%
4+ Admits	33	0.03%	115	2.66%
Total Admits	6,459	5.99%	870	20.13%



**TOTAL NUMBER OF HOSPITAL ADMISSIONS FOR ALL CHILDREN
ENROLLED IN THE DELAWARE MEDICAID AND CHIP PROGRAMS
GENERAL PEDIATRIC VS. CMC POPULATIONS
CALENDAR YEAR 2017**

General Pediatric

6%

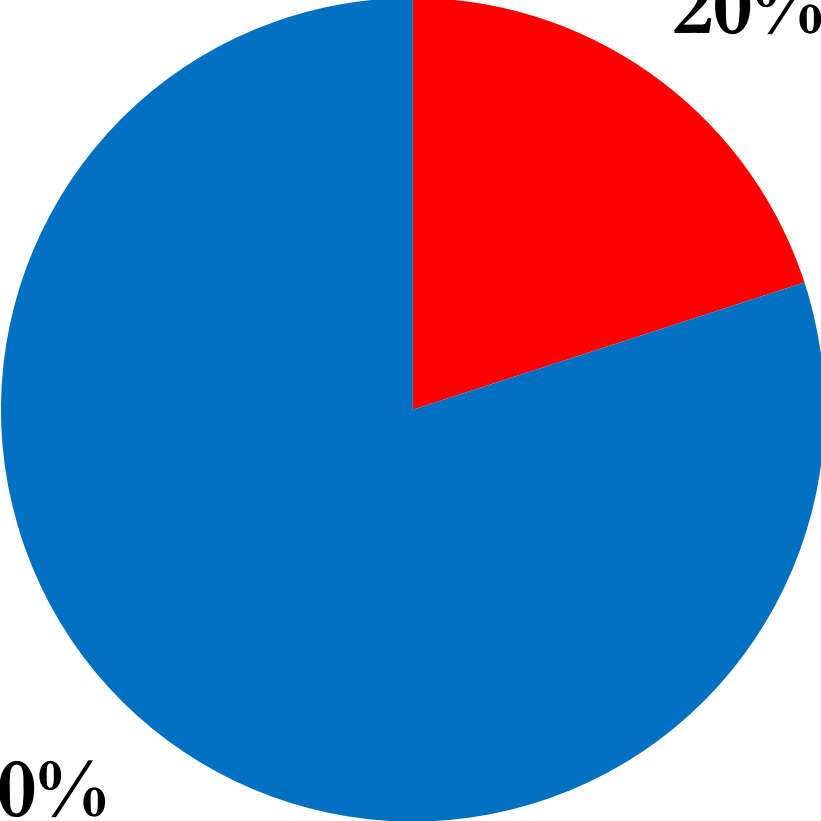


94%

Admit
No Admit

CMC

20%



80%

Admit
No Admit

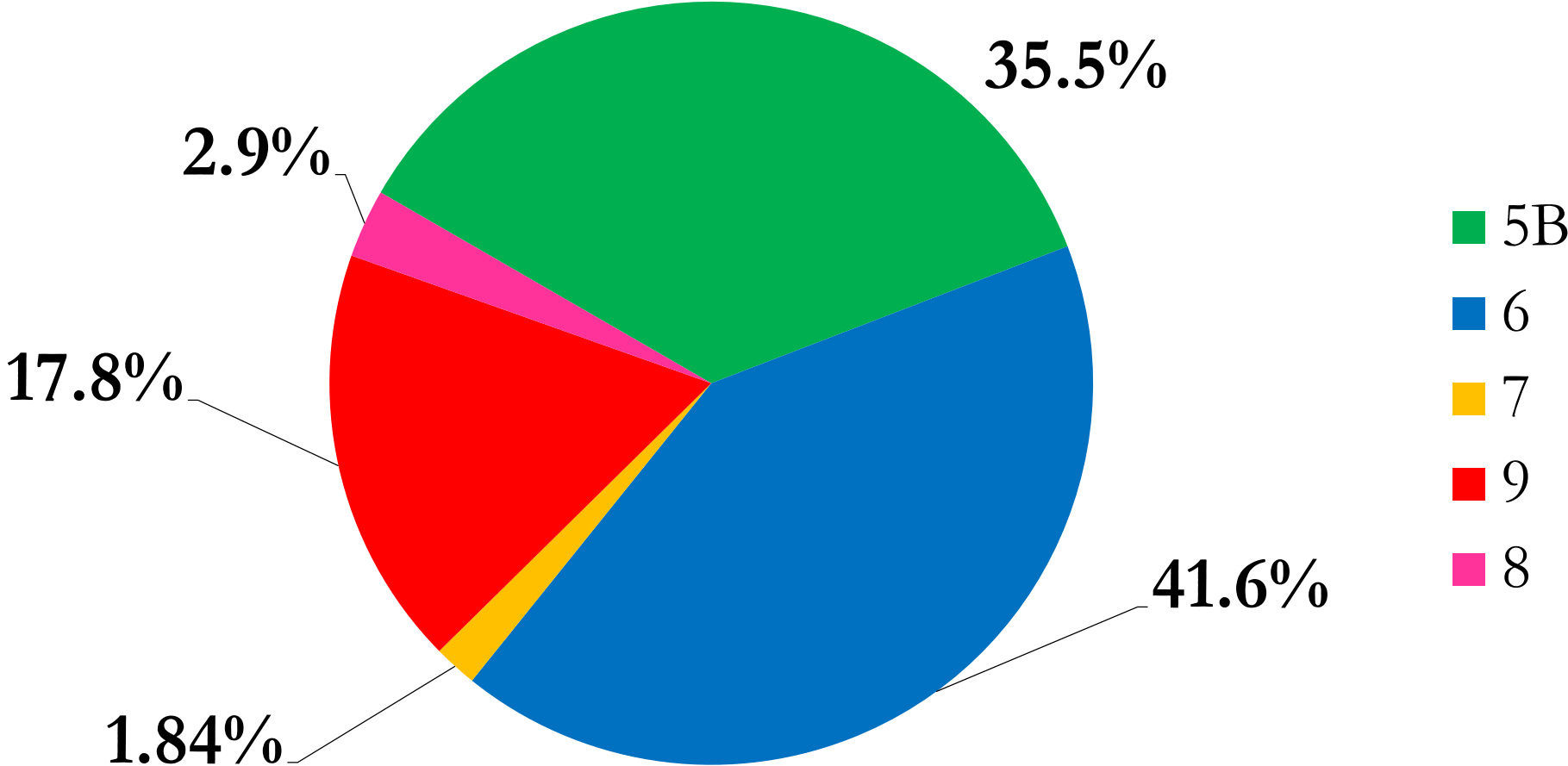


NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR CHILDREN WITH MEDICAL COMPLEXITY ENROLLED IN THE DELAWARE MEDICAID AND CHIP PROGRAMS

