



## **Supporting Information**

### **Supplementary results**

**This appendix was part of the submitted manuscript and has been peer reviewed.  
It is posted as supplied by the authors.**

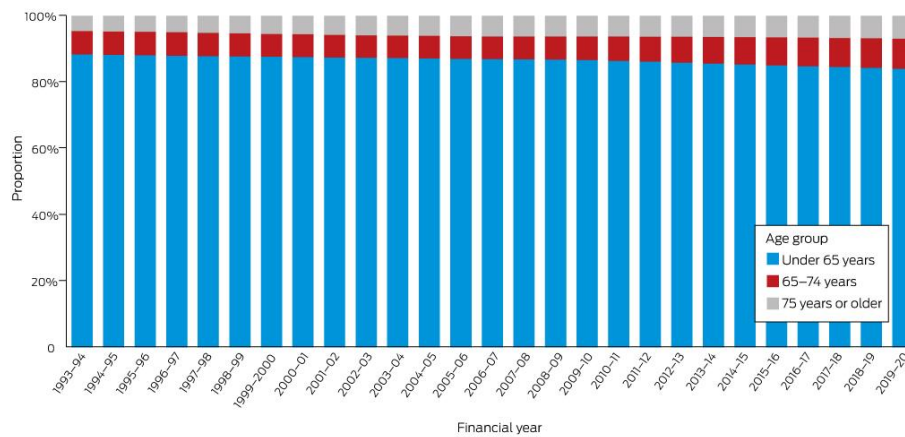
Appendix to: Reid N, Gamage T, Duckett SJ, Gray LC. Hospital utilisation in Australia, 1993–2020, with a focus on use by people over 75 years of age: a review of AIHW data. *Med J Aust* 2023; doi: 10.5694/mja2.52026.

**Table 1. Australian population, 1993–94 to 2019–20, by age group\***

Year	Number of people			Total	Proportion of population		
	< 65	65–74	≥ 75		< 65	65–74	≥ 75
1993–94	15,582,160	1,237,064	815,584	17,634,808	88.4%	7.0%	4.6%
1994–95	15,705,643	1,264,464	835,361	17,805,468	88.2%	7.1%	4.7%
1995–96	15,861,603	1,277,447	865,832	18,004,882	88.1%	7.1%	4.8%
1996–97	16,032,528	1,288,948	903,291	18,224,767	88.0%	7.1%	5.0%
1997–98	16,186,020	1,293,537	943,480	18,423,037	87.9%	7.0%	5.1%
1998–99	16,329,080	1,296,598	981,906	18,607,584	87.8%	7.0%	5.3%
1999–00	16,490,638	1,300,015	1,021,611	18,812,264	87.7%	6.9%	5.4%
2000–01	16,664,542	1,302,006	1,062,254	19,028,802	87.6%	6.8%	5.6%
2001–02	16,855,631	1,311,961	1,107,109	19,274,701	87.4%	6.8%	5.7%
2002–03	17,029,541	1,324,605	1,141,064	19,495,210	87.4%	6.8%	5.9%
2003–04	17,175,608	1,334,558	1,166,457	19,676,623	87.3%	6.8%	5.9%
2004–05	17,373,865	1,353,404	1,205,453	19,932,722	87.2%	6.8%	6.0%
2005–06	17,564,965	1,373,971	1,237,908	20,176,844	87.1%	6.8%	6.1%
2006–07	17,786,902	1,397,253	1,266,810	20,450,965	87.0%	6.8%	6.2%
2007–08	18,091,012	1,440,885	1,295,725	20,827,622	86.9%	6.9%	6.2%
2008–09	18,444,032	1,485,037	1,320,130	21,249,199	86.8%	7.0%	6.2%
2009–10	18,801,087	1,546,161	1,344,405	21,691,653	86.7%	7.1%	6.2%
2010–11	19,045,075	1,613,289	1,373,386	22,031,750	86.4%	7.3%	6.2%
2011–12	19,252,113	1,681,931	1,405,980	22,340,024	86.2%	7.5%	6.3%
2012–13	19,519,612	1,776,513	1,437,340	22,733,465	85.9%	7.8%	6.3%
2013–14	19,797,751	1,859,053	1,471,325	23,128,129	85.6%	8.0%	6.4%
2014–15	20,033,538	1,932,406	1,509,742	23,475,686	85.3%	8.2%	6.4%
2015–16	20,261,691	2,006,690	1,547,614	23,815,995	85.1%	8.4%	6.5%
2016–17	20,518,656	2,083,269	1,588,982	24,190,907	84.8%	8.6%	6.6%
2017–18	20,811,018	2,151,574	1,639,268	24,601,860	84.6%	8.7%	6.7%
2018–19	21,069,713	2,224,044	1,688,931	24,982,688	84.3%	8.9%	6.8%
2019–20	21,325,615	2,285,695	1,754,435	25,365,745	84.1%	9.0%	6.9%

