Five Most Frequent DRGs in Washington's Community Hospitals, 2010–2021:

Part V – Inpatients by Hispanic origin

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Forecasting and Research

Health Care Research Center
The Office of Financial Management

Five Most Frequent DRGs in Washington's Community Hospitals, 2010-2021

This is part five of a seven-part report on changes in the medical conditions for which Washington residents received care in community hospitals from 2010 to 2021. For an explanation of how these conditions are classified, and the data source and methods used, see part one of the report, available on the OFM website.

Inpatients by Hispanic origin

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Part V – Inpatients by Hispanic origin

Grouping hospital patients based on Hispanic heritage, regardless of race, provided distinct insights into hospitalization patterns. Both Hispanic and non-Hispanic inpatients had two birth-related diagnosis-related groups (DRGs)—795 (normal newborn) and N70 (vaginal delivery with/without sterilization or D&C without CC/MCC)—as the most frequent DRGs.

For Hispanic inpatients, the remaining three DRGs in the top five were also birth-related in all years except 2021. These were:

- N68 (cesarean section with/without sterilization without CC/MCC)
- 794 (neonate with other significant problems)
- N69 (vaginal delivery with/without sterilization or D&C with CC/MCC)

In contrast, the non-Hispanic inpatient group showed a different pattern. Aside from the two most frequent birth-related DRGs, the other three DRGs in the top five were generally non-birth-related, except in 2010 when a third DRG was related to childbirth. These three were:

- 470 (major hip and knee joint replacement or reattachment of lower extremity without MCC)
- 885 (psychoses)
- 871 (septicemia or severe sepsis without MV >96 hours with MCC)

These trends highlight a stronger concentration of birth-related hospitalizations among Hispanic inpatients, whereas non-Hispanic inpatients exhibited a more varied distribution of leading hospitalizations, including joint replacements, psychiatric conditions, and severe infections.

Hispanic origin group - Hispanic

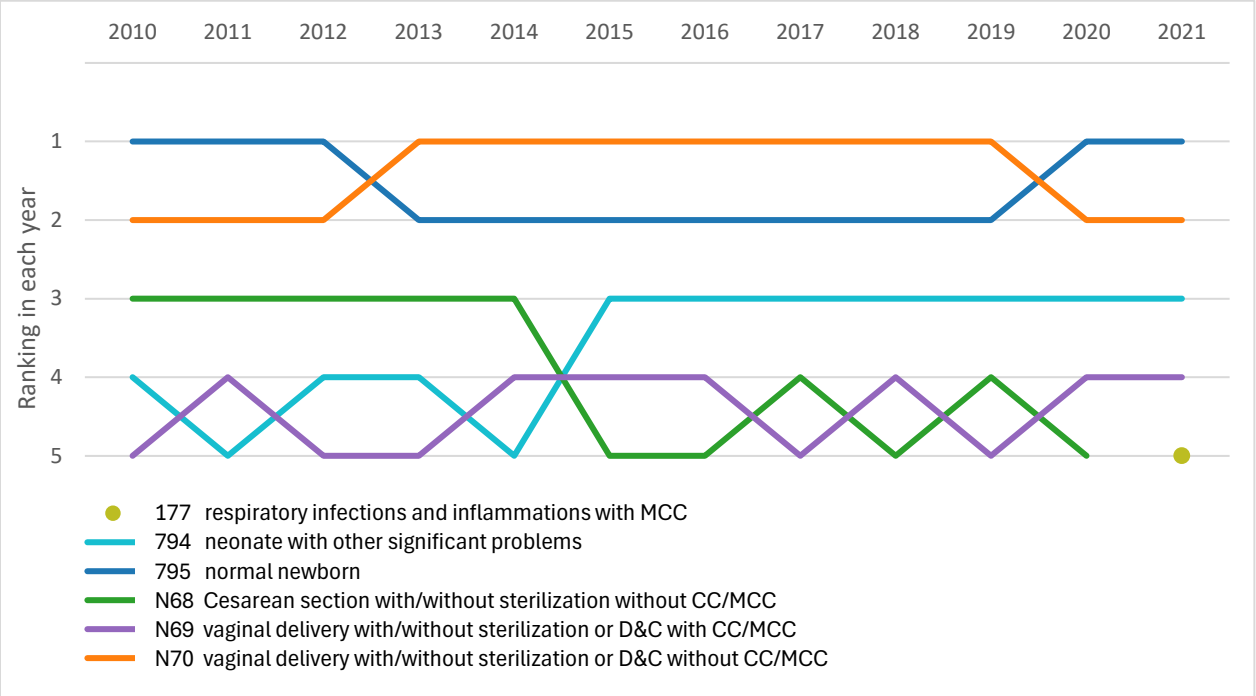
The top five DRGs for Hispanic inpatients remained relatively stable over time, predominantly featuring birth-related conditions—except in 2021, when one DRG was not related to birth. The same five DRGs consistently ranked in the top five, except for DRG N68 (Cesarean section with/without sterilization without CC/MCC), which declined from 3rd place in 2010 to 5th place in 2020 before falling out of the top five entirely in 2021.