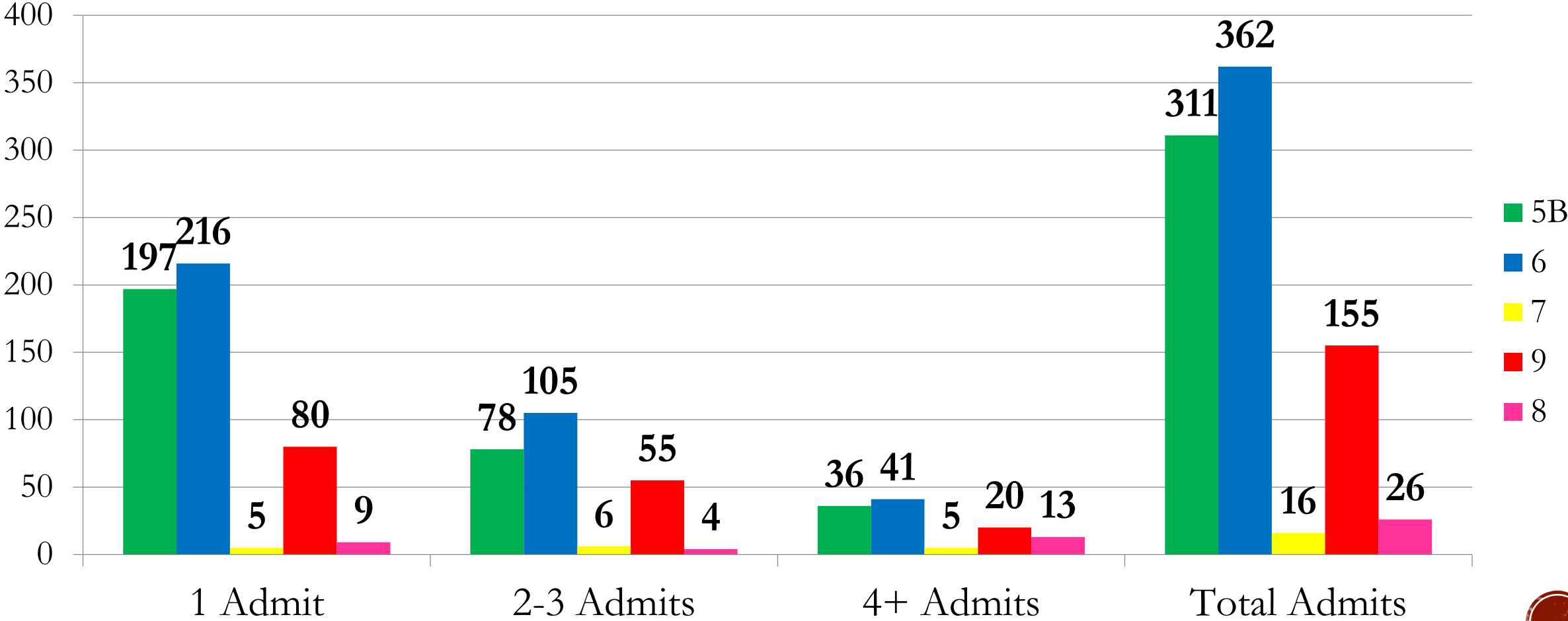
Breakout for Children With Medical Complexity Calendar Year 2017

Number of Admissions per Child	Total CMC 5b-9	Children with Medical Complexity									
		5b		6		7		9		8	
1 Admit	507	197	63.3%	216	59.7%	5	31.25%	80	51.6%	9	34.6%
2-3 Admits	248	78	25.1%	105	29%	6	37.5%	55	35.5%	4	15.4%
4+ Admits	115	36	11.6%	41	11.3%	5	31.25%	20	12.9%	13	50%
Total Children	870	311		362		16		155		26	

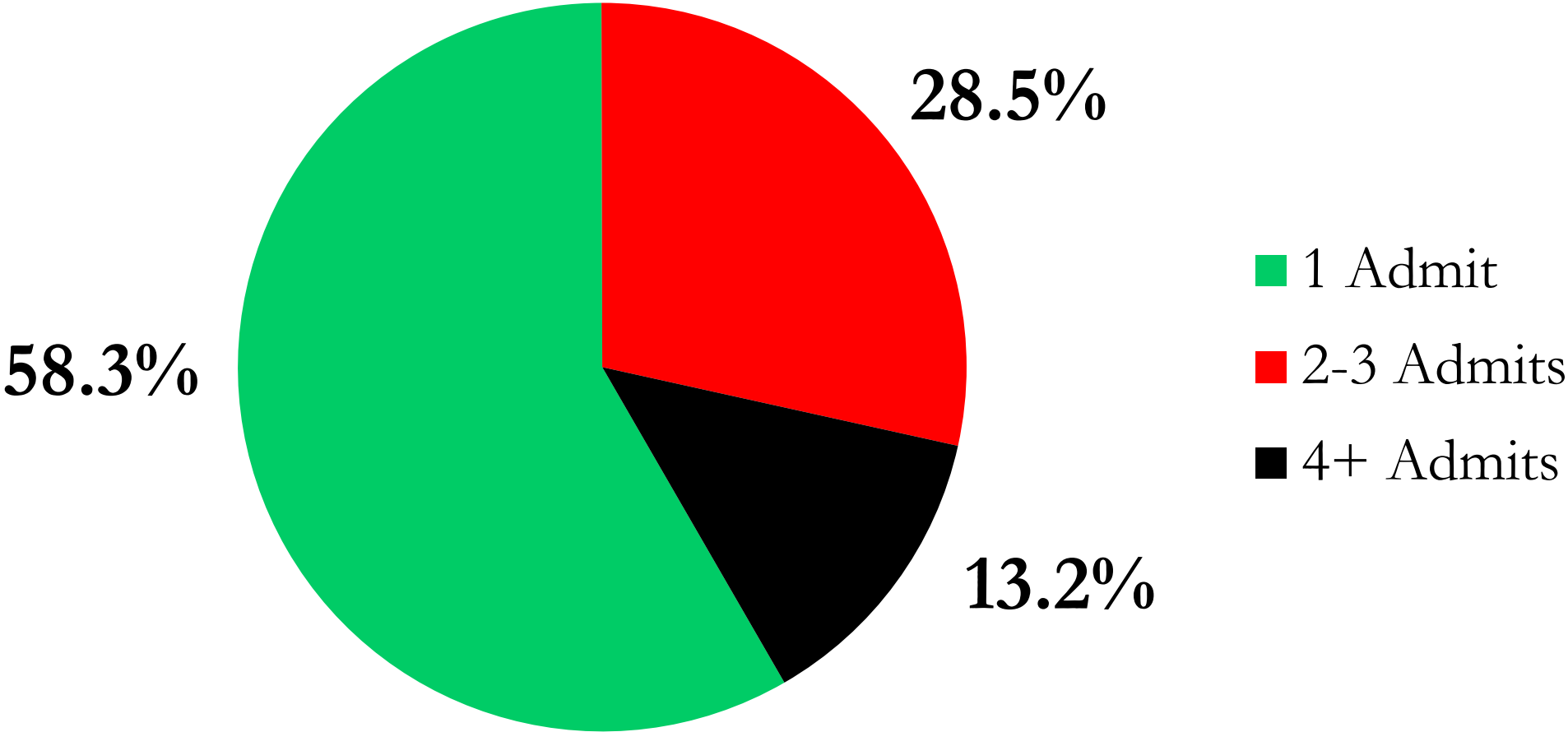
**NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR
CHILDREN WITH MEDICAL COMPLEXITY
ENROLLED IN THE DELAWARE MEDICAID AND CHIP PROGRAMS
CALENDAR YEAR 2017**



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CALENDAR YEAR 2017**



**NUMBER OF HOSPITAL ADMISSIONS PER CHILD FOR
CHILDREN WITH MEDICAL COMPLEXITY
ENROLLED IN THE DELAWARE MEDICAID AND CHIP PROGRAMS
CALENDAR YEAR 2017**



