
Ngā āpitihanga

Appendices

Proactively Released



Appendix 1: IMPB Māori population projections

Table 145 - Māori population projections, single year, Te Tauraki (mapped to DHB geographic boundaries), by 5-year age band, 2018 to 2043

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2018			2019			2020			2021		
00-04	5,030	5,390	10,430	5,030	5,410	10,430	5,150	5,510	10,680	5,250	5,580	10,830
05-09	5,280	5,450	10,720	5,330	5,460	10,770	5,300	5,440	10,730	5,290	5,520	10,810
10-14	4,800	5,370	10,180	4,990	5,560	10,550	5,220	5,830	11,050	5,440	5,920	11,360
15-19	4,720	5,000	9,720	4,800	5,120	9,910	4,880	5,190	10,070	4,990	5,460	10,440
20-24	4,430	4,840	9,250	4,480	4,920	9,390	4,670	5,050	9,720	4,760	5,070	9,830
25-29	3,920	4,280	8,190	4,050	4,380	8,440	4,100	4,460	8,570	4,190	4,590	8,800
30-34	3,110	3,300	6,400	3,380	3,580	6,950	3,630	3,830	7,460	3,870	4,110	7,980
35-39	2,830	2,840	5,670	2,860	2,900	5,760	2,870	3,010	5,870	2,970	3,080	6,050
40-44	2,690	2,670	5,370	2,660	2,680	5,340	2,780	2,790	5,550	2,890	2,860	5,750
45-49	2,890	2,850	5,730	2,870	2,800	5,670	2,830	2,760	5,600	2,790	2,740	5,530
50-54	2,560	2,490	5,060	2,610	2,630	5,230	2,740	2,720	5,460	2,840	2,830	5,650
55-59	2,220	2,200	4,440	2,370	2,210	4,570	2,410	2,260	4,690	2,450	2,390	4,840
60-64	1,480	1,600	3,080	1,580	1,760	3,350	1,740	1,890	3,640	1,900	1,930	3,810
65-69	1,070	1,140	2,210	1,120	1,220	2,340	1,200	1,270	2,470	1,280	1,350	2,620
70-74	690	740	1,430	750	810	1,560	840	870	1,710	900	960	1,860
75-79	440	480	900	470	500	970	480	530	1,010	510	540	1,060
80-84	210	220	440	230	230	470	290	290	560	320	330	650
85+	170	140	320	190	150	350	200	160	360	240	160	400
All Ages	48,510	51,070	99,580	49,810	52,270	101,980	51,340	53,900	105,130	52,860	55,430	108,390

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2022			2023			2024			2025		
00-04	5,330	5,670	10,990	5,390	5,700	11,090	5,490	5,790	11,290	5,560	5,890	11,450
05-09	5,260	5,570	10,830	5,300	5,690	10,980	5,300	5,720	11,020	5,410	5,790	11,190
10-14	5,550	5,890	11,430	5,620	5,830	11,450	5,700	5,840	11,540	5,630	5,800	11,440
15-19	5,190	5,720	10,920	5,410	5,980	11,410	5,610	6,190	11,810	5,830	6,460	12,280
20-24	4,760	5,110	9,870	4,840	5,160	9,990	4,890	5,260	10,160	4,930	5,280	10,220
25-29	4,350	4,670	9,000	4,360	4,710	9,060	4,400	4,780	9,190	4,560	4,880	9,450
30-34	4,020	4,330	8,350	4,180	4,480	8,660	4,300	4,580	8,880	4,300	4,640	8,930
35-39	3,130	3,220	6,340	3,330	3,470	6,790	3,600	3,760	7,340	3,840	3,990	7,820
40-44	2,900	2,930	5,840	2,960	2,960	5,930	3,000	3,020	6,030	3,000	3,110	6,110
45-49	2,760	2,730	5,490	2,740	2,730	5,470	2,710	2,740	5,440	2,820	2,840	5,640
50-54	2,910	2,830	5,740	2,880	2,860	5,740	2,880	2,810	5,700	2,820	2,760	5,580
55-59	2,480	2,410	4,900	2,530	2,470	5,010	2,600	2,600	5,190	2,700	2,680	5,390
60-64	2,040	2,050	4,110	2,210	2,170	4,380	2,360	2,170	4,530	2,400	2,220	4,620
65-69	1,330	1,450	2,770	1,450	1,550	2,990	1,560	1,710	3,260	1,710	1,820	3,530
70-74	980	1,020	1,990	1,020	1,070	2,080	1,080	1,140	2,210	1,130	1,180	2,310
75-79	580	590	1,170	640	660	1,300	690	710	1,390	770	770	1,540
80-84	330	370	710	380	370	760	420	400	810	420	420	840
85+	270	180	450	270	220	520	300	250	550	350	280	620
All Ages	54,160	56,730	110,990	55,470	58,040	113,500	56,880	59,460	116,350	58,200	60,770	118,970

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2026			2027			2028			2029		
00-04	5,620	5,970	11,610	5,720	6,040	11,760	5,790	6,130	11,940	5,870	6,200	12,070
05-09	5,470	5,830	11,310	5,550	5,930	11,480	5,630	5,950	11,580	5,720	6,060	11,780
10-14	5,600	5,860	11,460	5,580	5,900	11,490	5,610	6,020	11,620	5,620	6,040	11,660
15-19	6,030	6,530	12,550	6,140	6,490	12,620	6,210	6,430	12,640	6,270	6,430	12,710
20-24	5,000	5,520	10,510	5,200	5,770	10,960	5,410	6,040	11,460	5,600	6,230	11,850
25-29	4,620	4,860	9,490	4,620	4,890	9,510	4,670	4,920	9,570	4,710	5,000	9,720
30-34	4,370	4,720	9,090	4,510	4,780	9,280	4,520	4,820	9,330	4,560	4,890	9,450
35-39	4,060	4,250	8,300	4,190	4,450	8,650	4,330	4,590	8,940	4,460	4,690	9,150
40-44	3,070	3,180	6,240	3,220	3,300	6,520	3,430	3,560	6,980	3,680	3,850	7,530
45-49	2,910	2,890	5,800	2,930	2,950	5,870	2,970	2,990	5,960	3,010	3,050	6,060
50-54	2,780	2,720	5,500	2,740	2,700	5,440	2,720	2,720	5,440	2,670	2,720	5,400
55-59	2,810	2,770	5,560	2,870	2,780	5,650	2,850	2,790	5,660	2,840	2,760	5,600
60-64	2,430	2,330	4,750	2,450	2,360	4,810	2,510	2,420	4,920	2,580	2,520	5,110
65-69	1,860	1,850	3,690	2,000	1,970	3,970	2,160	2,070	4,240	2,300	2,080	4,380
70-74	1,200	1,260	2,460	1,260	1,350	2,600	1,370	1,440	2,810	1,480	1,580	3,070
75-79	810	850	1,670	890	890	1,790	930	930	1,870	980	1,000	1,990
80-84	450	420	880	510	460	980	570	520	1,090	610	560	1,160
85+	400	320	700	420	370	780	450	390	840	490	420	910
All Ages	59,520	62,090	121,510	60,830	63,410	124,230	62,050	64,720	126,870	63,460	66,040	129,600

