

Nursing Home and HLTCU Beds: Appendix and Bed Need Updates, 2019

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Executive Summary

The Nursing Home and HLTCU Bed Need was updated using 2018 as the Base Year and 2023 as the Planning Year. The updates used 2018 CON Annual Survey data, 2018 US Census population data, and 2023 population projection data (from the Michigan Department of Technology, Management & Budget). This represents the second calculation of the NH and HLTCU Bed Need since the recent efforts to improve facility reporting (2015–2016) and the slight modification of the bed need methodology use a single (occupancy) adjustment factor of 0.9 (updated in 9/21/17 version of the Review Standards). The following updates (among others) are provided here, 1: Patient day use rates by age cohort based on 2018 utilization and population data and 2: the Bed Need output.

Patient day use rates by age cohort

The methodology used to update the use rates is found in Section 3.(1) of the Review Standards. The rates are based on current state-wide patient day utilization and population counts in four age cohorts: 0-64, 65-74, 75-84, and 85+ in the Base Year (2018).

The updates are relatively straight-forward; the statewide patient days for each age cohort are summed, and the statewide population for each cohort is summed. The respective sums are then divided, then multiplied by 1,000 to produce a rate of patient days per 1,000 people in each age cohort. The 2018 patient days, state population, and use rates by age cohort are found in Table 1.

Table 1. Use rates by age cohort for 2018. The results are for the entire Michigan population and all facilities that reported data in 2018. Use Rate is patient days per 1,000 people and is the updated information for the Review Standards.

Age Cohort	Patient Days	Population	Use Rate
0-64	2,080,203	8,279,311	252
65-74	2,658,304	1,004,702	2646
75-84	3,828,742	497,916	7,690
85+	5,296,830	213,986	24,754

The prior four calculations of the patient day use rates are provided in Table 2. This table shows the continuation of a general trend of decreasing utilization of NH and HLTCU services in the older age groups (75-84 and 85+).

Table 2. Use Rates (patient days per 1,000 people) in 2013, 2015, 2016, and 2018.

Age Cohort	2013	2015	2016	2018
0-64	195	233	247	252
65-74	2,380	2,595	2,603	2646
75-84	8,091	8,349	8,239	7,690
85+	29,408	28,839	27,804	24,754

Bed Need

The methodology used to calculate the number of nursing home and HLTCU beds can be found in Section 3.(2) of the Review Standards. For each planning area, the predicted population for the Planning Year (2020) in each age cohort is multiplied by its respective use rate. This produces the predicted patient days per age cohort in the Planning Year, which are then summed for each planning area. The resulting total patient days are divided by 365 to produce the planning areas' average daily census (ADC) for the Planning Year.

In Section 3.(2)(e), the bed need in the Planning Year is calculated by dividing the Planning Year ADC by an ADC adjustment factor of 0.9. This result is rounded up to the next whole number under the assumption that a partial bed is a bed. The updated bed need calculations can be found in Table 3. The statewide number of predicted beds in 2023 is 46,188. This value is only roughly 400 beds less than the prior prediction (for 2020, using data from 2016).

Table 3. Nursing Home and HLTCU bed need. Base year: 2018, Planning year: 2023.

Planning Area	Bed Need	Planning Area	Bed Need
Alcona	85	Lapeer	404
Alger	50	Leelanau	171
Allegan	509	Lenawee	481
Alpena	173	Livingston	897
Antrim	157	Luce	34
Arenac	92	Mackinac	70
Baraga	47	Macomb	4,077
Barry	293	Manistee	159
Bay	556	Marquette	345
Benzie	121	Mason	181
Berrien	799	Mecosta	202
Branch	202	Menominee	150
Calhoun	639	Midland	439
Cass	254	Missaukee	78
Charlevoix	160	Monroe	744
Cheboygan	168	Montcalm	299
Chippewa	175	Montmorency	67
Clare	177	Muskegon	784
Clinton	364	Newaygo	236
Crawford	88	Oakland	5,810
Delta	229	Oceana	136
Dickinson	150	Ogemaw	132
Eaton	532	Ontonagon	48
Emmet	196	Osceola	128
Genesee	1,882	Oscoda	52
Gladwin	156	Otsego	130
Gogebic	96	Ottawa	1,289
Grand Traverse	494	Presque Isle	97
Gratiot	193	Roscommon	177
Hillsdale	238	Saginaw	976
Houghton and Keweenaw	186	Saint Clair	780
Huron	191	Saint Joseph	289
Ingham	1,085	Sanilac	220
Ionia	250	Schoolcraft	55
Iosco	174	Shiawassee	325
Iron	87	Tuscola	267
Isabella	255	Van Buren	349
Jackson	747	Washtenaw	1,477
Kalamazoo	1,112	Wexford	166
Kalkaska	87	South Wayne County	1,629
Kent	2,613	Northwest Wayne County	2,512
Lake	79	Detroit and Eastern Wayne County	3,185