LENGTH OF STAY (DAYS) BY HOSPITAL ADMISSIONS TOTAL PEDIATRIC POPULATION

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

Length of Stay	Total Pediatric Population 1-9	General Pediatric Population 1-5a	Children with Medical Complexity 5B-9
1-2 Days	4,738	4,145	593
3-6 Days	2,804	2,309	495
7+ Days	1,556	992	564
Total Admits	9,098	7,446	1,652

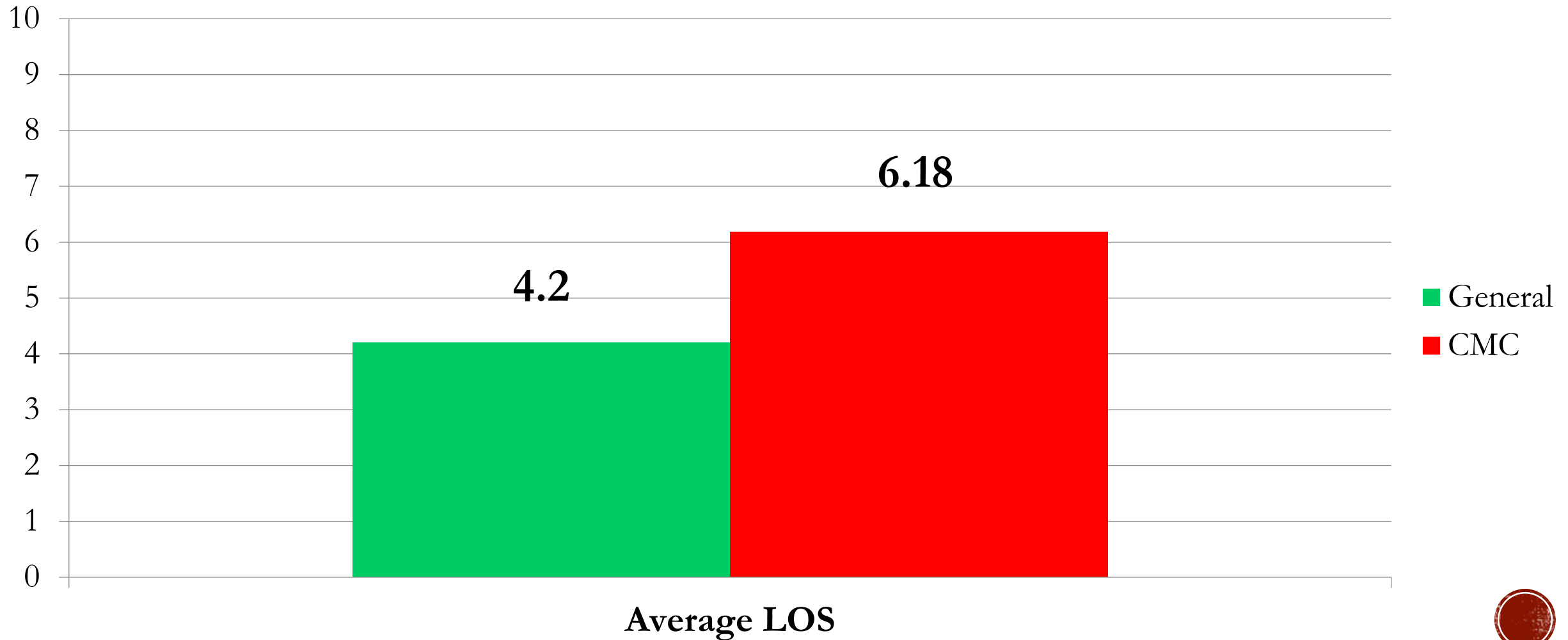
**AVERAGE LENGTH OF STAY (DAYS)
BY HOSPITAL ADMISSION
TOTAL PEDIATRIC POPULATION**

**General Pediatric Population vs. Children with Medical Complexity
Calendar Year 2017**

	Total Pediatric Population	General Pediatric Population	Children with Medical Complexity
	1-9	1-5A	5B-9
Average LOS	5.84*	4.2	6.18*



**AVERAGE LENGTH OF STAY (DAYS)
GENERAL PEDIATRIC VS. CMC POPULATIONS
CALENDAR YEAR 2017**



LENGTH OF STAY (DAYS) BY HOSPITAL ADMISSION CHILDREN WITH MEDICAL COMPLEXITY

Breakout for Children With Medical Complexity Calendar Year 2017

	Total CMC	Children with Medical Complexity				
Length of Stay	5b-9	5b	6	7	9	8
1-2 Days	593	174	265	9	103	42
3-6 Days	495	151	207	11	101	25
7+ Days	564	208	206	26	101	23



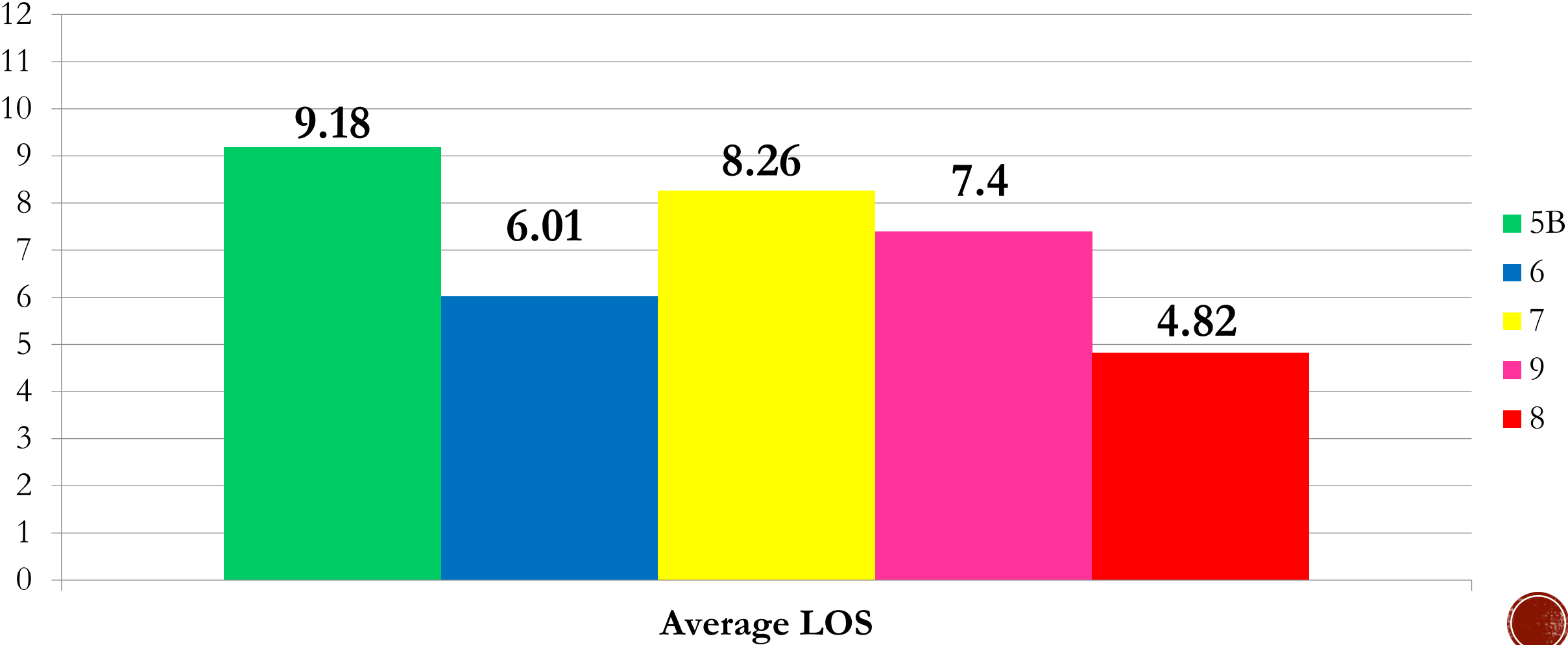
LENGTH OF STAY (DAYS) BY HOSPITAL ADMISSION FOR CHILDREN WITH MEDICAL COMPLEXITY