DRG 795 (normal newborn) held 1st place in the first three years (2010-12) and the last two years (2020-21), but in the intervening years, it dropped to 2nd place. Conversely, DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) followed the opposite pattern—it was 2nd place in the first three years and last two years, while holding 1st place in the years in between.

DRG 794 (neonate with other significant problems) fluctuated between 4th and 5th place in the early years, but from 2015 onward, it settled in 3rd place. Meanwhile, DRG N69 (vaginal delivery with/without sterilization or D&C with CC/MCC) began in 5th place, ended in 4th place, and alternated between these two positions over the years.

This consistency in rankings highlights the dominant role of birth-related hospitalizations among Hispanic inpatients, with only minor shifts in the ordering of the most frequent DRGs.

Figure V-1. Top five DRGs among persons of Hispanic heritage discharged from Washington hospitals: 2010-2021



The number of Hispanic patients in the top five DRGs grew from 16,800 in 2010 to 23,600 in 2021, reflecting an overall increase in hospitalizations within these common conditions. However, the share of total Hispanic inpatients represented by the top five DRGs declined from 47% to about 40% over the same period. This suggests that while more Hispanic patients were hospitalized for these leading DRGs, the overall inpatient population expanded at an even higher rate.

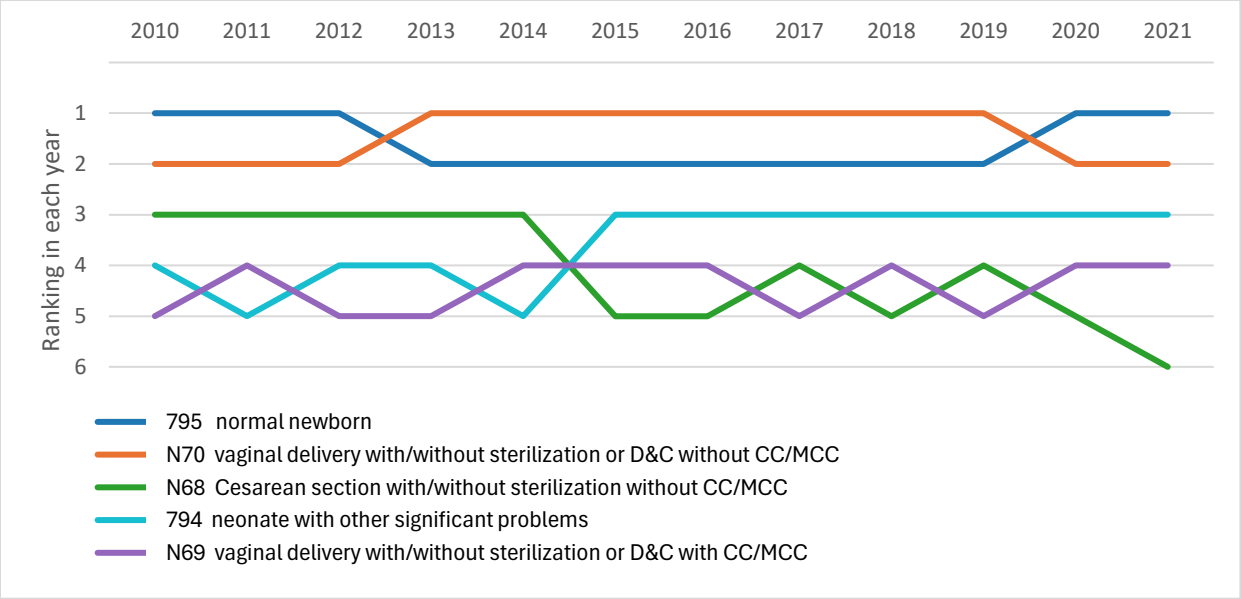
Table V-1. Number and percent of persons of Hispanic heritage discharged from Washington hospitals by top five DRGs: 2010-2021