Nursing Home Bed Need (Base Year - 2018; Planning Year - 2023)

							Current CON	
Planning Area name	Total Patient Days of Care	ADC	Adj ADC	New Bed Need	Current Bed Need	Difference in Bed Need	Bed Inventory	New Unmet Bed Need
Alcona	27745.932	76.01625205	84.46250228	85	81	4	78	7
Alger	16419.46	44.98482192	49.98313546	50	53	(3)	106	(56)
Allegan	167123.632	457.8729644	508.7477382	509	418	91	539	(30)
Alpena	56706.63	155.3606301	172.6229224	173	148	25	185	(12)
Antrim	51319.408	140.6011178	156.2234642	157	120	37	133	24
Arenac	30062.392	82.36271781	91.5141309	92	87	5	68	24
Baraga	15142.304	41.48576438	46.09529376	47	40	7	59	(12)
Barry	96148.996	263.4219068	292.6910076	293	249	44	267	26
Bay	182630.69	500.3580548	555.9533942	556	486	70	654	(98)
Benzie	39747.486	108.8972219	120.9969132	121	109	12	113	8
Berrien	262180.39	718.3024384	798.1138204	799	699	100	774	25
Branch	66231.386	181.4558521	201.6176134	202	177	25	283	(81)
Calhoun	209789.376	574.7654137	638.6282374	639	553	86	796	(157)
Cass	83346.656	228.3470027	253.7188919	254	233	21	188	66
Charlevoix	52509.458	143.8615288	159.8461431	160	129	31	159	1
Cheboygan	55127.598	151.0345151	167.8161279	168	151	17	85	83
Chippewa	57391.514	157.2370247	174.7078052	175	151	24	157	18
Clare	57951.758	158.7719397	176.4132664	177	157	20	163	14
Clinton	119569.042	327.5864164	363.9849072	364	307	57	312	52
Crawford	28594.792	78.34189589	87.04655099	88	79	9	111	(23)
Delta	74916.934	205.251874	228.0576377	229	204	25	282	(53)
Dickinson	49274.13	134.9976164	149.9973516	150	123	27	194	(44)
Eaton	174738.706	478.7361808	531.9290898	532	471	61	507	25
Emmet	64170.428	175.8093918	195.3437686	196	161	35	220	(24)
Genesee	618091.646	1693.40177	1881.557522	1882	1692	190	1911	(29)
Gladwin	51020.716	139.7827836	155.314204	156	140	16	144	12
Gogebic	31330.934	85.83817534	95.37575038	96	96	0	174	(78)

Nursing Home Bed Need (Base Year - 2018; Planning Year - 2023)

							Current CON	
Planning Area name	Total Patient Days of Care	ADC	Adj ADC	New Bed Need	Current Bed Need	Difference in Bed Need	Bed Inventory	New Unmet Bed Need
Grand Traverse	161961.786	443.7309205	493.0343562	494	402	92	505	(11)
Gratiot	63350.102	173.5619233	192.8465814	193	178	15	526	(333)
Hillsdale	77885.326	213.3844548	237.0938387	238	215	23	209	29
Houghton and Keweenaw	60973.824	167.0515726	185.6128584	186	158	28	365	(179)
Huron	62479.802	171.1775397	190.1972664	191	186	5	288	(97)
Ingham	356115.636	975.6592767	1084.065863	1085	868	217	1073	12
Ionia	81984.48	224.6150137	249.5722374	250	212	38	235	15
Iosco	57077.578	156.376926	173.75214	174	164	10	203	(29)
Iron	28537.178	78.18404932	86.87116591	87	94	(7)	249	(162)
Isabella	83701.298	229.3186247	254.7984718	255	215	40	296	(41)
Jackson	245147.472	671.6369096	746.2632329	747	637	110	707	40
Kalamazoo	365198.154	1000.542888	1111.71432	1112	962	150	989	123
Kalkaska	28355.38	77.6859726	86.31774734	87	82	5	104	(17)
Kent	858334.234	2351.600641	2612.889601	2613	2092	521	2354	259
Lake	25660.088	70.30161096	78.11290107	79	71	8	79	0
Lapeer	132558.348	363.1735562	403.5261735	404	341	63	368	36
Leelanau	56112.978	153.7341863	170.8157626	171	160	11	119	52
Lenawee	157732.64	432.1442192	480.1602435	481	411	70	451	30
Livingston	294524.614	806.9167507	896.5741674	897	670	227	702	195
Luce	11137.002	30.51233425	33.90259361	34	35	(1)	22	12
Mackinac	22988.618	62.98251507	69.9805723	70	61	9	48	22
Macomb	1339018.718	3668.544433	4076.160481	4077	3663	414	4159	(82)
Manistee	52184.458	142.9711178	158.8567976	159	131	28	100	59
Marquette	113183.082	310.0906356	344.5451507	345	299	46	441	(96)
Mason	59177.638	162.1305151	180.1450167	181	143	38	169	12
Mecosta	66078.714	181.0375726	201.1528584	202	177	25	200	2
Menominee	49110.428	134.5491178	149.4990198	150	119	31	133	17

