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

Part IV – Inpatients by race group

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Forecasting and Research

Health Care Research Center
The Office of Financial Management

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This is part four 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 race group

American Indian/Alaska Native 2
Asian 5
Black 9
Native Hawaiian and other Pacific Islander 13
White 17
Two or more races 21

Part IV – Inpatients by race group

Hospital inpatients were grouped by their reported race into six categories: American Indian/Alaska Native (AIAN), Asian, Black, Native Hawaiian/Other Pacific Islander (NHOPI), White, and two or more races**.** The first five groups consisted of single-race individuals. In the hospital discharge database used for this analysis, some records had no race information. The number of records missing race decreased, from over 20% in 2010 to below 15% in 2022. Records lacking race information were excluded from the analysis.

Birth-related diagnosis-related groups (DRGs) were among the most frequent for all race groups. DRG 795 (normal newborn) and DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) were consistently the top two DRGs, though their ranking varied across different racial groups and time periods:

- Among Asian patients**,** DRG N70 ranked 1st in all years except the first.
- Among patients identified as two or more races**,** DRG 795 held 1st place in all years except the first**.**
- Among White and NHOPI inpatients**,** DRG 795 ranked 1st in the early years, but DRG N70 took over the top position in later years.
- Among AIAN inpatients**,** DRG N70 was 1st place in most years, including the two most recent years. Meanwhile, both DRG 795 and DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) ranked 1st at least once during the period.
- Among Black inpatients**,** DRG 795 initially held 1st place, followed by DRG N70 for several years, before DRG 885 (psychoses) took over as the most frequent DRG in the last two years.

These trends highlight how hospitalization patterns differ across racial groups, particularly for birth-related and mental health conditions.

Race group - American Indian/Alaska Native

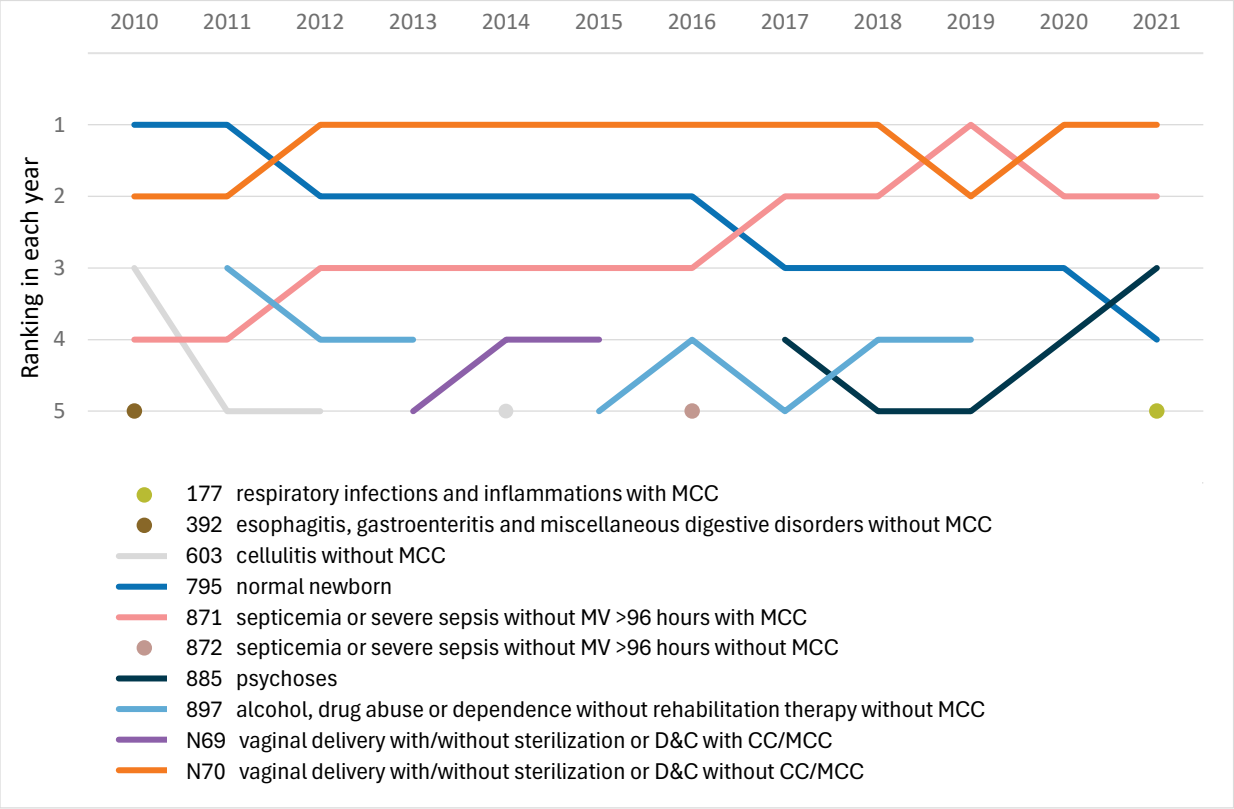
For American Indian/Alaska Native (AIAN) inpatients, a total of ten different DRGs appeared in the top five at some point between 2010 and 2021. However, three of these DRGs—DRG 795 (normal newborn), DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC), and DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC)—remained in the top five throughout all years.

These three DRGs followed distinct ranking patterns:

- DRG 795 gradually declined, moving from 1st place in 2010 to 4th place in 2021.
- DRG 871 steadily rose, increasing from 5th place in 2010 to 2nd place in 2021.
- DRG N70 fluctuated between 1st and 2nd place, starting at 2nd in 2010 and ultimately landing at 1st in 2021.

These trends highlight the continued dominance of birth-related DRGs, alongside the increasing prevalence of septicemia cases in this population.

Figure IV-1. Top five DRGs among persons of American Indian/Alaska Native race discharged from Washington hospitals, 2010-2021



The share of total AIAN patients in the top five DRGs varied very little from 2010 to 2021, between only 20% and 21%, with 1,800 to 2,100 patients each year.

Table IV-1. Number and percent of persons of American Indian/Alaska Native race discharged from Washington hospitals by top five DRGs, 2010-2021

AIAN	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	651	6.6%	N70	638	6.6%	603	212	2.2%	871	207	2.2%	392	204	2.1%
2011	795	713	6.4%	N70	675	6.4%	897	245	2.3%	871	243	2.3%	603	234	2.2%
2012	N70	641	6.1%	795	618	6.1%	871	299	3.0%	897	231	2.3%	603	208	2.1%
2013	N70	684	6.0%	795	585	6.0%	871	329	3.4%	897	241	2.5%	N69	222	2.3%
2014	N70	629	5.2%	795	483	5.2%	871	384	4.1%	N69	219	2.3%	603	203	2.2%
2015	N70	660	5.3%	795	503	5.3%	871	414	4.4%	N69	227	2.4%	897	211	2.2%
2016	N70	644	4.8%	795	473	4.8%	871	443	4.5%	897	280	2.8%	872	230	2.3%
2017	N70	592	5.2%	871	509	5.2%	795	388	4.0%	885	291	3.0%	897	237	2.4%
2018	N70	618	4.9%	871	491	4.9%	795	412	4.1%	897	339	3.4%	885	259	2.6%
2019	871	553	4.8%	N70	495	4.8%	795	392	3.8%	897	337	3.3%	885	286	2.8%
2020	N70	461	4.9%	871	452	4.9%	795	330	3.6%	885	304	3.3%	N69	257	2.8%
2021	N70	486	5.0%	871	480	5.0%	885	386	4.0%	795	324	3.4%	177	304	3.1%

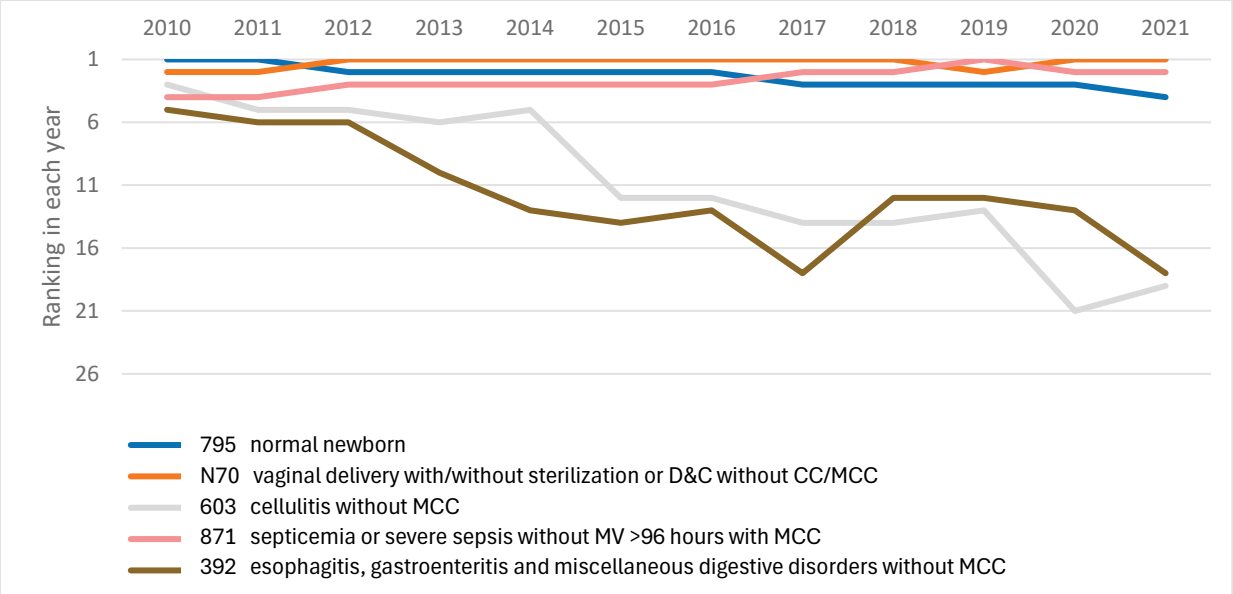
177 = respiratory infections and inflammations with MCC
392 = esophagitis, gastroenteritis and miscellaneous digestive disorders without MCC
603 = cellulitis without MCC
795 = normal newborn
871 = septicemia or severe sepsis without MV >96 hours with MCC
872 = septicemia or severe sepsis without MV >96 hours without MCC
885 = psychoses
897 = alcohol, drug abuse or dependence without rehabilitation therapy without 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

Two DRGs that ranked in the top five in 2010 but had dropped out by 2021 were DRG 603 (cellulitis without MCC) and DRG 392 (esophagitis, gastroenteritis, and miscellaneous digestive disorders without MCC).