Breakout for Children With Medical Complexity Calendar Year 2017

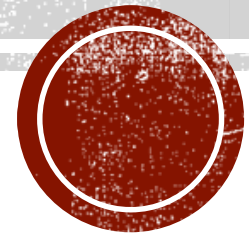
	Total CMC	Children with Medical Complexity				
	5b-9	5b	6	7	9	8
Average LOS	6.18*	9.18	6.01	8.26	7.40	4.82



**AVERAGE LENGTH OF STAY (DAYS) BY HOSPITAL ADMISSION
GENERAL PEDIATRIC VS. CMC POPULATIONS
CALENDAR YEAR 2017**



EMERGENCY DEPARTMENT DATA



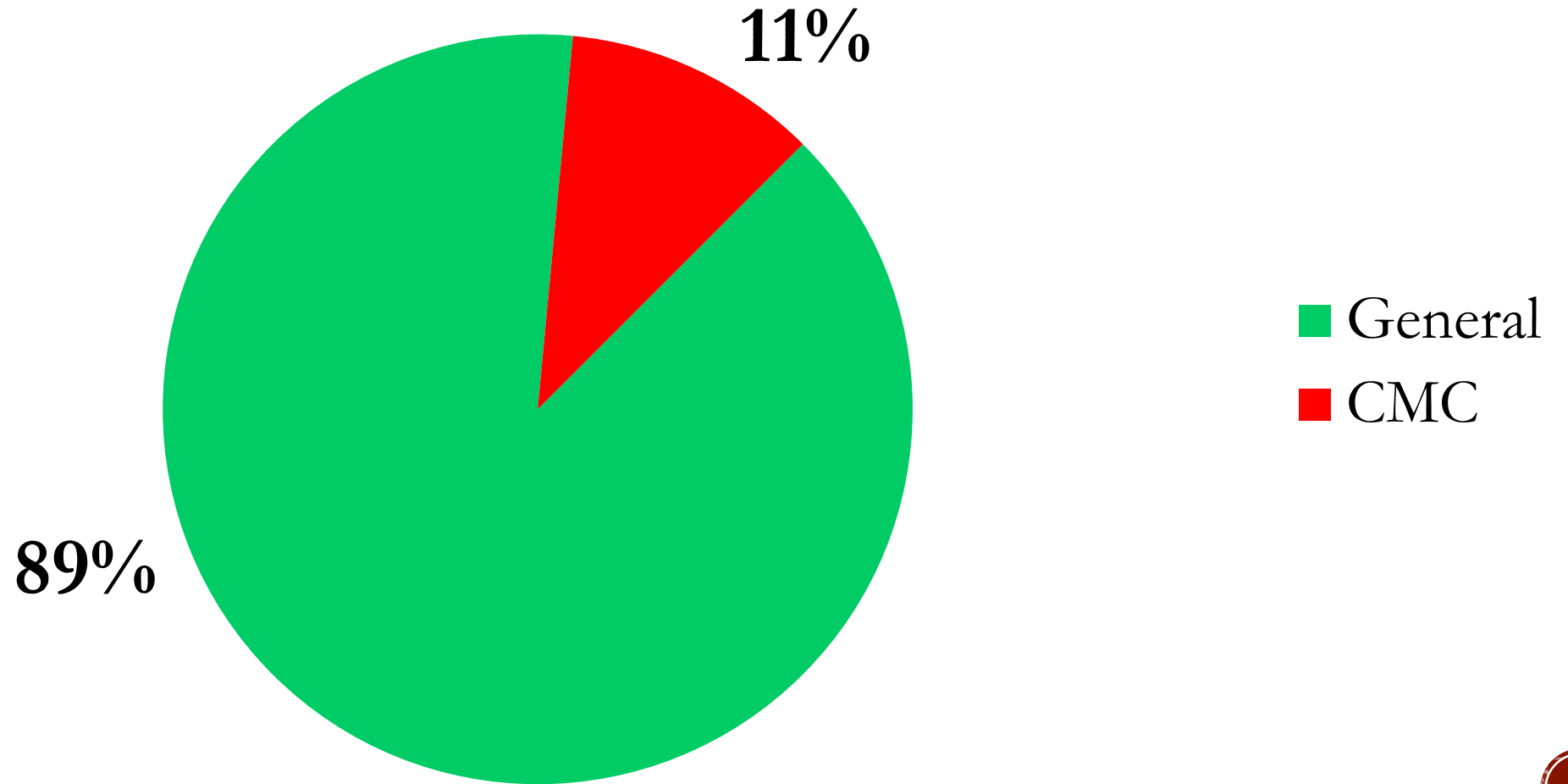
NUMBER OF EMERGENCY DEPARTMENT VISITS TOTAL PEDIATRIC POPULATION

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

	Total Pediatric Population	General Pediatric Population		Children with Medical Complexity	
Number of ED Visits	1-9	1-5a		5b-9	
Total Visits	56,840	50,561	89%	6,279	11%



