



Supporting Information

Supplementary tables and figures

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

Appendix to: Page AT, Falster MO, Litchfield M, et al. Polypharmacy among older Australians, 2006–2017: a population-based study. *Med J Aust* 2019; doi: 10.5694/mja2.50244.

Table 1. Estimated prevalence of polypharmacy, all PBS beneficiaries (general and concessional), by number of unique medicines, 2013–2017

Year	Estimated residential population	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
People over 70														
Total	2013	2247298	87585	39.0%	16179	7.2%	2051	0.9%	123848	55.1%	38830	17.3%	9093	4.0%
	2014	2320425	90871	39.2%	17058	7.4%	2233	1.0%	128830	55.5%	40739	17.6%	9805	4.2%
	2015	2394247	93606	39.1%	17283	7.2%	2269	0.9%	132777	55.5%	42038	17.6%	10118	4.2%
	2016	2475656	90568	36.6%	14694	5.9%	1669	0.7%	132139	53.4%	38227	15.4%	8461	3.4%
	2017	2593514	93524	36.1%	15304	5.9%	1722	0.7%	136659	52.7%	39331	15.2%	8555	3.3%
By sex														
Women	2013	1240750	50702	40.9%	9815	7.9%	1260	1.0%	71299	57.5%	23264	18.7%	5517	4.4%
	2014	1275847	52060	40.8%	10151	8.0%	1310	1.0%	73658	57.7%	24096	18.9%	5845	4.6%
	2015	1310940	53055	40.5%	10218	7.8%	1305	1.0%	75185	57.4%	24621	18.8%	5904	4.5%
	2016	1349656	50437	37.4%	8276	6.1%	929	0.7%	74077	54.9%	21795	16.1%	4813	3.6%
	2017	1407313	51554	36.6%	8506	6.0%	936	0.7%	75856	53.9%	22155	15.7%	4799	3.4%
Men	2013	1006548	36883	36.6%	6364	6.3%	791	0.8%	52549	52.2%	15566	15.5%	3576	3.6%
	2014	1044578	38811	37.2%	6907	6.6%	923	0.9%	55172	52.8%	16643	15.9%	3960	3.8%
	2015	1083307	40551	37.4%	7065	6.5%	964	0.9%	57592	53.2%	17417	16.1%	4214	3.9%
	2016	1126000	40131	35.6%	6418	5.7%	740	0.7%	58062	51.6%	16432	14.6%	3648	3.2%
	2017	1186201	41970	35.4%	6798	5.7%	786	0.7%	60803	51.3%	17176	14.5%	3756	3.2%
By age														
70–74 years	2013	779377	24165	31.0%	3695	4.7%	474	0.6%	35393	45.4%	9116	11.7%	2021	2.6%
	2014	814286	25252	31.0%	3984	4.9%	522	0.6%	37178	45.7%	9562	11.7%	2142	2.6%
	2015	850311	26064	30.7%	4035	4.7%	527	0.6%	38480	45.3%	10008	11.8%	2261	2.7%
	2016	890196	25843	29.0%	3648	4.1%	415	0.5%	38856	43.6%	9469	10.6%	1948	2.2%
	2017	958102	26980	28.2%	3840	4.0%	425	0.4%	40956	42.7%	9984	10.4%	2039	2.1%

Year	Estimated residential population	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
75–79 years	2013	588122	23869	40.6%	4229	7.2%	526	0.9%	33357	56.7%	10086	17.1%	2291	3.9%
	2014	608660	24718	40.6%	4467	7.3%	581	1.0%	34563	56.8%	10580	17.4%	2476	4.1%
	2015	630532	25369	40.2%	4520	7.2%	570	0.9%	35497	56.3%	10762	17.1%	2529	4.0%
	2016	651200	24224	37.2%	3756	5.8%	440	0.7%	34943	53.7%	9686	14.9%	2083	3.2%
	2017	677142	25076	37.0%	3942	5.8%	466	0.7%	35792	52.9%	9836	14.5%	2142	3.2%
80–84 years	2013	445445	20696	46.5%	4088	9.2%	522	1.2%	28275	63.5%	9610	21.6%	2249	5.0%
	2014	446948	20921	46.8%	4191	9.4%	566	1.3%	28585	64.0%	9852	22.0%	2436	5.5%
	2015	448137	21054	47.0%	4171	9.3%	548	1.2%	28772	64.2%	9884	22.1%	2439	5.4%
	2016	455103	20302	44.6%	3519	7.7%	381	0.8%	28499	62.6%	8837	19.4%	2017	4.4%
	2017	469203	20579	43.9%	3685	7.9%	438	0.9%	29039	61.9%	9033	19.3%	2072	4.4%
85–89 years	2013	288113	13037	45.2%	2828	9.8%	364	1.3%	18069	62.7%	6618	23.0%	1649	5.7%
	2014	294743	13925	47.2%	2993	10.2%	370	1.3%	19360	65.7%	7177	24.4%	1805	6.1%
	2015	300844	14655	48.7%	3083	10.2%	413	1.4%	20296	67.5%	7552	25.1%	1894	6.3%
	2016	305409	13959	45.7%	2557	8.4%	300	1.0%	20025	65.6%	6827	22.4%	1613	5.3%
	2017	307736	14164	46.0%	2561	8.3%	266	0.9%	20252	65.8%	6806	22.1%	1509	4.9%
90–94 years	2013	119780	4760	39.7%	1095	9.1%	136	1.1%	6963	58.1%	2696	22.5%	676	5.6%
	2014	128347	4962	38.7%	1179	9.2%	163	1.3%	7311	57.0%	2852	22.2%	763	5.9%
	2015	134507	5316	39.5%	1217	9.0%	173	1.3%	7823	58.2%	3071	22.8%	811	6.0%
	2016	140105	5138	36.7%	1020	7.3%	106	0.8%	7936	56.6%	2758	19.7%	660	4.7%
	2017	144551	5579	38.6%	1061	7.3%	112	0.8%	8607	59.5%	2958	20.5%	649	4.5%
95+ years	2013	26461	1058	40.0%	244	9.2%	29	1.1%	1791	67.7%	704	26.6%	207	7.8%
	2014	27441	1093	39.8%	244	8.9%	31	1.1%	1833	66.8%	716	26.1%	183	6.7%
	2015	29916	1148	38.4%	257	8.6%	38	1.3%	1909	63.8%	761	25.4%	184	6.2%
	2016	33643	1102	32.8%	194	5.8%	27	0.8%	1880	55.9%	650	19.3%	140	4.2%
	2017	36780	1146	31.2%	215	5.8%	15	0.4%	2013	54.7%	714	19.4%	144	3.9%

