

vaccine-distribution

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1 Getting and Cleaning Data

Time for the chunk LOAD DATA to run: 13.4134843826294 minutes

Time for the chunk CLEAN to run: 20.0105004986127 minutes

2 Exploratory Data Analysis

Time for the chunk CATEGORIZING VARIABLES to run: 1.32112973133723 minutes

- Independent Variables include: current_status, sex, age_group, race_ethnicity_combined, res_state, hc_work_yn, medcond_yn.
- Dependent Variables include: hosp_yn, icu_yn, mechvent_yn, pna_yn, acuterespdistress_yn, death_yn.

[1] "Summary of Independent Variables"

	level	Overall	Missing
n		22962828	
current_status (%)	Laboratory-confirmed case	21765062 (94.8)	0.0
	Probable Case	1197766 (5.2)	
sex (%)	Female	11656466 (51.7)	1.7
	Male	10703742 (47.4)	
	Other	68 (0.0)	
	Unknown	201166 (0.9)	
age_group (%)	0 - 9 Years	753145 (3.3)	0.8
	10 - 19 Years	2010325 (8.8)	

	level	Overall	Missing
race_ethnicity_combined (%)	20 - 29 Years	4197503 (18.4)	6.4
	30 - 39 Years	3819042 (16.8)	
	40 - 49 Years	3472004 (15.2)	
	50 - 59 Years	3439840 (15.1)	
	60 - 69 Years	2456231 (10.8)	
	70 - 79 Years	1390270 (6.1)	
	80+ Years	1181397 (5.2)	
	Unknown	69660 (0.3)	
	American Indian/Alaska Native, Non-Hispanic	131566 (0.6)	
	Asian, Non-Hispanic	383949 (1.8)	
	Black, Non-Hispanic	2091223 (9.7)	
	Hispanic/Latino	3038020 (14.1)	
	Multiple/Other, Non-Hispanic	670876 (3.1)	
	Native Hawaiian/Other Pacific Islander, Non-Hispanic	32363 (0.2)	
	Unknown	9070358 (42.2)	
	White, Non-Hispanic	6075155 (28.3)	
res_state (%)	88	75 (0.0)	6.4
	99	122 (0.0)	
	AK	73488 (0.3)	
	AL	555511 (2.6)	
	AR	272364 (1.3)	
	AZ	736787 (3.4)	
	CA	1987351 (9.2)	
	CO	284226 (1.3)	
	CT	232654 (1.1)	
	DC	46566 (0.2)	
	DE	83758 (0.4)	
	FL	1160530 (5.4)	
	GA	773199 (3.6)	
	GU	6874 (0.0)	
	HI	28648 (0.1)	
	IA	341847 (1.6)	
	ID	175690 (0.8)	
	IL	1424531 (6.6)	
	IN	410557 (1.9)	
	KS	278944 (1.3)	
	KY	108549 (0.5)	
	LA	78384 (0.4)	
	MA	622579 (2.9)	
	MD	371402 (1.7)	
	ME	23447 (0.1)	
	MI	403442 (1.9)	

	level	Overall	Missing
	MN	533380 (2.5)	
	MO	110058 (0.5)	
	MP	176 (0.0)	
	MS	151674 (0.7)	
	MT	78907 (0.4)	
	NC	831253 (3.9)	
	ND	44355 (0.2)	
	NE	74492 (0.3)	
	NH	30829 (0.1)	
	NJ	974881 (4.5)	
	NM	121731 (0.6)	
	NV	307473 (1.4)	
	NY	2353583 (10.9)	
	NYC	2104 (0.0)	
	OCONUS	25 (0.0)	
	OH	766418 (3.6)	
	OK	402035 (1.9)	
	OR	140706 (0.7)	
	PA	812567 (3.8)	
	PR	23422 (0.1)	
	RI	25679 (0.1)	
	SC	503544 (2.3)	
	SD	28200 (0.1)	
	TN	766570 (3.6)	
	TX	155057 (0.7)	
	Unknown	30 (0.0)	
	USVI	23 (0.0)	
	UT	368946 (1.7)	
	VA	551395 (2.6)	
	VI	3342 (0.0)	
	VT	8928 (0.0)	
	WA	352242 (1.6)	
	WI	480609 (2.2)	
	WV	12400 (0.1)	
	WY	4691 (0.0)	
hc_work_yn (%)	No	4274544 (47.4)	60.7
	Unknown	4131841 (45.8)	
	Yes	618692 (6.9)	
medcond_yn (%)	No	1819367 (20.5)	61.4
	Unknown	4517642 (50.9)	
	Yes	2535567 (28.6)	

[1] "Summary of Dependent Variables"

	level	Overall	Missing
n		22962828	

	level	Overall	Missing
hosp_yn (%)	No	9000360 (83.2)	52.9
	Yes	1820236 (16.8)	
icu_yn (%)	No	2341788 (90.8)	88.8
	Yes	238341 (9.2)	
mechvent_yn (%)	No	2010327 (94.2)	90.7
	Yes	124302 (5.8)	
pna_yn (%)	No	2167836 (89.2)	89.4
	Yes	263722 (10.8)	
acuterespdistress_yn (%)	No	2095963 (97.1)	90.6
	Yes	62005 (2.9)	
death_yn (%)	No	10147472 (93.8)	52.9
	Yes	669609 (6.2)	

Time for the chunk DATA EXPLORATION to run: 31.6489210128784 minutes

```
## $Continuous
## data frame with 0 columns and 22962828 rows
##
## $Categorical
##
##           label var_type      n missing_n
## hosp_yn      hosp_yn    <fct> 10820596 12142232
## icu_yn        icu_yn    <fct>  2580129 20382699
## mechvent_yn   mechvent_yn <fct>  2134629 20828199
## pna_yn         pna_yn    <fct>  2431558 20531270
## acuterespdistress_yn acuterespdistress_yn <fct>  2157968 20804860
## death_yn      death_yn  <fct> 10817081 12145747
## current_status current_status <fct> 22962828      0
## sex           sex       <fct> 22561442  401386
## age_group     age_group  <fct> 22789417  173411
## race_ethnicity_combined race_ethnicity_combined <fct> 21493510 1469318
## res_state     res_state  <fct> 21503250 1459578
## hc_work_yn    hc_work_yn <fct>  9025077 13937751
## medcond_yn    medcond_yn <fct>  8872576 14090252
##
##           missing_percent levels_n
## hosp_yn           52.9          2
## icu_yn            88.8          2
## mechvent_yn       90.7          2
## pna_yn            89.4          2
## acuterespdistress_yn 90.6          2
## death_yn          52.9          2
## current_status      0.0          2
## sex                1.7          4
## age_group          0.8         10
## race_ethnicity_combined 6.4          8
## res_state          6.4         61
## hc_work_yn        60.7          3
## medcond_yn        61.4          3
##
##                                     levels
## hosp_yn      "No", "Yes", "(Missing)"
## icu_yn       "No", "Yes", "(Missing)"
## mechvent_yn  "No", "Yes", "(Missing)"
## pna_yn       "No", "Yes", "(Missing)"
```

```

## acuterespdistress_yn          "No", "Yes", "(Missing)"
## death_yn                      "No", "Yes", "(Missing)"
## current_status                "Laboratory-confirmed case", "Probable Case"
## sex                           "Female", "Male", "Other", "Unknown", "(Missing)"
## age_group                     -
## race_ethnicity_combined       -
## res_state                     -
## hc_work_yn                    "No", "Unknown", "Yes", "(Missing)"
## medcond_yn                    "No", "Unknown", "Yes", "(Missing)"
##                               levels_count
## hosp_yn                       9000360, 1820236, 12142232
## icu_yn                        2341788, 238341, 20382699
## mechvent_yn                   2010327, 124302, 20828199
## pna_yn                        2167836, 263722, 20531270
## acuterespdistress_yn          2095963, 62005, 20804860
## death_yn                      10147472, 669609, 12145747
## current_status                21765062, 1197766
## sex                           11656466, 10703742, 68, 201166, 401386
## age_group                     -
## race_ethnicity_combined       -
## res_state                     -
## hc_work_yn                    4274544, 4131841, 618692, 13937751
## medcond_yn                    1819367, 4517642, 2535567, 14090252
##                               levels_percent
## hosp_yn                       39.2, 7.9, 52.9
## icu_yn                        10, 1, 89
## mechvent_yn                   8.75, 0.54, 90.70
## pna_yn                        9.4, 1.1, 89.4
## acuterespdistress_yn          9.13, 0.27, 90.60
## death_yn                      44.2, 2.9, 52.9
## current_status                94.8, 5.2
## sex                           50.7623, 46.6133, 0.0003, 0.8761, 1.7480
## age_group                     -
## race_ethnicity_combined       -
## res_state                     -
## hc_work_yn                    18.6, 18.0, 2.7, 60.7
## medcond_yn                    7.9, 19.7, 11.0, 61.4