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2030			2031			2032			2033		
00-04	5,920	6,270	12,190	5,990	6,310	12,310	6,030	6,390	12,430	6,100	6,470	12,550
05-09	5,800	6,160	11,950	5,880	6,230	12,110	5,960	6,320	12,300	6,040	6,410	12,460
10-14	5,730	6,120	11,830	5,800	6,180	11,960	5,870	6,270	12,140	5,950	6,300	12,250
15-19	6,220	6,380	12,600	6,190	6,440	12,630	6,170	6,490	12,670	6,190	6,600	12,800
20-24	5,820	6,500	12,320	6,040	6,580	12,610	6,150	6,550	12,700	6,220	6,490	12,710
25-29	4,760	5,030	9,790	4,840	5,250	10,090	5,040	5,520	10,550	5,260	5,790	11,050
30-34	4,720	5,000	9,720	4,780	4,990	9,770	4,780	5,010	9,790	4,840	5,030	9,880
35-39	4,470	4,730	9,200	4,530	4,820	9,360	4,670	4,900	9,570	4,680	4,940	9,620
40-44	3,940	4,070	8,010	4,170	4,330	8,500	4,290	4,560	8,870	4,450	4,700	9,140
45-49	3,000	3,120	6,120	3,100	3,170	6,270	3,250	3,320	6,560	3,450	3,580	7,030
50-54	2,800	2,810	5,610	2,880	2,870	5,750	2,900	2,930	5,840	2,950	2,960	5,910
55-59	2,790	2,710	5,500	2,750	2,670	5,420	2,710	2,660	5,360	2,690	2,670	5,360
60-64	2,690	2,620	5,300	2,770	2,700	5,470	2,850	2,730	5,570	2,840	2,730	5,570
65-69	2,340	2,130	4,480	2,360	2,250	4,600	2,400	2,270	4,670	2,460	2,320	4,790
70-74	1,600	1,700	3,300	1,750	1,710	3,460	1,890	1,830	3,720	2,050	1,940	3,990
75-79	1,050	1,040	2,090	1,110	1,120	2,230	1,160	1,200	2,350	1,260	1,270	2,540
80-84	670	600	1,280	700	690	1,390	780	720	1,490	800	760	1,560
85+	520	450	960	580	460	1,030	630	520	1,150	700	550	1,270
All Ages	64,780	67,460	132,240	66,210	68,780	134,980	67,520	70,100	137,720	68,940	71,530	140,570

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2034			2035			2036			2037		
00-04	6,160	6,540	12,690	6,240	6,610	12,830	6,300	6,670	13,000	6,370	6,760	13,140
05-09	6,120	6,480	12,600	6,180	6,550	12,730	6,250	6,620	12,870	6,310	6,680	12,980
10-14	6,040	6,410	12,450	6,130	6,500	12,630	6,220	6,600	12,810	6,310	6,690	12,990
15-19	6,200	6,630	12,840	6,310	6,700	13,030	6,390	6,760	13,150	6,480	6,870	13,330
20-24	6,290	6,490	12,770	6,230	6,440	12,660	6,190	6,510	12,710	6,190	6,540	12,730
25-29	5,450	6,000	11,460	5,680	6,280	11,950	5,890	6,350	12,240	6,010	6,330	12,330
30-34	4,890	5,110	10,000	4,940	5,140	10,070	5,000	5,360	10,360	5,230	5,620	10,840
35-39	4,730	5,020	9,750	4,900	5,130	10,030	4,970	5,120	10,070	4,970	5,140	10,110
40-44	4,570	4,790	9,360	4,580	4,830	9,410	4,650	4,910	9,570	4,790	5,000	9,790
45-49	3,720	3,870	7,590	3,970	4,110	8,090	4,200	4,380	8,580	4,340	4,610	8,950
50-54	3,000	3,020	6,010	2,980	3,100	6,090	3,070	3,160	6,230	3,240	3,300	6,540
55-59	2,650	2,670	5,330	2,770	2,760	5,530	2,870	2,830	5,700	2,880	2,890	5,770
60-64	2,820	2,700	5,530	2,780	2,650	5,430	2,740	2,620	5,350	2,700	2,610	5,320
65-69	2,520	2,430	4,950	2,630	2,540	5,150	2,720	2,600	5,320	2,800	2,630	5,420
70-74	2,180	1,950	4,140	2,230	2,000	4,240	2,250	2,100	4,360	2,300	2,130	4,420
75-79	1,360	1,410	2,750	1,460	1,510	2,970	1,590	1,500	3,100	1,720	1,620	3,350
80-84	870	820	1,670	930	850	1,780	970	920	1,900	1,010	970	2,000
85+	750	600	1,340	790	650	1,440	870	710	1,560	970	760	1,720
All Ages	70,270	72,850	143,310	71,780	74,370	146,060	73,210	75,800	148,810	74,530	77,130	151,760

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2038			2039			2040			2041		
00-04	6,470	6,830	13,310	6,540	6,930	13,480	6,640	7,040	13,660	6,720	7,120	13,840
05-09	6,360	6,740	13,110	6,440	6,830	13,270	6,510	6,900	13,410	6,590	6,980	13,570
10-14	6,390	6,770	13,170	6,460	6,860	13,320	6,540	6,930	13,460	6,610	6,990	13,590
15-19	6,540	6,910	13,440	6,650	7,000	13,650	6,730	7,100	13,840	6,820	7,200	14,020
20-24	6,220	6,660	12,870	6,210	6,690	12,910	6,320	6,770	13,090	6,390	6,820	13,220
25-29	6,070	6,270	12,340	6,150	6,260	12,410	6,090	6,230	12,310	6,070	6,280	12,330
30-34	5,440	5,910	11,360	5,640	6,140	11,770	5,860	6,410	12,270	6,080	6,500	12,570
35-39	5,020	5,160	10,190	5,070	5,250	10,320	5,120	5,280	10,390	5,200	5,500	10,700
40-44	4,800	5,050	9,850	4,860	5,140	9,990	5,030	5,250	10,270	5,090	5,250	10,320
45-49	4,480	4,740	9,230	4,600	4,810	9,430	4,620	4,870	9,490	4,680	4,960	9,650
50-54	3,430	3,560	7,010	3,710	3,870	7,570	3,960	4,110	8,070	4,190	4,370	8,570
55-59	2,930	2,930	5,860	2,970	2,970	5,940	2,960	3,060	6,030	3,050	3,120	6,160
60-64	2,690	2,630	5,310	2,640	2,640	5,280	2,760	2,710	5,480	2,860	2,770	5,640
65-69	2,770	2,650	5,420	2,770	2,620	5,400	2,740	2,570	5,300	2,690	2,540	5,230
70-74	2,350	2,180	4,540	2,400	2,300	4,690	2,510	2,380	4,890	2,600	2,470	5,070
75-79	1,880	1,730	3,600	2,020	1,740	3,760	2,060	1,780	3,850	2,090	1,890	3,980
80-84	1,090	1,040	2,140	1,160	1,160	2,330	1,260	1,240	2,510	1,390	1,240	2,630
85+	1,030	830	1,840	1,080	880	1,970	1,170	930	2,100	1,240	1,000	2,240
All Ages	75,960	78,560	154,520	77,380	80,090	157,480	78,910	81,520	160,430	80,340	82,960	163,290

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total
	2042			2043		
00-04	6,830	7,230	14,020	6,920	7,310	14,260
05-09	6,670	7,060	13,730	6,750	7,150	13,900
10-14	6,660	7,060	13,720	6,740	7,140	13,870
15-19	6,910	7,290	14,200	7,010	7,390	14,390
20-24	6,480	6,920	13,400	6,550	6,960	13,530
25-29	6,050	6,330	12,370	6,060	6,440	12,500
30-34	6,190	6,460	12,670	6,270	6,420	12,690
35-39	5,400	5,770	11,180	5,630	6,050	11,690
40-44	5,090	5,250	10,350	5,160	5,290	10,450
45-49	4,830	5,040	9,870	4,860	5,080	9,930
50-54	4,330	4,600	8,920	4,490	4,740	9,210
55-59	3,220	3,250	6,460	3,400	3,520	6,940
60-64	2,870	2,850	5,730	2,920	2,870	5,790
65-69	2,660	2,530	5,190	2,650	2,550	5,200
70-74	2,680	2,490	5,170	2,670	2,500	5,160
75-79	2,110	1,920	4,030	2,170	1,970	4,150
80-84	1,510	1,340	2,850	1,630	1,430	3,070
85+	1,330	1,080	2,420	1,420	1,170	2,600
All Ages	81,770	84,480	166,260	83,300	85,920	169,320