**EMERGENCY DEPARTMENT VISITS FOR
TOTAL PEDIATRIC POPULATION
CALENDAR YEAR 2017**



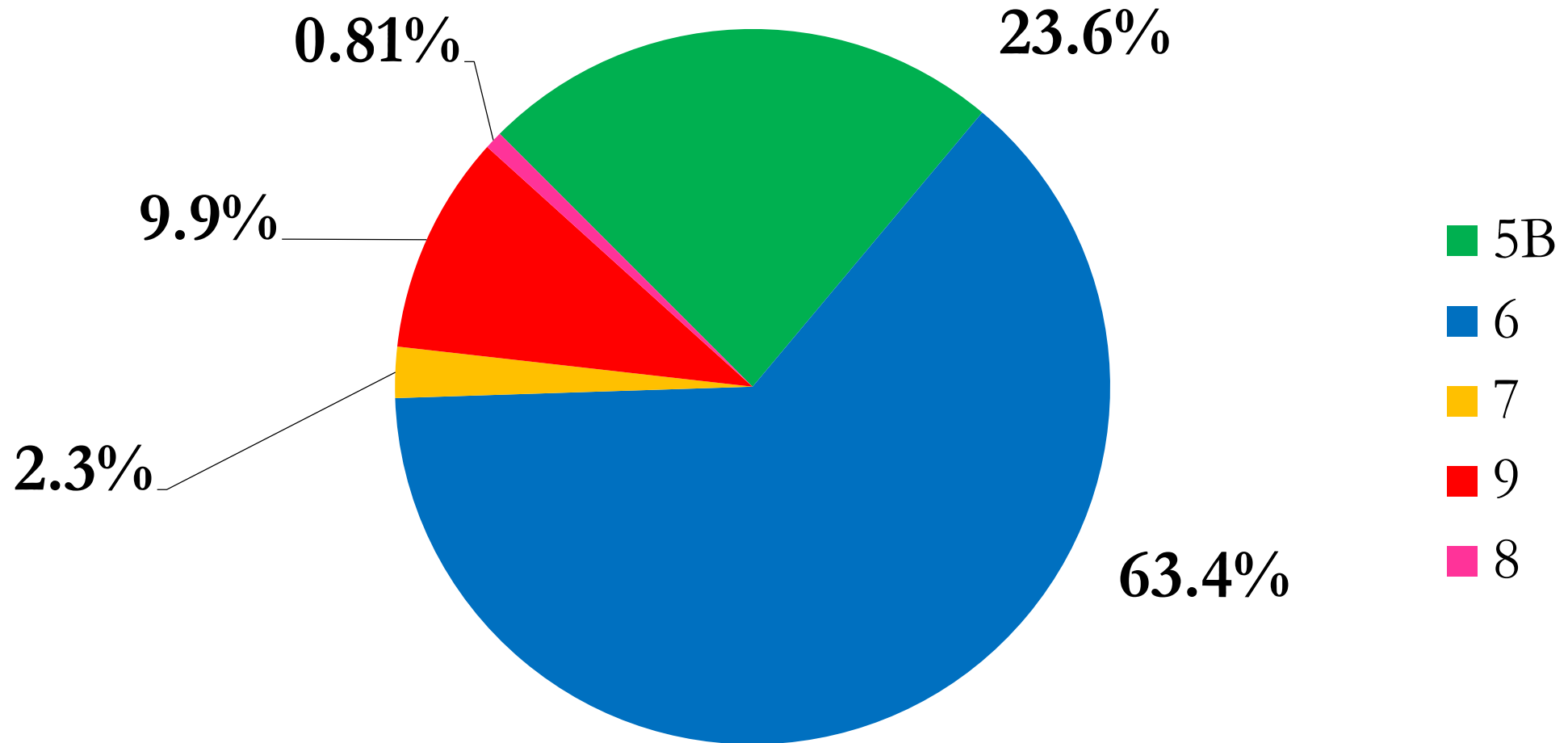
NUMBER OF EMERGENCY DEPARTMENT VISITS FOR CHILDREN WITH MEDICAL COMPLEXITY

Emergency Department Visits Breakout for Children With Medical Complexity Calendar Year 2017

	Total CMC	Children with Medical Complexity									
CRG	5b-9	5b	6	7	9	8					
Total Visits	6,279	1,481	23.6%	3,978	63.4%	147	2.3%	622	9.9%	51	0.8%



**TOTAL EMERGENCY DEPARTMENT VISITS FOR
CHILDREN WITH MEDICAL COMPLEXITY
CALENDAR YEAR 2017**

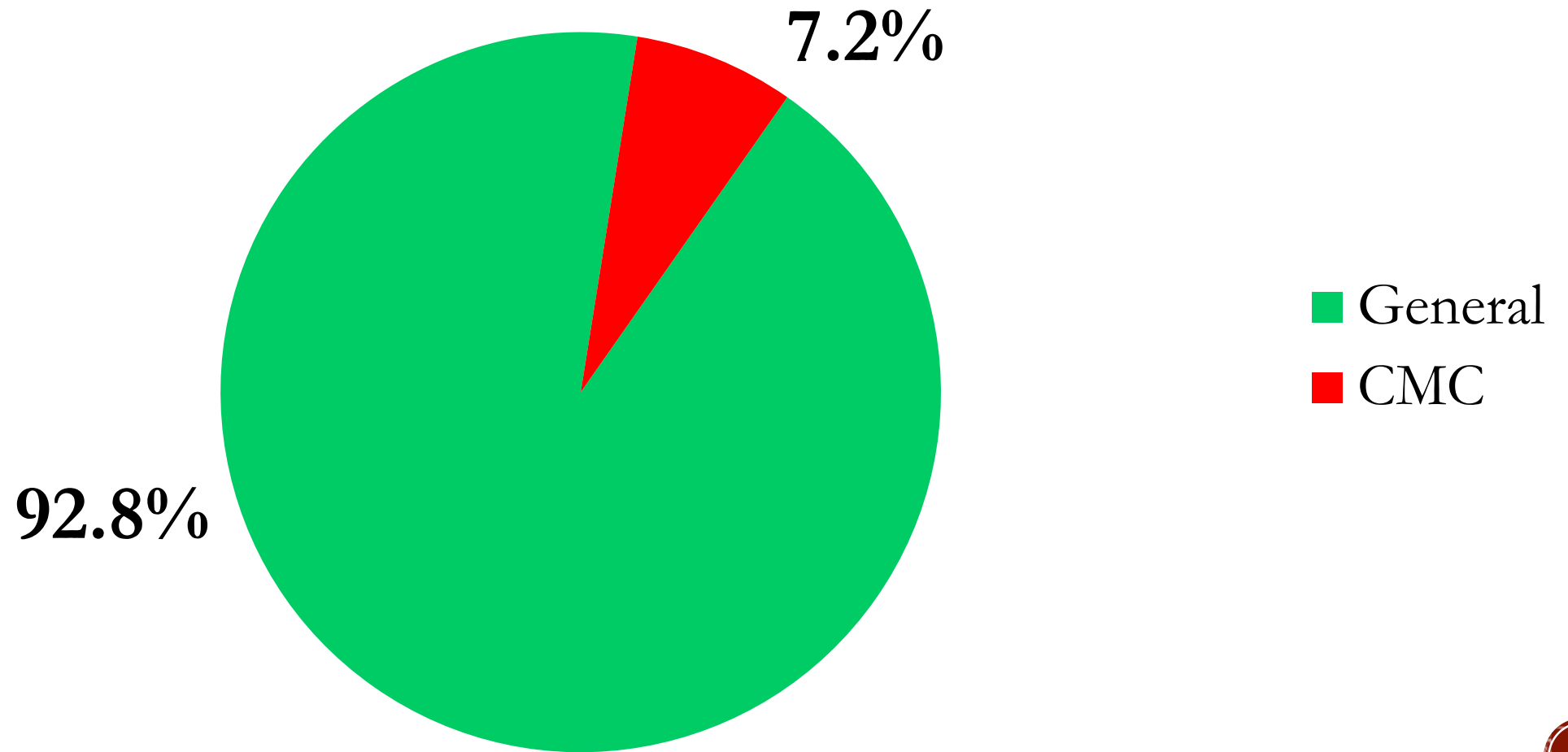


**NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISIT
FOR
TOTAL PEDIATRIC POPULATION**

**General Pediatric Population vs. Children with Medical Complexity
Calendar Year 2017**

	Total Pediatric Population	General Pediatric Population		Children with Medical Complexity	
Number of Children with ED Visit	1-9	1-5a		5b-9	
Total Children	33,449	31,047	92.8%	2,402	7.2%