Source: Pharmaceutical Benefits Scheme (PBS), 10% random sample of de-identified dispensing data.

Table 2. Estimated prevalence of polypharmacy, concessional PBS beneficiaries only, by number of unique medicines, 2006–2017

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
People over 70														
Total	2006	163725	54395	33.2%	7155	4.4%	627	0.4%	83130	50.8%	21353	13.0%	3988	2.4%
	2007	169054	58781	34.8%	8225	4.9%	749	0.4%	87641	51.8%	23560	13.9%	4551	2.7%
	2008	173889	63746	36.7%	9779	5.6%	891	0.5%	93140	53.6%	26219	15.1%	5200	3.0%
	2009	179126	67307	37.6%	10839	6.1%	1080	0.6%	97839	54.6%	28364	15.8%	5981	3.3%
	2010	183742	71223	38.8%	11925	6.5%	1315	0.7%	101774	55.4%	30219	16.4%	6391	3.5%
	2011	189443	74859	39.5%	13164	6.9%	1459	0.8%	106307	56.1%	32072	16.9%	7031	3.7%
	2012	195682	77826	39.8%	14322	7.3%	1724	0.9%	109250	55.8%	34573	17.7%	8041	4.1%
	2013	201578	80386	39.9%	15157	7.5%	1915	1.0%	112112	55.6%	35749	17.7%	8360	4.1%
	2014	208359	82983	39.8%	15925	7.6%	2115	1.0%	115785	55.6%	37240	17.9%	9032	4.3%
	2015	214399	84910	39.6%	16046	7.5%	2123	1.0%	118407	55.2%	38108	17.8%	9149	4.3%
	2016	221249	81447	36.8%	13523	6.1%	1549	0.7%	116919	52.8%	34374	15.5%	7610	3.4%
	2017	229212	82895	36.2%	13965	6.1%	1555	0.7%	118964	51.9%	34995	15.3%	7594	3.3%
By sex														
Women	2006	96012	34219	35.6%	4678	4.9%	404	0.4%	51942	54.1%	13803	14.4%	2528	2.6%
	2007	98271	36605	37.2%	5336	5.4%	471	0.5%	54164	55.1%	15073	15.3%	2880	2.9%
	2008	100190	39447	39.4%	6273	6.3%	583	0.6%	56921	56.8%	16692	16.7%	3292	3.3%
	2009	102402	41007	40.0%	6883	6.7%	656	0.6%	59195	57.8%	18020	17.6%	3803	3.7%
	2010	104486	42919	41.1%	7591	7.3%	853	0.8%	60851	58.2%	18926	18.1%	4055	3.9%
	2011	106993	44707	41.8%	8317	7.8%	899	0.8%	63062	58.9%	19873	18.6%	4338	4.1%
	2012	109740	45842	41.8%	8829	8.0%	1047	1.0%	63978	58.3%	21023	19.2%	4983	4.5%
	2013	112700	46978	41.7%	9249	8.2%	1181	1.0%	65274	57.9%	21563	19.1%	5084	4.5%
	2014	116031	48037	41.4%	9540	8.2%	1236	1.1%	67002	57.7%	22205	19.1%	5412	4.7%
	2015	119229	48735	40.9%	9547	8.0%	1222	1.0%	68013	57.0%	22547	18.9%	5387	4.5%
	2016	122765	45987	37.5%	7667	6.2%	870	0.7%	66563	54.2%	19786	16.1%	4378	3.6%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
	2017	127216	46380	36.5%	7822	6.1%	837	0.7%	67119	52.8%	19929	15.7%	4305	3.4%
Men	2006	67713	20176	29.8%	2477	3.7%	223	0.3%	31188	46.1%	7550	11.2%	1460	2.2%
	2007	70783	22176	31.3%	2889	4.1%	278	0.4%	33477	47.3%	8487	12.0%	1671	2.4%
	2008	73699	24299	33.0%	3506	4.8%	308	0.4%	36219	49.1%	9527	12.9%	1908	2.6%
	2009	76724	26300	34.3%	3956	5.2%	424	0.6%	38644	50.4%	10344	13.5%	2178	2.8%
	2010	79256	28304	35.7%	4334	5.5%	462	0.6%	40923	51.6%	11293	14.2%	2336	2.9%
	2011	82450	30152	36.6%	4847	5.9%	560	0.7%	43245	52.4%	12199	14.8%	2693	3.3%
	2012	85942	31984	37.2%	5493	6.4%	677	0.8%	45272	52.7%	13550	15.8%	3058	3.6%
	2013	88878	33408	37.6%	5908	6.6%	734	0.8%	46838	52.7%	14186	16.0%	3276	3.7%
	2014	92328	34946	37.8%	6385	6.9%	879	1.0%	48783	52.8%	15035	16.3%	3620	3.9%