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Table 146 - Māori population projections, single year, West Coast DHB, by 5-year age band, 2018 to 2043

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2018			2019			2020			2021		
00-04	180	220	400	180	210	390	180	210	400	190	210	400
05-09	210	200	410	210	210	420	210	220	420	200	220	420
10-14	160	220	380	160	220	380	170	210	380	170	200	370
15-19	170	190	360	170	190	360	170	190	360	160	210	370
20-24	110	120	230	100	120	220	100	120	220	110	120	230
25-29	150	140	290	160	140	300	160	140	300	150	140	300
30-34	100	100	200	120	110	230	130	120	250	150	130	270
35-39	110	90	200	100	100	200	90	100	190	100	100	200
40-44	100	100	200	100	90	190	100	100	190	100	100	200
45-49	130	100	230	120	100	220	120	90	210	110	90	200
50-54	130	110	240	140	110	250	140	110	250	130	100	230
55-59	150	140	300	150	150	300	140	140	290	150	150	300
60-64	80	90	170	80	90	180	100	110	210	110	110	220
65-69	70	50	120	70	60	130	80	60	140	80	60	140
70-74	40	30	70	40	40	80	50	40	80	50	50	100
75-79	30	30	50	30	20	50	30	30	60	30	30	60
80-84	10	10	20	10	10	20	20	10	30	20	10	30
85+	0	10	10	10	10	20	10	10	20	10	10	20
All Ages	1,920	1,950	3,870	1,950	1,980	3,930	1,990	2,020	4,000	2,020	2,060	4,080

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2022			2023			2024			2025		
00-04	190	200	390	190	200	390	200	200	400	200	210	410
05-09	190	230	420	180	230	410	180	220	400	190	220	400
10-14	180	210	390	200	200	400	210	210	420	200	210	420
15-19	150	200	350	150	210	370	150	210	370	160	210	370
20-24	120	140	260	130	150	270	130	150	280	130	150	280
25-29	140	130	270	130	130	250	110	130	240	110	130	240
30-34	160	150	310	170	150	320	180	150	330	180	160	330
35-39	100	100	190	110	110	220	130	120	250	140	130	270
40-44	110	100	210	110	90	210	110	100	210	100	110	210
45-49	100	100	200	100	100	200	100	90	190	100	100	200
50-54	140	100	240	130	100	220	120	100	220	120	90	210
55-59	130	130	270	120	110	230	130	110	240	130	110	240
60-64	130	120	260	150	140	290	150	140	290	140	140	280
65-69	80	70	150	70	90	160	80	90	170	100	100	200
70-74	50	50	100	60	50	110	70	60	130	70	60	130
75-79	40	30	70	40	30	70	40	30	70	40	30	80
80-84	20	10	40	30	20	40	30	20	40	30	20	50
85+	10	10	20	10	10	30	10	20	30	20	20	30
All Ages	2,050	2,090	4,140	2,090	2,120	4,200	2,120	2,160	4,280	2,160	2,190	4,350

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2026			2027			2028			2029		
00-04	200	210	410	200	210	420	200	210	430	210	220	430
05-09	190	220	410	190	210	400	200	210	410	200	220	420
10-14	190	220	410	190	230	420	180	230	400	180	220	400
15-19	170	200	360	180	200	380	200	200	400	200	210	410
20-24	120	170	290	110	160	270	110	170	290	110	170	290
25-29	120	140	260	140	150	290	140	160	300	150	160	310
30-34	170	160	330	160	150	300	140	140	290	130	140	270
35-39	160	140	290	170	150	320	180	160	340	190	160	350
40-44	110	110	220	110	100	210	120	120	230	140	130	260
45-49	110	100	200	110	100	220	110	100	210	110	110	220
50-54	110	90	200	100	90	190	100	100	200	90	90	190
55-59	130	100	220	130	100	230	120	90	220	110	100	210
60-64	150	140	290	130	130	260	120	110	230	130	100	240
65-69	110	110	210	130	120	250	150	130	280	150	130	280
70-74	70	60	130	70	70	140	70	80	150	80	80	160
75-79	40	50	90	50	40	90	60	40	100	60	50	120
80-84	30	20	50	40	20	60	40	20	60	40	20	60
85+	30	20	40	30	20	40	30	30	50	30	30	60
All Ages	2,200	2,230	4,430	2,240	2,270	4,500	2,280	2,300	4,580	2,310	2,340	4,650

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2030			2031			2032			2033		
00-04	210	220	430	210	220	440	210	220	440	210	230	440
05-09	210	220	420	210	220	430	210	220	440	210	230	440
10-14	180	220	400	190	220	410	190	210	400	200	210	410
15-19	200	210	410	190	220	410	190	230	420	170	220	400
20-24	120	170	290	130	160	280	140	160	310	160	160	320
25-29	150	160	310	140	180	320	130	170	300	130	190	320
30-34	130	150	270	140	150	290	160	170	320	160	170	330
35-39	190	160	350	180	160	350	170	150	320	150	150	310
40-44	150	130	280	160	140	300	170	160	340	190	170	350
45-49	100	110	210	110	110	220	110	110	220	120	120	240
50-54	100	100	200	100	100	200	110	100	210	110	100	210
55-59	110	90	200	110	90	200	100	90	190	90	100	190
60-64	130	110	240	120	90	220	130	100	230	120	90	210
65-69	140	130	270	140	140	280	130	120	250	120	100	230
70-74	90	90	180	100	100	200	120	110	230	140	120	260
75-79	70	50	120	70	50	120	70	60	130	70	70	140
80-84	40	20	60	40	40	70	40	30	70	50	30	80
85+	40	30	70	40	30	60	40	30	70	50	30	80
All Ages	2,350	2,380	4,720	2,390	2,410	4,800	2,420	2,450	4,870	2,460	2,490	4,950

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2034			2035			2036			2037		
00-04	210	230	440	210	230	440	210	230	450	210	230	450
05-09	220	230	440	220	230	450	220	230	450	220	230	450
10-14	200	220	420	200	220	420	210	220	430	210	230	430
15-19	170	220	390	180	220	400	180	220	400	190	210	400
20-24	170	170	330	160	170	330	150	180	330	150	190	340
25-29	130	190	320	140	180	320	140	170	310	160	180	330
30-34	170	170	340	170	180	340	160	190	350	150	190	330
35-39	140	150	290	140	150	290	150	160	310	170	170	340
40-44	190	170	360	200	170	370	190	170	360	180	160	340
45-49	140	130	270	150	140	290	160	150	310	180	170	340
50-54	110	110	210	100	110	210	110	110	220	110	110	220
55-59	90	90	180	90	100	190	100	100	200	110	100	210
60-64	110	100	210	120	80	200	110	90	190	100	90	190
65-69	130	100	230	130	110	230	120	90	210	130	100	220
70-74	140	130	270	130	130	260	140	130	270	130	120	240
75-79	70	70	140	80	80	160	90	80	170	110	90	200
80-84	60	40	100	70	40	110	70	40	110	70	40	110
85+	50	30	80	40	30	70	50	40	80	60	30	90
All Ages	2,500	2,520	5,020	2,530	2,560	5,090	2,570	2,600	5,170	2,600	2,640	5,240