```

Time for the chunk CHECK DATA to run: 34.9432570934296 minutes

3 Data Analysis

[1] "Outcome: hosp_yn" [1] "Univarait Analysis"

Dependent:	Total	Missing				
hosp_yn	N	N	No	Yes	Total	p
current_status	10820596	Laboratory-confirmed case	8657874	1800291	10458165	<0.001
			(82.8)	(17.2)	(100)	
		Probable Case	342486	19945	362431	
			(94.5)	(5.5)	(100)	
sex	1060435216244	Female	4730427	830081	5560508	<0.001
			(85.1)	(14.9)	(100)	

Dependent: hosp_yn	Total N	Missing N		No	Yes	Total	p
age_group	1072221	198385	Male	4040660 (80.9)	952273 (19.1)	4992933 (100)	<0.001
			Other	29 (100.0)	0 (0.0)	29 (100)	
			Unknown	45804 (90.0)	5078 (10.0)	50882 (100)	
			(Missing)	183440 (84.8)	32804 (15.2)	216244 (100)	
			0 - 9 Years	352135 (96.3)	13626 (3.7)	365761 (100)	
			10 - 19 Years	903305 (97.8)	19947 (2.2)	923252 (100)	
			20 - 29 Years	1833806 (95.6)	83461 (4.4)	1917267 (100)	
			30 - 39 Years	1565043 (91.9)	137983 (8.1)	1703026 (100)	
			40 - 49 Years	1396278 (88.0)	190980 (12.0)	1587258 (100)	
			50 - 59 Years	1308419 (81.2)	302559 (18.8)	1610978 (100)	
			60 - 69 Years	856853 (69.8)	371001 (30.2)	1227854 (100)	
			70 - 79 Years	400718 (53.6)	347460 (46.4)	748178 (100)	
			80+ Years	296319 (46.8)	336837 (53.2)	633156 (100)	
			Unknown	5150 (94.0)	331 (6.0)	5481 (100)	
			(Missing)	82334 (83.7)	16051 (16.3)	98385 (100)	
race_ethnicity_cat	10206765	113833	American Indian/Alaska Native, Non-Hispanic	40883 (79.5)	10542 (20.5)	51425 (100)	<0.001
			Asian, Non-Hispanic	171899 (75.2)	56586 (24.8)	228485 (100)	
			Black, Non-Hispanic	933660 (73.7)	333620 (26.3)	1267280 (100)	
			Hispanic/Latino	1584177 (85.0)	280335 (15.0)	1864512 (100)	
			Multiple/Other, Non-Hispanic	290491 (79.2)	76279 (20.8)	366770 (100)	
			Native Hawaiian/Other Pacific Islander, Non-Hispanic	23088 (87.8)	3194 (12.2)	26282 (100)	
			Unknown	2254294 (85.7)	376548 (14.3)	2630842 (100)	
			White, Non-Hispanic	3183895 (84.4)	587272 (15.6)	3771167 (100)	
			(Missing)	517973 (84.4)	95860 (15.6)	613833 (100)	
res_state	10162096	558497	88	8 (72.7)	3 (27.3)	11 (100)	<0.001
			99	32 (84.2)	6 (15.8)	38 (100)	
			AK	10620 (84.3)	1973 (15.7)	12593 (100)	

Dependent: hosp_yn	Total N	Missing N	No	Yes	Total	p
AL			212449 (90.9)	21181 (9.1)	233630 (100)	
AR			199488 (90.6)	20647 (9.4)	220135 (100)	
AZ			282255 (78.9)	75480 (21.1)	357735 (100)	
CA			956859 (86.7)	146280 (13.3)	1103139 (100)	
CO			121957 (80.0)	30525 (20.0)	152482 (100)	
CT			61497 (72.8)	23030 (27.2)	84527 (100)	
DC			16231 (67.2)	7916 (32.8)	24147 (100)	
DE			639 (78.2)	178 (21.8)	817 (100)	
FL			650736 (89.2)	78986 (10.8)	729722 (100)	
GA			6711 (58.4)	4775 (41.6)	11486 (100)	
GU			1768 (84.0)	337 (16.0)	2105 (100)	
HI			39 (68.4)	18 (31.6)	57 (100)	
IA			206385 (93.7)	13841 (6.3)	220226 (100)	
ID			109244 (93.7)	7336 (6.3)	116580 (100)	
IL			396490 (75.5)	128358 (24.5)	524848 (100)	
IN			23257 (81.6)	5240 (18.4)	28497 (100)	
KS			169472 (91.9)	14896 (8.1)	184368 (100)	
KY			77559 (90.6)	8058 (9.4)	85617 (100)	
LA			26407 (75.1)	8745 (24.9)	35152 (100)	
MA			218663 (81.7)	49089 (18.3)	267752 (100)	
MD			88 (83.8)	17 (16.2)	105 (100)	
ME			19672 (91.9)	1740 (8.1)	21412 (100)	
MI			261351 (84.2)	49114 (15.8)	310465 (100)	
MN			38238 (51.1)	36604 (48.9)	74842 (100)	
MO			445 (75.9)	141 (24.1)	586 (100)	
MP			145 (89.0)	18 (11.0)	163 (100)	