	2015	95170	36175	38.0%	6499	6.8%	901	0.9%	50394	53.0%	15561	16.4%	3762	4.0%
	2016	98484	35460	36.0%	5856	5.9%	679	0.7%	50356	51.1%	14588	14.8%	3232	3.3%
	2017	101996	36515	35.8%	6143	6.0%	718	0.7%	51845	50.8%	15066	14.8%	3289	3.2%
By age														
70–74 years	2006	55368	16116	29.1%	2019	3.6%	203	0.4%	24749	44.7%	5695	10.3%	1091	2.0%
	2007	56851	17114	30.1%	2248	4.0%	221	0.4%	25938	45.6%	6176	10.9%	1221	2.1%
	2008	58746	18396	31.3%	2620	4.5%	269	0.5%	27310	46.5%	6739	11.5%	1369	2.3%
	2009	60639	19203	31.7%	2789	4.6%	289	0.5%	28586	47.1%	7144	11.8%	1442	2.4%
	2010	62180	20055	32.3%	2929	4.7%	325	0.5%	29394	47.3%	7409	11.9%	1476	2.4%
	2011	63573	20613	32.4%	3048	4.8%	358	0.6%	30291	47.6%	7687	12.1%	1598	2.5%
	2012	65394	21273	32.5%	3316	5.1%	418	0.6%	30837	47.2%	8137	12.4%	1771	2.7%
	2013	67314	21813	32.4%	3441	5.1%	438	0.7%	31292	46.5%	8281	12.3%	1836	2.7%
	2014	69710	22579	32.4%	3691	5.3%	492	0.7%	32470	46.6%	8583	12.3%	1940	2.8%
	2015	71800	23062	32.1%	3704	5.2%	492	0.7%	33195	46.2%	8906	12.4%	1998	2.8%
	2016	74908	22570	30.1%	3312	4.4%	379	0.5%	33114	44.2%	8344	11.1%	1722	2.3%
	2017	78703	23118	29.4%	3461	4.4%	384	0.5%	34079	43.3%	8719	11.1%	1795	2.3%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
75–79 years	2006	49275	16815	34.1%	2259	4.6%	200	0.4%	25264	51.3%	6516	13.2%	1234	2.5%
	2007	49636	17965	36.2%	2521	5.1%	228	0.5%	26164	52.7%	7033	14.2%	1357	2.7%
	2008	49620	18880	38.0%	2919	5.9%	260	0.5%	27086	54.6%	7728	15.6%	1498	3.0%
	2009	49902	19381	38.8%	3084	6.2%	332	0.7%	27720	55.5%	7924	15.9%	1693	3.4%
	2010	50280	19982	39.7%	3299	6.6%	375	0.7%	28227	56.1%	8194	16.3%	1752	3.5%
	2011	51581	20902	40.5%	3666	7.1%	415	0.8%	29233	56.7%	8560	16.6%	1867	3.6%
	2012	53069	21628	40.8%	3849	7.3%	456	0.9%	29906	56.4%	9144	17.2%	2116	4.0%
	2013	54686	22067	40.4%	3963	7.2%	496	0.9%	30485	55.7%	9315	17.0%	2112	3.9%
	2014	56574	22837	40.4%	4196	7.4%	555	1.0%	31440	55.6%	9750	17.2%	2295	4.1%
	2015	58296	23278	39.9%	4206	7.2%	534	0.9%	32098	55.1%	9807	16.8%	2297	3.9%
	2016	59581	22063	37.0%	3459	5.8%	412	0.7%	31360	52.6%	8758	14.7%	1875	3.1%
	2017	61194	22515	36.8%	3617	5.9%	424	0.7%	31594	51.6%	8835	14.4%	1901	3.1%
80–84 years	2006	32210	11721	36.4%	1607	5.0%	135	0.4%	17625	54.7%	4783	14.8%	882	2.7%
	2007	34560	13195	38.2%	1896	5.5%	167	0.5%	19288	55.8%	5513	16.0%	1065	3.1%
	2008	36604	14846	40.6%	2353	6.4%	212	0.6%	21315	58.2%	6292	17.2%	1284	3.5%
	2009	38370	16200	42.2%	2682	7.0%	263	0.7%	22949	59.8%	7116	18.5%	1549	4.0%
	2010	39779	17514	44.0%	3064	7.7%	335	0.8%	24275	61	7725	19.4%	1628	4.1%
	2011	40655	18397	45.3%	3421	8.4%	364	0.9%	25313	62.3%	8265	20.3%	1860	4.6%
	2012	41322	18895	45.7%	3753	9.1%	437	1.1%	25741	62.3%	8815	21.3%	2103	5.1%
	2013	41461	19192	46.3%	3853	9.3%	490	1.2%	25948	62.6%	8933	21.5%	2088	5.0%
	2014	41804	19367	46.3%	3950	9.4%	544	1.3%	26169	62.6%	9098	21.8%	2270	5.4%
	2015	42183	19395	46.0%	3914	9.3%	513	1.2%	26171	62	9024	21.4%	2226	5.3%