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Figure 1. Australian population, 1993–94 to 2019–20, by age group proportions\***



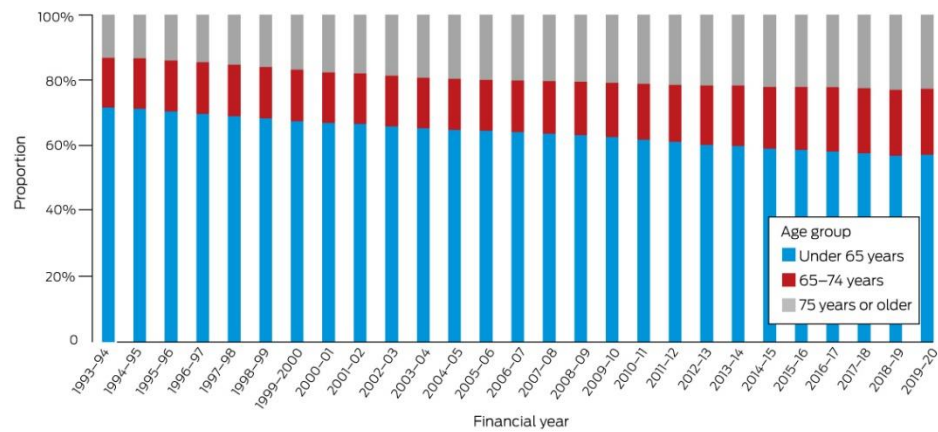
\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Table 2. All hospital separations, Australia (public and private), 1993–94 to 2019–20, by age group\***

Year	Number of separations				Proportion of population		
	< 65	65–74	≥ 75	Total	< 65	65–74	≥ 75
1993–94	3,302,860	698,641	607,263	4,608,764	71.66%	15.16%	13.18%
1994–95	3,475,747	753,338	651,108	4,880,193	71.22%	15.44%	13.34%
1995–96	3,638,446	806,845	725,369	5,170,660	70.37%	15.60%	14.03%
1996–97	3,711,673	837,752	777,415	5,326,840	69.68%	15.73%	14.59%
1997–98	3,839,118	874,841	849,086	5,563,045	69.01%	15.73%	15.26%
1998–99	3,918,314	902,232	914,486	5,735,032	68.32%	15.73%	15.95%
1999–00	3,980,075	926,889	991,830	5,898,794	67.47%	15.71%	16.81%
2000–01	4,116,327	953,237	1,084,108	6,153,672	66.89%	15.49%	17.62%
2001–02	4,262,618	985,569	1,149,888	6,398,075	66.62%	15.40%	17.97%
2002–03	4,377,959	1,029,528	1,237,315	6,644,802	65.89%	15.49%	18.62%
2003–04	4,461,710	1,062,801	1,316,712	6,841,223	65.22%	15.54%	19.25%
2004–05	4,547,469	1,093,675	1,377,686	7,018,830	64.79%	15.58%	19.63%
2005–06	4,717,176	1,137,647	1,457,108	7,311,931	64.51%	15.56%	19.93%
2006–07	4,873,749	1,198,316	1,530,829	7,602,894	64.10%	15.76%	20.13%
2007–08	5,012,041	1,259,913	1,601,982	7,873,936	63.65%	16.00%	20.35%
2008–09	5,154,161	1,320,231	1,674,051	8,148,443	63.25%	16.20%	20.54%
2009–10	5,335,765	1,420,040	1,775,198	8,531,003	62.55%	16.65%	20.81%
2010–11	5,464,580	1,512,963	1,874,909	8,852,452	61.73%	17.09%	21.18%
2011–12	5,659,253	1,615,831	1,980,899	9,255,983	61.14%	17.46%	21.40%
2012–13	5,649,187	1,689,934	2,034,375	9,373,496	60.27%	18.03%	21.70%
2013–14	5,805,820	1,785,999	2,104,712	9,696,531	59.88%	18.42%	21.71%
2014–15	5,992,907	1,915,837	2,241,534	10,150,278	59.04%	18.87%	22.08%
2015–16	6,118,623	2,007,345	2,305,503	10,431,471	58.66%	19.24%	22.10%
2016–17	6,305,804	2,127,159	2,405,889	10,838,852	58.18%	19.63%	22.20%
2017–18	6,408,845	2,220,548	2,494,948	11,124,341	57.61%	19.96%	22.43%
2018–19	6,275,768	2,220,247	2,528,674	11,024,689	56.92%	20.14%	22.94%
2019–20	6,485,342	2,274,367	2,566,653	11,326,362	57.26%	20.08%	22.66%