Dependent: hosp_yn	Total N	Missing N	No	Yes	Total	p
		MS	97096 (85.6)	16391 (14.4)	113487 (100)	
		MT	50679 (93.3)	3651 (6.7)	54330 (100)	
		NC	512127 (92.4)	42102 (7.6)	554229 (100)	
		ND	40599 (94.3)	2432 (5.7)	43031 (100)	
		NE	75 (87.2)	11 (12.8)	86 (100)	
		NH	25834 (89.8)	2932 (10.2)	28766 (100)	
		NJ	372940 (73.0)	137917 (27.0)	510857 (100)	
		NM	19 (52.8)	17 (47.2)	36 (100)	
		NV	191194 (87.3)	27810 (12.7)	219004 (100)	
		NY	197015 (40.1)	294648 (59.9)	491663 (100)	
		NYC	33 (15.6)	178 (84.4)	211 (100)	
		OCONUS	16 (69.6)	7 (30.4)	23 (100)	
		OH	413581 (86.6)	63893 (13.4)	477474 (100)	
		OK	236586 (89.4)	27919 (10.6)	264505 (100)	
		OR	106358 (91.4)	9945 (8.6)	116303 (100)	
		PA	283834 (82.8)	58860 (17.2)	342694 (100)	
		PR	1486 (40.5)	2186 (59.5)	3672 (100)	
		RI	2398 (80.3)	588 (19.7)	2986 (100)	
		SC	282581 (90.2)	30801 (9.8)	313382 (100)	
		SD	62 (91.2)	6 (8.8)	68 (100)	
		TN	418887 (93.3)	30286 (6.7)	449173 (100)	
		TX	253 (71.3)	102 (28.7)	355 (100)	
		Unknown	15 (57.7)	11 (42.3)	26 (100)	
		USVI	20 (87.0)	3 (13.0)	23 (100)	
		UT	350074 (97.9)	7539 (2.1)	357613 (100)	
		VA	341864 (89.5)	40313 (10.5)	382177 (100)	
		VI	2884 (92.5)	235 (7.5)	3119 (100)	
		VT	7765 (92.8)	601 (7.2)	8366 (100)	

Dependent: hosp_yn	Total N	Missing N		No	Yes	Total	p
			WA	316287 (91.6)	29112 (8.4)	345399 (100)	
			WI	247984 (91.2)	23980 (8.8)	271964 (100)	
			WV	257 (72.6)	97 (27.4)	354 (100)	
			WY	3068 (88.0)	418 (12.0)	3486 (100)	
			(Missing)	427784 (65.0)	230713 (35.0)	658497 (100)	
hc_work_yn	5562279	5258317	No	3383667 (88.9)	421632 (11.1)	3805299 (100)	<0.001
			Unknown	826900 (66.1)	423981 (33.9)	1250881 (100)	
			Yes	471626 (93.2)	34473 (6.8)	506099 (100)	
			(Missing)	4318167 (82.1)	940150 (17.9)	5258317 (100)	
medcond_yn	4951512	5869084	No	1397109 (95.0)	73290 (5.0)	1470399 (100)	<0.001
			Unknown	998347 (73.8)	353881 (26.2)	1352228 (100)	
			Yes	1407270 (66.1)	721615 (33.9)	2128885 (100)	
			(Missing)	5197634 (88.6)	671450 (11.4)	5869084 (100)	

[1] “Outcome: icu_yn” [1] “Univariate Analysis”

Dependent: icu_yn	Total N	Missing N		No	Yes	Total	p
current_status	2580129	0	Laboratory-confirmed case	2271206 (90.5)	237260 (9.5)	2508466 (100)	<0.001
			Probable Case	70582 (98.5)	1081 (1.5)	71663 (100)	
sex	2526355	53770	Female	1196539 (93.0)	90336 (7.0)	1286875 (100)	<0.001
			Male	1091396 (88.4)	142827 (11.6)	1234223 (100)	
			Other	0 (NaN)	0 (NaN)	0 (100)	
			Unknown	4972 (94.5)	289 (5.5)	5261 (100)	
			(Missing)	48881 (90.9)	4889 (9.1)	53770 (100)	
age_group	2549507	30622	0 - 9 Years	74690 (98.1)	1411 (1.9)	76101 (100)	<0.001
			10 - 19 Years	206066 (99.1)	1957 (0.9)	208023 (100)	
			20 - 29 Years	437984 (98.4)	7171 (1.6)	445155 (100)	

Dependent: icu_yn	Total N	Missing N		No	Yes	Total	p
			30 - 39 Years	366613 (96.1)	14795 (3.9)	381408 (100)	
			40 - 49 Years	349189 (93.2)	25587 (6.8)	374776 (100)	
			50 - 59 Years	355407 (88.6)	45599 (11.4)	401006 (100)	
			60 - 69 Years	256770 (81.7)	57401 (18.3)	314171 (100)	
			70 - 79 Years	141891 (74.5)	48608 (25.5)	190499 (100)	
			80+ Years	124948 (79.1)	32978 (20.9)	157926 (100)	
			Unknown	419 (94.8)	23 (5.2)	442 (100)	
			(Missing)	27811 (90.8)	2811 (9.2)	30622 (100)	
race_ethnicity_	2426835	3246	American Indian/Alaska Native, Non-Hispanic	5353 (89.0)	660 (11.0)	6013 (100)	<0.001
			Asian, Non-Hispanic	54677 (83.5)	10808 (16.5)	65485 (100)	
			Black, Non-Hispanic	225602 (84.1)	42719 (15.9)	268321 (100)	
			Hispanic/Latino	429250 (92.2)	36536 (7.8)	465786 (100)	
			Multiple/Other, Non-Hispanic	59033 (85.0)	10405 (15.0)	69438 (100)	
			Native Hawaiian/Other Pacific Islander, Non-Hispanic	12031 (92.9)	919 (7.1)	12950 (100)	
			Unknown	425876 (89.6)	49425 (10.4)	475301 (100)	
			White, Non-Hispanic	991530 (93.2)	72059 (6.8)	1063589 (100)	
			(Missing)	138436 (90.3)	14810 (9.7)	153246 (100)	
res_state	2369152	10972	88	3 (75.0)	1 (25.0)	4 (100)	<0.001
			99	18 (85.7)	3 (14.3)	21 (100)	
			AK	590 (63.4)	341 (36.6)	931 (100)	
			AL	66 (86.8)	10 (13.2)	76 (100)	
			AR	136161 (95.0)	7148 (5.0)	143309 (100)	
			AZ	230 (83.0)	47 (17.0)	277 (100)	
			CA	46383 (60.7)	30064 (39.3)	76447 (100)	
			CO	7385 (87.3)	1079 (12.7)	8464 (100)	
			CT	9 (90.0)	1 (10.0)	10 (100)	
			DC	13585 (92.7)	1066 (7.3)	14651 (100)	