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2038			2039			2040			2041		
00-04	220	240	450	220	240	460	230	240	460	230	240	460
05-09	220	230	450	220	240	460	220	240	460	230	240	460
10-14	210	230	440	210	230	440	220	230	450	220	230	450
15-19	190	210	400	200	220	410	200	220	420	200	220	420
20-24	140	180	320	140	180	320	140	180	320	150	180	320
25-29	170	170	350	180	180	360	180	190	360	170	190	360
30-34	150	200	350	150	200	350	150	200	350	160	190	350
35-39	170	180	350	180	180	360	180	190	360	170	200	370
40-44	160	160	320	150	160	310	150	160	310	160	170	320
45-49	190	170	360	200	170	370	200	180	380	190	180	370
50-54	120	120	240	140	130	270	150	140	290	160	150	310
55-59	110	100	210	100	110	210	100	110	210	110	110	220
60-64	100	100	190	90	90	180	90	90	190	100	90	190
65-69	120	90	210	110	90	210	120	80	200	110	80	190
70-74	120	100	210	130	100	220	120	100	220	120	90	210
75-79	130	110	230	130	110	240	120	110	240	130	120	250
80-84	60	50	110	60	50	110	70	60	130	80	60	140
85+	60	40	110	70	40	120	80	40	130	80	50	130
All Ages	2,640	2,670	5,310	2,670	2,710	5,390	2,710	2,750	5,460	2,750	2,790	5,530

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total
	2042			2043		
00-04	230	240	460	230	240	480
05-09	230	240	470	230	240	470
10-14	220	230	450	220	240	450
15-19	210	220	430	210	230	430
20-24	150	170	320	150	170	330
25-29	170	200	370	150	200	350
30-34	170	190	370	190	190	380
35-39	160	200	350	160	210	370
40-44	170	180	360	180	190	370
45-49	180	170	350	170	160	330
50-54	170	170	340	190	170	360
55-59	110	100	210	110	120	230
60-64	110	100	210	110	90	200
65-69	100	90	190	100	90	190
70-74	120	90	220	120	90	200
75-79	120	110	220	110	90	200
80-84	100	70	170	110	90	200
85+	80	50	130	80	60	140
All Ages	2,780	2,820	5,610	2,820	2,860	5,680

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Table 147 - Māori population projections, single year, Canterbury DHB, by 5-year age band, 2018 to 2043

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2018			2019			2020			2021		
00-04	2,780	3,040	5,820	2,800	3,050	5,850	2,890	3,090	5,980	2,950	3,110	6,060
05-09	2,890	2,930	5,820	2,930	2,970	5,890	2,900	3,000	5,900	2,890	3,070	5,960
10-14	2,600	2,860	5,460	2,700	2,940	5,640	2,860	3,120	5,980	3,000	3,200	6,200
15-19	2,460	2,610	5,070	2,510	2,660	5,170	2,550	2,660	5,210	2,620	2,790	5,410
20-24	2,440	2,720	5,150	2,410	2,760	5,160	2,470	2,820	5,290	2,460	2,800	5,260
25-29	2,260	2,460	4,710	2,350	2,510	4,860	2,360	2,540	4,900	2,420	2,620	5,040
30-34	1,730	1,850	3,580	1,880	2,000	3,880	2,070	2,170	4,230	2,210	2,330	4,540
35-39	1,510	1,590	3,100	1,560	1,630	3,190	1,550	1,680	3,230	1,620	1,700	3,320
40-44	1,510	1,500	3,010	1,470	1,510	2,980	1,530	1,560	3,090	1,580	1,600	3,180
45-49	1,600	1,630	3,230	1,580	1,590	3,170	1,550	1,560	3,120	1,540	1,550	3,090
50-54	1,350	1,420	2,770	1,380	1,520	2,890	1,470	1,590	3,060	1,550	1,660	3,200
55-59	1,110	1,200	2,310	1,200	1,160	2,360	1,230	1,210	2,440	1,250	1,270	2,520
60-64	780	860	1,640	830	970	1,800	920	1,010	1,940	980	1,060	2,030
65-69	530	620	1,150	560	660	1,220	580	690	1,270	640	730	1,360
70-74	350	380	730	380	420	800	430	450	890	450	500	950
75-79	210	230	440	220	250	470	230	270	500	250	290	540
80-84	100	90	190	110	90	200	130	110	240	160	130	290
85+	90	60	160	100	70	170	100	80	180	110	80	190
All Ages	26,300	28,100	54,400	27,000	28,700	55,700	27,800	29,600	57,400	28,700	30,500	59,200

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2022			2023			2024			2025		
00-04	2,980	3,170	6,150	3,030	3,200	6,230	3,080	3,250	6,330	3,110	3,290	6,400
05-09	2,880	3,110	5,990	2,930	3,180	6,110	2,960	3,200	6,160	3,030	3,230	6,260
10-14	3,090	3,180	6,270	3,100	3,150	6,250	3,150	3,190	6,340	3,110	3,210	6,320
15-19	2,740	2,960	5,700	2,870	3,130	6,010	2,980	3,220	6,210	3,130	3,400	6,530
20-24	2,440	2,760	5,200	2,500	2,720	5,220	2,540	2,770	5,310	2,560	2,740	5,300
25-29	2,490	2,630	5,110	2,420	2,650	5,070	2,380	2,690	5,070	2,420	2,730	5,160
30-34	2,280	2,510	4,790	2,400	2,580	4,980	2,490	2,630	5,120	2,470	2,640	5,110
35-39	1,730	1,770	3,500	1,850	1,940	3,790	2,000	2,100	4,090	2,180	2,250	4,430
40-44	1,580	1,640	3,220	1,580	1,650	3,230	1,630	1,690	3,320	1,610	1,730	3,340
45-49	1,530	1,520	3,050	1,530	1,520	3,050	1,490	1,530	3,020	1,540	1,580	3,120
50-54	1,590	1,660	3,250	1,590	1,630	3,230	1,580	1,590	3,180	1,540	1,560	3,100
55-59	1,280	1,310	2,590	1,330	1,400	2,740	1,370	1,500	2,860	1,450	1,560	3,020
60-64	1,040	1,120	2,170	1,100	1,170	2,270	1,190	1,130	2,320	1,220	1,170	2,390
65-69	670	780	1,450	760	820	1,580	810	930	1,740	900	970	1,870
70-74	490	530	1,020	500	570	1,070	530	610	1,140	540	640	1,180
75-79	280	310	590	310	340	650	350	370	710	390	400	790
80-84	160	170	330	180	180	360	190	200	390	190	220	420
85+	130	80	210	130	90	230	150	90	240	170	110	270
All Ages	29,400	31,200	60,600	30,100	31,900	62,000	30,900	32,700	63,600	31,600	33,400	65,000

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2026			2027			2028			2029		
00-04	3,150	3,330	6,490	3,190	3,370	6,560	3,230	3,410	6,640	3,260	3,440	6,700
05-09	3,080	3,230	6,310	3,110	3,300	6,410	3,160	3,330	6,490	3,210	3,380	6,590
10-14	3,090	3,260	6,350	3,080	3,310	6,390	3,120	3,380	6,500	3,150	3,400	6,550
15-19	3,260	3,470	6,730	3,360	3,450	6,800	3,370	3,420	6,780	3,410	3,450	6,870
20-24	2,610	2,850	5,460	2,730	3,010	5,740	2,860	3,190	6,050	2,970	3,270	6,240
25-29	2,400	2,680	5,080	2,370	2,640	5,010	2,420	2,590	5,000	2,450	2,620	5,080
30-34	2,520	2,700	5,210	2,580	2,690	5,270	2,510	2,720	5,220	2,470	2,750	5,220
35-39	2,310	2,410	4,720	2,380	2,580	4,960	2,490	2,640	5,140	2,580	2,690	5,270
40-44	1,660	1,740	3,400	1,770	1,810	3,580	1,900	1,980	3,880	2,040	2,130	4,180
45-49	1,580	1,600	3,190	1,590	1,640	3,220	1,580	1,650	3,230	1,630	1,690	3,320
50-54	1,530	1,530	3,060	1,510	1,510	3,020	1,510	1,510	3,020	1,470	1,520	2,990
55-59	1,530	1,620	3,150	1,570	1,620	3,200	1,580	1,590	3,170	1,560	1,560	3,120
60-64	1,230	1,230	2,460	1,260	1,270	2,530	1,320	1,360	2,670	1,350	1,450	2,800
65-69	950	1,010	1,950	1,010	1,070	2,080	1,070	1,110	2,180	1,150	1,080	2,230
70-74	590	670	1,260	630	720	1,340	710	760	1,470	760	860	1,620
75-79	400	440	840	440	470	910	450	500	950	480	540	1,010
80-84	210	230	450	240	250	490	270	270	540	300	290	590
85+	190	130	310	190	160	360	210	170	390	230	190	410
All Ages	32,300	34,100	66,400	33,000	34,900	67,900	33,700	35,600	69,300	34,500	36,300	70,800