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Figure 2. All hospital separations, Australia (public and private), 1993–94 to 2019–20, by age group proportions\***



\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Box 3. Multiple day hospital separation rate (per 1000 population), Australia (public and private), 1993–94 to 2019–20, by age group\***

Year	Age group			All ages
	< 65	65–74	≥ 75	
1993–94	129	347	583	165
1994–95	127	345	588	164
1995–96	127	347	609	165
1996–97	123	338	603	162
1997–98	122	336	607	162
1998–99	120	330	605	161
1999–00	118	323	611	159
2000–01	118	318	615	159
2001–02	117	313	608	158
2002–03	115	312	615	158
2003–04	116	313	622	159
2004–05	116	313	613	159
2005–06	118	313	621	162
2006–07	120	318	624	164
2007–08	120	319	629	165
2008–09	119	318	631	165
2009–10	120	320	635	167
2010–11	121	325	652	169
2011–12	124	331	664	174
2012–13	123	327	667	173
2013–14	123	325	657	173
2014–15	123	327	667	175
2015–16	123	326	666	175
2016–17	123	331	676	178
2017–18	122	330	674	177
2018–19	122	324	667	176
2019–20	114	306	631	167

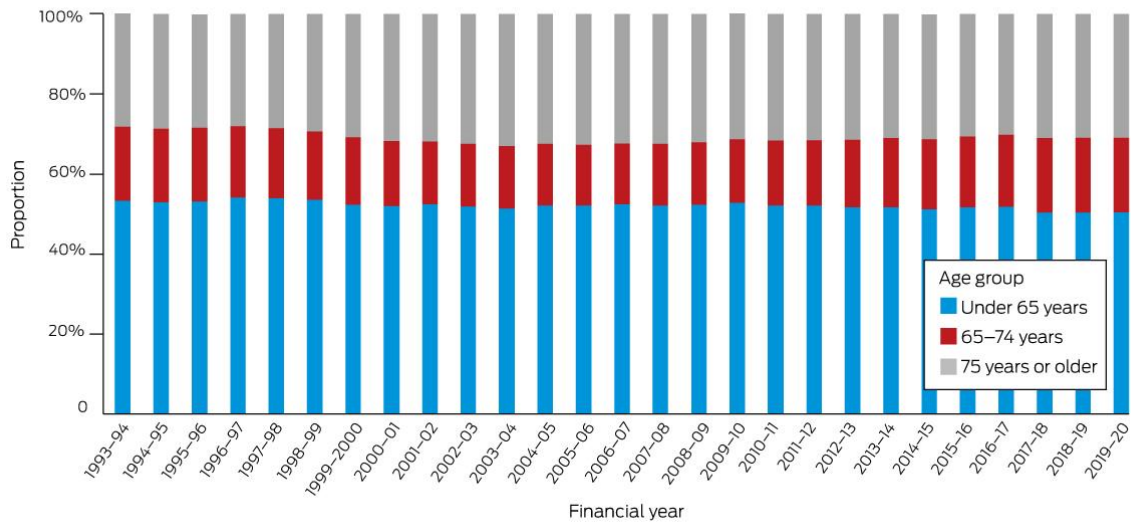
\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Table 4. Total hospital bed utilisation, Australia (public and private), 1993–94 to 2019–20, by age group\***

