

WASHINGTON STATE DEPARTMENT OF HEALTH
 CHARS 2009 Full Year Data Release
 ANALYSIS OF DATA VARIABLES

INPATIENT DISCHARGE DATA NOTES:

The 2009Q4 dataset is the first full year of data reported using only the CHARS UB04 system and the CMS 837 4010A1 file format with state added elements. The data were formatted to meet confidentiality and reporting requirements.

DRG and DRG_FWD: DOH uses the 3M version of the Medicare grouper. The DRG field is the date sensitive DRG (Version 26 of MS-DRG [01/2009-09/2009] or V27 MS-DRG [10/2009-12/2009]). The DRG_FWD is the discharge as grouped using the MS-DRG version 27.

HOSPITAL PROVIDED NOTES:

Olympic Medical Center: "we continue to have 5 records which are unable to be submitted due to missing physician dictation. Please note our file accordingly"
 Skagit Valley, Kadlec and Kennewick are investigating missing 2008 and/or 2009 discharges.

The following fields are based on 2009FY forward mapped DRG V27(DRG-FWD):

- DRG-WT: Washington State Specific DRG weights.
- AVG_LOS: DRG-FWD average length of stay.
- OUTLIER: Not used until the full year release.
- EXCLUDE: Not used until the full year release.
- MDC-FWD: Not used until the full year release.

Pub2009 Field Names in order

Order	Field Name						
1	SEQ_NO	21	PAYER1	43	PROCCNT	64	DRG
2	REC_KEY	22	PAYER2	44	PROC1	65	MDC
3	STAYTYPE	23	PAYER3	45	PROC2	66	AVG_LOS
4	HOSPITAL	24	DIAGCNT	46	PROC3	67	DRG_WT
5	LINENO	25	DIAG1	47	PROC4	68	OUTLIER
6	ZIPCODE	26	DIAG2	48	PROC5	69	EXCLUDE
7	STATERES	27	DIAG3	49	PROC6	70	DRG_FWD
8	COUNTRYRES	28	DIAG4	50	PRDAY1	71	MDC_FWD
9	COUNTRY	29	DIAG5	51	PRDAY2	72	ECODECNT
10	AGE	30	DIAG6	52	PRDAY3	73	ECODE1
11	SEX	31	DIAG7	53	PRDAY4	74	POAE1
12	ADM_HR	32	DIAG8	54	PRDAY5	75	ECODECAL
13	DIS_DATE	33	DIAG9	55	PRDAY6	76	DRG2
14	DIS_HR	34	POA1	56	IDATTEND	77	DRG_WT2
15	LENSTAYD	35	POA2	57	IDATT_S	78	HISPANIC
16	LENSTAYH	36	POA3	58	IDOPERAT	79	RACE_WHT
17	ADM_TYPE	37	POA4	59	IDOPER_S	80	RACE_BLK
18	ADM_SRC	38	POA5	60	IDOTHER1	81	RACE_AMI
19	STATUS	39	POA6	61	IDOTH1_S	82	RACE_ASI
20	CHARGES	40	POA7	62	IDOTHER2	83	RACE_HAW
		41	POA8	63	IDOTH2_S	84	DRG_POA
		42	POA9			85	MDC_POA

Please note there are separate tables for all reported diagnosis, procedures, E codes, and revenue data. See the end of these notes for comments on those tables.

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NOTES FOR EACH DATA ELEMENT

SEQUENCE NUMBER

There are 652,876 sequence numbers in order starting with 2009000001.

RECORD KEY

There are no values out of range or missing. All records were submitted in the UB04 format.

STAY TYPES

There are no values out of range or missing. 1 = Inpatient. Observation records which are coded as 2 are in other files.

HOSPITAL

There are no values out of range or missing. See HospitalDirectory2009.xls.

CHARS Unit Type	Units	Disch	Pat Days	Charges	Average		
					Stay	\$ per Stay	\$ per Day
Acute Care	92	631,974	2,420,061	18,192,490,828	3.83	28,786.77	7,517.37
Psychiatric	3	4,087	41,770	90,315,078	10.22	22,098.13	2,162.20
Psychiatric Unit	15	10,085	99,983	237,802,904	9.91	23,579.86	2,378.43
Rehabilitation Unit	19	5,157	67,677	220,501,059	13.12	42,757.62	3,258.14
Swing Bed Unit	28	1,573	34,179	23,601,148	21.73	15,003.91	690.52
Total	157	652,876	2,663,670	18,764,711,017	4.08	28,741.62	7,044.68

LINENO

There are no values out of range or missing. Also note that Revenue code data is no longer rolled up for those discharges with more than 40 codes. There are 17,751 discharges with more than 40 revenue codes. There is an average of 15.1 revenue codes per discharge.

ZIP CODE

There are 509 records with different issues as described in the table.