	2016	43321	18642	43.0%	3288	7.6%	360	0.8%	25848	59.7%	8073	18.6%	1840	4.2%
	2017	44373	18632	42.0%	3388	7.6%	394	0.9%	26034	58.7%	8131	18.3%	1863	4.2%
85–89 years	2006	16943	6314	37.3%	863	5.1%	70	0.4%	9675	57.1%	2773	16.4%	511	3.0%
	2007	17943	6925	38.6%	1098	6.1%	92	0.5%	10337	57.6%	3125	17.4%	602	3.4%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
	2008	18689	7713	41.3%	1273	6.8%	102	0.5%	11166	59.7%	3494	18.7%	710	3.8%
	2009	19781	8370	42.3%	1524	7.7%	140	0.7%	12003	60.7%	3989	20.2%	846	4.3%
	2010	20703	9142	44.2%	1734	8.4%	182	0.9%	12914	62.4%	4381	21.2%	961	4.6%
	2011	22246	10112	45.5%	1968	8.8%	205	0.9%	14102	63.4%	4879	21.9%	1094	4.9%
	2012	24019	11055	46.0%	2267	9.4%	270	1.1%	15310	63.7%	5575	23.2%	1334	5.6%
	2013	25629	11971	46.7%	2644	10.3%	339	1.3%	16425	64.1%	6091	23.8%	1517	5.9%
	2014	27136	12668	46.7%	2757	10.2%	343	1.3%	17429	64.2%	6517	24.0%	1641	6.0%
	2015	28268	13334	47.2%	2868	10.1%	385	1.4%	18253	64.6%	6892	24.4%	1721	6.1%
	2016	28838	12567	43.6%	2337	8.1%	272	0.9%	17910	62.1%	6140	21.3%	1458	5.1%
	2017	29162	12663	43.4%	2334	8.0%	240	0.8%	17948	61.5%	6050	20.7%	1335	4.6%
90–94 years	2006	7826	2751	35.2%	334	4.3%	16	0.2%	4492	57.4%	1251	16.0%	221	2.8%
	2007	7871	2831	36.0%	395	5.0%	37	0.5%	4545	57.7%	1355	17.2%	258	3.3%
	2008	7890	3037	38.5%	495	6.3%	39	0.5%	4741	60.1%	1528	19.4%	266	3.4%
	2009	7969	3191	40.0%	586	7.4%	46	0.6%	4921	61.8%	1655	20.8%	338	4.2%
	2010	8352	3506	42.0%	711	8.5%	85	1.0%	5261	63	1880	22.5%	446	5.3%
	2011	8887	3774	42.5%	821	9.2%	93	1.0%	5614	63.2%	2056	23.1%	473	5.3%
	2012	9418	4032	42.8%	913	9.7%	123	1.3%	5915	62.8%	2292	24.3%	571	6.1%
	2013	9918	4364	44.0%	1022	10.3%	124	1.3%	6337	63.9%	2475	25.0%	621	6.3%
	2014	10500	4527	43.1%	1103	10.5%	154	1.5%	6613	63	2630	25.0%	720	6.9%
	2015	11065	4788	43.3%	1112	10	164	1.5%	6973	63	2772	25.1%	739	6.7%
	2016	11667	4601	39.4%	944	8.1%	100	0.9%	7007	60.1%	2465	21.1%	589	5.0%
	2017	12664	4953	39.1%	970	7.7%	100	0.8%	7528	59.4%	2621	20.7%	571	4.5%
95+ years	2006	2103	678	32.2%	73	3.5%	*	*	1325	63	335	15.9%	49	2.3%
	2007	2193	751	34.2%	67	3.1%	*	*	1369	62.4%	358	16.3%	48	2.2%
	2008	2340	874	37.4%	119	5.1%	9	0.4%	1522	65	438	18.7%	73	3.1%
	2009	2465	962	39.0%	174	7.1%	10	0.4%	1660	67.3%	536	21.7%	113	4.6%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy					
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines	
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence
2010	2448	1024	41.8%	188	7.7%	13	0.5%	1703	69.6%	630	25.7%	128	5.2%
2011	2501	1061	42.4%	240	9.6%	24	1.0%	1754	70.1%	625	25.0%	139	5.6%
2012	2460	943	38.3%	224	9.1%	20	0.8%	1541	62.6%	610	24.8%	146	5.9%
2013	2570	979	38.1%	234	9.1%	28	1.1%	1625	63.2%	654	25.4%	186	7.2%
2014	2635	1005	38.1%	228	8.7%	27	1.0%	1664	63.1%	662	25.1%	166	6.3%
2015	2787	1053	37.8%	242	8.7%	35	1.3%	1717	61.6%	707	25.4%	168	6.0%
2016	2934	1004	34.2%	183	6.2%	26	0.9%	1680	57.3%	594	20.2%	126	4.3%
2017	3116	1014	32.5%	195	6.3%	13	0.4%	1781	57.2%	639	20.5%	129	4.1%