- DRG 603 initially held 3rd place in 2010, while DRG 392 ranked 5th.
- Both DRGs followed distinct downward trajectories but ultimately landed in adjacent positions in 2021, ranking 19th and 18th, respectively.

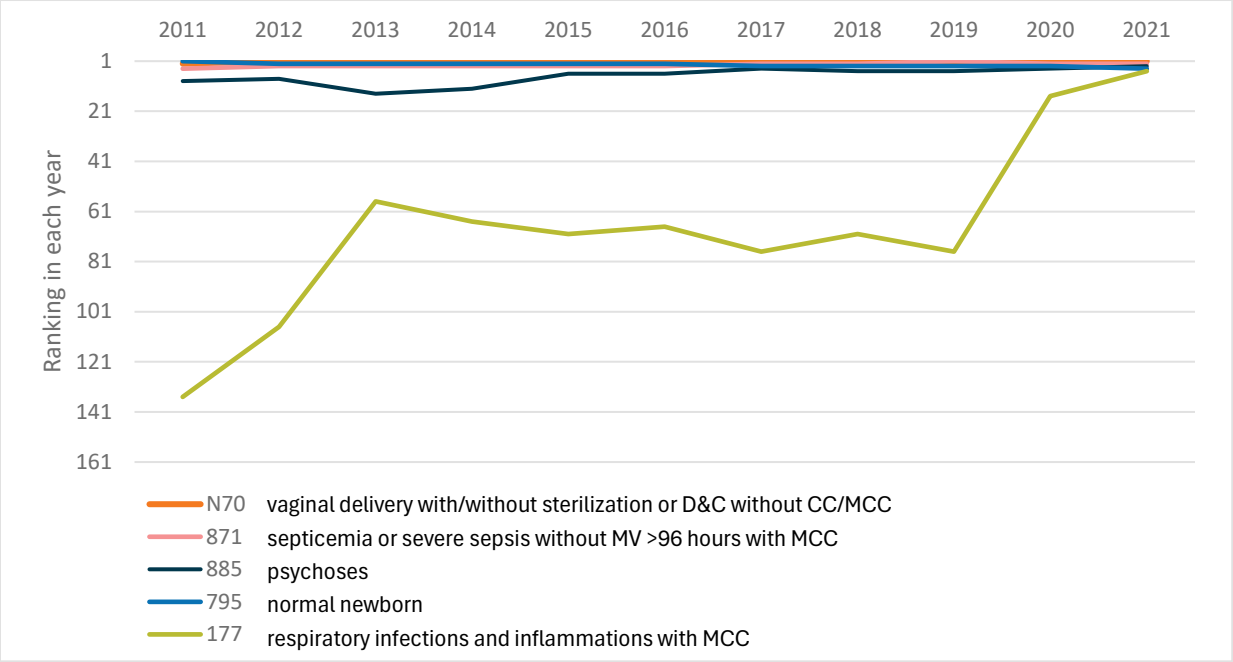
These shifts suggest a gradual decline in hospitalizations for cellulitis and digestive-related conditions within this population.

Figure IV-2. Top five DRGs in 2010 and their rank changes in subsequent years: persons of American Indian/Alaska Native race discharged from Washington hospitals, 2010-2021



The only DRG that ranked in the top five in 2021 but was not in the top five in 2010 was DRG 177 (respiratory infections and inflammations with MCC). This DRG experienced a rapid two-step ascent: first, moving from 135th place in 2010 to 57th place in 2013, and later from 77th place in 2019 to 5th place in 2021. The second rise was clearly driven by the COVID-19 pandemic, which significantly increased hospitalizations for respiratory infections. However, the factors behind the first climb between 2010 and 2013 remain uncertain and may warrant further investigation.

Figure IV-3. Prior rankings of 2021 top five DRGs: persons of American Indian/Alaska Native race discharged from Washington hospitals, 2010-2021



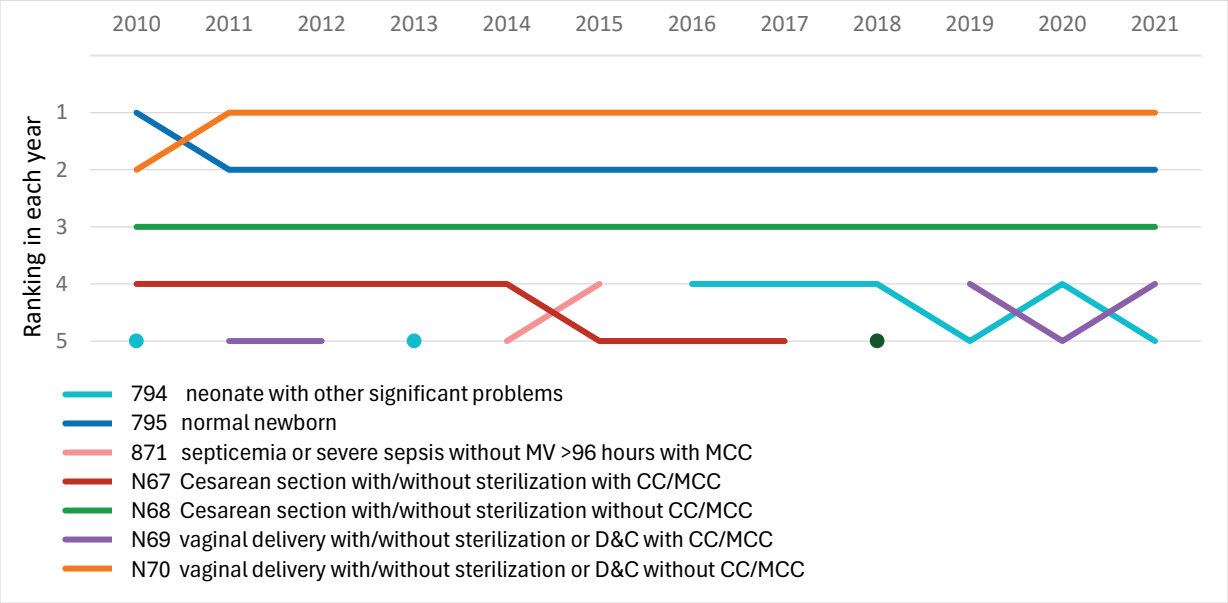
Race group - Asian

Among Asian inpatients, seven different DRGs ranked in the top five at least once between 2010 and 2021. However, three of these DRGs remained in the top five every year and have held the same ranking position since 2011, all of which were related to childbirth:

- DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) consistently ranked 1st place.
- DRG 795 (normal newborn) held 2nd place.
- DRG N68 (Cesarean section with/without sterilization without CC/MCC) remained in 3rd place.

This stability reflects the ongoing predominance of birth-related hospitalizations in this population.

Figure IV-4. Top five DRGs among persons of Asian race discharged from Washington hospitals, 2010-2021



The top five DRGs represented a little over one-third of total Asian inpatient hospitalizations. Over time, their share of total discharges declined slightly, from approximately 38% to 34%. However, despite this decrease in proportion, the actual number of patients within the top five DRGs increased in the second half of the period, rising from 7,500-9,800 in the first six years to 10,400-11,800 in the latter six years.

Table IV-2. Number and percent of persons of Asian race discharged from Washington hospitals by top five DRGs, 2010-2021

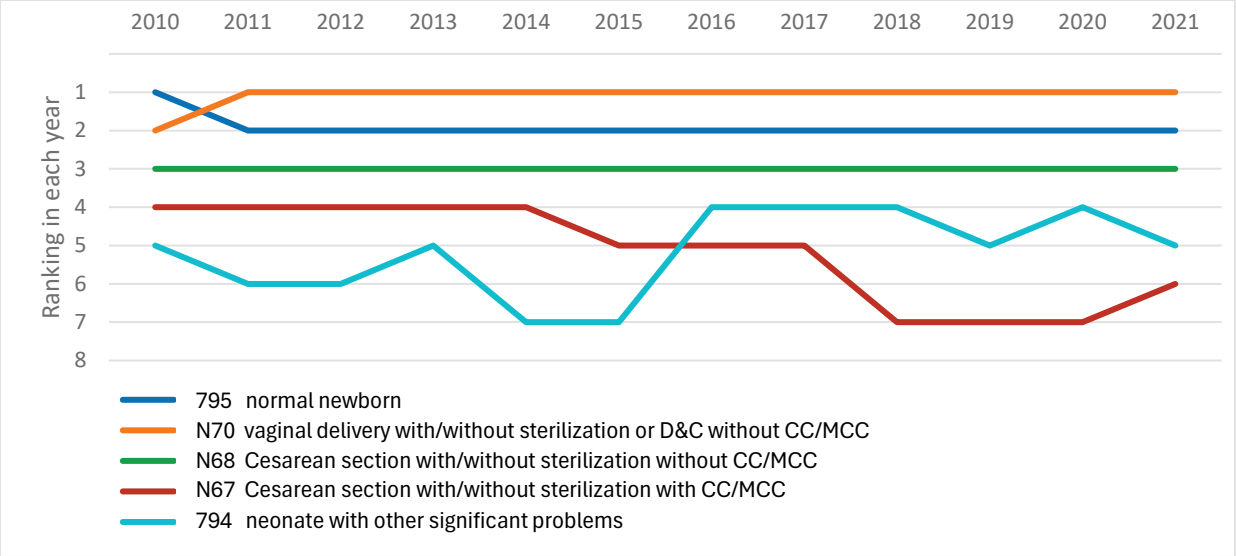
Asian	Top 1st DRG			Top 2nd DRG			Top 3rd DRG			Top 4th DRG			Top 5th DRG		
	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total	MS-DRG	N	% Total
2010	795	2,959	14.7%	N70	2,517	12.5%	N68	976	4.9%	N67	562	2.8%	794	475	2.4%
2011	N70	2,814	13.7%	795	2,780	13.5%	N68	1,139	5.5%	N67	582	2.8%	N69	515	2.5%
2012	N70	2,961	14.2%	795	2,588	12.4%	N68	1,208	5.8%	N67	631	3.0%	N69	590	2.8%
2013	N70	3,131	13.4%	795	2,679	11.5%	N68	1,251	5.4%	N67	747	3.2%	794	623	2.7%
2014	N70	3,668	14.4%	795	2,474	9.7%	N68	1,442	5.7%	N67	877	3.4%	871	766	3.0%
2015	N70	3,868	14.4%	795	2,605	9.7%	N68	1,421	5.3%	871	953	3.5%	N67	916	3.4%
2016	N70	4,195	13.9%	795	3,810	12.6%	N68	1,557	5.1%	794	1,333	4.4%	N67	935	3.1%
2017	N70	4,386	13.8%	795	3,570	11.2%	N68	1,579	5.0%	794	1,500	4.7%	N67	1,070	3.4%
2018	N70	4,312	13.3%	795	3,489	10.8%	N68	1,665	5.1%	794	1,304	4.0%	871	1,108	3.4%
2019	N70	3,867	12.1%	795	3,088	9.7%	N68	1,674	5.2%	N69	1,258	3.9%	794	1,244	3.9%
2020	N70	3,731	12.7%	795	2,713	9.2%	N68	1,571	5.3%	794	1,208	4.1%	N69	1,203	4.1%
2021	N70	3,754	12.0%	795	2,625	8.4%	N68	1,521	4.8%	N69	1,417	4.5%	794	1,374	4.4%