PatientZipCode	Description	Count
99998	Homeless	76
99999	Unknown	141
NULL	No Zip Needed-Patient from outside the US	272
Various	Probable Invalid	20
Total		509

There are 20 zip codes that seem not to be associated with a city. The rest of the values are valid zip code ranges.

STATE RESIDENCE

There are 413 records with value (XX), either because the patient was from outside the United States or the zip code was 99998 – homeless or 99999 – unknown or in error. Those in error appear on the respective hospitals errors to be corrected list. The rest of the values are all valid state or other (Military) codes.

COUNTY RESIDENCE

There are 21,503 records with no value (00) because the zip code was outside Washington State. There are 81 values of “99” out of range or missing and the zip code

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error appears on the respective hospitals errors to be corrected list. No other values are out of range.

COUNTRY CODE

There are 652,575 records with no value because the patient was from inside the United States. There are 272 discharges with a country code other than US. There are 29 out of range values because they are coded as "US". The zip codes associated with the US are valid.

AGE

There are no values missing; 14 are greater than 107. The aggregate volume by single age is normal. Age group of 0 has 14.11% of the discharges (Newborns are included).

SEX

There are 3 values with "U" or unknown. These have all been verified by the hospital. The aggregate volume by sex is normal.

SEX	Disch	Pat Days	Charges	Average			Percent		
				Stay	\$ per Stay	\$ per Day	Disch	Pat Days	Charges
F	383,777	1,468,583	9,842,953,303	3.83	25,647.59	6,702.35	58.8%	55.1%	52.5%
M	269,096	1,195,064	8,921,724,767	4.44	33,154.43	7,465.48	41.2%	44.9%	47.5%
U	3	23	32,947	7.67	10,982.42	1,432.49	0.0%	0.0%	0.0%
Total	652,876	2,663,670	18,764,711,017	4.08	28,741.62	7,044.68	100%	100%	100%

ADMISSION HOUR

There are no values missing. Hour 05 had the largest volume with 5.8%.

DISCHARGE DATE

There are no values out of range or missing.

DIS_DATE	Days	Disch	Pat Days	Charges	Average			Avg per Day in Mo	
					Stay	\$ per Stay	\$ per Day	Disch	Days
01/2009	31	54,325	226,254	1,535,382,940.87	4.16	28,262.92	6,786.10	1,752.42	7,298.52
02/2009	28	50,356	208,996	1,400,915,322.09	4.15	27,820.23	6,703.07	1,798.43	7,464.14
03/2009	31	56,388	232,155	1,600,972,970.66	4.12	28,392.09	6,896.14	1,818.97	7,488.87
04/2009	30	54,979	223,387	1,543,940,353.18	4.06	28,082.37	6,911.50	1,832.63	7,446.23
05/2009	31	55,526	220,413	1,551,424,449.49	3.97	27,940.50	7,038.72	1,791.16	7,110.10
06/2009	30	54,363	220,676	1,569,280,774.47	4.06	28,866.71	7,111.24	1,812.10	7,355.87
07/2009	31	56,624	226,370	1,637,874,453.35	4.00	28,925.45	7,235.39	1,826.58	7,302.26
08/2009	31	55,171	221,645	1,571,284,840.10	4.02	28,480.27	7,089.20	1,779.71	7,149.84
09/2009	30	53,412	214,939	1,519,137,977.36	4.02	28,441.89	7,067.76	1,780.40	7,164.63
10/2009	31	56,167	230,880	1,653,145,867.64	4.11	29,432.69	7,160.20	1,811.84	7,447.74
11/2009	30	52,031	217,541	1,563,472,903.95	4.18	30,048.87	7,187.03	1,734.37	7,251.37
12/2009	31	53,534	220,414	1,617,878,163.51	4.12	30,221.51	7,340.18	1,726.90	7,110.13
Totals	365	652,876	2,663,670	18,764,711,016.67	4.08	28,741.62	7,044.68	1,788.70	7,297.73

DISCHARGE HOUR

There are no values missing. Central Washington Hospital seems to default some discharges to Hour 00. Hour 13 had the largest volume with 13.5%.

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LENGTH OF STAY – DAYS (LENSTAYD)

There are no values missing or out of range. There are four discharges with length of stay that is greater than 365 days. The aggregate volume by length of stay appears normal. LOSD of 4 or less constitute 76.74% of discharges.

LENGTH OF STAY – HOURS (LENSTAYH)

There are 115,066 records with no value, for one of two reasons, the length of stay was too long to have a useful stay in hours or the hospitals gave us a discharge hour that was before the admission hour for a same day discharge (See Discharge Hour). Hours of more than 140 are not reported. 26 Hours has the largest volume with 1.38%.

ADMIT TYPE

There are no values missing or out of range.