Source: Pharmaceutical Benefits Scheme (PBS), 10% random sample of de-identified dispensing data.* Cell suppressed (count of 5 or less).

Table 3. Estimated prevalence of polypharmacy, all PBS beneficiaries (general and concessional), by number of pharmaceutical preparations (pill burden)

Year	Estimated residential population	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
People over 70														
Total	2013	2247298	72157	32.1%	8577	3.8%	590	0.3%	110305	49.1%	26242	11.7%	4488	2.0%
	2014	2320425	74755	32.2%	9025	3.9%	623	0.3%	114565	49.4%	27616	11.9%	4756	2.0%
	2015	2394247	76509	32.0%	9050	3.8%	614	0.3%	117699	49.2%	28376	11.9%	4921	2.1%
	2016	2475656	71789	29.0%	7138	2.9%	418	0.2%	115012	46.5%	24407	9.9%	3744	1.5%
	2017	2593514	73890	28.5%	7363	2.8%	454	0.2%	118597	45.7%	24955	9.6%	3776	1.5%
By sex														
Women	2013	1240750	42098	33.9%	5275	4.3%	350	0.3%	63974	51.6%	15929	12.8%	2717	2.2%
	2014	1275847	43266	33.9%	5477	4.3%	370	0.3%	66059	51.8%	16498	12.9%	2828	2.2%
	2015	1310940	43925	33.5%	5420	4.1%	358	0.3%	67168	51.2%	16767	12.8%	2906	2.2%
	2016	1349656	40385	29.9%	4083	3.0%	220	0.2%	65109	48.2%	14109	10.5%	2174	1.6%
	2017	1407313	41350	29.4%	4195	3.0%	252	0.2%	66691	47.4%	14395	10.2%	2158	1.5%
Men	2013	1006548	30059	29.9%	3302	3.3%	240	0.2%	46331	46.0%	10313	10.2%	1771	1.8%
	2014	1044578	31489	30.1%	3548	3.4%	253	0.2%	48506	46.4%	11118	10.6%	1928	1.8%
	2015	1083307	32584	30.1%	3630	3.4%	256	0.2%	50531	46.6%	11609	10.7%	2015	1.9%
	2016	1126000	31404	27.9%	3055	2.7%	198	0.2%	49903	44.3%	10298	9.1%	1570	1.4%
	2017	1186201	32540	27.4%	3168	2.7%	202	0.2%	51906	43.8%	10560	8.9%	1618	1.4%
By age														
70–74 years	2013	779377	19129	24.5%	1995	2.6%	164	0.2%	30491	39.1%	5962	7.6%	1083	1.4%
	2014	814286	19852	24.4%	2118	2.6%	168	0.2%	31907	39.2%	6297	7.7%	1136	1.4%
	2015	850311	20244	23.8%	2193	2.6%	174	0.2%	32883	38.7%	6602	7.8%	1163	1.4%
	2016	890196	19564	22.0%	1839	2.1%	126	0.1%	32610	36.6%	5942	6.7%	911	1.0%
	2017	958102	20332	21.2%	1915	2.0%	142	0.1%	34235	35.7%	6193	6.5%	953	1.0%

Year	Estimated residential population	Continuous polypharmacy						Cumulative polypharmacy						
		5+ medicines		10+ medicines		15+ medicines		5+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
75–79 years	2013	588122	19492	33.1%	2252	3.8%	156	0.3%	29470	50.1%	6771	11.5%	1154	2.0%
	2014	608660	20116	33.0%	2365	3.9%	164	0.3%	30550	50.2%	7108	11.7%	1246	2.0%
	2015	630532	20432	32.4%	2336	3.7%	158	0.3%	31209	49.5%	7186	11.4%	1258	2.0%
	2016	651200	18961	29.1%	1803	2.8%	112	0.2%	30135	46.3%	6133	9.4%	971	1.5%
	2017	677142	19447	28.7%	1926	2.8%	127	0.2%	30809	45.5%	6272	9.3%	963	1.4%
80–84 years	2013	445445	17364	39	2192	4.9%	146	0.3%	25627	57.5%	6584	14.8%	1138	2.6%
	2014	446948	17587	39.3%	2258	5.1%	162	0.4%	25861	57.9%	6745	15.1%	1181	2.6%
	2015	448137	17665	39.4%	2252	5.0%	146	0.3%	25974	58.0%	6760	15.1%	1199	2.7%
	2016	455103	16439	36.1%	1752	3.8%	102	0.2%	25299	55.6%	5710	12.5%	874	1.9%
	2017	469203	16719	35.6%	1784	3.8%	99	0.2%	25707	54.8%	5786	12.3%	902	1.9%
85–89 years	2013	288113	11163	38.7%	1463	5.1%	94	0.3%	16634	57.7%	4576	15.9%	749	2.6%
	2014	294743	11962	40.6%	1550	5.3%	89	0.3%	17771	60.3%	4970	16.9%	811	2.8%
	2015	300844	12581	41.8%	1555	5.2%	95	0.3%	18614	61.9%	5223	17.4%	876	2.9%
	2016	305409	11633	38.1%	1215	4.0%	60	0.2%	18099	59.3%	4466	14.6%	681	2.2%
	2017	307736	11836	38.5%	1203	3.9%	57	0.2%	18271	59.4%	4450	14.5%	633	2.1%
90–94 years	2013	119780	4097	34.2%	557	4.7%	27	0.2%	6420	53.6%	1849	15.4%	278	2.3%
	2014	128347	4289	33.4%	613	4.8%	37	0.3%	6760	52.7%	2007	15.6%	317	2.5%
	2015	134507	4597	34.2%	594	4.4%	35	0.3%	7260	54.0%	2102	15.6%	346	2.6%
	2016	140105	4281	30.6%	435	3.1%	14	0.1%	7172	51.2%	1759	12.6%	251	1.8%
	2017	144551	4618	31.9%	453	3.1%	26	0.2%	7761	53.7%	1830	12.7%	271	1.9%
95+ years	2013	26461	912	34.5%	118	4.5%	*	*	1663	62.8%	500	18.9%	86	3.3%
	2014	27441	949	34.6%	121	4.4%	*	*	1716	62.5%	489	17.8%	65	2.4%
	2015	29916	990	33.1%	120	4.0%	6	0.2%	1759	58.8%	503	16.8%	79	2.6%
	2016	33643	911	27.1%	94	2.8%	*	*	1697	50.4%	397	11.8%	56	1.7%
	2017	36780	938	25.5%	82	2.2%	*	*	1814	49.3%	424	11.5%	54	1.5%

Source: Pharmaceutical Benefits Scheme (PBS), 10% random sample of de-identified dispensing data.* Cell suppressed (count of 5 or less).