Year	Bed utilisation (bed-days)				Proportions		
	< 65	65–74	≥ 75	All ages	< 65	65–74	≥ 75
1993–94	11,220,678	3,881,263	5,920,984	21,022,925	53.4%	18.5%	28.2%
1994–95	11,089,973	3,880,798	6,002,396	20,973,167	52.9%	18.5%	28.6%
1995–96	11,952,199	4,139,193	6,355,855	22,447,247	53.2%	18.4%	28.3%
1996–97	12,118,273	3,991,914	6,255,333	22,365,520	54.2%	17.8%	28.0%
1997–98	12,172,676	3,944,438	6,437,599	22,554,713	54.0%	17.5%	28.5%
1998–99	11,956,435	3,821,765	6,540,749	22,318,949	53.6%	17.1%	29.3%
1999–00	11,825,662	3,811,612	6,966,026	22,603,300	52.3%	16.9%	30.8%
2000–01	11,688,230	3,652,311	7,127,246	22,467,787	52.0%	16.3%	31.7%
2001–02	12,155,170	3,669,395	7,375,656	23,200,221	52.4%	15.8%	31.8%
2002–03	12,221,541	3,696,655	7,614,912	23,533,108	51.9%	15.7%	32.4%
2003–04	12,111,818	3,704,384	7,767,099	23,583,301	51.4%	15.7%	32.9%
2004–05	12,404,412	3,704,834	7,719,340	23,828,586	52.1%	15.5%	32.4%
2005–06	12,679,765	3,730,448	7,920,272	24,330,485	52.1%	15.3%	32.6%
2006–07	13,053,916	3,824,316	8,046,239	24,924,471	52.4%	15.3%	32.3%
2007–08	13,357,933	3,976,122	8,308,444	25,642,499	52.1%	15.5%	32.4%
2008–09	13,488,020	4,035,136	8,258,946	25,782,102	52.3%	15.7%	32.0%
2009–10	13,912,929	4,183,656	8,268,338	26,364,923	52.8%	15.9%	31.4%
2010–11	14,022,892	4,383,575	8,488,132	26,894,599	52.1%	16.3%	31.6%
2011–12	14,445,914	4,558,213	8,731,934	27,736,061	52.1%	16.4%	31.5%
2012–13	14,320,286	4,671,449	8,704,031	27,695,766	51.7%	16.9%	31.4%
2013–14	14,420,406	4,814,458	8,637,211	27,872,075	51.7%	17.3%	31.0%
2014–15	14,731,031	5,046,036	8,976,377	28,753,444	51.2%	17.5%	31.2%
2015–16	15,114,620	5,180,383	8,947,435	29,242,438	51.7%	17.7%	30.6%
2016–17	15,752,100	5,484,709	9,184,231	30,421,040	51.8%	18.0%	30.2%
2017–18	15,055,286	5,558,791	9,269,713	29,883,790	50.4%	18.6%	31.0%
2018–19	15,384,021	5,699,274	9,424,698	30,507,993	50.4%	18.7%	30.9%
2019–20	15,095,516	5,575,478	9,234,570	29,905,564	50.5%	18.6%	30.9%

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022.  
<https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Figure 3. Total hospital bed utilisation, 1993–94 to 2019–20, by age group proportions\***



\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).



**Table 5. Multiple day admission hospital bed utilisation rates, Australia (public and private), 1993–94 to 2019–20, by age group\***

Year	Age group			All ages
	< 65	65–74	≥ 75	
1993–94	637	2919	7098	1096
1994–95	611	2818	6994	1068
1995–96	651	2955	7112	1125
1996–97	647	2785	6668	1097
1997–98	637	2709	6530	1084
1998–99	613	2582	6335	1052
1999–00	594	2542	6459	1047
2000–01	572	2391	6304	1016
2001–02	585	2358	6232	1030
2002–03	576	2325	6204	1024
2003–04	561	2292	6152	1010
2004–05	568	2242	5873	1002
2005–06	571	2200	5842	1005
2006–07	579	2197	5768	1011
2007–08	581	2204	5805	1019
2008–09	571	2146	5620	995
2009–10	577	2108	5464	989
2010–11	571	2104	5467	988
2011–12	580	2080	5466	1001
2012–13	567	2005	5307	979
2013–14	558	1954	5097	959
2014–15	559	1947	5128	967
2015–16	567	1907	4958	965
2016–17	584	1942	4942	987
2017–18	538	1882	4806	940
2018–19	544	1864	4728	944
2019–20	528	1774	4453	912

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Table 6. Actual and projected (based on 1993–94 rate) multiple day hospital bed utilisation, Australia (public and private), 1993–94 to 2019–20\***