Hispanic	Top 1st DRG			Top 2nd DRG			Top 3rd DRG			Top 4th DRG			Top 5th DRG		
	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total
2010	795	6,522	18.3%	N70	5,645	15.8%	N68	1,608	4.5%	794	1,572	4.4%	N69	1,482	4.2%
2011	795	6,333	17.2%	N70	5,495	14.9%	N68	1,702	4.6%	N69	1,531	4.1%	794	1,515	4.1%
2012	795	6,231	16.1%	N70	5,817	15.1%	N68	1,695	4.4%	794	1,565	4.1%	N69	1,558	4.0%
2013	N70	6,784	16.1%	795	6,589	15.7%	N68	1,908	4.5%	794	1,755	4.2%	N69	1,747	4.2%
2014	N70	6,678	16.0%	795	6,076	14.5%	N68	1,935	4.6%	N69	1,794	4.3%	794	1,700	4.1%
2015	N70	6,921	16.0%	795	6,117	14.2%	794	1,951	4.5%	N69	1,796	4.2%	N68	1,780	4.1%
2016	N70	7,455	15.6%	795	6,753	14.2%	794	2,542	5.3%	N69	1,981	4.2%	N68	1,944	4.1%
2017	N70	7,292	15.0%	795	6,033	12.4%	794	2,852	5.9%	N68	1,962	4.0%	N69	1,949	4.0%
2018	N70	6,757	14.3%	795	6,022	12.7%	794	2,220	4.7%	N69	1,930	4.1%	N68	1,855	3.9%
2019	N70	6,997	13.9%	795	6,174	12.3%	794	2,365	4.7%	N68	2,162	4.3%	N69	1,975	3.9%
2020	795	7,312	13.0%	N70	7,107	12.6%	794	3,424	6.1%	N69	2,361	4.2%	N68	2,224	4.0%
2021	795	7,931	13.6%	N70	6,942	11.9%	794	4,089	7.0%	N69	2,446	4.2%	177	2,223	3.8%

177 = respiratory infections and inflammations with MCC
794 = neonate with other significant problems
795 = normal newborn
N68 = Cesarean section with/without sterilization without CC/MCC
N69 = vaginal delivery with/without sterilization or D&C with CC/MCC
N70 = vaginal delivery with/without sterilization or D&C without CC/MCC

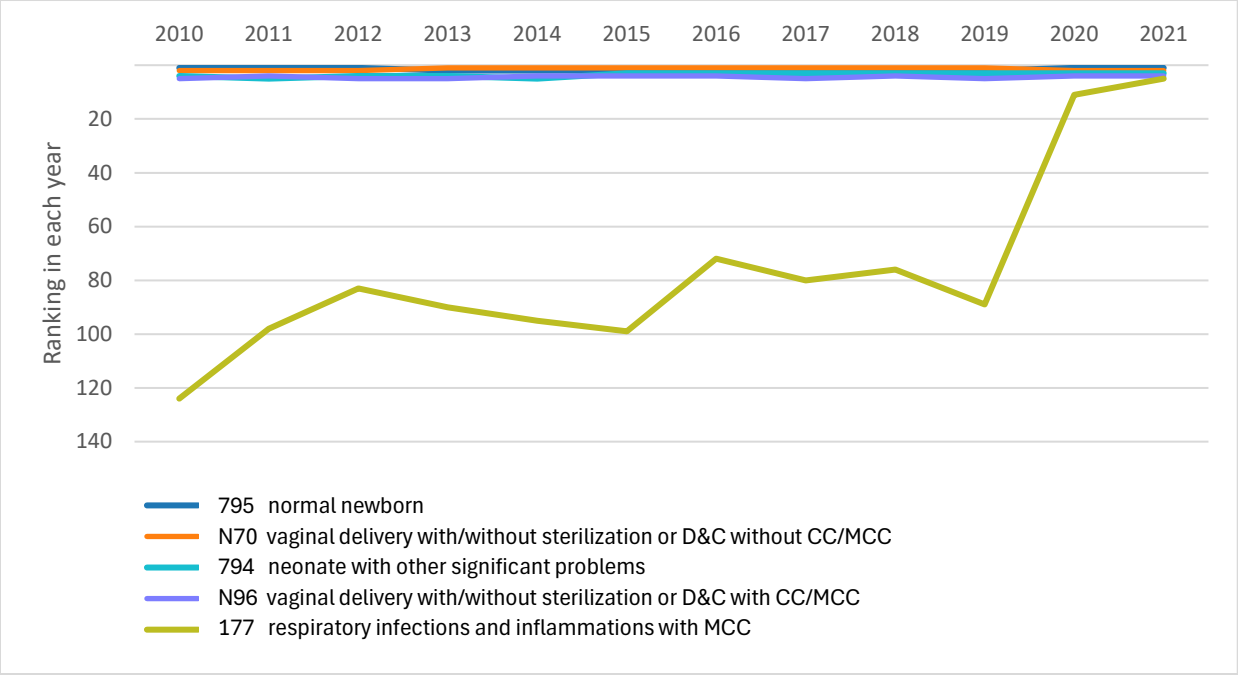
DRG N68 (Cesarean section with/without sterilization without CC/MCC) was the only DRG from the top five in 2010 that dropped out of the top five at any point in the following years. Despite this decline, its ranking remained close to the top tier, only falling to 6th place in 2021. This suggests that while other DRGs maintained their top five positions, DRG N68 remained a significant but slightly less dominant category by the end of the period.