Table 4. Estimated prevalence of polypharmacy, concessional PBS beneficiaries only, as the number of pharmaceutical preparations (pill burden)

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		10+ medicines		15+ medicines		10+ medicines		15+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
People over 70														
Total	2006	163725	47061	28.7%	4697	2.9%	266	0.2%	76337	46.6%	16243	9.9%	2362	1.4%
	2007	169054	50170	29.7%	5153	3.0%	300	0.2%	79968	47.3%	17530	10.4%	2592	1.5%
	2008	173889	54196	31.2%	5779	3.3%	342	0.2%	84645	48.7%	18986	10.9%	2860	1.6%
	2009	179126	56803	31.7%	6252	3.5%	340	0.2%	88471	49.4%	20147	11.2%	3059	1.7%
	2010	183742	59816	32.6%	6647	3.6%	385	0.2%	91730	49.9%	21043	11.5%	3139	1.7%
	2011	189443	62199	32.8%	7107	3.8%	427	0.2%	95455	50.4%	22198	11.7%	3335	1.8%
	2012	195682	64546	33.0%	7651	3.9%	467	0.2%	97750	50.0%	23516	12.0%	3875	2.0%
	2013	201578	66659	33.1%	8078	4.0%	552	0.3%	100303	49.8%	24246	12.0%	4099	2.0%
	2014	208359	68673	33.0%	8500	4.1%	604	0.3%	103386	49.6%	25378	12.2%	4380	2.1%
	2015	214399	69853	32.6%	8468	3.9%	563	0.3%	105389	49.2%	25735	12.0%	4429	2.1%
	2016	221249	64972	29.4%	6612	3.0%	390	0.2%	102194	46.2%	22008	9.9%	3340	1.5%
	2017	229212	66037	28.8%	6750	2.9%	414	0.2%	103790	45.3%	22258	9.7%	3316	1.4%
By sex														
Women	2006	96012	29735	31.0%	3060	3.2%	167	0.2%	47961	50.0%	10587	11.0%	1518	1.6%
	2007	98271	31325	31.9%	3350	3.4%	187	0.2%	49679	50.6%	11250	11.4%	1640	1.7%
	2008	100190	33499	33.4%	3705	3.7%	227	0.2%	51939	51.8%	12133	12.1%	1806	1.8%
	2009	102402	34602	33.8%	3969	3.9%	198	0.2%	53771	52.5%	12829	12.5%	1940	1.9%
	2010	104486	36068	34.5%	4229	4.0%	245	0.2%	55131	52.8%	13228	12.7%	1969	1.9%
	2011	106993	37286	34.8%	4475	4.2%	257	0.2%	56925	53.2%	13835	12.9%	2016	1.9%
	2012	109740	38209	34.8%	4812	4.4%	292	0.3%	57583	52.5%	14447	13.2%	2385	2.2%
	2013	112700	39191	34.8%	4985	4.4%	328	0.3%	58725	52.1%	14816	13.1%	2496	2.2%
	2014	116031	40071	34.5%	5178	4.5%	359	0.3%	60270	51.9%	15254	13.1%	2618	2.3%
	2015	119229	40544	34.0%	5098	4.3%	334	0.3%	60942	51.1%	15351	12.9%	2635	2.2%
	2016	122765	36955	30.1%	3806	3.1%	208	0.2%	58696	47.8%	12821	10.4%	1965	1.6%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		10+ medicines		15+ medicines		10+ medicines		15+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
	2017	127216	37402	29.4%	3861	3.0%	228	0.2%	59242	46.6%	12959	10.2%	1921	1.5%
Men	2006	67713	17326	25.6%	1637	2.4%	99	0.1%	28376	41.9%	5656	8.4%	844	1.2%
	2007	70783	18845	26.6%	1803	2.5%	113	0.2%	30289	42.8%	6280	8.9%	952	1.3%
	2008	73699	20697	28.1%	2074	2.8%	115	0.2%	32706	44.4%	6853	9.3%	1054	1.4%
	2009	76724	22201	28.9%	2283	3.0%	142	0.2%	34700	45.2%	7318	9.5%	1119	1.5%
	2010	79256	23748	30.0%	2418	3.1%	140	0.2%	36599	46.2%	7815	9.9%	1170	1.5%
	2011	82450	24913	30.2%	2632	3.2%	170	0.2%	38530	46.7%	8363	10.1%	1319	1.6%
	2012	85942	26337	30.6%	2839	3.3%	175	0.2%	40167	46.7%	9069	10.6%	1490	1.7%
	2013	88878	27468	30.9%	3093	3.5%	224	0.3%	41578	46.8%	9430	10.6%	1603	1.8%
	2014	92328	28602	31.0%	3322	3.6%	245	0.3%	43116	46.7%	10124	11.0%	1762	1.9%
	2015	95170	29309	30.8%	3370	3.5%	229	0.2%	44447	46.7%	10384	10.9%	1794	1.9%
	2016	98484	28017	28.4%	2806	2.8%	182	0.2%	43498	44.2%	9187	9.3%	1375	1.4%
	2017	101996	28635	28.1%	2889	2.8%	186	0.2%	44548	43.7%	9299	9.1%	1395	1.4%
By age														
70–74 years	2006	55368	13554	24.5%	1287	2.3%	86	0.2%	22215	40.1%	4206	7.6%	648	1.2%
	2007	56851	14132	24.9%	1388	2.4%	85	0.1%	23113	40.7%	4471	7.9%	710	1.2%
	2008	58746	15190	25.9%	1536	2.6%	112	0.2%	24259	41.3%	4724	8.0%	776	1.3%
	2009	60639	15703	25.9%	1589	2.6%	98	0.2%	25161	41.5%	4962	8.2%	752	1.2%
	2010	62180	16283	26.2%	1599	2.6%	107	0.2%	25710	41.3%	5000	8.0%	780	1.3%
	2011	63573	16408	25.8%	1622	2.6%	123	0.2%	26380	41.5%	5179	8.1%	827	1.3%
	2012	65394	16903	25.8%	1773	2.7%	125	0.2%	26745	40.9%	5395	8.2%	897	1.4%
	2013	67314	17435	25.9%	1852	2.8%	151	0.2%	27155	40.3%	5419	8.1%	979	1.5%
	2014	69710	17930	25.7%	1988	2.9%	162	0.2%	28051	40.2%	5704	8.2%	1022	1.5%
	2015	71800	18091	25.2%	2032	2.8%	157	0.2%	28565	39.8%	5861	8.2%	1020	1.4%
	2016	74908	17267	23.1%	1691	2.3%	115	0.2%	28009	37.4%	5252	7.0%	795	1.1%