Year	Actual utilisation				Projected utilisation			
	< 65	65–74	75+	All ages	< 65	65–74	75+	All ages
1993–94	9925709	3611472	5788907	19326088	9925709	3611472	5788907	19326088
1994–95	9603790	3563448	5842383	19009621	10004367	3691463.3	5929281.5	19513115
1995–96	10322552	3775462	6157585	20255599	10103712	3729365.7	6145560.6	19731654
1996–97	10372377	3590244	6022743	19985364	10212590	3762941.6	6411439.6	19972627
1997–98	10311129	3504617	6161326	19977072	10310363	3776338.7	6696695.8	20189913
1998–99	10004092	3347710	6220126	19571928	10401491	3785275	6969438.5	20392159
1999–00	9796127	3304744	6598468	19699339	10504402	3795250.5	7251259.3	20616469
2000–01	9532526	3113280	6696855	19342661	10615178	3801063	7539737.9	20853774
2001–02	9857875	3094201	6899325	19851401	10736900	3830125.5	7858112.8	21123256
2002–03	9805161	3079823	7079286	19964270	10847679	3867038.3	8099120.8	21364913
2003–04	9636225	3059254	7176416	19871895	10940722	3896095	8279357	21563725
2004–05	9866659	3034645	7080117	19981421	11067010	3951113.8	8556145.4	21844385
2005–06	10032743	3023031	7231557	20287331	11188740	4011156.9	8786506.7	22111920
2006–07	10306421	3070026	7306526	20682973	11330112	4079126.1	8991649.3	22412331
2007–08	10516284	3176319	7521200	21213803	11523827	4206504.9	9196884.1	22825111
2008–09	10532275	3186747	7418537	21137559	11748698	4335401.8	9370107.6	23287120
2009–10	10841789	3259018	7346492	21447299	11976139	4513846.6	9542408.3	23772008
2010–11	10871020	3394681	7508529	21774230	12131558	4709819.4	9748111.6	24144722
2011–12	11174327	3498326	7684738	22357391	12263439	4910212.2	9979459.5	24482561
2012–13	11074493	3562352	7628334	22265179	12433834	5186333.9	10202049	24913736
2013–14	11048013	3632528	7499517	22180058	12611006	5427300.3	10443270	25346250
2014–15	11199933	3761579	7742301	22703813	12761201	5641446.3	10715948	25727140
2015–16	11489346	3827303	7672860	22989509	12906532	5858310.3	10984759	26100087
2016–17	11979103	4046251	7853177	23878531	13070217	6081874.2	11278383	26510955
2017–18	11194599	4048879	7879029	23122507	13256449	6281283.1	11635307	26961321
2018–19	11460351	4145742	7984937	23591030	13421236	6492851.3	11987808	27378672
2019–20	11258562	4054036	7812149	23124747	13584243	6672834.6	12452747	27798467

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022.  
<https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).

**Table 7. Mean hospital length of stay for multiple day admissions, Australia (public and private), 1993–94 to 2019–20, by age group\***

Age	Age group					
	< 65	65–69	70–74	75–79	80–84	≥ 85
1993–94	4.943	7.846	8.953	10.396	12.085	15.200
1994–95	4.827	7.658	8.633	10.267	11.833	14.491
1995–96	5.140	8.128	8.867	10.162	11.623	13.991
1996–97	5.276	7.915	8.506	9.650	11.017	13.158
1997–98	5.214	7.616	8.423	9.430	10.727	12.697
1998–99	5.089	7.406	8.151	9.249	10.367	12.334
1999–00	5.022	7.478	8.181	9.137	10.484	12.603
2000–01	4.862	7.005	7.922	8.945	10.203	11.955
2001–02	5.016	7.050	7.935	9.016	10.165	11.835
2002–03	4.999	7.052	7.805	8.791	10.038	11.687
2003–04	4.852	6.863	7.727	8.676	9.796	11.388
2004–05	4.909	6.766	7.530	8.482	9.426	11.023
2005–06	4.846	6.636	7.392	8.400	9.267	10.634
2006–07	4.847	6.516	7.299	8.163	9.084	10.460
2007–08	4.845	6.520	7.273	8.183	9.081	10.356
2008–09	4.791	6.449	7.047	7.965	8.739	9.868
2009–10	4.787	6.239	6.909	7.691	8.422	9.547
2010–11	4.701	6.158	6.788	7.534	8.194	9.229
2011–12	4.680	5.994	6.592	7.349	8.032	9.074
2012–13	4.608	5.891	6.384	7.131	7.818	8.700
2013–14	4.540	5.800	6.238	6.882	7.699	8.473
2014–15	4.549	5.770	6.153	6.865	7.566	8.402
2015–16	4.608	5.622	6.084	6.662	7.299	8.150
2016–17	4.730	5.678	6.066	6.545	7.169	7.994
2017–18	4.393	5.533	5.848	6.411	7.014	7.791
2018–19	4.474	5.573	5.907	6.408	6.941	7.729
2019–20	4.616	5.638	5.942	6.429	6.924	7.668

\* Data source: Australian Institute of Health and Welfare. Principal diagnosis data cubes (Cat. no. WEB 216). Updated 8 July 2022. <https://www.aihw.gov.au/reports/hospitals/principal-diagnosis-data-cubes> (viewed Mar 2023).