Figure V-2. Top five DRGs in 2010 and their rank changes in subsequent years: persons of Hispanic heritage discharged from Washington hospitals, 2010-2021



DRG 177 (respiratory infections and inflammations with MCC) was the only DRG in the top five in 2021 that had not previously ranked in the top five in any other year. Its rise was gradual before 2021, starting from a much lower position, but it accelerated significantly in the final two years due to the COVID-19 pandemic. In 2019, DRG 177 was ranked 39th, and by 2021, it had surged to 5th place, marking a notable shift in hospitalization patterns driven by the increased prevalence of severe respiratory infections during the pandemic.

Figure V-3. Prior rankings of 2021 top five DRGs: persons of Hispanic heritage discharged from Washington hospitals, 2010-2021



Hispanic origin group - Non-Hispanic

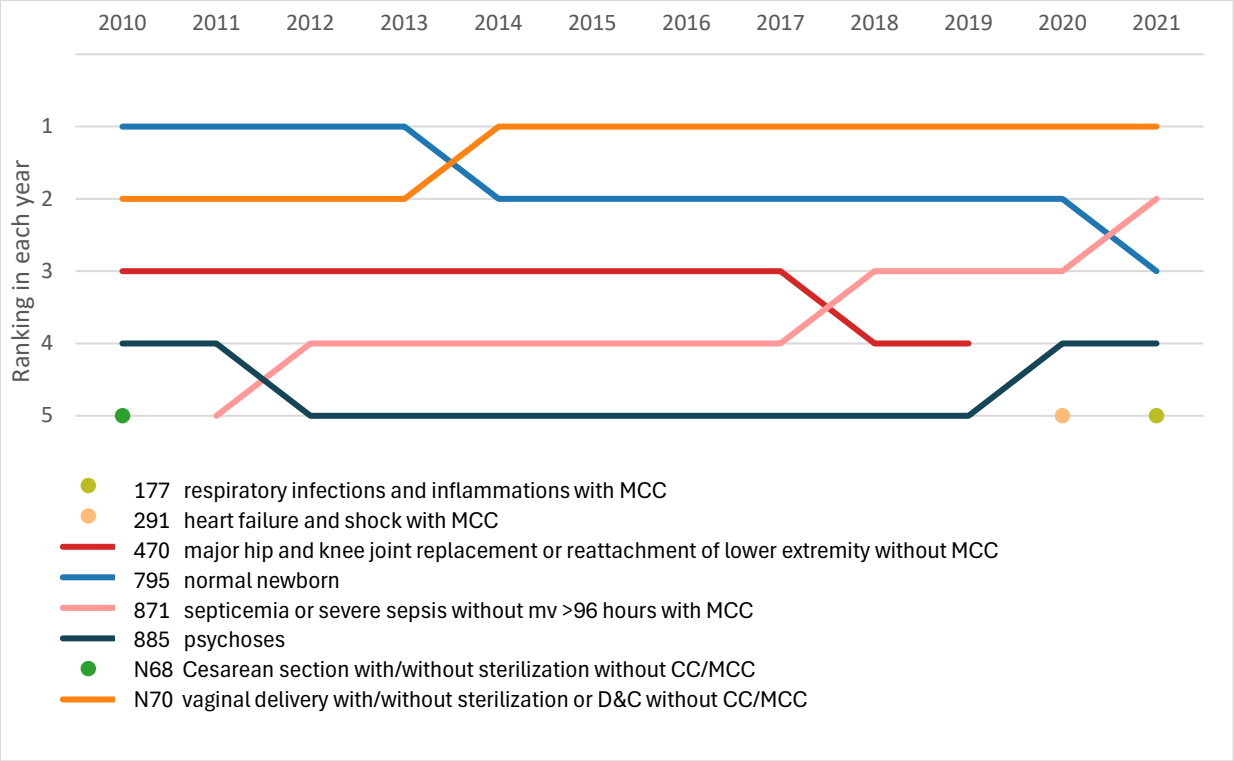
The top five DRGs for non-Hispanic inpatients remained relatively stable over the 2010-2021 period. Of the eight DRGs that appeared in the top five at least once, three were present every year: DRG 795 (normal newborn), DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC), and DRG 885 (psychoses). Additionally, DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) appeared in all but one year, while DRG 470 (major hip and knee joint replacement or reattachment of the lower extremity without MCC) was present in all but two years.