**NUMBER OF CHILDREN WITH EMERGENCY DEPT. VISITS
GENERAL VS. CMC POPULATIONS
CALENDAR YEAR 2017**



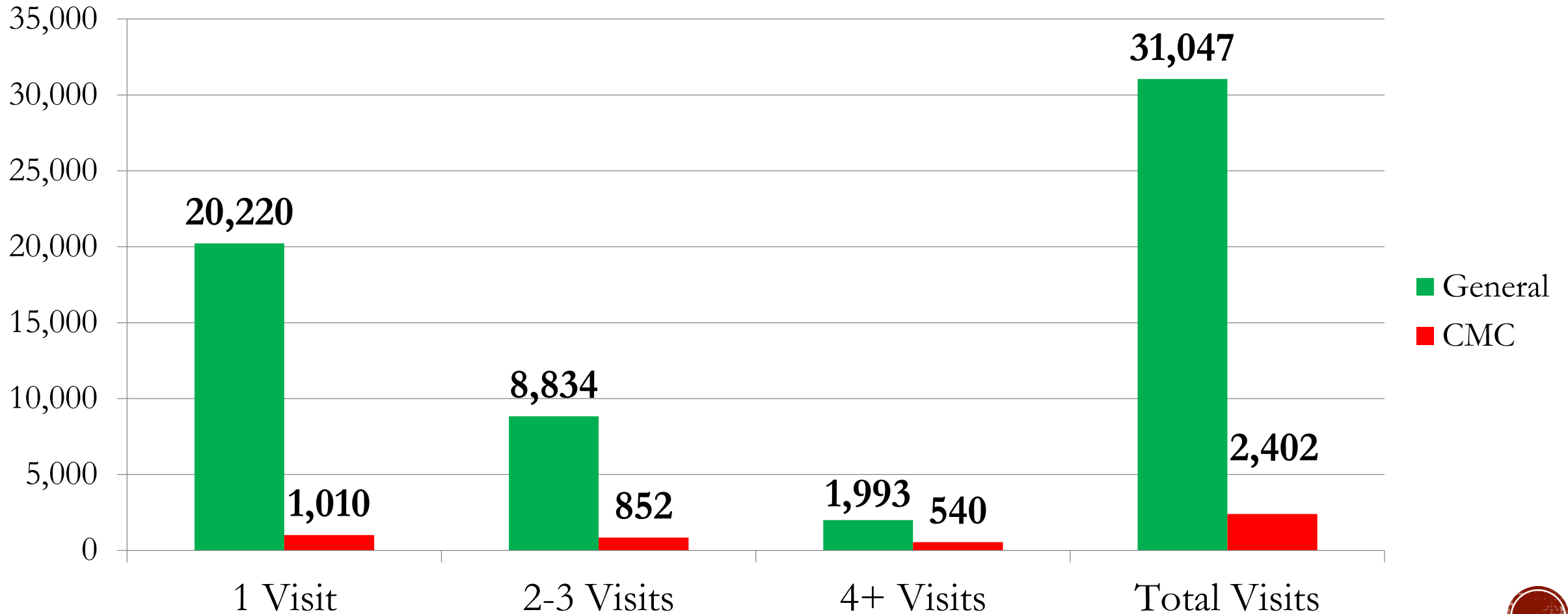
NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISITS FOR TOTAL PEDIATRIC POPULATION

General Pediatric Population vs. Children with Medical Complexity Calendar Year 2017

Number of Visits	Total Pediatric Population 1-9	General Pediatric Population 1-5a		Children with Medical Complexity 5B-9	
1	21,230	20,220	65.1%	1,010	42%
2-3	9,686	8,834	28.5%	852	35.5%
4+	2,533	1,993	6.4%	540	22.5%
Total Children	33,449	31,047		2,402	



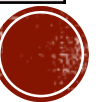
**NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISIT
GENERAL VS. CMC POPULATIONS
CALENDAR YEAR 2017**



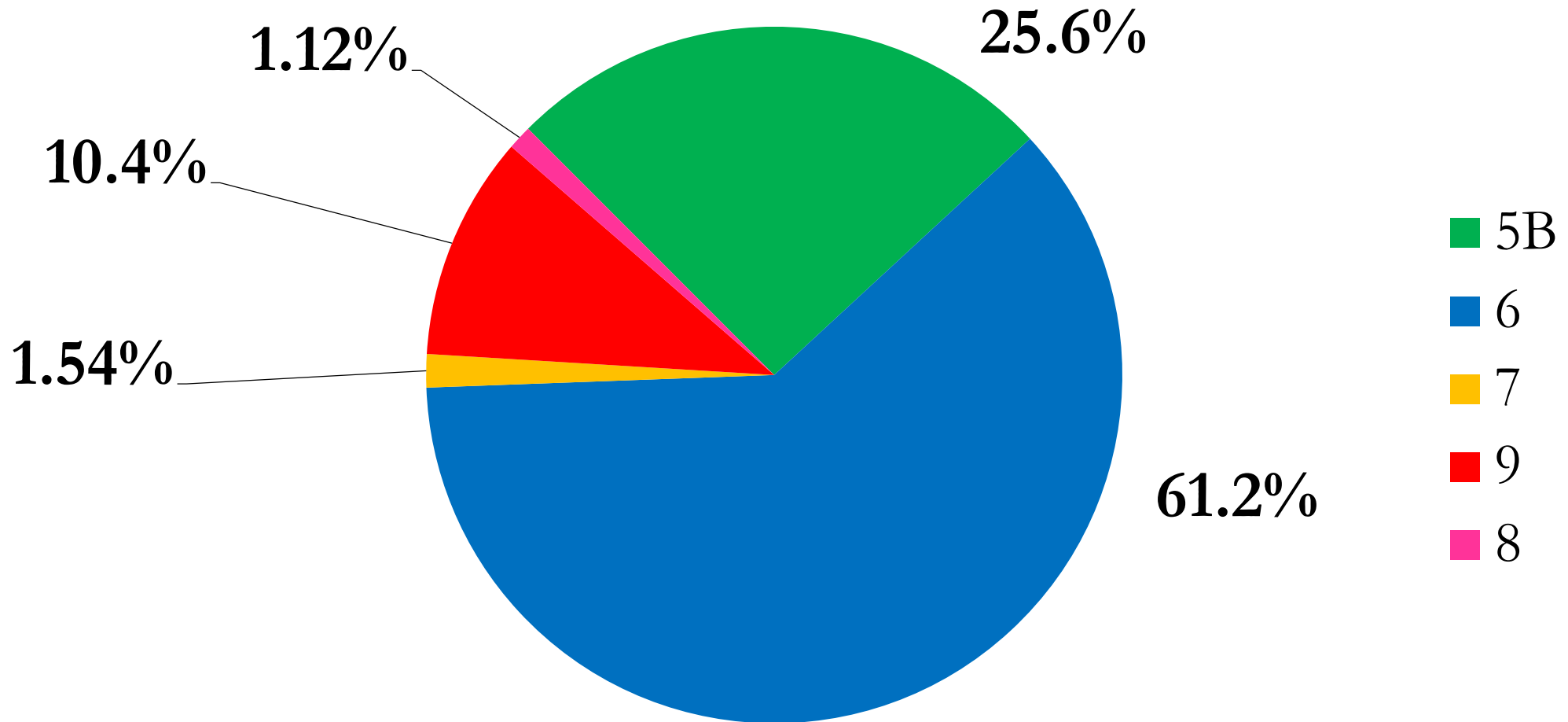
NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISITS FOR CHILDREN WITH MEDICAL COMPLEXITY