ADM_TYPE	Disch	Pat Days	Charges	Average			Percent		
				Stay	\$ per Stay	\$ per Day	Disch	Pat Days	Charges
1	241,034	1,066,388	7,304,780,882.61	4.42	30,306.02	6,850.02	36.9%	40.0%	38.9%
2	116,584	582,583	3,343,731,294.90	5.00	28,680.88	5,739.49	17.9%	21.9%	17.8%
3	208,328	749,327	7,031,115,754.85	3.60	33,750.22	9,383.24	31.9%	28.1%	37.5%
4	81,812	230,401	732,849,236.95	2.82	8,957.72	3,180.76	12.5%	8.6%	3.9%
5	5,118	34,971	352,233,847.36	6.83	68,822.56	10,072.17	0.8%	1.3%	1.9%
Total	652,876	2,663,670	18,764,711,016.67	4.08	28,741.62	7,044.68	100%	100%	100%

ADMIT SOURCE

There are no values missing or out of range.

ADM_SRC	Disch	Pat Days	Charges	Average		
				Stay	\$ per Stay	\$ per Day
Exclude Type=4 Newborn						
1	239,926	807,257	7,335,488,803.28	3.36	30,573.96	9,086.93
2	18,525	82,980	699,271,179.88	4.48	37,747.43	8,426.98
4	29,020	252,087	1,678,436,076.79	8.69	57,837.22	6,658.16
5	4,920	31,414	184,381,962.26	6.38	37,476.01	5,869.42
6	3,830	39,759	123,425,805.25	10.38	32,226.06	3,104.35
7	267,342	1,138,887	7,776,437,178.26	4.26	29,087.97	6,828.10
8	2,105	28,430	58,622,035.24	13.51	27,848.95	2,061.98
9	249	792	5,106,005.95	3.18	20,506.05	6,446.98
D	5,147	51,663	170,692,732.81	10.04	33,163.54	3,303.96
Total	571,064	2,433,269	18,031,861,780	4.26	31,575.90	7,410.55
Only Type=4 Newborn						
5	81,662	229,882	731,237,659.90	2.82	8,954.44	3,180.93
6	150	519	1,611,577.05	3.46	10,743.85	3,105.16
Total	81,812	230,401	732,849,237	2.82	8,957.72	3,180.76

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DISCHARGE STATUS

There are no values out of range. None are missing.

STATUS	Disch	Pat Days	Charges	Average		
				Stay	\$ per Stay	\$ per Day
01	506,858	1,674,197	11,774,619,531.00	3.30	23,230.61	7,033.00
02	10,215	52,104	372,234,086.65	5.10	36,439.95	7,144.06
03	54,002	388,371	2,619,494,777.44	7.19	48,507.37	6,744.83
04	2,369	14,455	72,472,123.16	6.10	30,591.86	5,013.64
05	2,374	18,025	81,683,984.62	7.59	34,407.74	4,531.71
06	42,118	259,188	1,865,673,036.78	6.15	44,296.33	7,198.15
07	4,627	14,237	74,770,146.52	3.08	16,159.53	5,251.82
09	10	42	129,448.74	4.20	12,944.87	3,082.11
20	12,691	91,744	893,017,729.50	7.23	70,366.22	9,733.80
21	143	614	4,636,657.23	4.29	32,424.18	7,551.56
30	164	17,568	8,731,385.89	107.12	53,240.16	497.01
43	382	2,140	18,898,493.58	5.60	49,472.50	8,831.07
50	4,015	24,211	131,389,406.19	6.03	32,724.63	5,426.85
51	2,386	16,441	97,260,245.75	6.89	40,762.89	5,915.71
61	969	5,675	19,375,946.74	5.86	19,995.82	3,414.26
62	6,485	55,239	538,951,455.49	8.52	83,107.39	9,756.72
63	651	12,034	119,795,102.95	18.49	184,017.06	9,954.72
64	154	1,590	11,592,880.24	10.32	75,278.44	7,291.12
65	2,169	15,411	57,926,512.48	7.11	26,706.55	3,758.78
66	94	384	2,058,065.72	4.09	21,894.32	5,359.55
Total	652,876	2,663,670	18,764,711,017	4.08	28,741.62	7,044.68

CHARGES

There are no discharges whose total charges value is zero or negative. There are 1,688 records where the charges are less than \$1 thousand. There are 215 records where the charges are more than \$1 million. There are no records where the detail does not match the totals.

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PAYER 1

There are no records with an out of range value.

PAYER1	Disch	Pat Days	Charges	Average		
				Stay	\$ per Stay	\$ per Day
001	203,918	996,448	7,191,614,459.80	4.89	35,267.19	7,217.25
002	132,245	548,422	3,140,964,504.04	4.15	23,751.10	5,727.28
004	53,240	188,644	1,425,413,958.41	3.54	26,773.37	7,556.11
006	114,063	391,691	2,562,955,515.52	3.43	22,469.65	6,543.31
008	5,480	19,221	239,300,140.83	3.51	43,667.91	12,449.93
009	17,805	70,105	473,096,220.77	3.94	26,570.98	6,748.39
610	109,304	385,630	3,272,523,763.58	3.53	29,939.65	8,486.18
625	11,548	44,887	319,965,732.41	3.89	27,707.46	7,128.25
630	5,273	18,622	138,876,721.31	3.53	26,337.33	7,457.67
Total	652,876	2,663,670	18,764,711,017	4.08	28,741.62	7,044.68

PAYER 2

There are 184,322 values in this file which is normal.