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2030			2031			2032			2033		
00-04	3,280	3,470	6,750	3,310	3,490	6,800	3,330	3,520	6,850	3,360	3,550	6,910
05-09	3,250	3,430	6,680	3,290	3,470	6,760	3,330	3,510	6,850	3,370	3,550	6,920
10-14	3,230	3,430	6,650	3,280	3,440	6,710	3,310	3,500	6,810	3,360	3,540	6,900
15-19	3,380	3,470	6,850	3,360	3,520	6,880	3,350	3,570	6,920	3,390	3,640	7,030
20-24	3,120	3,450	6,570	3,250	3,530	6,780	3,350	3,510	6,860	3,360	3,480	6,840
25-29	2,470	2,600	5,070	2,530	2,700	5,230	2,650	2,870	5,520	2,780	3,050	5,830
30-34	2,510	2,800	5,310	2,490	2,760	5,250	2,460	2,710	5,180	2,510	2,660	5,180
35-39	2,570	2,700	5,260	2,610	2,760	5,370	2,680	2,760	5,440	2,610	2,790	5,390
40-44	2,230	2,290	4,520	2,370	2,450	4,820	2,430	2,630	5,070	2,550	2,690	5,240
45-49	1,610	1,720	3,330	1,670	1,730	3,400	1,780	1,810	3,580	1,900	1,980	3,890
50-54	1,530	1,560	3,090	1,570	1,590	3,160	1,570	1,620	3,200	1,570	1,630	3,200
55-59	1,530	1,520	3,050	1,510	1,500	3,010	1,490	1,480	2,970	1,500	1,480	2,980
60-64	1,440	1,520	2,950	1,510	1,570	3,080	1,550	1,580	3,130	1,560	1,550	3,110
65-69	1,180	1,120	2,300	1,190	1,170	2,370	1,230	1,210	2,440	1,280	1,300	2,580
70-74	840	900	1,740	890	930	1,820	950	990	1,940	1,010	1,030	2,040
75-79	490	560	1,050	540	590	1,130	570	630	1,200	640	670	1,320
80-84	340	320	660	340	360	700	380	380	760	380	410	790
85+	230	210	440	270	230	490	290	260	550	330	270	600
All Ages	35,200	37,100	72,300	36,000	37,800	73,800	36,700	38,500	75,300	37,500	39,300	76,800

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2034			2035			2036			2037		
00-04	3,400	3,590	6,970	3,430	3,620	7,050	3,460	3,660	7,120	3,500	3,700	7,200
05-09	3,400	3,580	6,990	3,430	3,610	7,040	3,460	3,640	7,100	3,480	3,670	7,150
10-14	3,410	3,590	7,000	3,460	3,640	7,100	3,500	3,690	7,190	3,550	3,730	7,280
15-19	3,420	3,660	7,080	3,490	3,690	7,190	3,550	3,700	7,250	3,580	3,770	7,350
20-24	3,410	3,510	6,920	3,370	3,520	6,900	3,350	3,580	6,940	3,350	3,620	6,970
25-29	2,890	3,140	6,040	3,050	3,330	6,370	3,180	3,400	6,580	3,280	3,380	6,660
30-34	2,550	2,690	5,240	2,570	2,660	5,230	2,620	2,770	5,390	2,750	2,930	5,680
35-39	2,570	2,830	5,400	2,620	2,880	5,500	2,600	2,840	5,430	2,570	2,800	5,370
40-44	2,640	2,730	5,370	2,620	2,740	5,360	2,670	2,800	5,480	2,740	2,810	5,550
45-49	2,050	2,140	4,190	2,240	2,300	4,540	2,380	2,460	4,840	2,450	2,640	5,090
50-54	1,620	1,670	3,290	1,600	1,710	3,310	1,650	1,720	3,370	1,770	1,790	3,560
55-59	1,460	1,490	2,950	1,520	1,530	3,050	1,560	1,570	3,120	1,560	1,600	3,160
60-64	1,550	1,510	3,060	1,510	1,480	2,990	1,500	1,460	2,960	1,480	1,440	2,930
65-69	1,310	1,390	2,700	1,400	1,460	2,850	1,470	1,510	2,980	1,520	1,520	3,030
70-74	1,090	1,000	2,090	1,120	1,040	2,160	1,130	1,090	2,220	1,160	1,130	2,290
75-79	690	770	1,450	760	800	1,560	800	820	1,630	860	880	1,740
80-84	410	440	850	420	460	880	460	490	950	480	520	1,010
85+	350	300	650	390	330	710	410	360	770	460	390	850
All Ages	38,200	40,000	78,300	39,000	40,800	79,800	39,800	41,600	81,300	40,500	42,300	82,900

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2038			2039			2040			2041		
00-04	3,550	3,740	7,300	3,590	3,790	7,390	3,640	3,850	7,500	3,700	3,910	7,610
05-09	3,510	3,700	7,210	3,550	3,740	7,280	3,580	3,780	7,360	3,620	3,820	7,440
10-14	3,580	3,770	7,360	3,620	3,810	7,430	3,650	3,840	7,490	3,680	3,870	7,540
15-19	3,630	3,810	7,440	3,690	3,860	7,550	3,730	3,910	7,650	3,780	3,960	7,740
20-24	3,390	3,700	7,090	3,410	3,720	7,140	3,490	3,750	7,240	3,540	3,760	7,310
25-29	3,290	3,350	6,640	3,340	3,390	6,730	3,310	3,400	6,710	3,290	3,460	6,740
30-34	2,880	3,120	6,000	2,990	3,220	6,210	3,150	3,400	6,550	3,280	3,480	6,760
35-39	2,620	2,740	5,360	2,650	2,770	5,430	2,670	2,740	5,410	2,730	2,850	5,580
40-44	2,670	2,840	5,510	2,640	2,890	5,520	2,680	2,940	5,620	2,660	2,900	5,560
45-49	2,560	2,700	5,260	2,650	2,740	5,390	2,640	2,750	5,390	2,690	2,810	5,500
50-54	1,890	1,970	3,870	2,040	2,130	4,170	2,230	2,290	4,520	2,370	2,450	4,820
55-59	1,560	1,600	3,170	1,610	1,640	3,250	1,590	1,680	3,270	1,640	1,690	3,330
60-64	1,490	1,450	2,940	1,450	1,460	2,910	1,510	1,500	3,010	1,550	1,530	3,080
65-69	1,520	1,490	3,010	1,510	1,460	2,970	1,480	1,430	2,900	1,460	1,410	2,870
70-74	1,210	1,210	2,430	1,240	1,300	2,540	1,330	1,370	2,690	1,400	1,420	2,820
75-79	910	920	1,840	1,000	890	1,890	1,030	920	1,950	1,040	970	2,010
80-84	550	550	1,110	590	640	1,230	660	660	1,320	700	680	1,380
85+	480	420	900	510	460	970	540	490	1,020	580	520	1,100
All Ages	41,300	43,100	84,400	42,100	43,900	86,000	42,900	44,700	87,600	43,700	45,500	89,200