Despite this consistency, there were some ranking shifts:

- DRG 795 dropped from 1st place in 2010 to 3rd place in 2021.
- DRG N70 moved up from 2nd place in 2010 to 1st place in 2021.
- DRG 885 fluctuated between 4th and 5th place, holding 4th in 2010-11 and again in 2020-21, but ranking 5th in the intervening years.

This relative stability suggests that hospitalization patterns for non-Hispanic inpatients remained consistent over time, with only minor variations in ranking positions.

Figure V-4. Top five DRGs among persons with no Hispanic heritage discharged from Washington hospitals: 2010-2021



The number of non-Hispanic patients in the top five DRGs saw a significant increase from 86,800 in 2010 to a peak of 135,000 in 2017. However, this upward trend reversed in subsequent years, with the number declining to 107,200 by 2021.

The share of non-Hispanic patients within the top five DRGs followed a similar pattern. It grew from 20% in 2010 to 24% in 2017 but later dropped slightly to 22% in 2021.

Table V-2. Number and percent of persons with no Hispanic heritage discharged from Washington hospitals by top five DRGs: 2010-2021

Non-Hispanic	Top 1st DRG			Top 2nd DRG			Top 3rd DRG			Top 4th DRG			Top 5th DRG		
	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total
2010	795	27,233	6.4%	N70	24,699	5.8%	470	15,721	3.7%	885	10,503	2.5%	N68	8,627	2.0%
2011	795	28,666	6.3%	N70	26,022	5.7%	470	17,425	3.8%	885	11,332	2.5%	871	9,083	2.0%
2012	795	31,219	6.4%	N70	28,951	6.0%	470	18,838	3.9%	871	11,849	2.4%	885	11,517	2.4%
2013	795	32,311	6.2%	N70	32,119	6.2%	470	21,996	4.3%	871	15,773	3.0%	885	11,665	2.3%
2014	N70	35,404	6.7%	795	30,133	5.7%	470	23,339	4.4%	871	19,296	3.7%	885	12,345	2.3%
2015	N70	36,020	6.6%	795	30,201	5.5%	470	24,721	4.5%	871	21,853	4.0%	885	13,147	2.4%
2016	N70	37,666	6.7%	795	33,258	5.9%	470	26,504	4.7%	871	22,089	3.9%	885	13,896	2.5%
2017	N70	37,080	6.5%	795	30,719	5.4%	470	27,387	4.8%	871	24,443	4.3%	885	15,377	2.7%
2018	N70	34,765	6.3%	795	29,615	5.4%	871	24,123	4.4%	470	23,666	4.3%	885	15,469	2.8%
2019	N70	30,778	5.7%	795	26,250	4.8%	871	25,010	4.6%	470	19,532	3.6%	885	16,781	3.1%
2020	N70	28,623	6.0%	795	22,916	4.8%	871	22,909	4.8%	885	17,643	3.7%	291	11,751	2.4%
2021	N70	27,958	5.8%	871	23,280	4.8%	795	21,293	4.4%	885	17,582	3.6%	177	17,128	3.5%