Nursing Home Bed Need (Base Year - 2018; Planning Year - 2023)

							Current CON	
Planning Area name	Total Patient Days of Care	ADC	Adj ADC	New Bed Need	Current Bed Need	Difference in Bed Need	Bed Inventory	New Unmet Bed Need
Midland	144182.154	395.0196	438.9106667	439	376	63	392	47
Missaukee	25500.982	69.86570411	77.62856012	78	72	6	95	(17)
Monroe	244319.496	669.3684822	743.742758	744	611	133	659	85
Montcalm	98106.664	268.7853808	298.6504231	299	251	48	272	27
Montmorency	21796.432	59.71625205	66.35139117	67	68	(1)	39	28
Muskegon	257473.67	705.4073151	783.7859056	784	644	140	646	138
Newaygo	77497.568	212.3221041	235.913449	236	209	27	245	(9)
Oakland	1908288.248	5228.186981	5809.096645	5810	4748	1062	5426	384
Oceana	44567.144	122.1017644	135.6686271	136	109	27	115	21
Ogemaw	43255.544	118.5083397	131.675933	132	120	12	172	(40)
Ontonagon	15486.124	42.42773699	47.14192998	48	41	7	39	9
Osceola	41947.624	114.9249973	127.6944414	128	110	18	50	78
Oscoda	16940.75	46.4130137	51.57001522	52	45	7	39	13
Otsego	42512.19	116.4717534	129.4130594	130	120	10	140	(10)
Ottawa	423230.072	1159.534444	1288.371604	1289	968	321	968	321
Presque Isle	31821.284	87.1816	96.86844444	97	100	(3)	98	(1)
Roscommon	57959.698	158.7936932	176.4374368	177	156	21	179	(2)
Saginaw	320408.652	877.8319233	975.3688037	976	872	104	1130	(154)
Saint Clair	256226.148	701.9894466	779.988274	780	664	116	784	(4)
Saint Joseph	94680.906	259.3997425	288.2219361	289	250	39	357	(68)
Sanilac	71980.996	197.2082082	219.1202314	220	194	26	227	(7)
Schoolcraft	17867.234	48.95132603	54.39036225	55	52	3	63	(8)
Shiawassee	106695.87	292.3174521	324.7971689	325	280	45	316	9
Tuscola	87626.76	240.0733151	266.7481279	267	225	42	256	11
Van Buren	114569.356	313.8886466	348.7651629	349	276	73	330	19
Washtenaw	485088.144	1329.008614	1476.676237	1477	1160	317	1189	288
Wexford	54489.324	149.2858192	165.8731324	166	146	20	131	35

Nursing Home Bed Need (Base Year - 2018; Planning Year - 2023)								
Planning Area name	Total Patient Days of Care	ADC	Adj ADC	New Bed Need	Current Bed Need	Difference in Bed Need	Current CON Bed Inventory	New Unmet Bed Need
Northwest Wayne County	824931.356	2260.085907	2511.206563	2512	2524	(12)	3020	(508)
South Wayne County	534861.572	1465.37417	1628.193522	1629	1488	141	1866	(237)
Detroit and Eastern Wayne	1046063.354	2865.926997	3184.36333	3185	2452	733	3968	(783)
<i>STATE</i>	<i>15160227.29</i>	<i>41534.87</i>	<i>46149.85</i>	46188	39391	6797	46967	(779)
				Planning Areas with Unmet Bed Need				46
				[Currently 15 PAs have unmet bed need]				