

Appendix Table 1. Ethnicity distribution of primary hip replacement surgeries by region

Region	European/others		Māori		Pacific		Asian		Total
Mid Central Health Network	9446	86.3%	1327	12.1%	115	1.1%	61	0.6%	10949
Hawke's Bay DHB	1897	81.1%	420	18.0%	15	0.6%	6	0.3%	2338
Midcentral DHB	2186	91.5%	185	7.7%	7	0.3%	12	0.5%	2390
Whanganui DHB	1133	83.5%	215	15.8%	7	0.5%	2	0.1%	1357
Capital and Coast DHB	2237	87.3%	235	9.2%	59	2.3%	30	1.2%	2561
Hutt DHB	1316	85.5%	187	12.2%	26	1.7%	10	0.6%	1539
Wairarapa DHB	677	88.6%	85	11.1%	1	0.1%	1	0.1%	764
Midland Health Network	10552	81.9%	2242	17.4%	80	0.6%	17	0.1%	12891
Waikato DHB	4263	85.9%	671	13.5%	23	0.5%	8	0.2%	4965
Lakes DHB	1154	73.0%	408	25.8%	16	1.0%	3	0.2%	1581
Bay of Plenty DHB	3130	81.6%	670	17.5%	31	0.8%	3	0.1%	3834
Tairāwhiti DHB	461	58.7%	318	40.5%	5	0.6%	2	0.3%	786
Taranaki DHB	1544	89.5%	175	10.1%	5	0.3%	1	0.1%	1725
Northern Health Network	11736	82.4%	1847	13.0%	448	3.1%	205	1.4%	14236
Northland DHB	1953	77.5%	555	22.0%	8	0.3%	5	0.2%	2521
Waitemata DHB	4544	90.5%	327	6.5%	108	2.2%	42	0.8%	5021
Auckland DHB	2115	80.4%	275	10.5%	159	6.0%	81	3.1%	2630
Counties Manukau DHB	3124	76.9%	690	17.0%	173	4.3%	77	1.9%	4064
Southern Health Network	14590	95.2%	652	4.3%	49	0.3%	39	0.3%	15330
Nelson Marlborough DHB	2507	94.4%	136	5.1%	8	0.3%	4	0.2%	2655
West Coast DHB	678	95.6%	30	4.2%	1	0.1%			709
Canterbury DHB	5798	95.3%	244	4.0%	20	0.3%	19	0.3%	6081
South Canterbury DHB	1289	97.1%	33	2.5%	2	0.2%	3	0.2%	1327
Southern DHB	4318	94.7%	209	4.6%	18	0.4%	13	0.3%	4558
Unknown	23	69.7%	3	9.1%	6	18.2%	1	3.0%	33
Total	46347	86.7%	6071	11.4%	698	1.3%	323	0.6%	53439

Appendix Table 2. Ethnicity distribution of primary knee replacement surgeries by region

Region	European/others		Māori		Pacific		Asian		Total
Mid Central Health Network	8856	84.3%	878	8.4%	484	4.6%	284	2.7%	10502
Hawke's Bay DHB	1733	84.5%	259	12.6%	29	1.4%	29	1.4%	2050
Midcentral DHB	2101	92.4%	101	4.4%	45	2.0%	28	1.2%	2275
Whanganui DHB	1080	85.4%	168	13.3%	11	0.9%	5	0.4%	1264
Capital and Coast DHB	2107	78.2%	175	6.5%	255	9.5%	159	5.9%	2696
Hutt DHB	1234	79.6%	118	7.6%	137	8.8%	62	4.0%	1551
Wairarapa DHB	601	90.2%	57	8.6%	7	1.1%	1	0.2%	666
Midland Health Network	9544	84.2%	1417	12.5%	179	1.6%	189	1.7%	11329
Waikato DHB	4117	87.0%	429	9.1%	90	1.9%	95	2.0%	4731
Lakes DHB	1143	78.9%	249	17.2%	36	2.5%	21	1.4%	1449
Bay of Plenty DHB	2816	83.4%	454	13.5%	41	1.2%	64	1.9%	3375
Tairāwhiti DHB	369	64.5%	196	34.3%	6	1.0%	1	0.2%	572
Taranaki DHB	1099	91.4%	89	7.4%	6	0.5%	8	0.7%	1202
Northern Health Network	12832	74.9%	1233	7.2%	1706	10.0%	1351	7.9%	17122
Northland DHB	2017	84.2%	353	14.7%	24	1.0%	2	0.1%	2396
Waitemata DHB	5075	84.6%	258	4.3%	383	6.4%	284	4.7%	6000
Auckland DHB	2128	63.9%	176	5.3%	502	15.1%	525	15.8%	3331
Counties Manukau DHB	3612	67.0%	446	8.3%	797	14.8%	540	10.0%	5395
Southern Health Network	10548	95.1%	359	3.2%	105	0.9%	83	0.7%	11095
Nelson Marlborough DHB	2035	96.5%	57	2.7%	8	0.4%	8	0.4%	2108
West Coast DHB	632	95.0%	28	4.2%	5	0.8%			665
Canterbury DHB	3985	93.7%	148	3.5%	61	1.4%	61	1.4%	4255
South Canterbury DHB	981	98.2%	17	1.7%			1	0.1%	999
Southern DHB	2915	95.0%	109	3.6%	31	1.0%	13	0.4%	3068
Unknown	19	79.2%	2	8.3%	3	12.5%			24
Total	41799	83.5%	3889	7.8%	2477	4.9%	1907	3.8%	50072