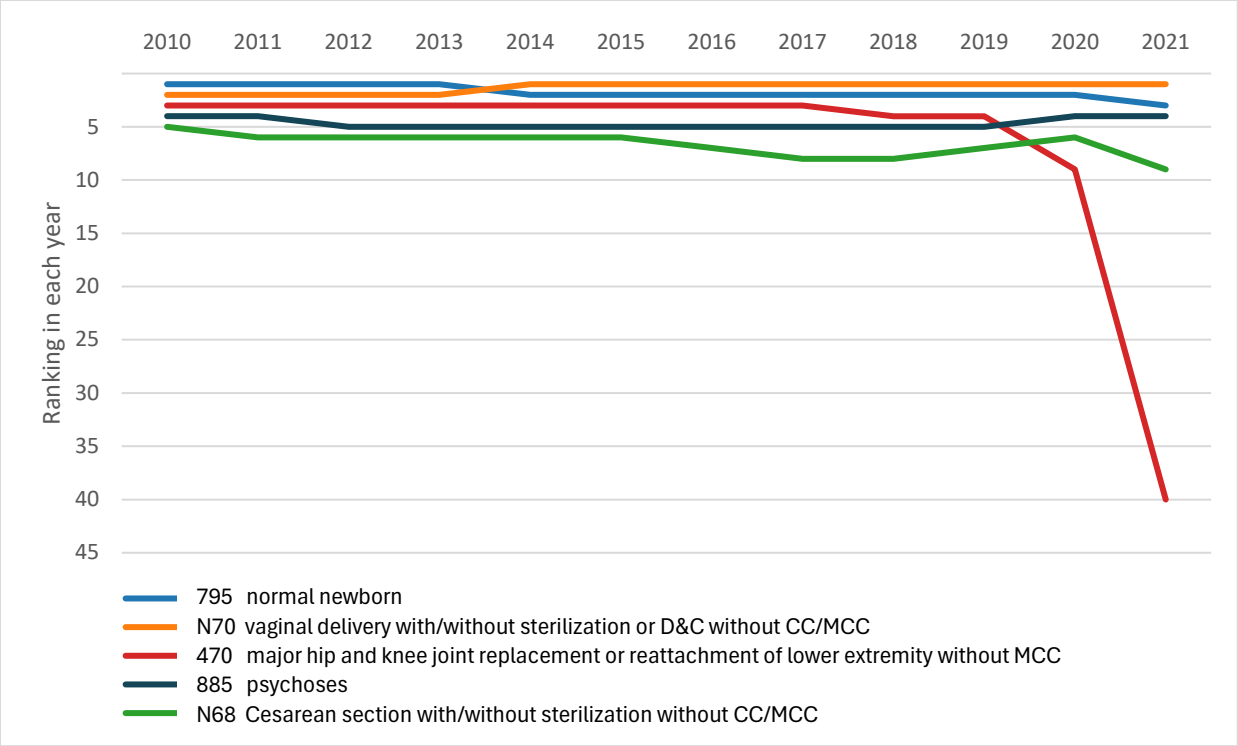
177 = respiratory infections and inflammations with MCC
291 = heart failure and shock with MCC
470 = major hip and knee joint replacement or reattachment of lower extremity without MCC
795 = normal newborn
871 = septicemia or severe sepsis without mv >96 hours with MCC
885 = psychoses
N68 = Cesarean section with/without sterilization without CC/MCC
N70 = vaginal delivery with/without sterilization or D&C without CC/MCC

Of the two DRGs that ranked in the top five in 2010 but did not remain there in 2021, DRG 470 (major hip and knee joint replacement or reattachment of lower extremity without MCC) saw the most significant decline. It dropped from 3rd place in 2010 to 40th place in 2021, with its largest drop occurring between 2020 and 2021—falling from 9th place to 40th. This sharp decline was largely due to the halt of elective surgeries during the COVID-19 pandemic, which significantly affected DRG 470 cases.

DRG N68 (Cesarean section with/without sterilization without CC/MCC) also exited the top five but maintained a relatively high ranking. It declined from 5th place in 2010 to 9th place in 2021, reflecting a more gradual shift in hospitalization patterns compared to the dramatic drop seen in DRG 470.

These trends highlight how external factors, such as the pandemic's impact on elective procedures, drove substantial changes in hospital utilization.