PAYER 3

There are 10,531 values in this file which is normal.

DIAGNOSIS CODE COUNT (DIAGCNT)

There are 12 records with an out of range value (null) which were on the error rpt.

DIAGCNT	Count	Pat Days	Charges	Average			Percent		
				Stay	\$ per Stay	\$ per Day	Disch	Pat Days	Charges
0	12	65	490,008.25	5.42	40,834.02	7,538.59	0.00%	0.00%	0.00%
1	48,448	94,989	484,329,494.52	1.96	9,996.89	5,098.80	7.42%	3.57%	2.58%
2	67,094	141,963	829,580,787.72	2.12	12,364.46	5,843.64	10.28%	5.33%	4.42%
3	61,901	151,983	1,028,023,955.38	2.46	16,607.55	6,764.07	9.48%	5.71%	5.48%
4	57,076	156,040	1,161,314,638.82	2.73	20,346.81	7,442.42	8.74%	5.86%	6.19%
5	51,270	154,842	1,175,644,857.28	3.02	22,930.46	7,592.55	7.85%	5.81%	6.27%
6	46,483	157,033	1,177,980,488.64	3.38	25,342.18	7,501.48	7.12%	5.90%	6.28%
7	41,453	150,618	1,126,235,371.04	3.63	27,168.97	7,477.43	6.35%	5.65%	6.00%
8	37,486	145,225	1,084,079,710.58	3.87	28,919.59	7,464.83	5.74%	5.45%	5.78%
9	39,849	183,668	1,256,978,800.99	4.61	31,543.55	6,843.76	6.10%	6.90%	6.70%
10	30,253	138,023	982,553,759.00	4.56	32,477.90	7,118.77	4.63%	5.18%	5.24%
11	25,200	118,092	853,079,089.52	4.69	33,852.34	7,223.85	3.86%	4.43%	4.55%
12	22,728	114,241	829,214,636.29	5.03	36,484.28	7,258.47	3.48%	4.29%	4.42%
13	20,897	114,238	797,471,745.66	5.47	38,162.02	6,980.79	3.20%	4.29%	4.25%
14	23,476	147,134	1,116,612,485.56	6.27	47,564.00	7,589.09	3.60%	5.52%	5.95%
15	30,138	211,005	1,460,774,795.13	7.00	48,469.53	6,922.94	4.62%	7.92%	7.78%
16	8,755	63,002	427,697,370.02	7.20	48,851.78	6,788.63	1.34%	2.37%	2.28%
17	8,272	64,752	426,670,338.77	7.83	51,580.07	6,589.30	1.27%	2.43%	2.27%
18	8,607	93,988	656,068,318.61	10.92	76,224.97	6,980.34	1.32%	3.53%	3.50%
19	4,481	35,230	245,623,198.28	7.86	54,814.37	6,971.99	0.69%	1.32%	1.31%
20	3,706	31,741	225,204,709.59	8.56	60,767.60	7,095.07	0.57%	1.19%	1.20%
21	3,384	32,016	220,769,989.76	9.46	65,239.36	6,895.61	0.52%	1.20%	1.18%
22	2,198	21,731	155,976,312.86	9.89	70,962.84	7,177.59	0.34%	0.82%	0.83%
23	2,013	19,974	135,948,291.29	9.92	67,535.17	6,806.26	0.31%	0.75%	0.72%
24	3,501	38,509	245,713,991.57	11.00	70,183.95	6,380.69	0.54%	1.45%	1.31%
25	4,195	83,568	660,673,871.54	19.92	157,490.79	7,905.82	0.64%	3.14%	3.52%
Total	652,876	2,663,670	18,764,711,016.67	4.08	28,741.62	7,044.68	100%	100%	100%

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DIAGNOSES CODES – PRINCIPAL AND OTHER (DIAG1-DIAG9)

There are 12 records with an out of range value (null). Fields are edited for presence of values and validity of value according to discharge date and version of ICD9-CM by 3M grouper software. Further analysis is inconclusive without access to individual patient medical records. NOTE: There is a separate table called C or SDIAG2009 that has all the diagnosis codes (up to 25) in the same sequence that they were reported to us. With the 837 file format we are able to accept up to 25 total diagnosis codes including the principal. The UB-04 paper form has room for 16.

Below are the top 14 principle diagnosis codes by volume.