	2017	78703	17638	22.4%	1738	2.2%	131	0.2%	28711	36.5%	5424	6.9%	840	1.1%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		10+ medicines		15+ medicines		10+ medicines		15+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
75–79 years	2006	49275	14433	29.3%	1463	3.0%	92	0.2%	23097	46.9%	4880	9.9%	724	1.5%
	2007	49636	15279	30.8%	1544	3.1%	101	0.2%	23769	47.9%	5192	10.5%	762	1.5%
	2008	49620	15962	32.2%	1680	3.4%	98	0.2%	24502	49.4%	5538	11.2%	786	1.6%
	2009	49902	16300	32.7%	1767	3.5%	101	0.2%	24971	50.0%	5552	11.1%	875	1.8%
	2010	50280	16736	33.3%	1864	3.7%	116	0.2%	25337	50.4%	5664	11.3%	869	1.7%
	2011	51581	17313	33.6%	2000	3.9%	136	0.3%	26132	50.7%	5886	11.4%	903	1.8%
	2012	53069	17834	33.6%	2046	3.9%	126	0.2%	26526	50.0%	6181	11.6%	1029	1.9%
	2013	54686	18112	33.1%	2121	3.9%	145	0.3%	27021	49.4%	6265	11.5%	1054	1.9%
	2014	56574	18676	33.0%	2246	4.0%	160	0.3%	27881	49.3%	6590	11.6%	1142	2.0%
	2015	58296	18835	32.3%	2194	3.8%	148	0.3%	28306	48.6%	6527	11.2%	1135	1.9%
	2016	59581	17366	29.1%	1665	2.8%	106	0.2%	27073	45.4%	5548	9.3%	873	1.5%
	2017	61194	17568	28.7%	1775	2.9%	120	0.2%	27330	44.7%	5642	9.2%	842	1.4%
80–84 years	2006	32210	10317	32.3%	1087	3.4%	51	0.2%	16384	50.9%	3701	11.5%	532	1.7%
	2007	34560	11461	33.2%	1210	3.5%	71	0.2%	17880	51.7%	4132	12.0%	615	1.8%
	2008	36604	12803	35.0%	1414	3.9%	78	0.2%	19559	53.4%	4616	12.6%	711	1.9%
	2009	38370	13867	36.1%	1567	4.1%	86	0.2%	21018	54.8%	5109	13.3%	771	2.0%
	2010	39779	14869	37.4%	1728	4.3%	104	0.3%	22201	55.8%	5446	13.7%	787	2.0%
	2011	40655	15557	38.3%	1858	4.6%	92	0.2%	23072	56.8%	5799	14.3%	859	2.1%
	2012	41322	15963	38.6%	2044	4.9%	122	0.3%	23398	56.6%	6075	14.7%	999	2.4%
	2013	41461	16193	39.1%	2086	5.0%	142	0.3%	23606	56.9%	6151	14.8%	1053	2.5%
	2014	41804	16344	39.1%	2146	5.1%	159	0.4%	23728	56.8%	6261	15.0%	1114	2.7%
	2015	42183	16368	38.8%	2130	5.0%	131	0.3%	23685	56.1%	6197	14.7%	1093	2.6%
	2016	43321	15158	35.0%	1630	3.8%	95	0.2%	23019	53.1%	5246	12.1%	790	1.8%
	2017	44373	15250	34.4%	1659	3.7%	85	0.2%	23126	52.1%	5240	11.8%	796	1.8%
85–89 years	2006	16943	5645	33.3%	591	3.5%	29	0.2%	9131	53.9%	2204	13.0%	308	1.8%
	2007	17943	6088	33.9%	711	4.0%	28	0.2%	9659	53.8%	2402	13.4%	335	1.9%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy						
		10+ medicines		15+ medicines		10+ medicines		15+ medicines		10+ medicines		15+ medicines		
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	
	2008	18689	6721	36	784	4.2%	38	0.2%	10412	55.7%	2647	14.2%	399	2.1%
	2009	19781	7271	36.8%	901	4.6%	39	0.2%	11137	56.3%	2927	14.8%	444	2.2%
	2010	20703	7939	38.3%	967	4.7%	39	0.2%	11966	57.8%	3143	15.2%	447	2.2%
	2011	22246	8725	39.2%	1059	4.8%	48	0.2%	13017	58.5%	3444	15.5%	485	2.2%
	2012	24019	9529	39.7%	1208	5.0%	60	0.2%	14145	58.9%	3871	16.1%	627	2.6%
	2013	25629	10304	40.2%	1381	5.4%	89	0.3%	15153	59.1%	4244	16.6%	681	2.7%
	2014	27136	10922	40.2%	1436	5.3%	85	0.3%	16041	59.1%	4524	16.7%	739	2.7%
	2015	28268	11490	40.6%	1446	5.1%	88	0.3%	16780	59.4%	4785	16.9%	790	2.8%
	2016	28838	10497	36.4%	1135	3.9%	56	0.2%	16218	56.2%	4034	14.0%	604	2.1%
	2017	29162	10625	36.4%	1094	3.8%	53	0.2%	16224	55.6%	3959	13.6%	548	1.9%
90–94 years	2006	7826	2497	31.9%	219	2.8%	8	0.1%	4257	54.4%	992	12.7%	123	1.6%
	2007	7871	2539	32.3%	256	3.3%	13	0.2%	4256	54.1%	1058	13.4%	146	1.9%
	2008	7890	2730	34.6%	302	3.8%	13	0.2%	4472	56.7%	1150	14.6%	151	1.9%
	2009	7969	2828	35.5%	336	4.2%	15	0.2%	4621	58.0%	1212	15.2%	163	2.0%
	2010	8352	3077	36.8%	406	4.9%	18	0.2%	4909	58.8%	1352	16.2%	210	2.5%
	2011	8887	3271	36.8%	444	5.0%	24	0.3%	5215	58.7%	1453	16.3%	212	2.4%
	2012	9418	3506	37.2%	471	5	31	0.3%	5498	58.4%	1580	16.8%	259	2.8%
	2013	9918	3766	38	525	5.3%	23	0.2%	5850	59.0%	1710	17.2%	254	2.6%
	2014	10500	3931	37.4%	573	5.5%	36	0.3%	6129	58.4%	1846	17.6%	302	2.9%
	2015	11065	4154	37.5%	553	5.0%	34	0.3%	6470	58.5%	1898	17.2%	319	2.9%
	2016	11667	3846	33	402	3.4%	14	0.1%	6351	54.4%	1570	13.5%	226	1.9%
	2017	12664	4120	32.5%	411	3.2%	22	0.2%	6789	53.6%	1611	12.7%	240	1.9%
95+ years	2006	2103	615	29.2%	50	2.4%	*	*	1253	59.6%	260	12.4%	27	1.3%
	2007	2193	671	30.6%	44	2.0%	*	*	1291	58.9%	275	12.5%	24	1.1%
	2008	2340	790	33.8%	63	2.7%	*	*	1441	61.6%	311	13.3%	37	1.6%
	2009	2465	834	33.8%	92	3.7%	*	*	1563	63.4%	385	15.6%	54	2.2%