Dependent: icu_yn	Total N	Missing N	No	Yes	Total	p
		DE	31 (93.9)	2 (6.1)	33 (100)	
		FL	136 (70.1)	58 (29.9)	194 (100)	
		GA	113 (69.8)	49 (30.2)	162 (100)	
		GU	199 (84.3)	37 (15.7)	236 (100)	
		HI	29 (87.9)	4 (12.1)	33 (100)	
		IA	200444 (98.3)	3559 (1.7)	204003 (100)	
		ID	0 (NaN)	0 (NaN)	0 (100)	
		IL	203045 (85.6)	34259 (14.4)	237304 (100)	
		IN	91 (70.5)	38 (29.5)	129 (100)	
		KS	130344 (97.5)	3301 (2.5)	133645 (100)	
		KY	693 (91.7)	63 (8.3)	756 (100)	
		LA	4434 (60.1)	2943 (39.9)	7377 (100)	
		MA	62477 (90.0)	6953 (10.0)	69430 (100)	
		MD	53 (91.4)	5 (8.6)	58 (100)	
		ME	11 (100.0)	0 (0.0)	11 (100)	
		MI	14 (100.0)	0 (0.0)	14 (100)	
		MN	24690 (72.5)	9363 (27.5)	34053 (100)	
		MO	180 (84.5)	33 (15.5)	213 (100)	
		MP	119 (97.5)	3 (2.5)	122 (100)	
		MS	557 (85.6)	94 (14.4)	651 (100)	
		MT	170 (93.4)	12 (6.6)	182 (100)	
		NC	12789 (58.3)	9166 (41.7)	21955 (100)	
		ND	2662 (96.2)	104 (3.8)	2766 (100)	
		NE	22 (100.0)	0 (0.0)	22 (100)	
		NH	1440 (61.4)	906 (38.6)	2346 (100)	
		NJ	57908 (81.5)	13174 (18.5)	71082 (100)	
		NM	10 (66.7)	5 (33.3)	15 (100)	
		NV	156848 (94.5)	9209 (5.5)	166057 (100)	

Dependent: icu_yn	Total N	Missing N	No	Yes	Total	p
		NY	73255 (70.4)	30795 (29.6)	104050 (100)	
		NYC	0 (NaN)	0 (NaN)	0 (100)	
		OCONUS	4 (100.0)	0 (0.0)	4 (100)	
		OH	276146 (95.5)	12943 (4.5)	289089 (100)	
		OK	44 (95.7)	2 (4.3)	46 (100)	
		OR	25 (89.3)	3 (10.7)	28 (100)	
		PA	286355 (97.0)	8959 (3.0)	295314 (100)	
		PR	215 (72.4)	82 (27.6)	297 (100)	
		RI	2651 (94.9)	141 (5.1)	2792 (100)	
		SC	19 (65.5)	10 (34.5)	29 (100)	
		SD	43 (100.0)	0 (0.0)	43 (100)	
		TN	157884 (96.8)	5148 (3.2)	163032 (100)	
		TX	190 (96.4)	7 (3.6)	197 (100)	
		Unknown	20 (87.0)	3 (13.0)	23 (100)	
		USVI	21 (95.5)	1 (4.5)	22 (100)	
		UT	292255 (98.8)	3653 (1.2)	295908 (100)	
		VA	41 (100.0)	0 (0.0)	41 (100)	
		VI	3035 (97.9)	64 (2.1)	3099 (100)	
		VT	245 (53.6)	212 (46.4)	457 (100)	
		WA	8535 (62.0)	5240 (38.0)	13775 (100)	
		WI	91 (97.8)	2 (2.2)	93 (100)	
		WV	306 (88.4)	40 (11.6)	346 (100)	
		WY	3251 (94.7)	182 (5.3)	3433 (100)	
		(Missing)	173218 (82.1)	37754 (17.9)	210972 (100)	
hc_work_yn	2016666	563463 No	1258523 (93.5)	87828 (6.5)	1346351 (100)	<0.001
		Unknown	409764 (87.0)	61106 (13.0)	470870 (100)	
		Yes	192162 (96.3)	7283 (3.7)	199445 (100)	
		(Missing)	481339 (85.4)	82124 (14.6)	563463 (100)	
medcond_yn	1984536	595599 No	753726 (98.1)	14612 (1.9)	768338 (100)	<0.001

Dependent: icu_yn	Total N	Missing N	No	Yes	Total	p
		Unknown	191983 (84.0)	36585 (16.0)	228568 (100)	
		Yes	847804 (85.8)	139820 (14.2)	987624 (100)	
		(Missing)	548275 (92.1)	47324 (7.9)	595599 (100)	

[1] “Outcome: mechvent_yn” [1] “Univariate Analysis”

Dependent: mechvent_yn	Total N	Missing N		No	Yes	Total	p
current_status	2134620	0	Laboratory-confirmed case	1940659 (94.0)	123412 (6.0)	2064071 (100)	<0.001
			Probable Case	69668 (98.7)	890 (1.3)	70558 (100)	
sex	2085529	49100	Female	1031098 (95.9)	43965 (4.1)	1075063 (100)	<0.001
			Male	928072 (92.2)	77976 (7.8)	1006048 (100)	
			Other	0 (NaN)	0 (NaN)	0 (100)	
			Unknown	4331 (98.0)	87 (2.0)	4418 (100)	
			(Missing)	46826 (95.4)	2274 (4.6)	49100 (100)	
age_group	2106482	28145	0 - 9 Years	61530 (99.3)	412 (0.7)	61942 (100)	<0.001
			10 - 19 Years	166306 (99.7)	511 (0.3)	166817 (100)	
			20 - 29 Years	362977 (99.4)	2342 (0.6)	365319 (100)	
			30 - 39 Years	307845 (98.3)	5406 (1.7)	313251 (100)	
			40 - 49 Years	293402 (96.2)	11560 (3.8)	304962 (100)	
			50 - 59 Years	306281 (92.6)	24320 (7.4)	330601 (100)	
			60 - 69 Years	230815 (87.2)	33945 (12.8)	264760 (100)	
			70 - 79 Years	133661 (82.7)	28050 (17.3)	161711 (100)	
			80+ Years	120317 (88.0)	16399 (12.0)	136716 (100)	
			Unknown	395 (97.5)	10 (2.5)	405 (100)	
			(Missing)	26798 (95.2)	1347 (4.8)	28145 (100)	
race_ethnicity_clean	1095618	39011	American Indian/Alaska Native, Non-Hispanic	4178 (94.1)	264 (5.9)	4442 (100)	<0.001
			Asian, Non-Hispanic	46827 (88.0)	6371 (12.0)	53198 (100)	

Dependent:		Total	Missing			
mechvent_yn	N	N	No	Yes	Total	p
res_state	1959764	Black, Non-Hispanic	210221 (88.5)	27390 (11.5)	237611 (100)	<0.001
		Hispanic/Latino	368784 (94.0)	23490 (6.0)	392274 (100)	
		Multiple/Other, Non-Hispanic	48776 (86.5)	7582 (13.5)	56358 (100)	
		Native Hawaiian/Other Pacific Islander, Non-Hispanic	7261 (95.7)	323 (4.3)	7584 (100)	
		Unknown	344047 (96.0)	14250 (4.0)	358297 (100)	
		White, Non-Hispanic	847817 (95.7)	38037 (4.3)	885854 (100)	
		(Missing)	132416 (95.3)	6595 (4.7)	139011 (100)	
		88	2 (66.7)	1 (33.3)	3 (100)	
		99	19 (95.0)	1 (5.0)	20 (100)	
		AK	4345 (97.2)	124 (2.8)	4469 (100)	
		AL	51 (100.0)	0 (0.0)	51 (100)	
		AR	123612 (98.0)	2510 (2.0)	126122 (100)	
		AZ	248 (88.6)	32 (11.4)	280 (100)	
		CA	519 (92.2)	44 (7.8)	563 (100)	
		CO	7494 (91.2)	723 (8.8)	8217 (100)	
		CT	7 (87.5)	1 (12.5)	8 (100)	
		DC	258 (31.9)	550 (68.1)	808 (100)	
		DE	31 (93.9)	2 (6.1)	33 (100)	
		FL	139 (83.2)	28 (16.8)	167 (100)	
		GA	122 (84.1)	23 (15.9)	145 (100)	
		GU	1521 (98.5)	23 (1.5)	1544 (100)	
		HI	31 (100.0)	0 (0.0)	31 (100)	
		IA	201575 (99.2)	1667 (0.8)	203242 (100)	
		ID	0 (NaN)	0 (NaN)	0 (100)	
		IL	176771 (95.3)	8668 (4.7)	185439 (100)	
		IN	101 (76.5)	31 (23.5)	132 (100)	
		KS	110295 (99.1)	955 (0.9)	111250 (100)	
		KY	682 (95.5)	32 (4.5)	714 (100)	