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total
	2042			2043		
00-04	3,760	3,970	7,720	3,810	4,030	7,850
05-09	3,660	3,860	7,520	3,710	3,910	7,610
10-14	3,700	3,900	7,600	3,740	3,930	7,670
15-19	3,820	4,010	7,830	3,870	4,050	7,920
20-24	3,580	3,830	7,410	3,630	3,870	7,510
25-29	3,280	3,500	6,780	3,320	3,570	6,890
30-34	3,380	3,460	6,850	3,400	3,440	6,840
35-39	2,850	3,010	5,870	2,990	3,200	6,190
40-44	2,640	2,850	5,490	2,690	2,800	5,490
45-49	2,750	2,820	5,580	2,690	2,850	5,540
50-54	2,440	2,630	5,070	2,560	2,690	5,250
55-59	1,760	1,770	3,520	1,880	1,940	3,830
60-64	1,550	1,560	3,120	1,550	1,570	3,120
65-69	1,450	1,390	2,840	1,460	1,400	2,860
70-74	1,450	1,430	2,870	1,450	1,400	2,850
75-79	1,060	1,010	2,070	1,110	1,090	2,210
80-84	750	730	1,480	790	760	1,560
85+	630	570	1,200	690	610	1,300
All Ages	44,500	46,300	90,800	45,300	47,100	92,500

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Table 148 - Māori population projections, single year, South Canterbury DHB, by 5-year age band, 2018 to 2043

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2018			2019			2020			2021		
00-04	300	310	610	300	320	610	300	330	630	300	320	630
05-09	320	310	620	310	310	620	300	310	610	310	320	630
10-14	300	300	600	320	320	630	330	330	660	330	320	650
15-19	270	290	560	300	290	580	300	290	590	310	310	620
20-24	170	220	380	160	230	390	190	250	440	220	270	490
25-29	190	210	400	190	220	420	190	200	390	180	200	380
30-34	150	170	320	170	170	340	180	190	370	190	200	400
35-39	160	130	290	150	130	280	140	150	280	140	160	300
40-44	140	140	280	140	140	280	160	140	300	160	140	300
45-49	160	160	320	170	170	330	170	170	340	160	160	320
50-54	140	130	270	140	130	270	140	130	270	150	150	290
55-59	130	110	240	130	120	240	130	120	260	150	130	280
60-64	100	80	180	100	90	190	110	90	200	110	100	200
65-69	70	70	140	80	80	160	90	80	170	100	70	170
70-74	40	40	80	50	40	90	50	50	100	50	60	110
75-79	30	30	50	30	30	60	30	30	60	30	30	60
80-84	20	10	30	20	10	30	20	20	30	20	20	40
85+	20	10	30	20	10	30	20	10	30	20	10	30
All Ages	2,690	2,720	5,410	2,760	2,790	5,550	2,850	2,880	5,730	2,940	2,970	5,910

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2022			2023			2024			2025		
00-04	300	320	620	300	310	610	300	320	630	310	330	640
05-09	320	320	640	320	340	660	310	350	660	320	350	670
10-14	330	330	660	340	330	670	340	330	670	320	340	660
15-19	310	320	640	320	320	640	340	340	670	360	350	700
20-24	240	270	510	270	290	560	290	280	580	290	280	580
25-29	180	200	370	160	200	360	150	210	370	180	230	410
30-34	200	210	410	210	220	430	210	230	440	200	210	410
35-39	150	170	330	170	180	350	190	190	370	200	210	400
40-44	160	130	300	170	140	310	160	140	300	150	150	300
45-49	150	160	320	140	150	290	140	150	290	170	150	310
50-54	160	140	300	160	160	320	170	170	340	170	170	340
55-59	140	140	280	140	140	280	150	130	280	140	130	270
60-64	120	100	220	130	110	240	130	120	250	130	130	260
65-69	90	70	160	100	80	180	110	90	190	110	90	200
70-74	60	70	120	70	70	130	80	80	150	90	70	160
75-79	40	40	80	40	40	80	40	40	80	50	50	90
80-84	20	20	40	20	20	50	30	20	50	30	20	50
85+	30	10	40	30	10	50	20	20	50	20	20	50
All Ages	3,010	3,040	6,050	3,080	3,120	6,200	3,160	3,200	6,370	3,240	3,280	6,520

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2026			2027			2028			2029		
00-04	310	340	650	330	340	660	330	350	680	340	350	690
05-09	320	350	670	320	350	670	320	340	660	330	350	680
10-14	330	350	680	340	340	690	340	360	710	340	370	710
15-19	350	340	690	350	350	700	360	350	710	360	350	710
20-24	310	310	610	310	320	620	320	310	630	330	330	660
25-29	210	250	460	230	250	480	260	270	520	280	260	540
30-34	190	200	400	190	200	390	170	210	370	160	220	380
35-39	210	210	420	210	220	440	220	230	450	220	250	470
40-44	150	170	320	160	180	340	180	190	370	190	200	390
45-49	160	150	310	170	140	300	170	150	320	160	150	310
50-54	170	160	330	160	160	320	150	150	300	140	150	290
55-59	150	150	290	160	150	300	160	160	330	170	170	340
60-64	150	130	280	140	140	280	140	140	280	150	130	280
65-69	110	90	200	120	100	220	130	110	240	130	110	240
70-74	100	70	170	90	70	160	90	80	170	100	80	190
75-79	50	50	110	50	60	110	60	60	130	70	70	150
80-84	30	20	50	40	30	70	40	30	70	40	30	70
85+	30	20	50	30	20	50	30	30	60	30	30	60
All Ages	3,320	3,360	6,680	3,390	3,440	6,830	3,470	3,520	6,990	3,550	3,600	7,150

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2030			2031			2032			2033		
00-04	340	360	700	350	360	710	350	370	730	360	380	740
05-09	330	360	690	340	360	700	340	370	710	350	380	730
10-14	350	380	720	350	380	720	340	380	720	340	370	710
15-19	340	350	690	350	360	710	360	360	720	360	380	740
20-24	350	340	690	350	330	680	350	350	690	360	340	700
25-29	280	260	550	300	280	580	300	300	590	310	290	600
30-34	190	240	430	210	260	470	240	250	490	270	270	540
35-39	220	220	440	210	210	420	200	220	420	180	220	400
40-44	200	210	420	220	220	440	220	230	450	230	240	470
45-49	150	160	310	160	170	330	170	190	350	180	200	380
50-54	170	150	320	160	150	310	170	140	310	170	150	320
55-59	170	180	350	170	160	330	160	170	320	150	150	300
60-64	140	130	270	150	150	290	160	150	300	170	160	330
65-69	130	120	260	150	130	270	140	140	280	140	130	270
70-74	100	90	190	100	90	190	120	90	210	120	110	230
75-79	90	70	160	90	70	160	80	70	150	90	70	160
80-84	40	30	80	40	40	90	50	50	90	60	50	110
85+	40	30	60	40	30	70	50	30	90	50	30	90
All Ages	3,630	3,680	7,320	3,720	3,770	7,480	3,800	3,850	7,650	3,880	3,940	7,820

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2034			2035			2036			2037		
00-04	360	390	750	380	400	760	380	400	790	390	410	800
05-09	360	380	740	360	390	750	370	400	770	380	400	780
10-14	350	380	730	360	380	740	360	390	750	370	400	760
15-19	360	390	750	370	390	760	370	390	760	370	400	760
20-24	350	340	700	340	350	680	340	360	700	360	350	710
25-29	320	310	630	340	320	660	340	310	650	340	330	670
30-34	290	270	560	290	270	560	300	290	590	310	300	610
35-39	170	230	400	200	250	450	230	270	490	250	260	510
40-44	230	260	490	230	230	460	220	220	440	210	230	440
45-49	200	200	400	210	220	430	220	230	450	220	240	470
50-54	170	150	320	150	160	320	160	180	340	170	190	360
55-59	140	150	300	170	150	320	160	150	320	170	140	310
60-64	170	170	350	170	180	350	170	160	330	160	170	330
65-69	150	120	270	140	130	270	150	140	290	160	140	300
70-74	120	110	240	130	120	250	140	120	270	140	130	270
75-79	100	80	170	100	80	180	100	80	180	110	90	200
80-84	70	60	120	80	60	140	80	50	140	70	50	130
85+	50	30	80	50	40	100	60	50	110	70	60	120
All Ages	3,970	4,030	7,990	4,050	4,110	8,170	4,140	4,200	8,340	4,230	4,290	8,520