DIAG1	SHORT DESCRIPTION	Disch	%of Total
V3000	Single lb in-hosp w/o cs	55856	8.56%
V3001	Single lb in-hosp w cs	23717	3.63%
486	Pneumonia, organism NOS	13028	2.00%
0389	Septicemia NOS	9706	1.49%
65421	Prev c-delivery-delivrd	9684	1.48%
66411	Del w 2 deg lacerat-del	8800	1.35%
71536	Loc osteoarth NOS-l/leg	8445	1.29%
41401	Crnry athrsc natve vssl	8379	1.28%
V5789	Rehabilitation proc NEC	6900	1.06%
49121	Obs chr bronc w(ac) exac	6597	1.01%
66401	Del w 1 deg lacerat-del	6450	0.99%
42731	Atrial fibrillation	6257	0.96%
64511	Post term preg-del	6173	0.95%
41071	Subendo infarct, initial	6132	0.94%

PRESENT ON ADMISSION–PRINCIPAL DIAGNOSIS & OTHER (POA1-POA9)

There are 72,108 missing values in the POA of the principal diagnosis field. Some ICD-9 codes are exempt and so null or 1 is a valid qualifier. NOTE: There is a separate table called C or SDIAG2009 that has all the POA codes (up to 25) in the same sequence that they were reported to us.

POA1	Count	Pat Days	Charges	Average		
				Stay	\$ per Stay	\$ per Day
	72,108	374,235	2,448,436,700.88	5.19	33,955.13	6,542.51
I	89,805	335,217	1,199,475,242.60	3.73	13,356.44	3,578.21
N	23,890	50,839	266,870,601.38	2.13	11,170.81	5,249.33
U	9,370	28,100	71,351,618.20	3.00	7,614.90	2,539.20
W	359	709	2,942,186.29	1.97	8,195.50	4,149.77
Y	457,344	1,874,570	14,775,634,667.32	4.10	32,307.49	7,882.15
Total	652,876	2,663,670	18,764,711,016.67	4.08	28,741.62	7,044.68

PROCEDURE CODE COUNT (PROCCNT)

There are 244,493 records which do not have a procedure code. This is normal. There are 22,809 records with more than 6 procedures. For those discharges with a procedure code there is an average of 2.52.

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PROCEDURES CODES (PROC1-PROC6)

There are 244,493 records which do not have a procedure code. This is normal. There are no out of range values. Fields are edited for presence of values and validity of value according to discharge date and version of ICD9-CM. Further analysis is inconclusive without access to individual patient medical records. NOTE: There is a separate table called C or SPPROC2009 that has all the procedure codes (up to 25) in the same sequence that they were reported to us.

PROCEDURES DAY (PRDAY1-PRDAY6)

There are 245,484 records which do not have a PRDAY1 code. This is normal. NOTE: There is a separate table called C or SPPROC2009 that has all the procedure day (up to 25) in the same sequence that they were reported to us. Hospitals report the actual day of the procedure to CHARS which is converted to the day within the stay.

ATTENDING PHYSICIAN

There are 16 records which do not have an identification code. These are errors which the respective hospitals did not correct. There are no other missing values. There are 119 values which are not valid identification codes.

ATTENDING PHYSICIAN – SOURCE

There are 16 discharges with no value and 119 discharges with Other ID. There are values which are not valid identification codes.

OPERATING PHYSICIAN

There are 244,315 discharges with no value. This is normal.

OPERATING PHYSICIAN - SOURCE

There are 244,315 discharges with no values and 39 discharges with Other ID. These are values which are not valid identification codes.

OTHER PROVIDER - 1

There are 508,195 discharges with no values in this element.

OTHER PROVIDER – 1 - SOURCE

There are 508,244 discharges with no values in this file. There no discharges with Other ID. These are values which are not valid identification codes.

OTHER PROVIDER - 2

There are 588,369 discharges with no value in this file.

OTHER PROVIDER – 2 - SOURCE

There are 596,645 discharges with no values in this file. There are no discharges with Other ID. There are values which are not valid identification codes.

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DRG – DATE SENSITIVE (DRG)

MS-DRG V26 – January through September 2009

There are 4 cases grouped as DRG 999 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed. There are no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not corrected by the hospital.

MS-DRG V27 – October through December 2009

There are 12 cases grouped as DRG 999 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed. There are no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not corrected by the hospital.

MDC – DATE SENSITIVE (MDC)

MS-DRG V26 – January through September 2009

There are 4 cases are grouped as MDC 00 DRG 999 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed. There are no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not corrected by the hospital. DRG Version 26 is used.

MS-DRG V27 – October through December 2009

There are 12 cases are grouped as MDC 00 DRG 999 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed. There are no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not corrected by the hospital. DRG Version 26 is used.