794 = neonate with other significant problems
795 = normal newborn
871 = septicemia or severe sepsis without MV >96 hours with MCC
N67 = Cesarean section with/without sterilization with CC/MCC
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

Two DRGs ranked in the top five in 2010 but were not in the top five in all subsequent years: DRG N67 (Cesarean section with/without sterilization with CC/MCC) and DRG 794 (neonate with other significant problems), which were in 4th and 5th place, respectively, in 2010.

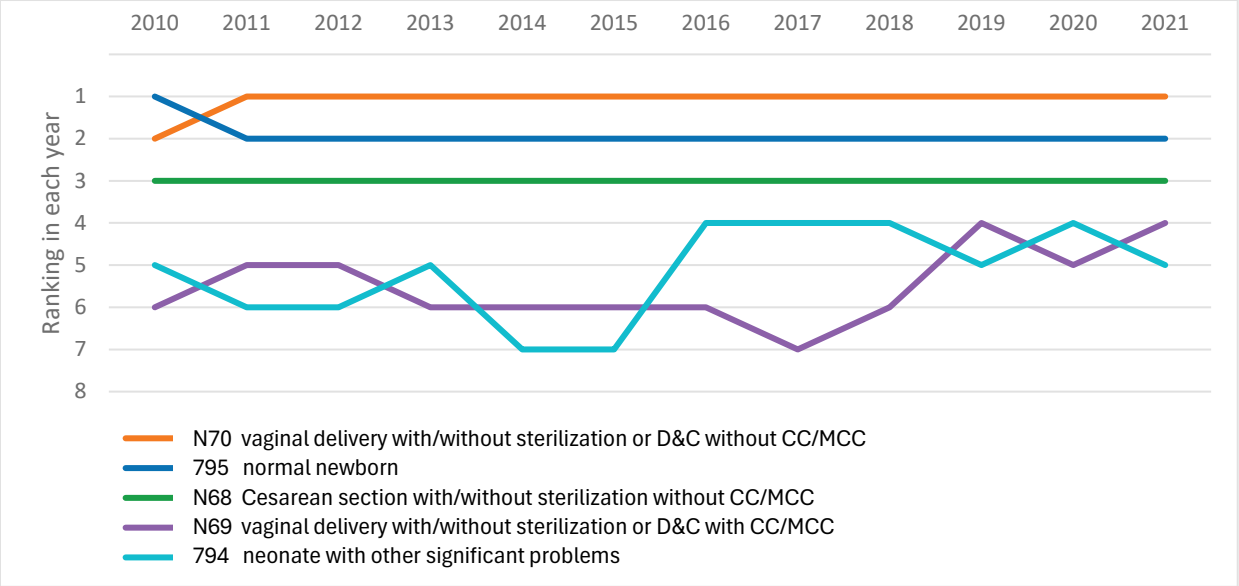
Although these DRGs occasionally dropped out of the top five, their rankings remained relatively close. For both, the lowest position they reached was 7th place during the years they were outside the top five. By 2021, DRG N67 settled in 6th place, while DRG 794 returned to 5th place, reflecting a steady presence despite minor fluctuations in ranking over time.

Figure IV-5. Top five DRGs in 2010 and their rank changes in subsequent years: persons of Asian race discharged from Washington hospitals, 2010-2021



Among Asian inpatients, DRG N69 (vaginal delivery with/without sterilization or D&C with CC/MCC) was the only DRG in the top five in 2021 that had not been in the top five in 2010. However, even in the years when it was not in the top five, its ranking remained relatively close, never dropping below 7th place. This steady presence suggests that while it experienced minor fluctuations, it consistently remained among the most frequent DRGs for Asian inpatients throughout the years.

Figure IV-6. Prior rankings of 2021 top five DRGs: persons of Asian race discharged from Washington hospitals, 2010-2021



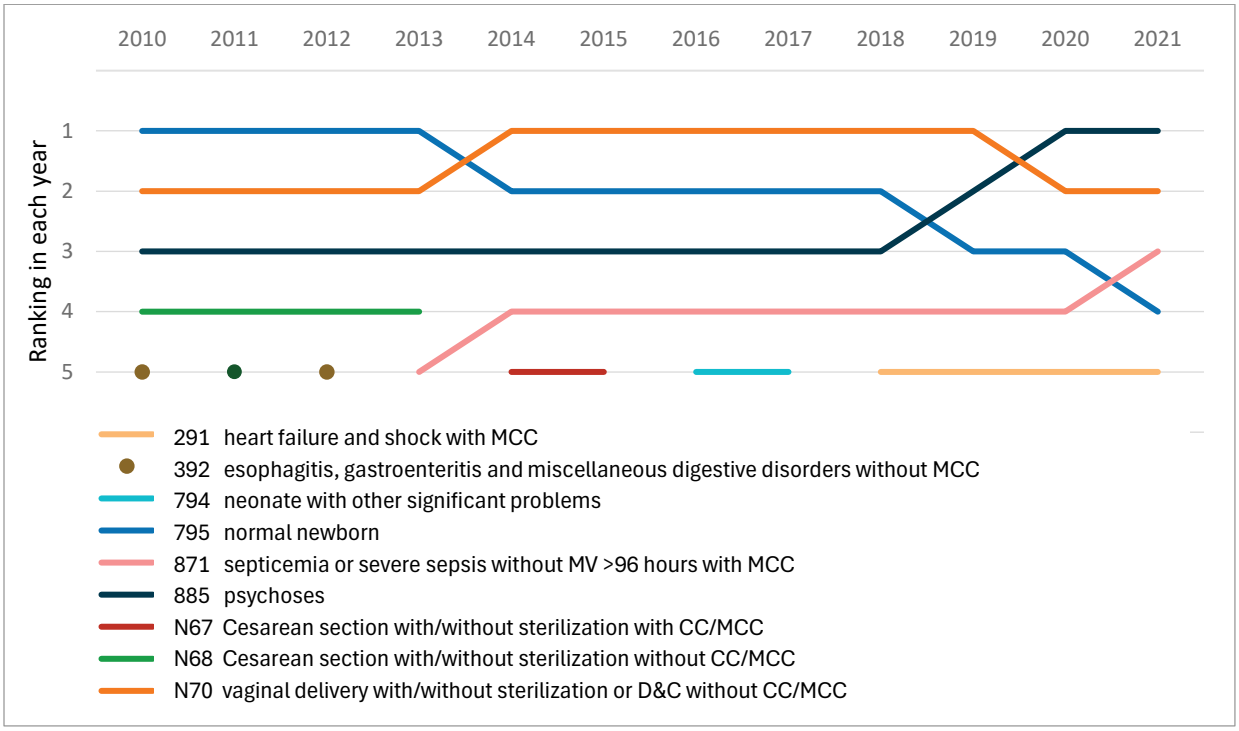
Race group – Black

Among Black inpatients, nine different DRGs ranked in the top five at least once between 2010 and 2021. However, three of these DRGs remained in the top five consistently throughout all years.

- DRG 795 (normal newborn) started in 1st place in 2010 but gradually declined over time, ultimately settling in 4th place by 2021.
- DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) began in 2nd place, moved up to 1st place from 2014 to 2019, then dropped back to 2nd place in 2020-21.
- DRG 885 (psychoses) held 3rd place until 2019 when it moved up to 2nd place, before reaching 1st place in 2020-21.

These patterns reflect shifting hospitalization trends among Black inpatients, particularly the increasing prominence of psychoses-related hospitalizations in recent years.

Figure IV-7. Top five DRGs among persons of Black race discharged from Washington hospitals, 2010-2021



Over the 2010-2021 period, the share of Black inpatients represented by the top five DRGs grew from 20% to 25%. In terms of patient numbers, this reflects an increase from 4,600 to 7,000. This trend suggests a growing concentration of hospitalizations within these specific conditions for Black patients, pointing to potential shifts in healthcare needs or utilization patterns over time.