Appendix Table 3. 30 days, 90 days and 1 year Mortality after hip replacement surgery

Subgroup	Number of patients	30 Days Mortality		90 Days Mortality		1 year Mortality	
Gender							
Female	18336	35	0.2%	62	0.3%	229	1.2%
Male	15797	29	0.2%	67	0.4%	249	1.6%
Ethnicity							
European/others	29853	56	0.2%	114	0.4%	429	1.4%
Māori	3671	7	0.2%	14	0.4%	43	1.2%
Pacific	419	0	0.0%	0	0.0%	4	1.0%
Asian	190	1	0.5%	1	0.5%	2	1.1%
Age							
<40	518	0	0.0%	1	0.2%	1	0.2%
40-49	2127	0	0.0%	1	0.0%	6	0.3%
50-59	5515	0	0.0%	4	0.1%	24	0.4%
60-69	9924	12	0.1%	28	0.3%	90	0.9%
70-79	11300	24	0.2%	43	0.4%	166	1.5%
80+	4749	28	0.6%	52	1.1%	191	4.0%
Charlson comorbidity index							
0	30155	27	0.1%	67	0.2%	301	1.0%
1	2051	12	0.6%	17	0.8%	61	3.0%
2	1379	13	0.9%	24	1.7%	66	4.8%
3+	548	12	2.2%	21	3.8%	50	9.1%
Year							
2005	3176	7	0.2%	14	0.4%	57	1.8%
2006	3149	8	0.3%	14	0.4%	52	1.7%
2007	3520	6	0.2%	14	0.4%	56	1.6%
2008	3312	13	0.4%	21	0.6%	58	1.8%
2009	3473	5	0.1%	11	0.3%	42	1.2%
2010	3356	11	0.3%	19	0.6%	59	1.8%
2011	3305	3	0.1%	7	0.2%	27	0.8%
2012	3426	2	0.1%	6	0.2%	48	1.4%
2013	3541	3	0.1%	9	0.3%	35	1.0%
2014	3875	6	0.2%	14	0.4%	44	1.1%
Health network							
Northern	8956	19	0.2%	33	0.4%	125	1.4%
Mid Central	7040	13	0.2%	23	0.3%	100	1.4%
Midland	8308	18	0.2%	43	0.5%	132	1.6%
Southern	9807	14	0.1%	30	0.3%	121	1.2%
Unknown	22	0	0.0%	0	0.0%	0	0.0%
Number of hip surgeries							
1	28804	64	0.2%	129	0.4%	471	1.6%
2	5329	0	0.0%	0	0.0%	7	0.1%
Total	34133	64	0.2%	129	0.4%	478	1.4%

Appendix Table 4. 30 days, 90 days and 1 year Mortality after knee replacement surgery

Subgroup	Number	30 Days Mortality		90 Days Mortality		1 year Mortality	
Gender							
Female	16205	20	0.1%	32	0.2%	121	0.7%
Male	14136	37	0.3%	52	0.4%	166	1.2%
Ethnicity							
European/others	25692	52	0.2%	73	0.3%	248	1.0%
Māori	2317	5	0.2%	9	0.4%	27	1.2%
Pacific	1345	0	0.0%	2	0.1%	5	0.4%
Asian	987	0	0.0%	0	0.0%	7	0.7%
Age							
<40	52	0	0.0%	0	0.0%	0	0.0%
40-49	719	0	0.0%	1	0.1%	4	0.6%
50-59	4681	3	0.1%	6	0.1%	14	0.3%
60-69	10144	10	0.1%	16	0.2%	45	0.4%
70-79	10928	18	0.2%	27	0.2%	116	1.1%
80+	3817	26	0.7%	34	0.9%	108	2.8%
Charlson comorbidity index							
0	26321	26	0.1%	47	0.2%	196	0.7%
1	2022	7	0.3%	10	0.5%	28	1.4%
2	1454	13	0.9%	13	0.9%	35	2.4%
3+	544	11	2.0%	14	2.6%	28	5.1%
Year							
2005	2970	7	0.2%	10	0.3%	30	1.0%
2006	2835	7	0.2%	12	0.4%	26	0.9%
2007	3109	8	0.3%	11	0.4%	37	1.2%
2008	2828	6	0.2%	8	0.3%	31	1.1%
2009	3009	7	0.2%	11	0.4%	34	1.1%
2010	2849	8	0.3%	10	0.4%	30	1.1%
2011	2981	4	0.1%	7	0.2%	32	1.1%
2012	3097	0	0.0%	2	0.1%	13	0.4%
2013	3020	6	0.2%	8	0.3%	24	0.8%
2014	3643	4	0.1%	5	0.1%	30	0.8%
Health network							
Northern	9996	19	0.2%	28	0.3%	89	0.9%
Mid Central	6448	11	0.2%	14	0.2%	53	0.8%
Midland	6834	14	0.2%	20	0.3%	78	1.1%
Southern	7046	13	0.2%	22	0.3%	67	1.0%
Unknown	17	0	0.0%	0	0.0%	0	0.0%
Number of knee surgeries							
1	24128	57	0.2%	84	0.3%	274	1.1%
2	6213	0	0.0%	0	0.0%	13	0.2%
Total	30341	57	0.2%	84	0.3%	287	0.9%