DRG and MDC relationship with Pre-MDC–calculated using MS-DRG V27

Patients having Heart Transplant or Implant of Heart Assist System, Liver Transplant and/or intestinal Transplant, Bone Marrow Transplant, Tracheostomy for Face, Mouth and Neck Diagnosis, Lung Transplant, Simultaneous Pancreas/Kidney Transplant, Pancreas Transplant, ECMO, or Tracheostomies with MV 96+ Hours or PDX Except Face, Mouth, Neck are categorized as PRE MDC (00), and are assigned by the DRG Grouper into the following DRGs independent of the MDC of the principal diagnosis.

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2009 Full Year MS-DRG V27 Forward mapped																										
DRG	MDC																									Total
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	25			
001			1	1	72			1																		75
002					23																					23
003	170	1	13	94	125	55	13	31	2	10	5		2	4	15	5	6	62		1	16	9	1		640	
004	63	1	14	251	28	7	16	8	4	6	5		1		8		5	102	1	1	12	1	2		536	
005						1	56			1	1														59	
006							28																		28	
007				33	1	1		3		5															43	
008												22													22	
009	10			1	2	9	1	8		6	1	7				46	259	2							352	
010	1							1				2													4	
011			56			1		1		1								3							62	
012			100	4		2		4	1																111	
013			40	2						1															43	
Total	244	2	224	386	251	76	115	56	7	30	36	7	3	4	23	51	273	166	1	2	28	10	3		1,998	

AVERAGE LENGTH OF STAY—calculated using forward mapped MS-DRG V27

There are 102 discharges without an average length of stay because the assignment could not be calculated for one of several reasons including the ICD9 code was split or there were 10 or fewer cases. The values were calculated using 2009 full year data.

DIAGNOSIS RELATED GROUP WEIGHT—calculated using forward mapped MS-DRG V27

There are 102 discharges without a Diagnosis Related Group Weight because the assignment could not be calculated for one of several reasons including the ICD9 code was split or there were 10 or fewer cases. The values were calculated using 2009 full year forward mapped data.

AVG LOS	Case-Mix	Wght Dsch	Wght Sum	AVG LOS	Case-Mix	Wght Dsch	Wght Sum
1	0.8002	20,814	16,655.03	14	1.2773	2,069	2,642.83
2	0.5050	231,724	117,010.24	15	5.3774	3,209	17,256.07
3	0.9097	164,253	149,424.90	16	5.8130	114	662.68
4	0.9395	85,605	80,430.01	17	3.0736	1,584	4,868.55
5	1.2215	57,492	70,227.20	18	2.9967	59	176.80
6	1.7464	27,156	47,425.53	19	7.6793	90	691.14
7	1.9334	13,511	26,122.75	21	7.7580	545	4,228.11
8	3.0231	4,276	12,926.76	23	12.4377	148	1,840.78
9	1.2191	16,976	20,694.62	31	10.3510	536	5,548.11
10	3.2727	4,324	14,151.34	36	8.1461	1,268	10,329.25
11	3.1838	4,072	12,964.34	39	17.1401	640	10,969.66
12	4.3464	1,573	6,836.82	52	19.3059	31	598.48
13	2.5152	10,630	26,736.20	60	31.6819	75	2,376.14

OUTLIER—calculated using forward mapped MS-DRG V27

There are 27,679 discharges with an Outlier code due to high or low charges or high or low length of stay or combination of the two. This means the discharge was not used to calculate the DRG weight or average length of stay. There are nine different outlier codes. See the file layout for more explanations.

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EXCLUDE—calculated using forward mapped MS-DRG V27

There are 39,978 discharges with an Exclude code. This means the discharge was not used to calculate the DRG weight or average length of stay. There are six different exclude codes. The codes relate to patient transfer, Group Health patients and DRG volumes. See the file layout for more explanations.

DRG – FORWARD MAPPED

MS-DRG V27 – All of 2009– (Oct-Dec will be the same as date sensitive)

There are 15 cases grouped as MDC 00 DRG 999 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed or the ICD9 code was split October 1, 2009. There is no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not. DRG Version 27 is used.

MDC – FORWARD MAPPED

MS-DRG V27 – All of 2009 – (Oct-Dec will be the same as date sensitive)

There are 15 cases grouped as MDC 00 (Ungroupable) because these uncorrected records are missing a principal diagnosis or have problems with the combination of diagnosis codes listed or the ICD9 code was split October 1, 2009. There is no other out of range or missing values. These uncorrected errors appeared on the respective hospitals errors to be corrected list but were not. DRG Version 27 is used.

EXTERNAL CAUSE OF INJURY CODE COUNT (ECODECNT)

There are 554,597 records which do not have a value which is normal. There are 98,297 discharges with values in this file. This is normal. There are five discharges with six E codes.

EXTERNAL CAUSE OF INJURY CODE (ECODE1)

There are 554,597 records which do not have a value which is normal. There are 98,279 records with values. NOTE: There is a separate table called C or SECODE2009 that has all the ECODES (up to 6) in the same sequence that they were reported to us.