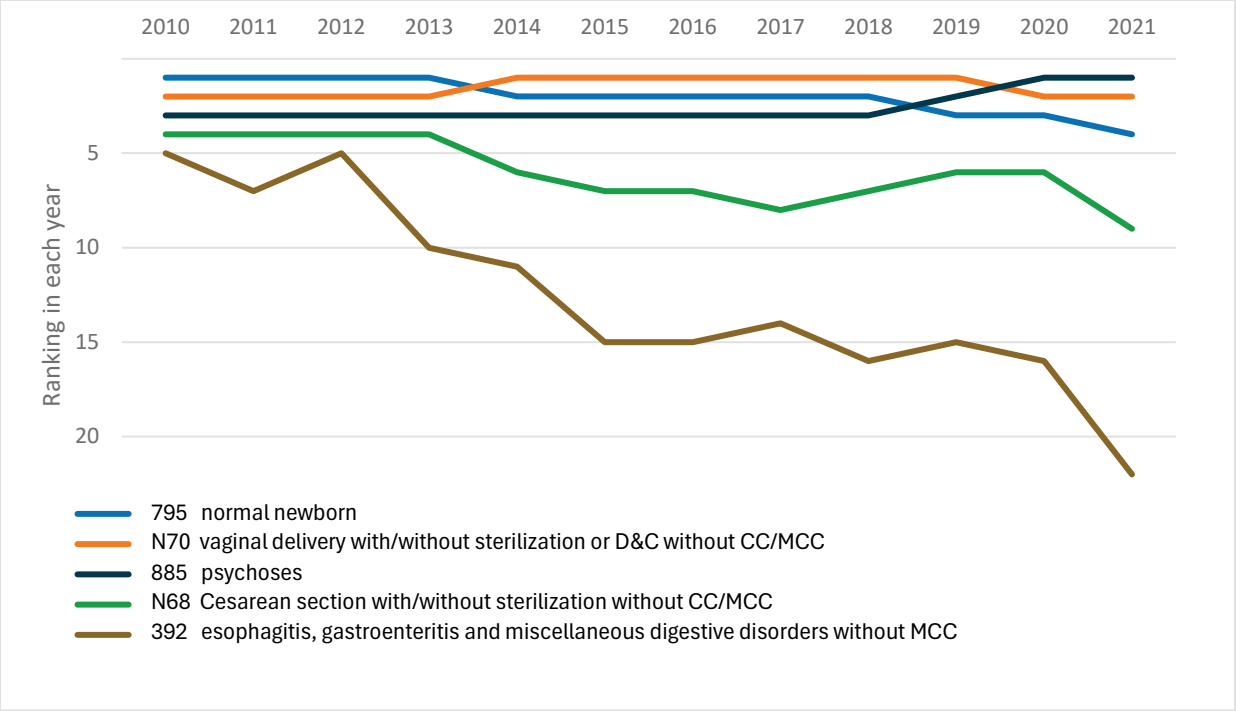
Table IV-3. Number and percent of persons of Black race discharged from Washington hospitals by top five DRGs, 2010-2021

Black	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	1,560	6.7%	N70	1,276	5.5%	885	772	3.3%	N68	487	2.1%	392	460	2.0%
2011	795	1,923	7.7%	N70	1,471	5.9%	885	858	3.4%	N68	555	2.2%	794	480	1.9%
2012	795	1,873	7.3%	N70	1,476	5.8%	885	995	3.9%	N68	582	2.3%	392	514	2.0%
2013	795	1,740	6.9%	N70	1,617	6.4%	885	1,046	4.1%	N68	605	2.4%	871	548	2.2%
2014	N70	1,765	6.8%	795	1,608	6.2%	885	1,181	4.6%	871	680	2.6%	N67	626	2.4%
2015	N70	1,783	6.6%	795	1,627	6.0%	885	1,255	4.7%	871	840	3.1%	N67	679	2.5%
2016	N70	1,857	6.8%	795	1,604	5.8%	885	1,358	4.9%	871	888	3.2%	794	689	2.5%
2017	N70	2,068	7.2%	795	1,615	5.6%	885	1,565	5.4%	871	994	3.4%	794	901	3.1%
2018	N70	2,001	6.9%	795	1,704	5.9%	885	1,593	5.5%	871	985	3.4%	291	802	2.8%
2019	N70	1,751	6.2%	885	1,626	5.7%	795	1,290	4.6%	871	1,083	3.8%	291	921	3.3%
2020	885	1,866	7.0%	N70	1,681	6.3%	795	1,309	4.9%	871	1,057	4.0%	291	806	3.0%
2021	885	2,151	7.6%	N70	1,650	5.8%	871	1,177	4.1%	795	1,131	4.0%	291	857	3.0%

291 = heart failure and shock with MCC
392 = esophagitis, gastroenteritis and miscellaneous digestive disorders without MCC
794 = neonate with other significant problems
795 = normal newborn
871 = septicemia or severe sepsis without MV >96 hours with MCC
885 = psychoses
N67 = Cesarean section with/without sterilization with CC/MCC
N68 = Cesarean section with/without sterilization without CC/MCC
N70 = vaginal delivery with/without sterilization or D&C without CC/MCC

DRGs N68 and 392 were the only two DRGs that ranked in the top five in 2010 but dropped out of the top five by 2021. DRG N68 (Cesarean section with/without sterilization without CC/MCC) held 4th place until 2014, after which it dropped out of the top five. However, its decline was relatively moderate, with its lowest ranking being 9th place in 2021. In contrast, DRG 392 (esophagitis, gastroenteritis, and miscellaneous digestive disorders without MCC) held 5th place in 2010 and again in 2012, but it saw a much steeper drop. Its decline started in 2013, and by 2021, it had fallen to 22nd place, reflecting a significant reduction in hospitalizations for this condition over time.

Figure IV-8. Top five DRGs in 2010 and their rank changes in subsequent years: persons of Black race discharged from Washington hospitals, 2010-2021

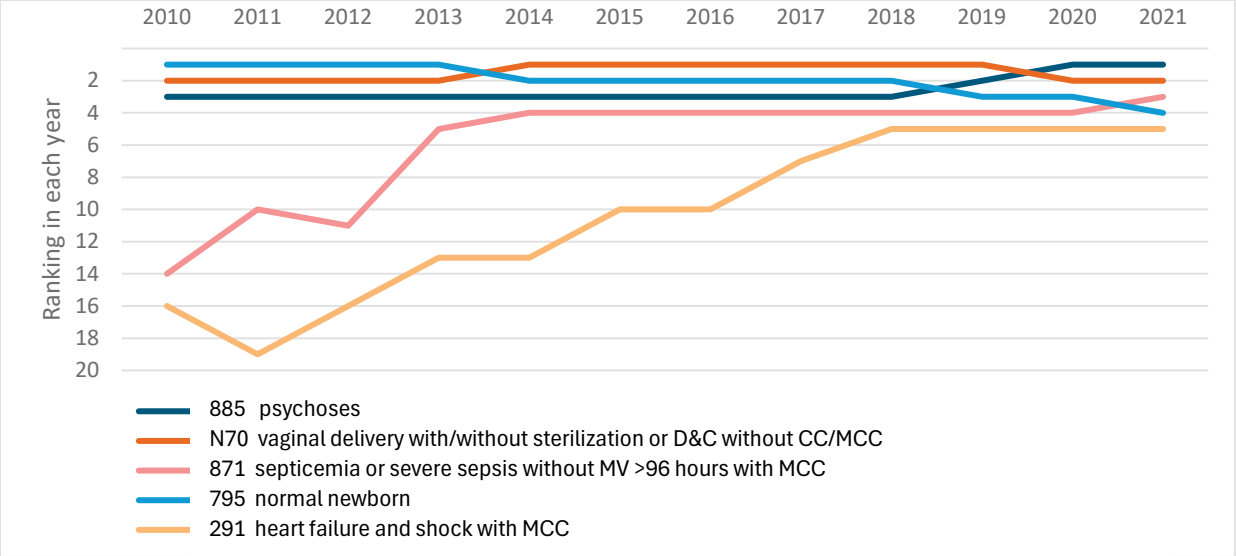


Among Black inpatients, two DRGs ranked in the top five in 2021 but were not in the top five in 2010. DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) had a steady ascent, moving from 14th place in 2010 to 5th place in 2013. From there, it remained in the top five, eventually reaching 3rd place in 2021, its highest ranking.

Similarly, DRG 291 (heart failure and shock with MCC) followed a comparable upward path, rising from 16th place in 2010 to 5th place in 2018, where it remained through 2021.

These trends highlight the increasing prominence of severe infections and heart failure-related hospitalizations within this population over time.

Figure IV-9. Prior rankings of 2021 top five DRGs:
persons of Black race discharged from Washington hospitals, 2010-2021



Race group – Native Hawaiian and other Pacific Islander

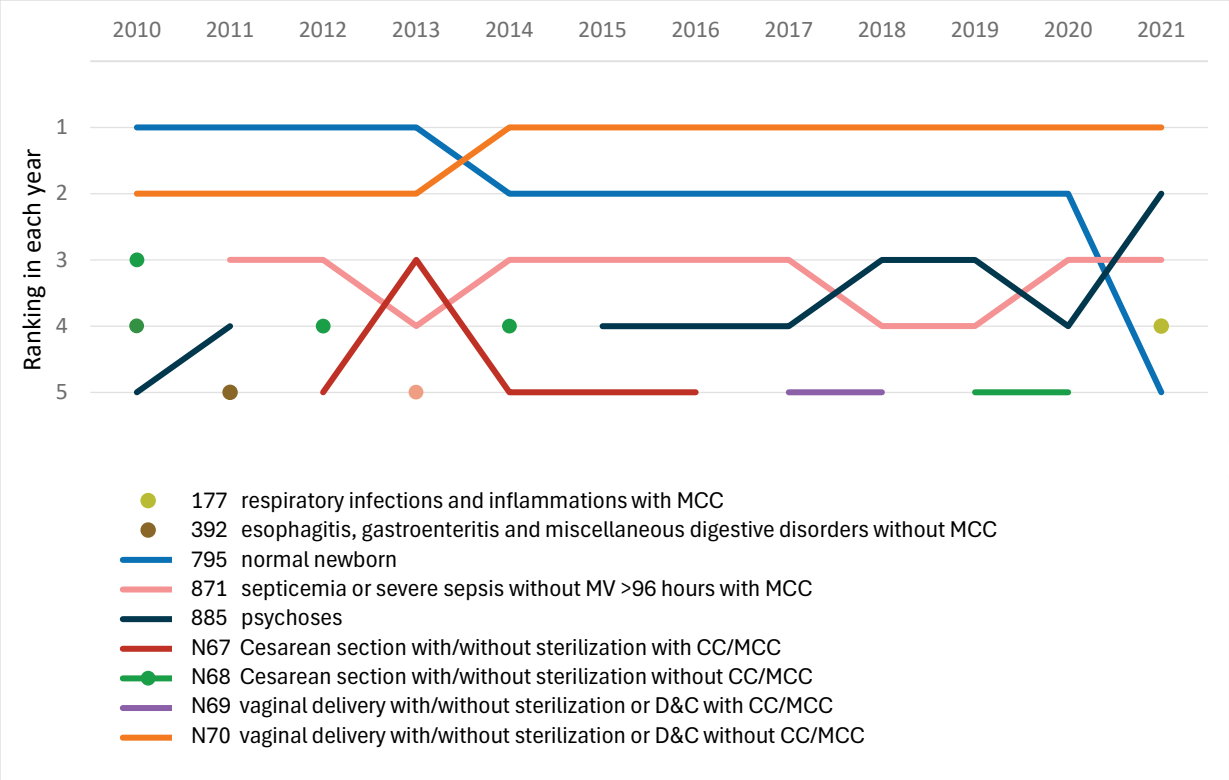
Among Native Hawaiian and Other Pacific Islander (NHOPI) inpatients, a total of nine different DRGs ranked in the top five at least once between 2010 and 2021. However, only two remained in the top five consistently throughout all years.