Dependent: mechvent_yn	Total N	Missing N	No	Yes	Total	p
		LA	5300 (75.0)	1767 (25.0)	7067 (100)	
		MA	34432 (89.1)	4191 (10.9)	38623 (100)	
		MD	40 (100.0)	0 (0.0)	40 (100)	
		ME	10 (100.0)	0 (0.0)	10 (100)	
		MI	59608 (88.8)	7509 (11.2)	67117 (100)	
		MN	14603 (84.7)	2628 (15.3)	17231 (100)	
		MO	160 (87.4)	23 (12.6)	183 (100)	
		MP	160 (100.0)	0 (0.0)	160 (100)	
		MS	561 (91.5)	52 (8.5)	613 (100)	
		MT	168 (97.7)	4 (2.3)	172 (100)	
		NC	59 (86.8)	9 (13.2)	68 (100)	
		ND	42 (93.3)	3 (6.7)	45 (100)	
		NE	22 (100.0)	0 (0.0)	22 (100)	
		NH	1577 (80.4)	384 (19.6)	1961 (100)	
		NJ	42398 (74.5)	14549 (25.5)	56947 (100)	
		NM	10 (66.7)	5 (33.3)	15 (100)	
		NV	186040 (97.5)	4858 (2.5)	190898 (100)	
		NY	76894 (71.3)	30890 (28.7)	107784 (100)	
		NYC	0 (NaN)	0 (NaN)	0 (100)	
		OCONUS	4 (100.0)	0 (0.0)	4 (100)	
		OH	266952 (97.9)	5711 (2.1)	272663 (100)	
		OK	46 (92.0)	4 (8.0)	50 (100)	
		OR	24 (88.9)	3 (11.1)	27 (100)	
		PA	290521 (98.5)	4318 (1.5)	294839 (100)	
		PR	1584 (69.9)	682 (30.1)	2266 (100)	
		RI	2513 (98.0)	51 (2.0)	2564 (100)	
		SC	28 (100.0)	0 (0.0)	28 (100)	
		SD	43 (100.0)	0 (0.0)	43 (100)	

Dependent: mechvent_yn	Total N	Missing N		No	Yes	Total	p
			TN	117068 (98.6)	1660 (1.4)	118728 (100)	
			TX	181 (94.8)	10 (5.2)	191 (100)	
			Unknown	26 (100.0)	0 (0.0)	26 (100)	
			USVI	22 (100.0)	0 (0.0)	22 (100)	
			UT	114035 (98.8)	1427 (1.2)	115462 (100)	
			VA	46 (100.0)	0 (0.0)	46 (100)	
			VI	2918 (98.8)	35 (1.2)	2953 (100)	
			VT	351 (81.8)	78 (18.2)	429 (100)	
			WA	10400 (75.7)	3337 (24.3)	13737 (100)	
			WI	92 (100.0)	0 (0.0)	92 (100)	
			WV	310 (92.3)	26 (7.7)	336 (100)	
			WY	3064 (100.0)	0 (0.0)	3064 (100)	
			(Missing)	150192 (85.9)	24673 (14.1)	174865 (100)	
hc_work_yn	1698254	436375	No	1078124 (96.9)	33953 (3.1)	1112077 (100)	<0.001
			Unknown	377784 (90.7)	38660 (9.3)	416444 (100)	
			Yes	167576 (98.7)	2157 (1.3)	169733 (100)	
			(Missing)	386843 (88.6)	49532 (11.4)	436375 (100)	
medcond_yn	1853582	281048	No	758974 (99.1)	6604 (0.9)	765578 (100)	<0.001
			Unknown	143253 (90.6)	14815 (9.4)	158068 (100)	
			Yes	832635 (89.5)	97300 (10.5)	929935 (100)	
			(Missing)	275465 (98.0)	5583 (2.0)	281048 (100)	

[1] “Outcome: pna_yn” [1] “Univariate Analysis”

Dependent: pna_yn	Total N	Missing N		No	Yes	Total	p
current_status	2431550		Laboratory-confirmed case	2092238 (88.9)	261457 (11.1)	2353695 (100)	<0.001
			Probable Case	75598 (97.1)	2265 (2.9)	77863 (100)	

Dependent: pna_yn	Total N	Missing N		No	Yes	Total	p
sex	2373197	58361	Female	1128934 (90.4)	119472 (9.6)	1248406 (100)	<0.001
			Male	982932 (87.7)	137418 (12.3)	1120350 (100)	
			Other	0 (NaN)	0 (NaN)	0 (100)	
			Unknown	4124 (92.9)	317 (7.1)	4441 (100)	
			(Missing)	51846 (88.8)	6515 (11.2)	58361 (100)	
age_group	2398652	22906	0 - 9 Years	80392 (99.2)	624 (0.8)	81016 (100)	<0.001
			10 - 19 Years	222214 (99.1)	1910 (0.9)	224124 (100)	
			20 - 29 Years	430870 (97.5)	11032 (2.5)	441902 (100)	
			30 - 39 Years	350205 (94.2)	21744 (5.8)	371949 (100)	
			40 - 49 Years	332146 (90.9)	33059 (9.1)	365205 (100)	
			50 - 59 Years	320392 (86.6)	49637 (13.4)	370029 (100)	
			60 - 69 Years	216731 (80.5)	52607 (19.5)	269338 (100)	
			70 - 79 Years	107786 (70.8)	44480 (29.2)	152266 (100)	
			80+ Years	77671 (63.4)	44834 (36.6)	122505 (100)	
			Unknown	290 (91.2)	28 (8.8)	318 (100)	
			(Missing)	29139 (88.6)	3767 (11.4)	32906 (100)	
race_ethnicity_	2265546	19803	American Indian/Alaska Native, Non-Hispanic	6227 (90.9)	620 (9.1)	6847 (100)	<0.001
			Asian, Non-Hispanic	41926 (84.2)	7891 (15.8)	49817 (100)	
			Black, Non-Hispanic	224232 (82.7)	46837 (17.3)	271069 (100)	
			Hispanic/Latino	422376 (90.5)	44198 (9.5)	466574 (100)	
			Multiple/Other, Non-Hispanic	35769 (79.1)	9439 (20.9)	45208 (100)	
			Native Hawaiian/Other Pacific Islander, Non-Hispanic	11137 (93.3)	798 (6.7)	11935 (100)	
			Unknown	391144 (92.1)	33701 (7.9)	424845 (100)	
			White, Non-Hispanic	884592 (89.8)	100868 (10.2)	985460 (100)	
			(Missing)	150433 (88.6)	19370 (11.4)	169803 (100)	
res_state	2286118	45440	88	7 (100.0)	0 (0.0)	7 (100)	<0.001
			99	32 (100.0)	0 (0.0)	32 (100)	