PRESENT ON ADMISSION – E-CODE (POAE1)

There are 571,603 records which do not have a value which is normal. There are 81,273 values in the principal E-code field; there are POA values for “other” diagnosis codes. NOTE: There is a separate table called C or SECODE2009 that has all the POAE (up to 6) in the same sequence that they were reported to us.

EXTERNAL CAUSE OF INJURY CODE - DOH CALCULATED (ECODECAL)

There are 552,412 records which do not have a value which is normal. There are 100,464 values in the ECODECAL field. These values are calculated by DOH staff based on the diagnosis codes. See the file layout for more information.

DIAGNOSIS RELATED GROUP – 2

No Longer used after 2002

DIAGNOSIS RELATED GROUP – 2 - WEIGHT

No Longer used after 2002

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HISPANIC

WHITE

BLACK

AMERICAN INDIAN

ASIAN

HAWIAN PACIFIC ISLANDER

Below is a table of the Ethnicity/Race breakdown. Note that the Yes (Y), Refused (R), Unknown (U) are the responses reported. The No is inferred by lack of a Y, U or R. Null is where the data is not reported. Patients can respond with more than one race.

2009 Hispanic and Race Count Summary											
HISPANIC	Cnt	WHT	Cnt	BLK	Cnt	AMI	Cnt	ASI	Cnt	HAW	Cnt
Null	8,025		9,290		9,290		9,290		9,290		9,290
N	417,754	N	66,818	N	481,921	N	494,786	N	483,477	N	490,660
R	3,145	R	7,668	R	7,668	R	7,668	R	7,668	R	7,668
U	185,818	U	131,386	U	131,386	U	131,386	U	131,386	U	131,386
Y	38,134	Y	437,714	Y	22,611	Y	9,746	Y	21,055	Y	13,872
Totals	652,876		652,876		652,876		652,876		652,876		652,876
U%	28.46%		20.12%		20.12%		20.12%		20.12%		20.12%
Y%	5.8%		67.0%		3.5%		1.5%		3.2%		2.1%

Summary by Race Selected; Y or Yes is highlighted for easier reading.

WHT	BLACK	AMI	ASI	HAW	Count
Y	Y	Y	Y	Y	1
Y	Y	Y	N	Y	4
Y	Y	Y	N	N	8
Y	Y	N	Y	Y	1
Y	Y	N	Y	N	3
Y	Y	N	N	Y	2
Y	Y	N	N	N	124
Y	N	Y	Y	N	1
Y	N	Y	N	Y	3
Y	N	Y	N	N	92
Y	N	N	Y	Y	1
Y	N	N	Y	N	164
Y	N	N	N	Y	27
Y	N	N	N	N	437,283
R	R	R	R	R	7,668
N	Y	Y	Y	N	2
N	Y	Y	N	Y	23
N	Y	Y	N	N	14
N	Y	N	Y	Y	1
N	Y	N	Y	N	18
N	Y	N	N	Y	10
N	Y	N	N	N	22,400
N	N	Y	Y	N	6
N	N	Y	N	Y	17
N	N	Y	N	N	9,575
N	N	N	Y	Y	19
N	N	N	Y	N	20,838
N	N	N	N	Y	13,763
N	N	N	N	N	132
null	null	null	null	null	9,290
U	U	U	U	U	131,386
Total Discharges					652,876

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DIAGNOSIS RELATED GROUP-PRESENT ON ADMISSION – DRG_POA

This field presents the MS-DRG DRG_FWD with the Present on Admission/Hospital Acquired Condition (POA/HAC) code taken into consideration. There are 150 discharges that had the DRG_FWD changed due to POA/HAC. There are 2741 records changed to “999” because there were no POA/HAC codes. There are 15 records that remained the same “999” as they were in the DRG_FWD field.

MAJOR DIAGNOSTIC CATAGORY-PRESENT ON ADMISSION – MDC_POA

This field presents the MS-DRG MDC_FWD with the Present on Admission/Hospital Acquired Condition (POA/HAC) code taken into consideration. There are Zero discharges that had the DRG_FWD changed due to POA/HAC. There are 2741 records changed to “00” because there were no POA/HAC codes. There are 15 records that remained the same “00” as they were in the MDC_FWD field.

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SUBSIDIARY TABLES

DIAGNOSIS CODE TABLE INFORMATION (SDIAG2009 or CDIAG2009)

There are 4,934,959 diagnosis codes for the 652,876 discharges or an average of 7.56 per discharge. There are 12 discharges with no diagnosis. There are 4,195 discharges with 25 diagnosis codes.