DRG 795 (normal newborn) started in 1st place but gradually declined over time, shifting to 2nd place from 2014 to 2020 and eventually dropping to 5th place in 2021.

DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) held 2nd place from 2010 to 2013, then moved up to 1st place in 2014, where it remained for the rest of the period.

These trends indicate the continued prevalence of birth-related hospitalizations in this population, with DRG N70 becoming the dominant DRG over time.

Figure IV-10. Top five DRGs among persons of Native Hawaiian/Other Pacific Islander race discharged from Washington hospitals, 2010-2021



The top five DRGs for Native Hawaiian and Other Pacific Islander (NHOPI) inpatients accounted for 24-31% of total hospitalizations in this race group across most years, except for 2011, when the share dropped to 20%. This decline in percentage is particularly puzzling given that the actual number of NHOPI inpatients in the top five DRGs was highest in 2011, reaching 2,400—more than any other year. The number of patients from this race group in the top five DRGs in the remaining years ranged from 900 to 2,100.

This discrepancy suggests a potential data quality issue affecting the race classification of NHOPI inpatients in 2011, which may warrant further review of the hospital discharge records to determine any inconsistency in reporting or classification.

Table IV-4. Number and percent of persons of Native Hawaiian/Other Pacific Islander race discharged from Washington hospitals by top five DRGs, 2010-2021

Hawaiian/Other Pacific Islander	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	346	8.8%	N70	305	7.8%	N68	104	2.6%	N67	98	2.5%	885	85	2.2%
2011	795	847	6.9%	N70	672	5.5%	871	340	2.8%	885	283	2.3%	392	278	2.3%
2012	795	572	8.8%	N70	465	7.1%	871	167	2.6%	N68	158	2.4%	N67	158	2.4%
2013	795	511	9.0%	N70	485	8.5%	N67	167	2.9%	871	153	2.7%	N69	139	2.5%
2014	N70	620	10.5%	795	443	7.5%	871	230	3.9%	N68	176	3.0%	N67	162	2.8%
2015	N70	607	9.8%	795	418	6.8%	871	259	4.2%	885	221	3.6%	N67	197	3.2%
2016	N70	658	10.1%	795	437	6.7%	871	294	4.5%	885	251	3.9%	N67	197	3.0%
2017	N70	671	9.3%	795	456	6.3%	871	363	5.0%	885	334	4.6%	N69	213	2.9%
2018	N70	650	9.2%	795	501	7.1%	885	367	5.2%	871	350	5.0%	N69	216	3.1%
2019	N70	652	9.2%	795	451	6.3%	885	386	5.4%	871	377	5.3%	N68	237	3.3%
2020	N70	615	9.1%	795	441	6.6%	871	409	6.1%	885	382	5.7%	N68	248	3.7%
2021	N70	591	8.0%	885	463	6.3%	871	434	5.9%	177	403	5.5%	795	370	5.0%

177 = respiratory infections and inflammations with MCC
392 = esophagitis, gastroenteritis and miscellaneous digestive disorders without MCC
795 = normal newborn
871 = septicemia or severe sepsis without MV >96 hours with MCC
885 = psychoses
N67 = Cesarean section with/without sterilization with CC/MCC
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

Among NHOPI inpatients, three DRGs ranked in the top five in 2010 but were there consistently throughout all years: DRG N68 (Cesarean section with/without sterilization without CC/MCC), DRG N67 (Cesarean section with/without sterilization with CC/MCC), and DRG 885 (psychoses).

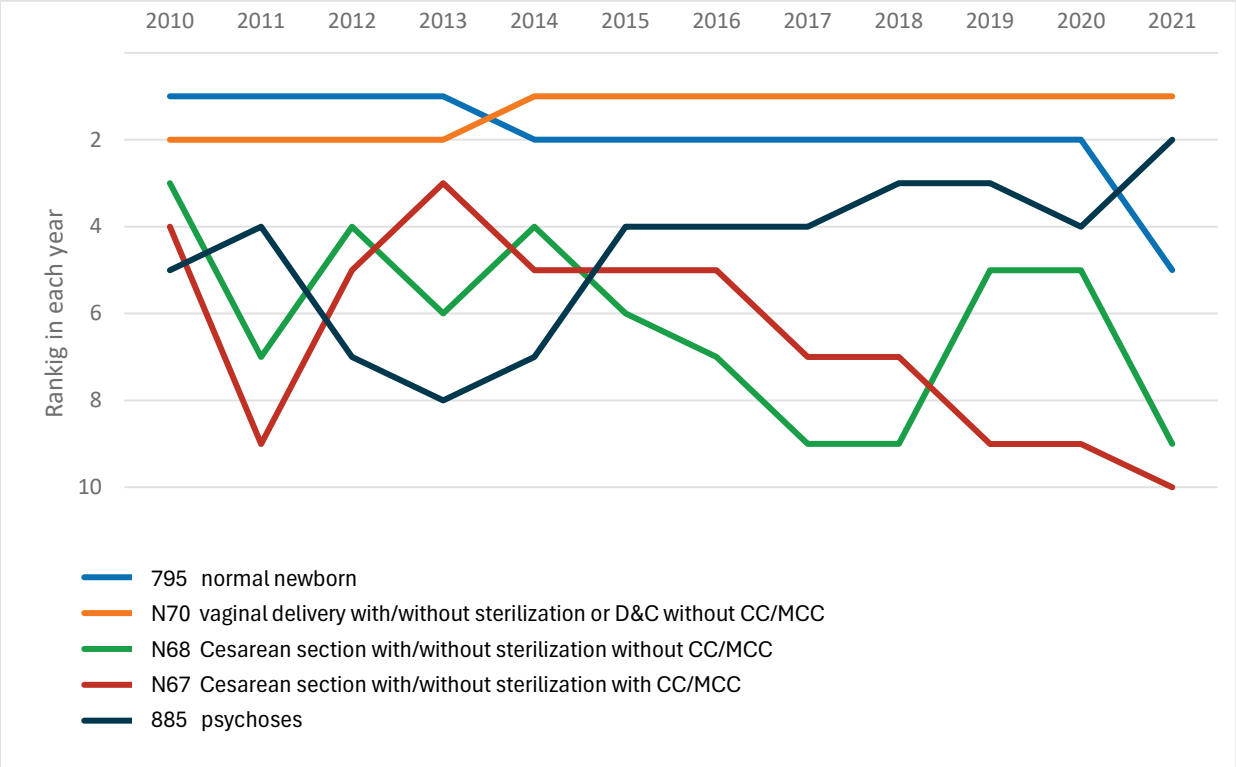
DRG N68 started in 3rd place but moved in and out of the top five over time. By 2021, it had dropped to 9th place, its lowest ranking.

DRG N67 began in 4th place in 2010 and fluctuated throughout the following years. It fell to 5th place in 2011, moved up to 5th place and then 3rd place in the next two years, then dropped back to 5th place in 2014, staying in that position until 2016. From there, it declined steadily, reaching 10th place in 2021.

DRG 885 ranked 5th in 2010 and moved up to 4th place in 2011 but then fell to 8th place in the following two years. However, in 2015, it climbed back into 4th place and remained in the top five for the rest of the years, ultimately reaching its highest position of 2nd place in 2021.

These trends highlight the shifts in hospitalization patterns among NHOPI inpatients, with DRG 885 showing a significant rise over time while the two Cesarean-section-related DRGs saw more gradual declines.

Figure IV-11. Top five DRGs in 2010 and their rank changes in subsequent years: persons of Native Hawaiian/Other Pacific Islander race discharged from Washington hospitals, 2010-2021

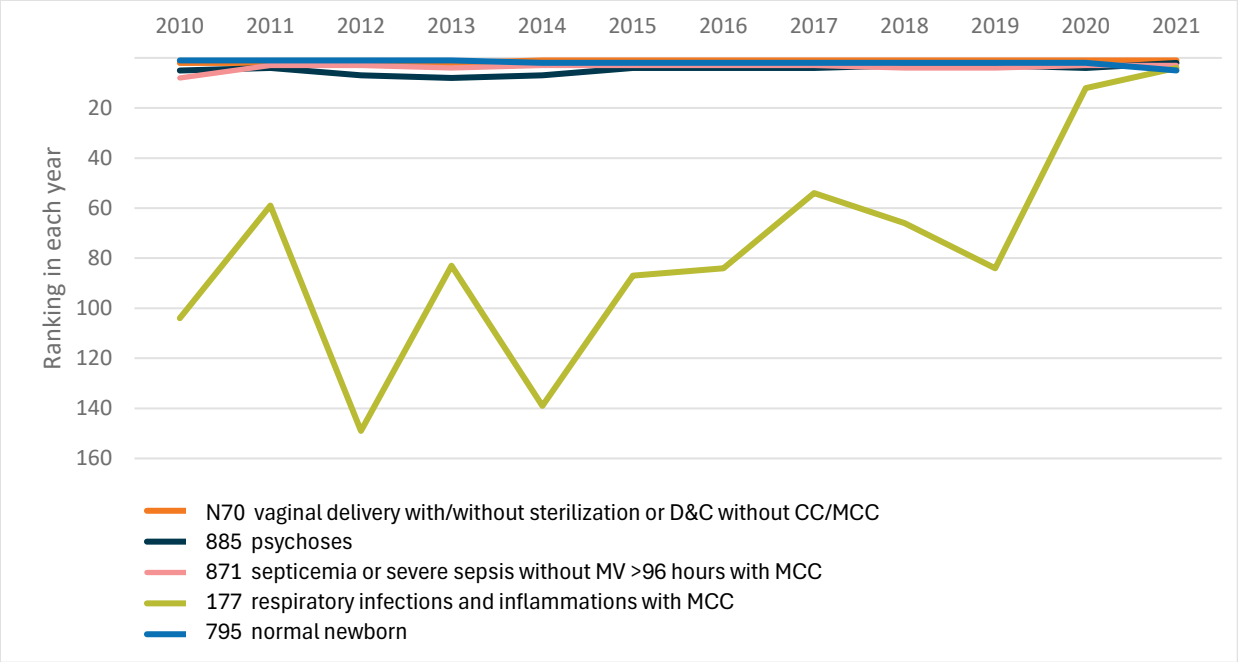


Among the top five DRGs in 2021 for NHOPI inpatients, three had not consistently been in the top five in all years: DRGs 885, 871, and 177. The ranking changes of DRG 885 were described earlier.

DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) was out of the top five only in 2010, when it ranked 8th. In all subsequent years, it remained within the top five, alternating between 4th and 3rd place, ultimately reaching 3rd place in 2021.

DRG 177 (respiratory infections and inflammations with MCC) had a much more volatile ranking history before 2020, fluctuating between 54th and 149th place. However, in 2020 and 2021, it rapidly climbed—first to 12th place in 2020 and then to 4th place in 2021. This surge was a direct result of the COVID-19 pandemic, which significantly increased hospitalizations for respiratory infections.

Figure IV-12. Prior rankings of 2021 top five DRGs: persons of Native Hawaiian/Other Pacific Islander race discharged from Washington hospitals, 2010-2021



Race group - White

Among inpatients identified as White, the top five DRGs remained relatively stable over the 2010-2021 period. While eight different DRGs appeared in the top five at some point, three consistently ranked in the top five every year, and two others appeared in all but one or two years.

The three DRGs that remained in the top five throughout the entire period followed these ranking trends:

- DRG 795 (normal newborn) started in 1st place but gradually declined to 3rd place by 2021.
- DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) moved from 2nd place to 1st, taking the top position in later years.
- DRG 885 (psychoses) held 4th place early on but dropped slightly to 5th place by 2021.

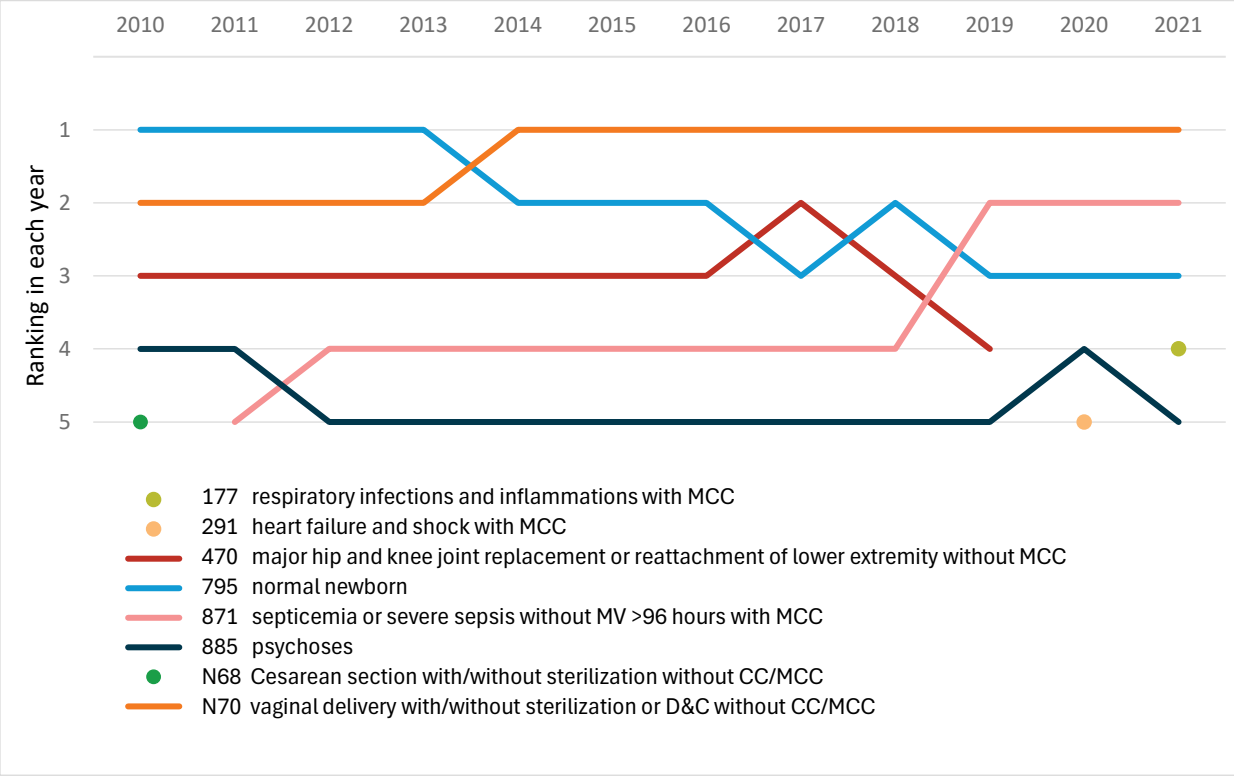
Two DRGs that appeared in the top five in nearly all years experienced notable shifts:

- DRG 470 (major hip and knee joint replacement or reattachment of lower extremity without MCC) held 3rd place in most years from 2010 to 2019 but dropped out of the top five entirely in 2020.

- DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) entered the top five in 2011 at 5th place and steadily moved up, reaching 2nd place in 2021.

These patterns highlight the continued prominence of birth-related hospitalizations and the increasing prevalence of septicemia cases in this population, while joint replacement procedures saw a decline in inpatient settings.

Figure IV-13. Top five DRGs among persons of White race discharged from Washington hospitals, 2010-2021



The share of patients in the top five DRGs among White inpatients showed a slight increase over time, rising from 21% in 2010 to 23% in the middle years before dipping slightly to 22% in 2021. The total number of patients from this racial group followed a similar pattern, growing from 92,400 in 2010 to over 110,000 during the middle years, then declining to 93,600 by 2021. This trend suggests that while the concentration of hospitalizations among the top five DRGs remained relatively stable, overall inpatient numbers fluctuated.

Table IV-5. Number and percent of persons of White race discharged from Washington hospitals by top five DRGs, 2010-2021

White	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	29,454	6.5%	N70	26,112	5.8%	470	18,288	4.1%	885	9,844	2.2%	N68	8,723	1.9%
2011	795	30,395	6.6%	N70	26,425	5.7%	470	19,166	4.2%	885	10,266	2.2%	871	9,417	2.0%
2012	795	31,437	6.6%	N70	28,129	5.9%	470	20,066	4.2%	871	11,841	2.5%	885	10,421	2.2%
2013	795	28,793	6.1%	N70	28,528	6.0%	470	21,780	4.6%	871	14,538	3.1%	885	10,027	2.1%
2014	N70	31,029	6.5%	795	27,628	5.8%	470	23,646	4.9%	871	17,668	3.7%	885	10,412	2.2%
2015	N70	30,713	6.3%	795	26,611	5.5%	470	24,782	5.1%	871	19,602	4.0%	885	10,956	2.3%
2016	N70	31,058	6.3%	795	26,712	5.5%	470	25,736	5.3%	871	19,449	4.0%	885	11,091	2.3%
2017	N70	30,463	6.2%	470	26,162	5.3%	795	24,606	5.0%	871	21,441	4.4%	885	11,944	2.4%
2018	N70	28,007	5.9%	795	22,884	4.8%	470	22,599	4.7%	871	21,103	4.4%	885	12,339	2.6%
2019	N70	25,248	5.4%	871	21,918	4.7%	795	20,687	4.4%	470	18,745	4.0%	885	13,571	2.9%
2020	N70	24,100	5.7%	871	20,072	4.8%	795	19,805	4.7%	885	14,454	3.4%	291	10,209	2.4%
2021	N70	23,199	5.5%	871	20,155	4.7%	795	19,502	4.6%	177	15,433	3.6%	885	15,274	3.6%

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

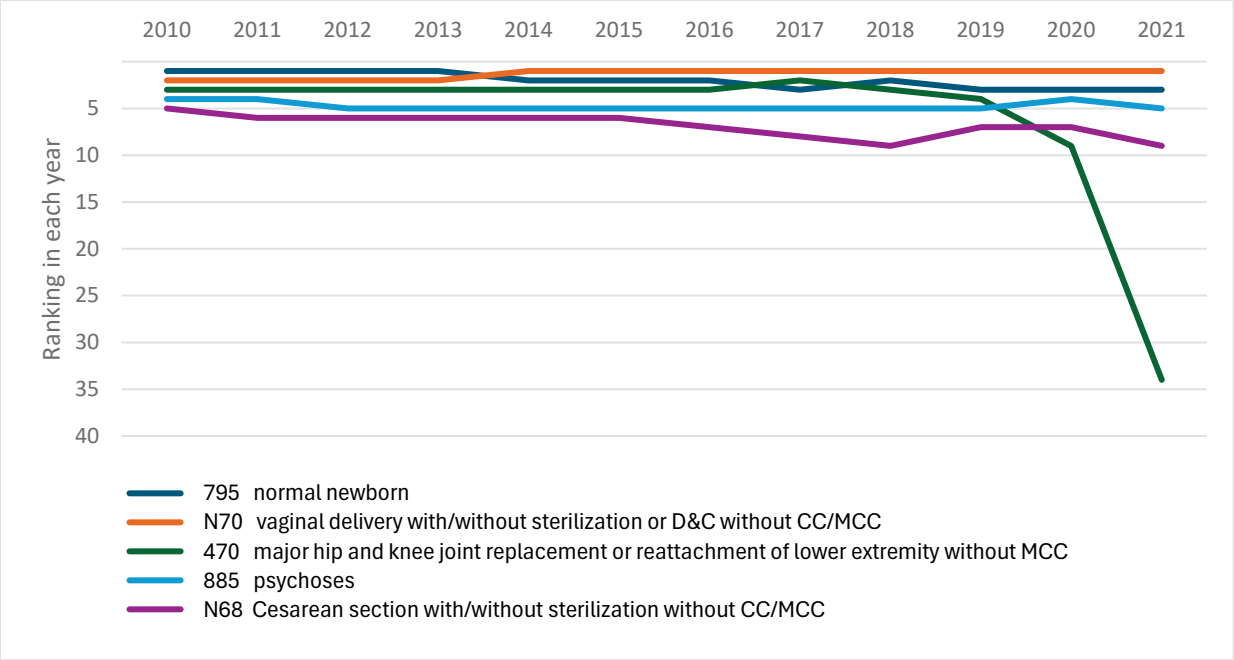
DRGs 470 and N68 were the only two DRGs in the 2010 top five that dropped out by 2021. In 2010, they ranked 3rd and 5th, respectively.