Dependent: pna_yn	Total N	Missing N	No	Yes	Total	p
		AK	4867 (88.9)	606 (11.1)	5473 (100)	
		AL	6 (100.0)	0 (0.0)	6 (100)	
		AR	190879 (97.4)	5072 (2.6)	195951 (100)	
		AZ	182 (67.4)	88 (32.6)	270 (100)	
		CA	358 (80.6)	86 (19.4)	444 (100)	
		CO	5551 (72.5)	2106 (27.5)	7657 (100)	
		CT	5 (100.0)	0 (0.0)	5 (100)	
		DC	4409 (68.6)	2014 (31.4)	6423 (100)	
		DE	19 (82.6)	4 (17.4)	23 (100)	
		FL	253 (72.7)	95 (27.3)	348 (100)	
		GA	26 (21.7)	94 (78.3)	120 (100)	
		GU	1492 (94.7)	83 (5.3)	1575 (100)	
		HI	28 (80.0)	7 (20.0)	35 (100)	
		IA	197940 (96.5)	7101 (3.5)	205041 (100)	
		ID	0 (NaN)	0 (NaN)	0 (100)	
		IL	167859 (76.4)	51912 (23.6)	219771 (100)	
		IN	47 (50.5)	46 (49.5)	93 (100)	
		KS	115774 (95.8)	5046 (4.2)	120820 (100)	
		KY	372 (66.7)	186 (33.3)	558 (100)	
		LA	25572 (80.5)	6206 (19.5)	31778 (100)	
		MA	55 (0.3)	19074 (99.7)	19129 (100)	
		MD	12 (100.0)	0 (0.0)	12 (100)	
		ME	11 (100.0)	0 (0.0)	11 (100)	
		MI	1 (14.3)	6 (85.7)	7 (100)	
		MN	8 (24.2)	25 (75.8)	33 (100)	
		MO	152 (67.9)	72 (32.1)	224 (100)	
		MP	135 (92.5)	11 (7.5)	146 (100)	
		MS	437 (75.0)	146 (25.0)	583 (100)	
		MT	53 (89.8)	6 (10.2)	59 (100)	

Dependent: pna_yn	Total N	Missing N	No	Yes	Total	p
NC	348894		(92.5)	28217 (7.5)	377111 (100)	
ND	30 (71.4)			12 (28.6)	42 (100)	
NE	20 (74.1)			7 (25.9)	27 (100)	
NH	33 (2.7)			1192 (97.3)	1225 (100)	
NJ	73403 (85.1)			12850 (14.9)	86253 (100)	
NM	9 (100.0)			0 (0.0)	9 (100)	
NV	165602 (91.5)			15437 (8.5)	181039 (100)	
NY	8287 (34.1)			16011 (65.9)	24298 (100)	
NYC	0 (NaN)			0 (NaN)	0 (100)	
OCONUS	3 (42.9)			4 (57.1)	7 (100)	
OH	273818 (91.2)			26396 (8.8)	300214 (100)	
OK	39 (81.2)			9 (18.8)	48 (100)	
OR	24 (100.0)			0 (0.0)	24 (100)	
PA	273029 (93.2)			19790 (6.8)	292819 (100)	
PR	1193 (83.8)			231 (16.2)	1424 (100)	
RI	46 (59.0)			32 (41.0)	78 (100)	
SC	6 (33.3)			12 (66.7)	18 (100)	
SD	53 (96.4)			2 (3.6)	55 (100)	
TN	2 (100.0)			0 (0.0)	2 (100)	
TX	115 (76.7)			35 (23.3)	150 (100)	
Unknown	23 (100.0)			0 (0.0)	23 (100)	
USVI	18 (100.0)			0 (0.0)	18 (100)	
UT	183793 (95.9)			7831 (4.1)	191624 (100)	
VA	25 (69.4)			11 (30.6)	36 (100)	
VI	1979 (98.3)			34 (1.7)	2013 (100)	
VT	6894 (95.5)			323 (4.5)	7217 (100)	
WA	11 (13.6)			70 (86.4)	81 (100)	
WI	53 (86.9)			8 (13.1)	61 (100)	
WV	231 (83.4)			46 (16.6)	277 (100)	
WY	3065 (93.1)			226 (6.9)	3291 (100)	
(Missing)	110596 (76.0)			34844 (24.0)	145440 (100)	

Dependent: pna_yn	Total N	Missing N		No	Yes	Total	p
hc_work_yn	1892676	538888	No	1216585 (92.0)	105312 (8.0)	1321897 (100)	<0.001
			Unknown	334141 (85.6)	56365 (14.4)	390506 (100)	
			Yes	167846 (93.1)	12421 (6.9)	180267 (100)	
			(Missing)	449264 (83.4)	89624 (16.6)	538888 (100)	
medcond_yn	2181524	250034	No	912090 (96.7)	31071 (3.3)	943161 (100)	<0.001
			Unknown	171873 (84.0)	32834 (16.0)	204707 (100)	
			Yes	851895 (82.4)	181761 (17.6)	1033656 (100)	
			(Missing)	231978 (92.8)	18056 (7.2)	250034 (100)	

[1] “Outcome: acuterespdistress_yn” [1] “Univarait Analysis”

Dependent: acuterespdistress_yn	Total N	Missing N		No	Yes	Total	p
current_status	2157968	8	Laboratory-confirmed case	2021282 (97.0)	61521 (3.0)	2082803 (100)	<0.001
			Probable Case	74681 (99.4)	484 (0.6)	75165 (100)	
sex	2103385	4587	Female	1085588 (97.6)	26390 (2.4)	1111978 (100)	<0.001
			Male	953818 (96.6)	33629 (3.4)	987447 (100)	
			Other	6 (100.0)	0 (0.0)	6 (100)	
			Unknown	3893 (98.6)	57 (1.4)	3950 (100)	
			(Missing)	52658 (96.5)	1929 (3.5)	54587 (100)	
age_group	2126768	81200	0 - 9 Years	75431 (99.7)	201 (0.3)	75632 (100)	<0.001
			10 - 19 Years	210540 (99.7)	583 (0.3)	211123 (100)	
			20 - 29 Years	404463 (99.3)	2813 (0.7)	407276 (100)	
			30 - 39 Years	329355 (98.7)	4412 (1.3)	333767 (100)	
			40 - 49 Years	319425 (97.9)	6905 (2.1)	326330 (100)	
			50 - 59 Years	314653 (96.5)	11472 (3.5)	326125 (100)	
			60 - 69 Years	218324 (94.5)	12767 (5.5)	231091 (100)	
			70 - 79 Years	112389 (90.6)	11605 (9.4)	123994 (100)	