Figure V-5. Top five DRGs in 2010 and their rank changes in subsequent years: persons with no Hispanic heritage discharged from Washington hospitals, 2010-2021

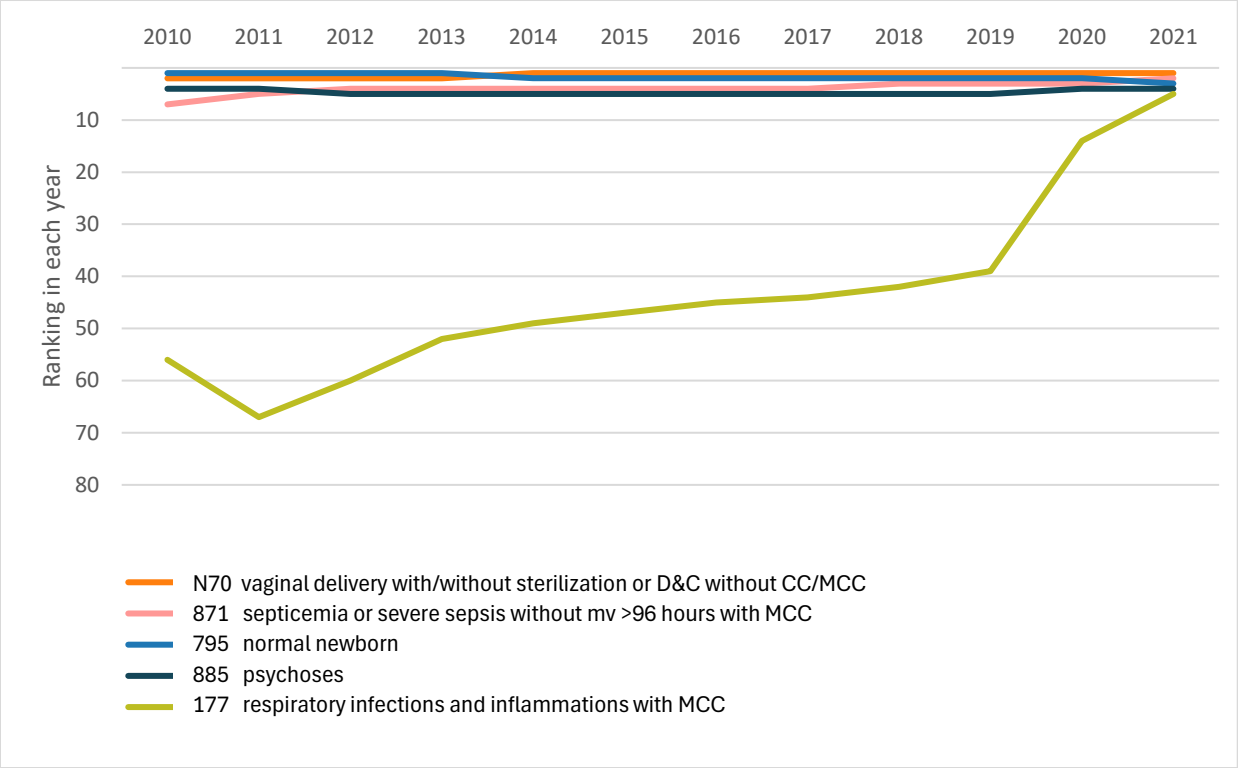


Among non-Hispanic inpatients, two DRGs ranked in the top five in 2021 but had not been in the top five in 2010. DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) was present in the top five in every year except 2010, when it ranked 7th. Over the years, it steadily climbed, reaching 2nd place in 2021, reflecting an increasing prevalence of severe infections and possibly also changes in diagnosis patterns for this condition.[1]

DRG 177 (respiratory infections and inflammations with MCC) had a much more dramatic rise. It was ranked below 50th place in earlier years, but its ascent accelerated during the COVID-19 pandemic. In 2019, it ranked 39th, but by 2021, it had surged to 5th place, highlighting the impact of the pandemic on hospitalization patterns for severe respiratory conditions.

[1] See "Changing Diagnosis Patterns Are Increasing Medicare Spending for Inpatient Hospital Services" at https://www.commonwealthfund.org/publications/2021/apr/changing-diagnosis-patterns-are-increasing-medicare-spending-inpatient.

Figure V-6. Prior rankings of 2021 top five DRGs: persons with no Hispanic heritage discharged from Washington hospitals, 2010-2021



The data source and methods section for this report can be found at the end of Part I.