Breakout for Children With Medical Complexity Calendar Year 2017

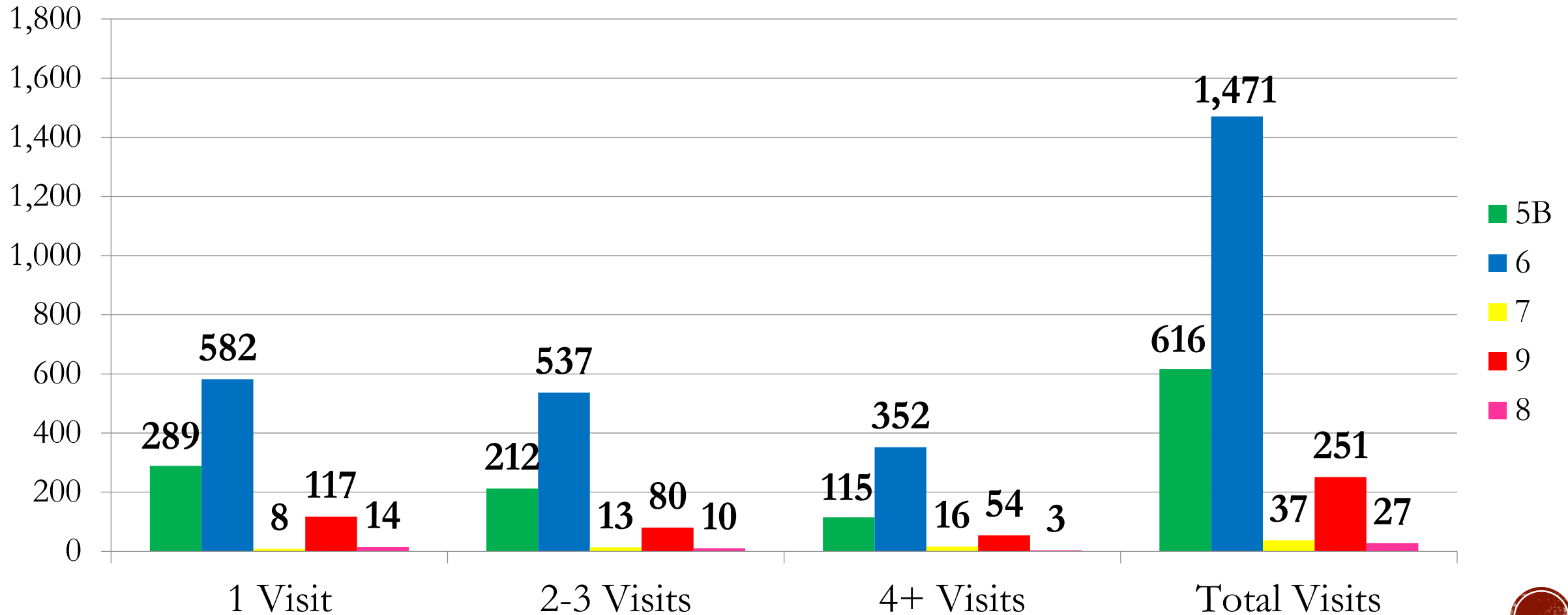
	Total CMC	Children with Medical Complexity									
Number of Visits	5b-9	5b		6		7		9		8	
1 Visit	1,010	289	46.9%	582	39.6%	8	21.6%	117	46.6%	14	51.9%
2-3 Visits	852	212	34.4%	537	36.5%	13	35.1%	80	31.9%	10	37%
4+ Visits	540	115	18.7%	352	23.9%	16	43.2%	54	21.5%	3	11.1%
Total Children	2,402	616 (25.6%)		1,471 (61.2%)		37 (1.54%)		251 (10.4%)		27 (1.12%)	



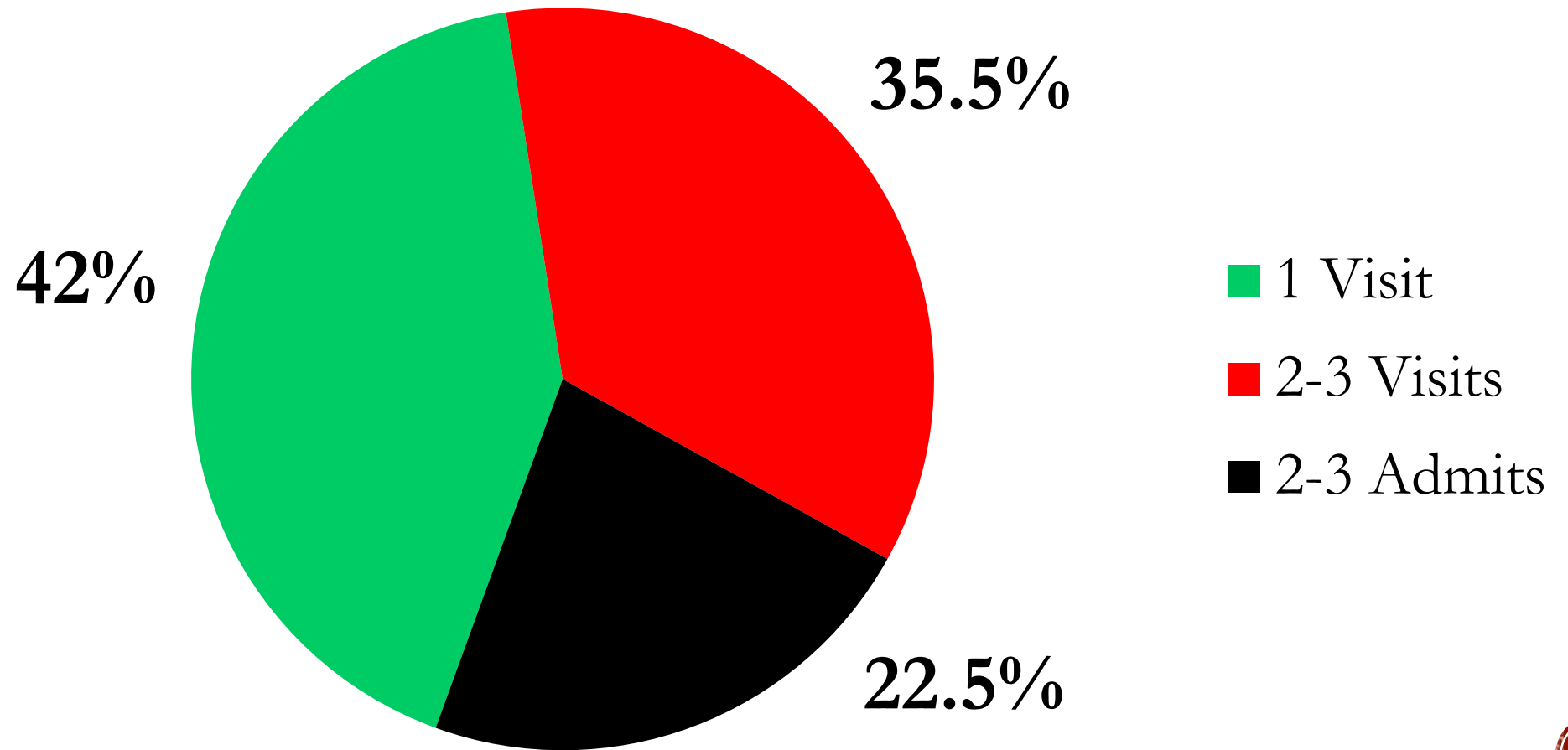
**NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISITS FOR
CHILDREN WITH MEDICAL COMPLEXITY BY CRG
CALENDAR YEAR 2017**