Year	Concessional beneficiaries with at least one PBS claim in year	Continuous polypharmacy						Cumulative polypharmacy					
		10+ medicines		15+ medicines		10+ medicines		15+ medicines		10+ medicines		15+ medicines	
		n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence	n (in cohort)	Estimated prevalence
2010	2448	912	37.3%	83	3.4%	*	*	1607	65.6%	438	17.9%	46	1.9%
2011	2501	925	37	124	5.0%	*	*	1639	65.5%	437	17.5%	49	2.0%
2012	2460	811	33	109	4.4%	*	*	1438	58.5%	414	16.8%	64	2.6%
2013	2570	849	33	113	4.4%	*	*	1518	59.1%	457	17.8%	78	3.0%
2014	2635	870	33	111	4.2%	*	*	1556	59.1%	453	17.2%	61	2.3%
2015	2787	915	32.8%	113	4.1%	*	*	1583	56.8%	467	16.8%	72	2.6%
2016	2934	838	28.6%	89	3.0%	*	*	1524	51.9%	358	12.2%	52	1.8%
2017	3116	836	26.8%	73	2.3%	*	*	1610	51.7%	382	12.3%	50	1.6%

Source: Pharmaceutical Benefits Scheme (PBS), 10% random sample of de-identified dispensing data.* Cell suppressed (count of 5 or less).

Figure 1. Prevalence of cumulative polypharmacy among concessional beneficiaries aged 70 years or more, 2006–2017

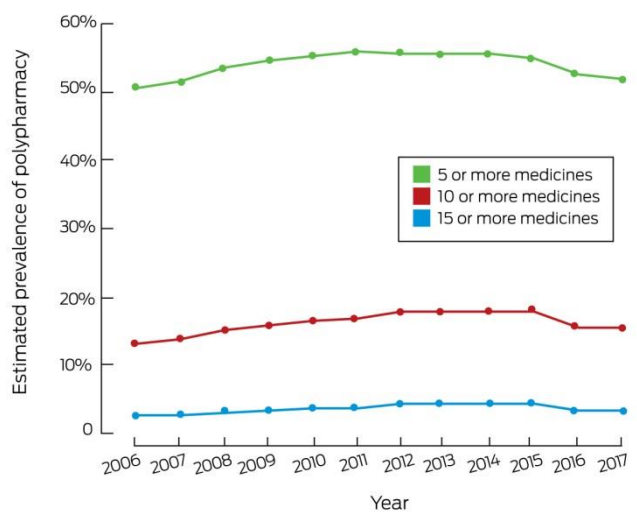


Figure 2. Prevalence of continuous (A) and cumulative polypharmacy (B), defined by pill burden, among concessional beneficiaries aged 70 years or more, 2006–2017