Dependent:	Total	Missing		No	Yes	Total	p
acuterespdistress_yr	N	N					
			80+ Years	81064 (88.9)	10091 (11.1)	91155 (100)	
			Unknown	270 (98.2)	5 (1.8)	275 (100)	
			(Missing)	30049 (96.3)	1151 (3.7)	31200 (100)	
race_ethnicity_combined	199871	159256	American Indian/Alaska Native, Non-Hispanic	6367 (96.7)	215 (3.3)	6582 (100)	<0.001
			Asian, Non-Hispanic	38912 (94.8)	2126 (5.2)	41038 (100)	
			Black, Non-Hispanic	201669 (95.5)	9508 (4.5)	211177 (100)	
			Hispanic/Latino	390988 (97.5)	10075 (2.5)	401063 (100)	
			Multiple/Other, Non-Hispanic	32815 (93.7)	2198 (6.3)	35013 (100)	
			Native Hawaiian/Other Pacific Islander, Non-Hispanic	11808 (98.0)	243 (2.0)	12051 (100)	
			Unknown	389403 (98.1)	7401 (1.9)	396804 (100)	
			White, Non-Hispanic	870333 (97.2)	24651 (2.8)	894984 (100)	
			(Missing)	153668 (96.5)	5588 (3.5)	159256 (100)	
res_state	2040399	117569	88	7 (100.0)	0 (0.0)	7 (100)	<0.001
			99	33 (100.0)	0 (0.0)	33 (100)	
			AK	4634 (95.6)	213 (4.4)	4847 (100)	
			AL	12 (100.0)	0 (0.0)	12 (100)	
			AR	192515 (99.3)	1321 (0.7)	193836 (100)	
			AZ	220 (89.8)	25 (10.2)	245 (100)	
			CA	396 (91.7)	36 (8.3)	432 (100)	
			CO	6419 (85.1)	1125 (14.9)	7544 (100)	
			CT	5 (100.0)	0 (0.0)	5 (100)	
			DC	1021 (61.3)	645 (38.7)	1666 (100)	
			DE	26 (92.9)	2 (7.1)	28 (100)	
			FL	304 (92.4)	25 (7.6)	329 (100)	
			GA	77 (69.4)	34 (30.6)	111 (100)	
			GU	1549 (98.5)	23 (1.5)	1572 (100)	

Dependent: acuterespdistress_yr	Total N	Missing N	No	Yes	Total	p
HI	28 (93.3)	2 (6.7)	30 (100)			
IA	201298 (98.6)	2815 (1.4)	204113 (100)			
ID	0 (NaN)	0 (NaN)	0 (100)			
IL	53 (44.9)	65 (55.1)	118 (100)			
IN	71 (76.3)	22 (23.7)	93 (100)			
KS	114373 (98.1)	2206 (1.9)	116579 (100)			
KY	472 (85.5)	80 (14.5)	552 (100)			
LA	28500 (94.6)	1638 (5.4)	30138 (100)			
MA	55 (1.5)	3718 (98.5)	3773 (100)			
MD	12 (100.0)	0 (0.0)	12 (100)			
ME	11 (100.0)	0 (0.0)	11 (100)			
MI	12 (100.0)	0 (0.0)	12 (100)			
MN	13 (86.7)	2 (13.3)	15 (100)			
MO	191 (82.7)	40 (17.3)	231 (100)			
MP	151 (100.0)	0 (0.0)	151 (100)			
MS	544 (94.1)	34 (5.9)	578 (100)			
MT	53 (96.4)	2 (3.6)	55 (100)			
NC	364776 (97.7)	8531 (2.3)	373307 (100)			
ND	42 (100.0)	0 (0.0)	42 (100)			
NE	23 (100.0)	0 (0.0)	23 (100)			
NH	36 (11.4)	281 (88.6)	317 (100)			
NJ	77916 (92.4)	6446 (7.6)	84362 (100)			
NM	9 (100.0)	0 (0.0)	9 (100)			
NV	172173 (96.4)	6430 (3.6)	178603 (100)			
NY	10843 (78.3)	3005 (21.7)	13848 (100)			
NYC	0 (NaN)	0 (NaN)	0 (100)			

Dependent:	Total	Missing		No	Yes	Total	p
acuterespdistress_yn	N	N					
			OCONUS	3 (100.0)	0 (0.0)	3 (100)	
			OH	273676	7614	281290	
				(97.3)	(2.7)	(100)	
			OK	47	0 (0.0)	47	
				(100.0)		(100)	
			OR	24	0 (0.0)	24	
				(100.0)		(100)	
			PA	287184	2897	290081	
				(99.0)	(1.0)	(100)	
			PR	1315	123	1438	
				(91.4)	(8.6)	(100)	
			RI	47	0 (0.0)	47	
				(100.0)		(100)	
			SC	6 (50.0)	6 (50.0)	12	
						(100)	
			SD	53	0 (0.0)	53	
				(100.0)		(100)	
			TN	2 (100.0)	0 (0.0)	2 (100)	
			TX	153	8 (5.0)	161	
				(95.0)		(100)	
			Unknown	23	0 (0.0)	23	
				(100.0)		(100)	
			USVI	18	0 (0.0)	18	
				(100.0)		(100)	
			UT	187953	1434	189387	
				(99.2)	(0.8)	(100)	
			VA	31	0 (0.0)	31	
				(100.0)		(100)	
			VI	2011	10 (0.5)	2021	
				(99.5)		(100)	
			VT	6940	205	7145	
				(97.1)	(2.9)	(100)	
			WA	45035	2410	47445	
				(94.9)	(5.1)	(100)	
			WI	68	10	78	
				(87.2)	(12.8)	(100)	
			WV	257	28 (9.8)	285	
				(90.2)		(100)	
			WY	3079	90 (2.8)	3169	
				(97.2)		(100)	
			(Missing)	109165	8404	117569	
				(92.9)	(7.1)	(100)	
hc_work_yn	1805773	52191	No	1293901	31319	1325220	<0.001
				(97.6)	(2.4)	(100)	
			Unknown	314540	12360	326900	
				(96.2)	(3.8)	(100)	
			Yes	151522	2135	153657	
				(98.6)	(1.4)	(100)	
			(Missing)	336000	16191	352191	
				(95.4)	(4.6)	(100)	
medcond_yn	2017985	139983	No	952697	6617	959314	<0.001
				(99.3)	(0.7)	(100)	

Dependent:	Total	Missing		No	Yes	Total	p
acuterespdistress_yn	N	N					
			Unknown	143956 (95.5)	6767 (4.5)	150723 (100)	
			Yes	860902 (94.8)	47046 (5.2)	907948 (100)	
			(Missing)	138408 (98.9)	1575 (1.1)	139983 (100)	

[1] “Outcome: death_yn” [1] “Univarait Analysis”