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2038			2039			2040			2041		
00-04	390	410	810	400	430	830	410	440	840	410	440	850
05-09	380	410	790	390	420	810	400	420	820	400	430	840
10-14	380	400	780	380	410	790	390	420	800	400	420	820
15-19	370	390	750	370	390	770	380	400	780	380	410	790
20-24	360	380	730	350	380	740	360	390	750	360	390	750
25-29	350	330	670	350	320	670	330	330	660	340	340	670
30-34	320	300	620	330	320	650	350	330	680	350	320	670
35-39	280	280	560	300	280	580	310	280	590	320	300	620
40-44	190	230	420	180	240	420	210	260	470	240	280	510
45-49	230	250	490	230	260	500	230	240	470	220	230	460
50-54	180	200	380	200	210	410	210	230	440	220	230	460
55-59	170	160	330	170	150	320	150	170	320	160	180	340
60-64	150	150	300	140	160	300	170	150	320	160	150	320
65-69	160	160	320	170	170	340	170	170	350	170	160	330
70-74	140	130	270	140	120	260	130	120	260	140	140	280
75-79	120	100	210	120	100	220	120	110	230	140	110	250
80-84	80	60	140	80	60	150	80	60	150	80	70	150
85+	80	60	130	80	60	140	100	70	160	100	60	160
All Ages	4,320	4,390	8,710	4,410	4,480	8,890	4,500	4,570	9,070	4,590	4,670	9,260

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total
	2042			2043		
00-04	420	450	860	430	450	890
05-09	410	440	850	420	450	870
10-14	400	430	830	410	440	850
15-19	390	410	800	400	420	820
20-24	360	390	750	360	380	740
25-29	350	340	690	350	360	710
30-34	350	330	680	360	330	690
35-39	320	320	640	330	310	640
40-44	260	270	530	290	290	580
45-49	220	230	450	200	240	430
50-54	230	250	470	240	260	490
55-59	170	190	360	180	200	390
60-64	170	150	320	170	160	330
65-69	160	160	320	150	150	300
70-74	150	140	290	160	150	310
75-79	130	120	260	130	120	250
80-84	100	70	170	100	80	180
85+	100	70	170	100	70	180
All Ages	4,690	4,760	9,450	4,780	4,860	9,640

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Table 149 - Māori population projections, single year, Southern DHB, by 5-year age band, 2018 to 2043

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2018			2019			2020			2021		
00-04	1,770	1,820	3,600	1,750	1,830	3,580	1,780	1,880	3,670	1,810	1,940	3,740
05-09	1,860	2,010	3,870	1,880	1,970	3,840	1,890	1,910	3,800	1,890	1,910	3,800
10-14	1,740	1,990	3,740	1,810	2,080	3,900	1,860	2,170	4,030	1,940	2,200	4,140
15-19	1,820	1,910	3,730	1,820	1,980	3,800	1,860	2,050	3,910	1,900	2,150	4,040
20-24	1,710	1,780	3,490	1,810	1,810	3,620	1,910	1,860	3,770	1,970	1,880	3,850
25-29	1,320	1,470	2,790	1,350	1,510	2,860	1,390	1,580	2,980	1,440	1,630	3,080
30-34	1,130	1,180	2,300	1,210	1,300	2,500	1,250	1,350	2,610	1,320	1,450	2,770
35-39	1,050	1,030	2,080	1,050	1,040	2,090	1,090	1,080	2,170	1,110	1,120	2,230
40-44	940	930	1,880	950	940	1,890	990	990	1,970	1,050	1,020	2,070
45-49	1,000	960	1,950	1,000	940	1,950	990	940	1,930	980	940	1,920
50-54	940	830	1,780	950	870	1,820	990	890	1,880	1,010	920	1,930
55-59	830	750	1,590	890	780	1,670	910	790	1,700	900	840	1,740
60-64	520	570	1,090	570	610	1,180	610	680	1,290	700	660	1,360
65-69	400	400	800	410	420	830	450	440	890	460	490	950
70-74	260	290	550	280	310	590	310	330	640	350	350	700
75-79	170	190	360	190	200	390	190	200	390	200	190	400
80-84	80	110	200	90	120	220	120	150	260	120	170	290
85+	60	60	120	60	60	130	70	60	130	100	60	160
All Ages	17,600	18,300	35,900	18,100	18,800	36,800	18,700	19,400	38,000	19,200	19,900	39,200

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2022			2023			2024			2025		
00-04	1,860	1,980	3,830	1,870	1,990	3,860	1,910	2,020	3,930	1,940	2,060	4,000
05-09	1,870	1,910	3,780	1,870	1,940	3,800	1,850	1,950	3,800	1,870	1,990	3,860
10-14	1,950	2,170	4,110	1,980	2,150	4,130	2,000	2,110	4,110	2,000	2,040	4,040
15-19	1,990	2,240	4,230	2,070	2,320	4,390	2,140	2,420	4,560	2,180	2,500	4,680
20-24	1,960	1,940	3,900	1,940	2,000	3,940	1,930	2,060	3,990	1,950	2,110	4,060
25-29	1,540	1,710	3,250	1,650	1,730	3,380	1,760	1,750	3,510	1,850	1,790	3,640
30-34	1,380	1,460	2,840	1,400	1,530	2,930	1,420	1,570	2,990	1,450	1,630	3,080
35-39	1,150	1,180	2,320	1,200	1,240	2,430	1,280	1,350	2,630	1,320	1,400	2,720
40-44	1,050	1,060	2,110	1,100	1,080	2,180	1,100	1,090	2,200	1,140	1,120	2,260
45-49	980	950	1,920	970	960	1,930	980	970	1,940	1,010	1,010	2,010
50-54	1,020	930	1,950	1,000	970	1,970	1,010	950	1,960	990	940	1,930
55-59	930	830	1,760	940	820	1,760	950	860	1,810	980	880	1,860
60-64	750	710	1,460	830	750	1,580	890	780	1,670	910	780	1,690
65-69	490	530	1,010	520	560	1,070	560	600	1,160	600	660	1,260
70-74	380	370	750	390	380	770	400	390	790	430	410	840
75-79	220	210	430	250	250	500	260	270	530	290	290	580
80-84	130	170	300	150	150	310	170	160	330	170	160	320
85+	100	80	180	100	110	210	120	120	230	140	130	270
All Ages	19,700	20,400	40,200	20,200	20,900	41,100	20,700	21,400	42,100	21,200	21,900	43,100