NUMBER OF CHILDREN WITH EMERGENCY DEPARTMENT VISITS FOR CHILDREN WITH MEDICAL COMPLEXITY BY CRG CALENDAR YEAR 2017

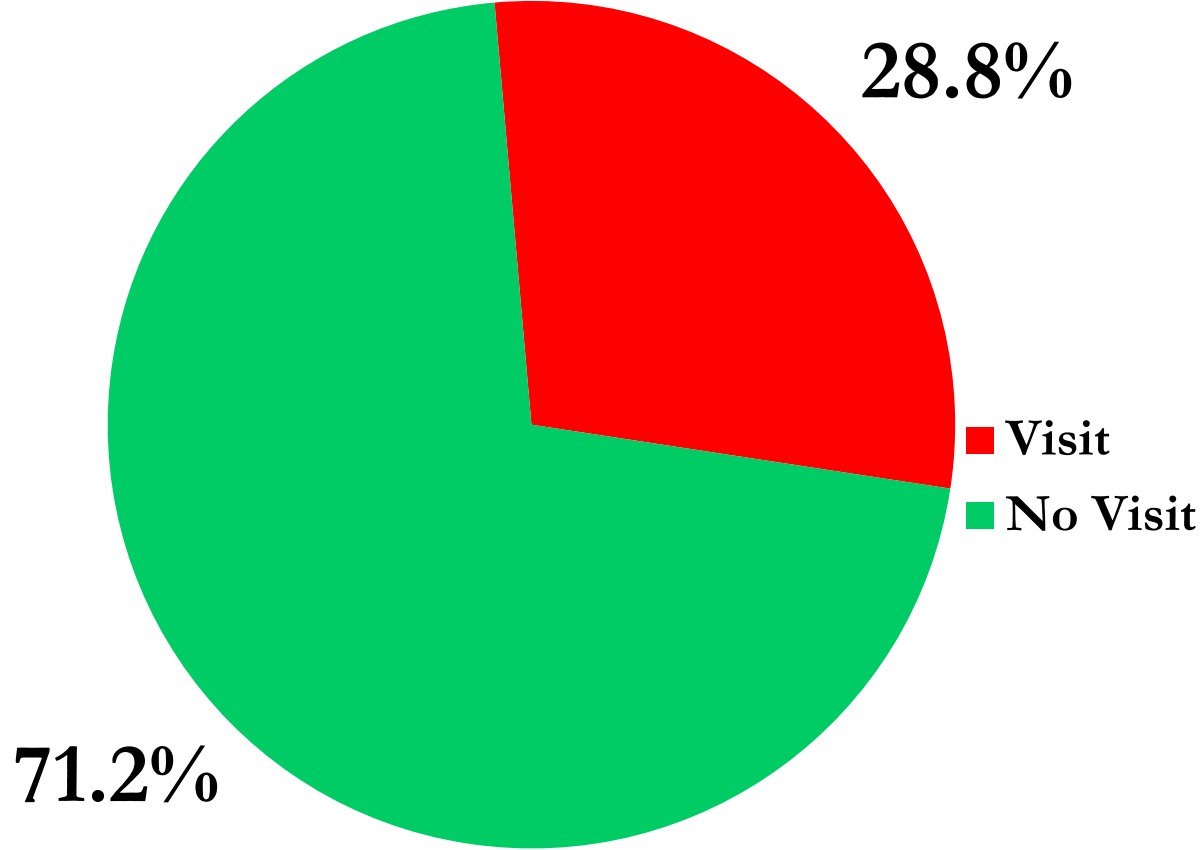


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CHILDREN WITH MEDICAL COMPLEXITY
CALENDAR YEAR 2017**

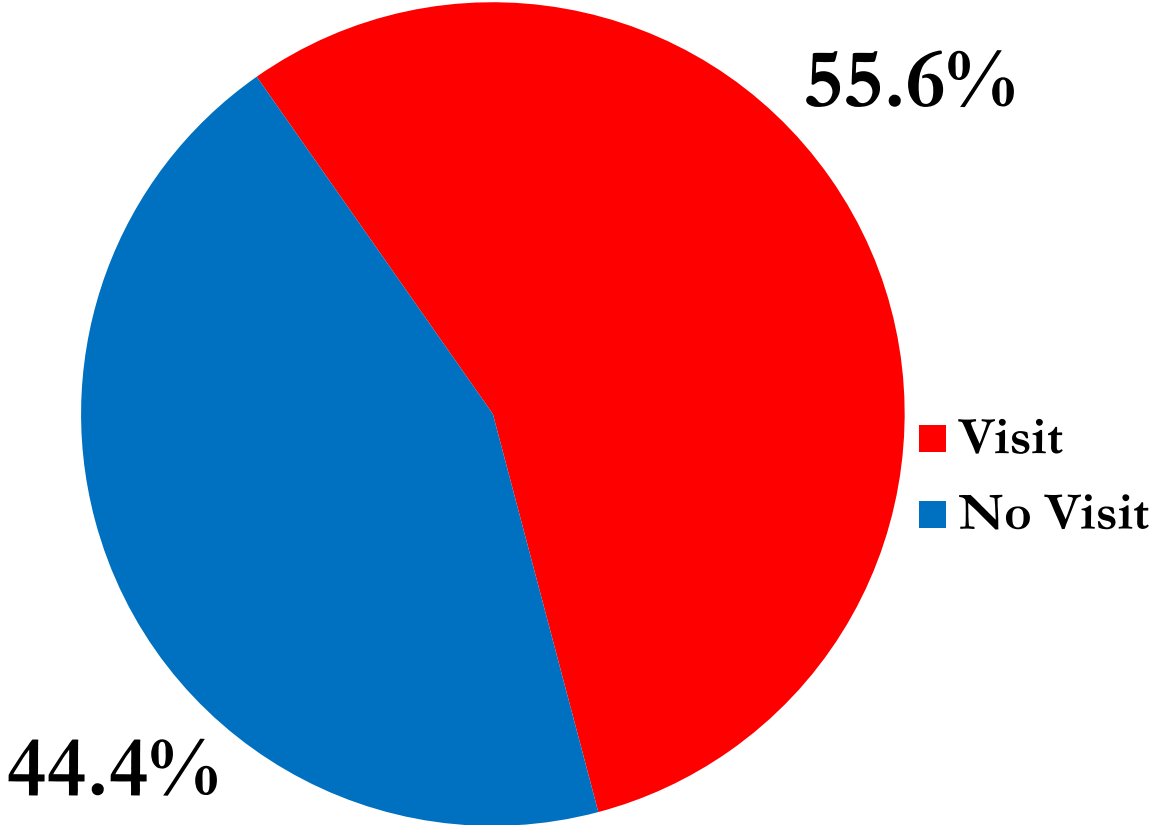


**TOTAL NUMBER OF EMERGENCY DEPARTMENT VISITS
GENERAL VS. CMC POPULATIONS
CALENDAR YEAR 2017**

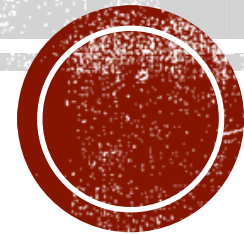
General Pediatric



CMC



DISCUSSION



SUMMARY POINTS

For Calendar Year 2017

- For children receiving Medicaid ~4% identified as children with medical complexity
- CRG health status group 5b & 6 comprise greatest percent CMC population (85.7%)
- CMC population more likely to have ER visit
 - General Pediatric Population 1:3.5 vs. CMC population 1:1.75
- CMC population more likely to be admitted to hospital
 - General Pediatric Population 1:17 vs. CMC population 1:5
- For hospital average length of stay (LOS) CMC population with greater hospital stays
 - CMC population with average LOS 2 days longer than general pediatric population



FUTURE CONSIDERATIONS

- Navigate reasons for higher average LOS and ER visits for CMC population
- Consider resource factors related to high average LOS vs. available home health
- Consider cost factors related to high average LOS vs. available home health
- Investigate and identify specific conditions with greater utilization (hospital and ER)
- Assign risk scores for MCOs and providers to provide appropriate care coordination
- Develop quality metrics and outcomes to reduce high utilization(hospital and ER)



NEXT STEPS: QUARTER 3

- Finalize demographic data for CY 2017 → written summary report
- Further investigate hospital admits and ER visits for CMC population (identify children at greatest risk)
- Continue work on PDN care analysis → link to hospital and ER data
- Begin discussion on family and provider survey