DRG 470 (major hip and knee joint replacement or reattachment of the lower extremity without MCC) held its top five position until 2020, when its ranking dropped from 4th place in the previous year to 9th place, and then further to 34th place in 2021. This sharp decline in the last two years was primarily due to the halt of elective surgeries—including most DRG 470 cases—during the COVID-19 pandemic.

DRG N68 (Cesarean section with/without sterilization without CC/MCC) exited the top five soon after 2010 but did not drop significantly. It consistently ranked between 6th and 9th place over the years, with its lowest ranking of 9th place occurring in 2021.

These shifts reflect how the pandemic disrupted hospital utilization patterns, particularly for elective procedures, while birth-related DRGs remained relatively stable within the top rankings.

Figure IV-14. Top five DRGs in 2010 and their rank changes in subsequent years: persons of White race discharged from Washington hospitals, 2010-2021



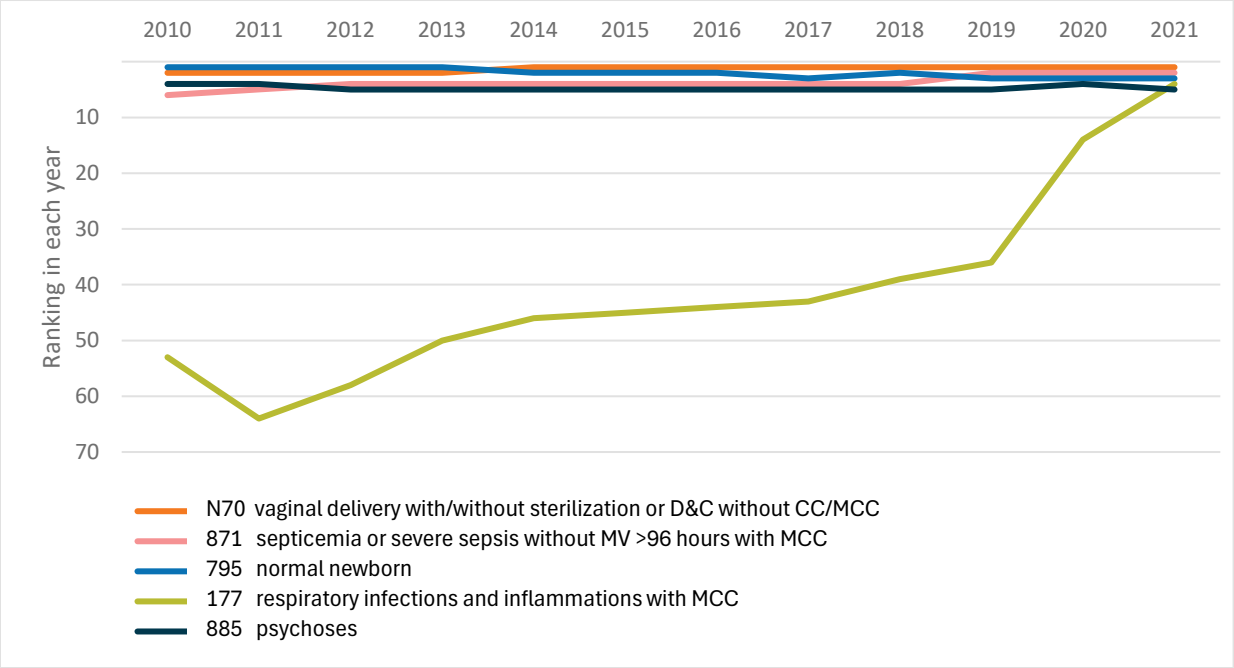
Among White inpatients, the only two DRGs that ranked in the top five in 2021 but had not been in the top five in 2010 were DRGs 871 and 177.

DRG 871 (septicemia or severe sepsis without MV >96 hours with MCC) ranked 6th in 2010, its only year outside the top five. From there, it steadily ascended, reaching 2nd place in 2021, reflecting an increasing prevalence of severe infections over time.

DRG 177 (respiratory infections and inflammations with MCC) remained far outside the top five before 2020, with rankings fluctuating between 36th and 64th place. However, the COVID-19 pandemic in 2020 and 2021 caused a sharp increase in hospitalizations for respiratory conditions, pushing DRG 177 up to 14th place in 2020 and then further to 4th place in 2021.

These shifts underscore the impact of broader health trends and external events—especially the pandemic—on hospitalization patterns for this population.

Figure IV-15. Prior rankings of 2021 top five DRGs: persons of White race discharged from Washington hospitals, 2010-2021



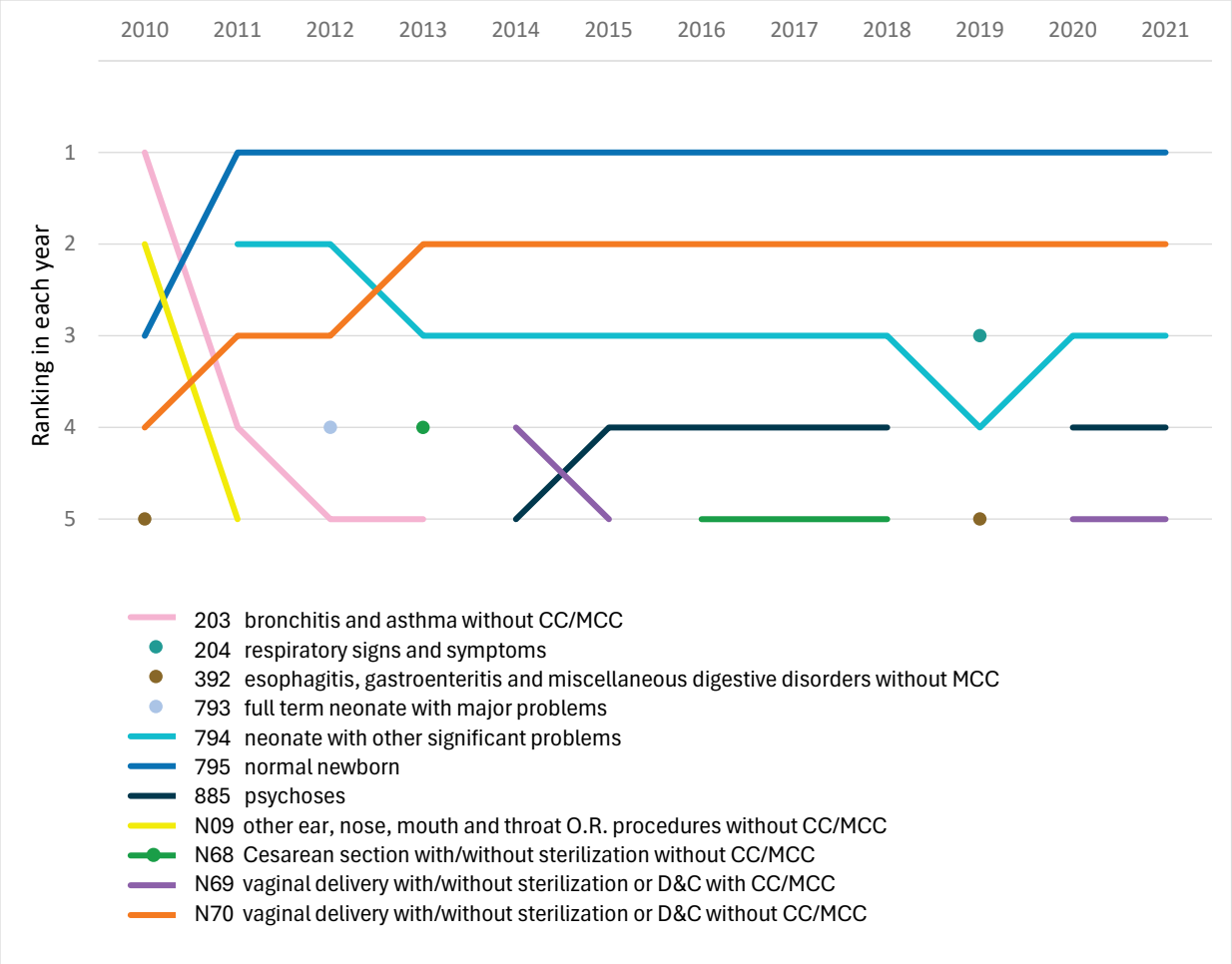
Race group - Two or more races

Among hospital patients who identified with two or more races, a total of eleven different DRGs ranked in the top five at least once between 2010 and 2021. However, only two of these DRGs consistently ranked in the top five for all years: DRGs 795 and N70.

DRG 795 (normal newborn) held 3rd place only in 2010 and held 1st place for the remaining years, reflecting its continued prominence in hospitalizations for this group. DRG N70 (vaginal delivery with/without sterilization or D&C without CC/MCC) started in 4th place in 2010, moved up to 2nd place in 2013, and remained there through 2021.

Additionally, DRG 794 (neonate with other significant problems) ranked in the top five every year except for the first, further reinforcing the dominance of birth-related hospitalizations within this patient population.