Dependent:	Total	Missing		No	Yes	Total	p
death_yn	N	N					
current_status	10817081	0	Laboratory-confirmed case	9783028 (94.0)	628483 (6.0)	10411511 (100)	<0.001
			Probable Case	364444 (89.9)	41126 (10.1)	405570 (100)	
sex	10612702	204376	Female	5224972 (94.6)	299851 (5.4)	5524823 (100)	<0.001
			Male	4679849 (92.9)	357710 (7.1)	5037559 (100)	
			Other	68 (100.0)	0 (0.0)	68 (100)	
			Unknown	48626 (96.8)	1629 (3.2)	50255 (100)	
			(Missing)	193957 (94.9)	10419 (5.1)	204376 (100)	
age_group	10727833	39246	0 - 9 Years	391587 (99.6)	1526 (0.4)	393113 (100)	<0.001
			10 - 19 Years	957743 (100.0)	401 (0.0)	958144 (100)	
			20 - 29 Years	1991007 (99.9)	2922 (0.1)	1993929 (100)	
			30 - 39 Years	1688767 (99.5)	8427 (0.5)	1697194 (100)	
			40 - 49 Years	1578338 (98.8)	19839 (1.2)	1598177 (100)	
			50 - 59 Years	1500161 (96.6)	53352 (3.4)	1553513 (100)	
			60 - 69 Years	1028112 (90.2)	111773 (9.8)	1139885 (100)	
			70 - 79 Years	543455 (76.6)	166060 (23.4)	709515 (100)	
			80+ Years	376612 (55.7)	299951 (44.3)	676563 (100)	
			Unknown	7716 (98.9)	86 (1.1)	7802 (100)	
			(Missing)	83974 (94.1)	5272 (5.9)	89246 (100)	
race_ethnicity_combined	10253465	63616	American Indian/Alaska Native, Non-Hispanic	37924 (92.0)	3292 (8.0)	41216 (100)	<0.001
			Asian, Non-Hispanic	200612 (89.8)	22663 (10.2)	223275 (100)	

Dependent: death_yn	Total N	Missing N	No	Yes	Total	p
			Black, Non-Hispanic	995737 (89.6)	115399 (10.4)	1111136 (100)
			Hispanic/Latino	1451707 (95.0)	76506 (5.0)	1528213 (100)
			Multiple/Other, Non-Hispanic	330911 (92.9)	25369 (7.1)	356280 (100)
			Native Hawaiian/Other	19576 (97.6)	490 (2.4)	20066 (100)
			Pacific Islander, Non-Hispanic	3418496 (97.0)	104425 (3.0)	3522921 (100)
			Unknown	3158715 (91.5)	291643 (8.5)	3450358 (100)
			White, Non-Hispanic	533794 (94.7)	29822 (5.3)	563616 (100)
			(Missing)	6 (100.0)	0 (0.0)	6 (100)
res_state	10299025	18056	88	23 (100.0)	0 (0.0)	23 (100)
			AK	10636 (96.8)	353 (3.2)	10989 (100)
			AL	202498 (95.5)	9548 (4.5)	212046 (100)
			AR	145770 (96.6)	5073 (3.4)	150843 (100)
			AZ	273376 (93.6)	18715 (6.4)	292091 (100)
			CA	1952231 (98.3)	33867 (1.7)	1986098 (100)
			CO	115789 (93.5)	8023 (6.5)	123812 (100)
			CT	63458 (84.1)	11953 (15.9)	75411 (100)
			DC	43343 (96.0)	1787 (4.0)	45130 (100)
			DE	464 (84.5)	85 (15.5)	549 (100)
			FL	624714 (95.5)	29539 (4.5)	654253 (100)
			GA	4974 (86.3)	790 (13.7)	5764 (100)
			GU	1730 (95.7)	77 (4.3)	1807 (100)
			HI	43 (89.6)	5 (10.4)	48 (100)
			IA	168441 (96.8)	5512 (3.2)	173953 (100)
			ID	106995 (98.0)	2201 (2.0)	109196 (100)
			IL	2448 (5.5)	42345 (94.5)	44793 (100)
			IN	23789 (75.5)	7723 (24.5)	31512 (100)

Dependent: death_yn	Total N	Missing N	No	Yes	Total	p
KS			273887 (98.5)	4130 (1.5)	278017 (100)	
KY			92906 (97.3)	2551 (2.7)	95457 (100)	
LA			26212 (89.1)	3193 (10.9)	29405 (100)	
MA			201615 (84.5)	36888 (15.5)	238503 (100)	
MD			73 (98.6)	1 (1.4)	74 (100)	
ME			20700 (97.4)	562 (2.6)	21262 (100)	
MI			247805 (91.9)	21736 (8.1)	269541 (100)	
MN			521818 (97.9)	11157 (2.1)	532975 (100)	
MO			1243 (96.4)	46 (3.6)	1289 (100)	
MP			89 (91.8)	8 (8.2)	97 (100)	
MS			104922 (93.9)	6778 (6.1)	111700 (100)	
MT			49598 (98.2)	900 (1.8)	50498 (100)	
NC			814784 (98.4)	13278 (1.6)	828062 (100)	
ND			15363 (95.7)	683 (4.3)	16046 (100)	
NE			67 (100.0)	0 (0.0)	67 (100)	
NH			27178 (93.4)	1934 (6.6)	29112 (100)	
NJ			912672 (93.8)	60056 (6.2)	972728 (100)	
NM			17 (63.0)	10 (37.0)	27 (100)	
NV			203551 (96.8)	6652 (3.2)	210203 (100)	
NY			197876 (63.4)	114110 (36.6)	311986 (100)	
NYC			24 (27.6)	63 (72.4)	87 (100)	
OCONUS			4 (100.0)	0 (0.0)	4 (100)	
OH			331824 (94.2)	20385 (5.8)	352209 (100)	
OK			278940 (98.4)	4497 (1.6)	283437 (100)	
OR			127578 (98.2)	2312 (1.8)	129890 (100)	
PA			295869 (89.6)	34372 (10.4)	330241 (100)	
PR			673 (31.0)	1498 (69.0)	2171 (100)	

Dependent: death_yn	Total N	Missing N	No	Yes	Total	p
		RI	2799 (97.8)	62 (2.2)	2861 (100)	
		SC	294794 (96.2)	11772 (3.8)	306566 (100)	
		SD	48 (100.0)	0 (0.0)	48 (100)	
		TN	246582 (95.9)	10621 (4.1)	257203 (100)	
		TX	319 (97.6)	8 (2.4)	327 (100)	
		Unknown	26 (100.0)	0 (0.0)	26 (100)	
		USVI	20 (90.9)	2 (9.1)	22 (100)	
		UT	189397 (98.9)	2084 (1.1)	191481 (100)	
		VA	294558 (96.3)	11353 (3.7)	305911 (100)	
		VI	2908 (98.0)	59 (2.0)	2967 (100)	
		VT	7786 (96.4)	292 (3.6)	8078 (100)	
		WA	74 (0.9)	7798 (99.1)	7872 (100)	
		WI	192775 (96.9)	6184 (3.1)	198959 (100)	
		WV	319 (97.6)	8 (2.4)	327 (100)	
		WY	2907 (98.0)	58 (2.0)	2965 (100)	
		(Missing)	424144 (81.9)	93912 (18.1)	518056 (100)	
hc_work_yn	5547209	5269872 No	3224866 (96.0)	133248 (4.0)	3358114 (100)	<0.001
		Unknown	1556122 (88.9)	194711 (11.1)	1750833 (100)	
		Yes	436055 (99.5)	2207 (0.5)	438262 (100)	
		(Missing)	4930429 (93.6)	339443 (6.4)	5269872 (100)	
medcond_yn	4927770	5889311 No	1401864 (99.2)	10992 (0.8)	1412856 (100)	<0.001
		Unknown	1666918 (91.6)	152133 (8.4)	1819051 (100)	
		Yes	1392655 (82.1)	303208 (17.9)	1695863 (100)	
		(Missing)	5686035 (96.5)	203276 (3.5)	5889311 (100)	

Time for the chunk PRINT OUTCOMES to run: 2.37479216655095 minutes