Diag Order	POA						Total
	(Blank)	1	N	U	W	Y	
1	11.04%	13.76%	3.66%	1.44%	0.05%	70.05%	652,864
2	11.79%	10.52%	9.54%	1.09%	0.12%	66.94%	604,416
3	11.35%	10.07%	8.91%	1.09%	0.10%	68.47%	537,322
4	10.80%	11.03%	7.96%	1.18%	0.08%	68.95%	475,421
5	10.31%	12.40%	7.07%	1.28%	0.06%	68.88%	418,345
6	9.85%	14.06%	6.41%	1.38%	0.04%	68.26%	367,075
7	9.41%	15.80%	5.98%	1.45%	0.03%	67.32%	320,592
8	8.96%	17.72%	5.64%	1.56%	0.03%	66.10%	279,139
9	8.56%	19.44%	5.43%	1.69%	0.03%	64.86%	241,653
10	8.26%	21.31%	5.48%	1.83%	0.02%	63.10%	201,804
11	8.07%	23.16%	5.50%	1.81%	0.02%	61.43%	171,551
12	7.81%	24.94%	5.65%	1.97%	0.02%	59.61%	146,351
13	7.56%	26.92%	5.80%	2.15%	0.02%	57.54%	123,623
14	7.55%	28.29%	6.04%	2.32%	0.02%	55.78%	102,726
15	8.13%	28.88%	6.23%	2.64%	0.02%	54.11%	79,250
16	9.86%	28.45%	6.84%	3.28%	0.02%	51.55%	49,112
17	9.46%	29.61%	7.15%	3.68%	0.02%	50.09%	40,357
18	9.23%	30.14%	7.69%	4.12%	0.03%	48.79%	32,085
19	9.41%	31.40%	7.60%	4.84%	0.00%	46.75%	23,478
20	9.90%	32.07%	8.25%	5.23%	0.01%	44.53%	18,997
21	10.25%	33.59%	8.31%	5.72%	0.00%	42.13%	15,291
22	8.68%	33.41%	9.15%	6.52%	0.00%	42.24%	11,907
23	8.90%	33.98%	9.16%	6.76%	0.01%	41.20%	9,709
24	9.46%	34.93%	9.60%	7.32%	0.00%	38.70%	7,696
25	14.42%	42.48%	10.56%	0.17%	0.00%	32.37%	4,195
Total	10.07%	15.83%	6.73%	1.56%	0.06%	65.76%	4,934,959

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PROCEDURE CODE TABLE INFORMATION (SPPROC2009 or CPPROC2009)

There are 1,028,657 procedure codes for the 652,876 discharges or an average of 1.58 per discharge. A total of 408,383 discharges have at least one procedure. There are 98 discharges with 25 procedure codes.

PROCNUM	Count
1	408,383
2	242,348
3	140,491
4	81,675
5	51,041
6	34,576
7	22,809
8	15,154
9	9,853
10	6,725
11	4,735
12	3,576
13	2,019
14	1,359
15	1,035
16	694
17	478
18	390
19	320
20	248
21	202
22	174
23	151
24	123
25	98
Total	1,028,657
Discharges	652,876
Avg per Disch	1.58

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ECODE TABLE INFORMATION (SECODE2009 or CECODE2009)

There are 119,643 Ecodes for the 652,876 discharges or an average of .18 per discharge. A total of 98,279 discharges have at least one ECode.

Ecode Order	(Blank)	1	N	U	W	Y	Total
1	17,006	10,425	13,815	1,030	14	55,989	98,279
2	679	8,289	2,574	340	3	4,669	16,554
3	111	1,734	557	60	1	1,045	3,508
4	11	713	143	13		251	1,131
5	1	61	21	2		58	143
6		5	2			16	23
7			1			3	4
8		1					1
Total	17,808	21,228	17,113	1,445	18	62,031	119,643

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REVENUE CODE TABLE INFORMATION (SREV2009 or CREV2009)

Fields are edited for presence of values and validity of value according to the CHARS system revenue tables. Further analysis is inconclusive without access to individual patient medical records.

There are 9,837,185 revenue codes for the 652,876 discharges or an average of 15.07 per discharge. 17,751 discharges have more than 40 revenue codes.

There is a minimum of two revenue codes required per record (“001 Total Charge” and a bed stay revenue code). There were 949 discharges with two revenue codes. There were no records with zero revenue codes. There is one record with a null revenue code and one unit and no charges.

Expr1	Count	Units	Charges
0001	652,876	67	18,764,711,016.67
01XX	603,346	2,088,021	3,699,538,299.53
02XX	2,070,685	95,135,872	5,723,015,342.40
03XX	3,226,186	47,087,531	5,276,701,082.23
04XX	1,313,783	7,305,191	2,071,614,600.10
05XX	1,595	8,480	2,736,069.45
06XX	1,071,423	47,086,273	968,468,912.39
07XX	709,007	11,242,936	765,563,729.85
08XX	12,432	46,281	124,227,820.88
09XX	175,851	619,585	132,845,159.84
null	1	1	-
Total	9,837,185	210,620,238	37,529,422,033.34

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APRDRG_V270_diag9_2009.csv

The 3M Company has allowed us to calculate the APRDRG for each inpatient we have in our full year 2009 dataset. The results are in this file. For more information about APRDRG you will need to contact the 3M Company.