Figure IV-16. Top five DRGs among persons of two or more races discharged from Washington hospitals, 2010-2021



The number of patients in the top five DRGs among those identifying with two or more races increased significantly over time, rising from 120 in 2010 to 1,700 in 2021. However, the share of total inpatients represented by the top five DRGs did not follow the same upward trajectory. Apart from 2010, when the share was notably high, the percentage gradually declined from above 35% in the early years to below 30% in later years. This suggests that while hospitalizations within the top five DRGs grew in absolute numbers, the overall inpatient population of this race group expanded at a faster rate, leading to a relative decrease in the concentration of hospitalizations within these top-ranked conditions.

Table IV-6. Number and percent of persons of two or more races discharged from Washington hospitals by top five DRGs, 2010-2021

2+ race	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	203	29	4.8%	N09	28	4.6%	795	27	4.4%	N70	23	3.8%	392	14	2.3%
2011	795	190	17.0%	794	69	6.2%	N70	68	6.1%	203	43	3.8%	N09	28	2.5%
2012	795	358	20.5%	794	119	6.8%	N70	99	5.7%	793	49	2.8%	203	45	2.6%
2013	795	289	15.2%	N70	137	7.2%	794	108	5.7%	N68	52	2.7%	203	47	2.5%
2014	795	378	14.1%	N70	241	9.0%	794	149	5.5%	N69	80	3.0%	885	63	2.3%
2015	795	400	12.1%	N70	286	8.7%	794	132	4.0%	885	92	2.8%	N69	90	2.7%
2016	795	424	11.1%	N70	378	9.9%	794	175	4.6%	885	127	3.3%	N68	99	2.6%
2017	795	473	10.4%	N70	410	9.0%	794	220	4.9%	885	175	3.9%	N68	109	2.4%
2018	795	527	10.4%	N70	503	10.0%	794	249	4.9%	885	201	4.0%	N68	134	2.7%
2019	795	545	7.8%	N70	477	6.8%	204	295	4.2%	794	200	2.9%	392	199	2.8%
2020	795	555	9.4%	N70	528	9.0%	794	256	4.4%	885	242	4.1%	N69	179	3.0%
2021	795	522	9.2%	N70	403	7.1%	794	300	5.3%	885	246	4.3%	N69	188	3.3%

203 = bronchitis and asthma without CC/MCC
204 = respiratory signs and symptoms
392 = esophagitis, gastroenteritis and miscellaneous digestive disorders without MCC
793 = full term neonate with major problems
794 = neonate with other significant problems
795 = normal newborn
885 = psychoses
N09 = other ear, nose, mouth and throat O.R. procedures without CC/MCC
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

Among inpatients who identified with two or more races, four DRGs ranked in the top five in 2010 but dropped off the list by 2021.

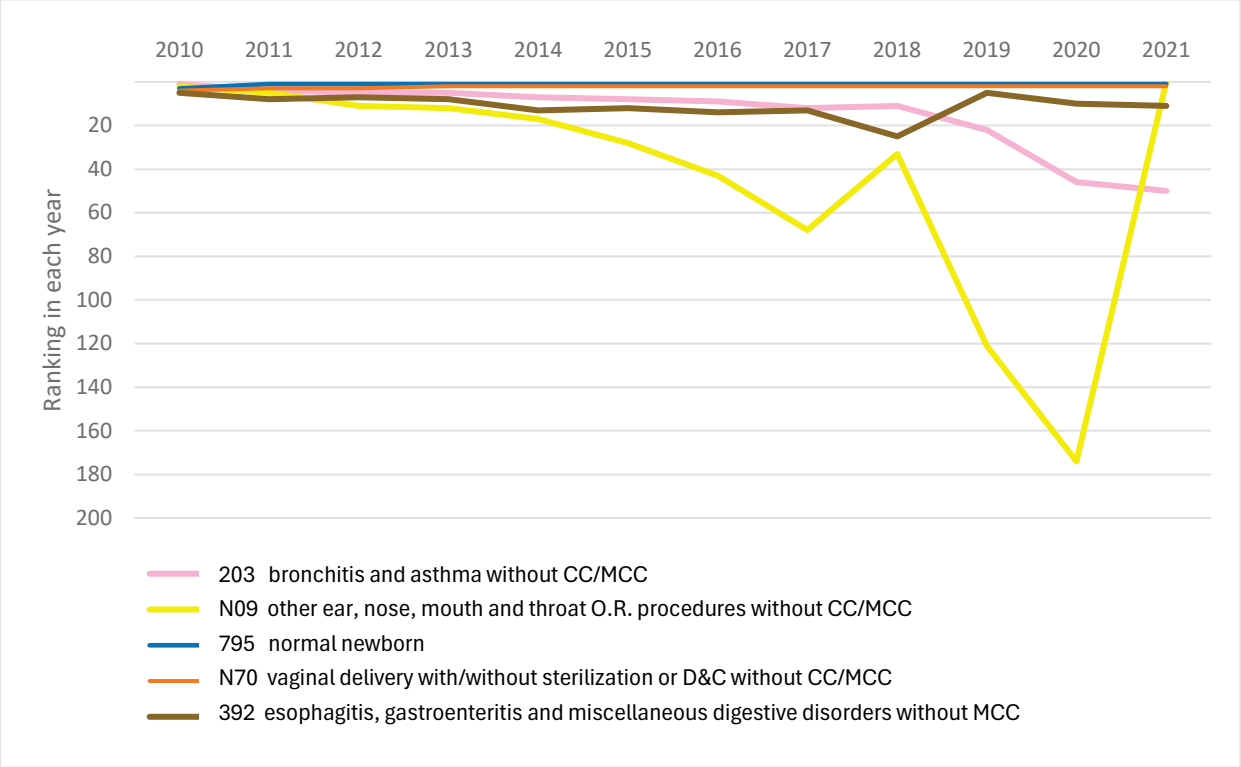
DRG 203 (bronchitis and asthma without CC/MCC) held 1st place in 2010 but steadily declined from 2011 onward, ultimately falling to 50th place by 2021.

DRG N09 (other ear, nose, mouth, and throat O.R. procedures without CC/MCC) ranked 3rd in 2010, dropped to 5th place in 2011, and then exited the top five altogether. By 2020, it had fallen significantly to 174th place. In 2021, no ranking was reported for this DRG, as no patients were associated with it that year.

DRG 392 (esophagitis, gastroenteritis, and miscellaneous digestive disorders without MCC) was in 5th place in 2010 before declining to 25th place by 2018. In 2019, however, it made a surprising resurgence back to 5th place, only to drop again to 11th place in the following two

years. The sudden increase in 2019 remains unexplained, suggesting the need for further examination of factors influencing hospitalization trends for this DRG among this patient group.

Figure IV-17. Top five DRGs in 2010 and their rank changes in subsequent years: persons of two or more races discharged from Washington hospitals, 2010-2021

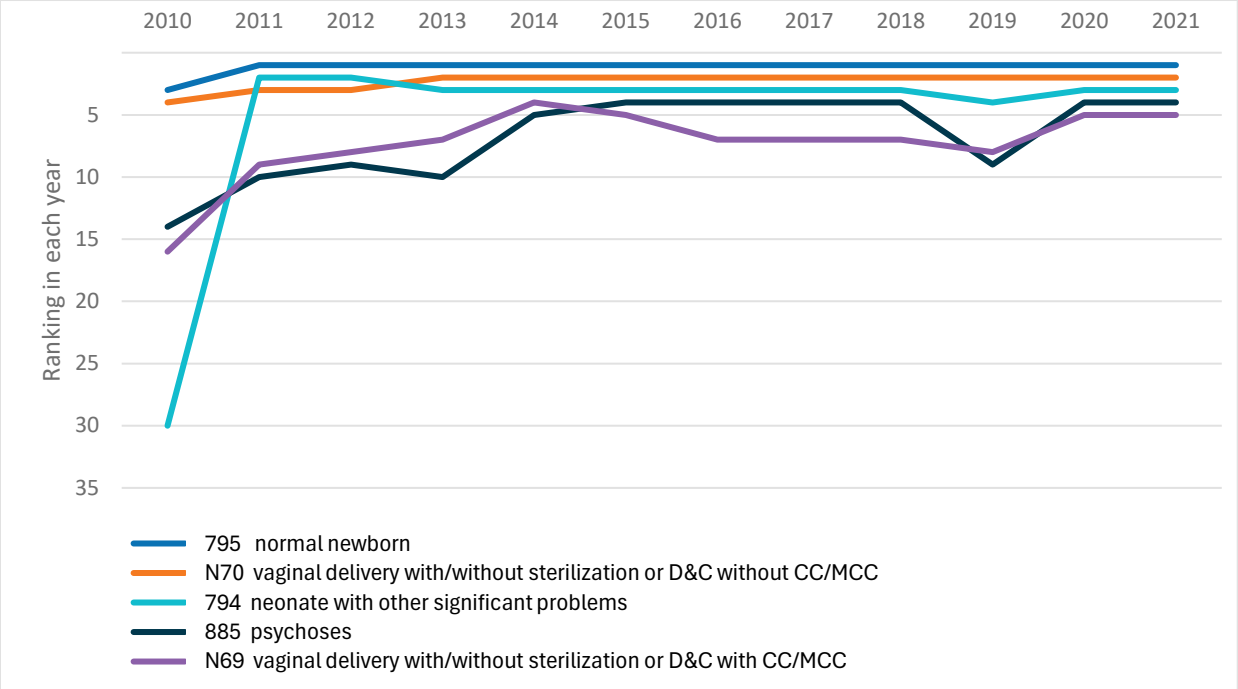


Three of the top five DRGs in 2021 for those identified with two or more races were not in the 2010 top five DRGs.

The dramatic rise of DRG 794 (neonate with other significant problems) from 30th place in 2010 to 3rd place in 2011 is a unique trend not observed in other demographic groups. This sharp single-year shift may suggest a potential data quality issue in race identification for 2011, particularly affecting smaller race groups. Ever since 2011, DRG 794 moved between 2nd place and 4th place.

DRG 885 (psychoses) steadily climbed from 14th place in 2010 to 4th place in 2021, reflecting an increasing prevalence of hospitalizations for psychiatric conditions over time. DRG N69 (vaginal delivery with/without sterilization or D&C with CC/MCC) followed a similar upward trajectory, moving from 16th place in 2010 to 5th place in 2021.

Figure IV-18. Prior rankings of 2021 top five DRGs: persons of two or more races discharged from Washington hospitals, 2010-2021



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