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2026			2027			2028			2029		
00-04	1,960	2,090	4,060	2,000	2,120	4,120	2,030	2,160	4,190	2,060	2,190	4,250
05-09	1,880	2,030	3,920	1,930	2,070	4,000	1,950	2,070	4,020	1,980	2,110	4,090
10-14	1,990	2,030	4,020	1,970	2,020	3,990	1,970	2,050	4,010	1,950	2,050	4,000
15-19	2,250	2,520	4,770	2,250	2,490	4,740	2,280	2,460	4,750	2,300	2,420	4,720
20-24	1,960	2,190	4,150	2,050	2,280	4,330	2,120	2,370	4,490	2,190	2,460	4,660
25-29	1,890	1,790	3,690	1,880	1,850	3,730	1,850	1,900	3,750	1,830	1,960	3,790
30-34	1,490	1,660	3,150	1,580	1,740	3,320	1,700	1,750	3,450	1,800	1,780	3,580
35-39	1,380	1,490	2,870	1,430	1,500	2,930	1,440	1,560	3,010	1,470	1,590	3,060
40-44	1,150	1,160	2,300	1,180	1,210	2,390	1,230	1,270	2,500	1,310	1,390	2,700
45-49	1,060	1,040	2,100	1,060	1,070	2,130	1,110	1,090	2,200	1,110	1,100	2,210
50-54	970	940	1,910	970	940	1,910	960	960	1,920	970	960	1,930
55-59	1,000	900	1,900	1,010	910	1,920	990	950	1,940	1,000	930	1,930
60-64	900	830	1,720	920	820	1,740	930	810	1,740	950	840	1,790
65-69	690	640	1,330	740	680	1,420	810	720	1,540	870	760	1,630
70-74	440	460	900	470	490	960	500	520	1,020	540	560	1,100
75-79	320	310	630	350	320	680	360	330	690	370	340	710
80-84	180	150	330	190	160	360	220	200	420	230	220	440
85+	150	150	300	170	170	330	180	160	340	200	170	380
All Ages	21,700	22,400	44,000	22,200	22,800	45,000	22,600	23,300	46,000	23,100	23,800	47,000

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2030			2031			2032			2033		
00-04	2,090	2,220	4,310	2,120	2,240	4,360	2,140	2,280	4,410	2,170	2,310	4,460
05-09	2,010	2,150	4,160	2,040	2,180	4,220	2,080	2,220	4,300	2,110	2,250	4,370
10-14	1,970	2,090	4,060	1,980	2,140	4,120	2,030	2,180	4,210	2,050	2,180	4,230
15-19	2,300	2,350	4,650	2,290	2,340	4,630	2,270	2,330	4,610	2,270	2,360	4,630
20-24	2,230	2,540	4,770	2,310	2,560	4,870	2,310	2,530	4,840	2,340	2,510	4,850
25-29	1,860	2,010	3,860	1,870	2,090	3,960	1,960	2,180	4,140	2,040	2,260	4,300
30-34	1,890	1,810	3,710	1,940	1,820	3,760	1,920	1,880	3,800	1,900	1,930	3,830
35-39	1,490	1,650	3,150	1,530	1,690	3,220	1,620	1,770	3,390	1,740	1,780	3,520
40-44	1,360	1,440	2,790	1,420	1,520	2,940	1,470	1,540	3,010	1,480	1,600	3,080
45-49	1,140	1,130	2,270	1,160	1,160	2,320	1,190	1,210	2,410	1,250	1,280	2,520
50-54	1,000	1,000	2,000	1,050	1,030	2,080	1,050	1,070	2,120	1,100	1,080	2,180
55-59	980	920	1,900	960	920	1,880	960	920	1,880	950	940	1,890
60-64	980	860	1,840	990	890	1,880	1,010	900	1,910	990	930	1,920
65-69	890	760	1,650	880	810	1,680	900	800	1,700	920	790	1,710
70-74	570	620	1,190	660	590	1,250	700	640	1,340	780	680	1,460
75-79	400	360	760	410	410	820	440	440	870	460	460	920
80-84	250	230	480	280	250	530	310	260	570	310	270	580
85+	210	180	390	230	170	410	250	200	440	270	220	500
All Ages	23,600	24,300	47,900	24,100	24,800	48,900	24,600	25,300	49,900	25,100	25,800	51,000

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2034			2035			2036			2037		
00-04	2,190	2,330	4,530	2,220	2,360	4,580	2,250	2,380	4,640	2,270	2,420	4,690
05-09	2,140	2,290	4,430	2,170	2,320	4,490	2,200	2,350	4,550	2,230	2,380	4,600
10-14	2,080	2,220	4,300	2,110	2,260	4,370	2,150	2,300	4,440	2,180	2,330	4,520
15-19	2,250	2,360	4,620	2,270	2,400	4,680	2,290	2,450	4,740	2,340	2,490	4,820
20-24	2,360	2,470	4,820	2,360	2,400	4,750	2,350	2,390	4,740	2,330	2,380	4,710
25-29	2,110	2,360	4,470	2,150	2,450	4,600	2,230	2,470	4,700	2,230	2,440	4,670
30-34	1,880	1,980	3,860	1,910	2,030	3,940	1,920	2,110	4,030	2,020	2,200	4,220
35-39	1,850	1,810	3,660	1,940	1,850	3,790	1,990	1,850	3,840	1,980	1,910	3,890
40-44	1,510	1,630	3,140	1,530	1,690	3,220	1,570	1,720	3,290	1,660	1,800	3,460
45-49	1,330	1,400	2,730	1,370	1,450	2,830	1,440	1,540	2,980	1,490	1,560	3,050
50-54	1,100	1,090	2,190	1,130	1,120	2,250	1,150	1,150	2,300	1,190	1,210	2,400
55-59	960	940	1,900	990	980	1,970	1,050	1,010	2,060	1,040	1,050	2,090
60-64	990	920	1,910	980	910	1,890	960	910	1,870	960	910	1,870
65-69	930	820	1,750	960	840	1,800	980	860	1,840	990	870	1,870
70-74	830	710	1,540	850	710	1,570	840	760	1,600	870	750	1,620
75-79	500	490	990	520	550	1,070	600	520	1,120	640	560	1,210
80-84	330	280	600	360	290	650	360	340	700	390	360	750
85+	300	240	530	310	250	560	350	260	600	380	280	660
All Ages	25,600	26,300	52,000	26,200	26,900	53,000	26,700	27,400	54,000	27,200	27,900	55,100

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
	2038			2039			2040			2041		
00-04	2,310	2,440	4,750	2,330	2,470	4,800	2,360	2,510	4,860	2,380	2,530	4,920
05-09	2,250	2,400	4,660	2,280	2,430	4,720	2,310	2,460	4,770	2,340	2,490	4,830
10-14	2,220	2,370	4,590	2,250	2,410	4,660	2,280	2,440	4,720	2,310	2,470	4,780
15-19	2,350	2,500	4,850	2,390	2,530	4,920	2,420	2,570	4,990	2,460	2,610	5,070
20-24	2,330	2,400	4,730	2,310	2,410	4,710	2,330	2,450	4,780	2,340	2,490	4,840
25-29	2,260	2,420	4,680	2,280	2,370	4,650	2,270	2,310	4,580	2,270	2,290	4,560
30-34	2,090	2,290	4,390	2,170	2,400	4,560	2,210	2,480	4,690	2,290	2,510	4,790
35-39	1,950	1,960	3,920	1,940	2,020	3,950	1,960	2,070	4,030	1,980	2,150	4,130
40-44	1,780	1,820	3,600	1,890	1,850	3,740	1,990	1,890	3,870	2,030	1,900	3,930
45-49	1,500	1,620	3,120	1,520	1,640	3,170	1,550	1,700	3,250	1,580	1,740	3,320
50-54	1,240	1,270	2,520	1,330	1,400	2,720	1,370	1,450	2,820	1,440	1,540	2,980
55-59	1,090	1,070	2,150	1,090	1,070	2,160	1,120	1,100	2,230	1,140	1,140	2,270
60-64	950	930	1,880	960	930	1,890	990	970	1,960	1,050	1,000	2,050
65-69	970	910	1,880	980	900	1,880	970	890	1,850	950	890	1,840
70-74	880	740	1,630	890	780	1,670	930	790	1,720	940	820	1,760
75-79	720	600	1,320	770	640	1,410	790	640	1,430	780	690	1,470
80-84	400	380	780	430	410	840	450	460	910	530	430	960
85+	410	310	700	420	320	740	450	330	790	480	370	850
All Ages	27,700	28,400	56,100	28,200	29,000	57,200	28,800	29,500	58,300	29,300	30,000	59,300

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Age Groups	Female	Male	Total	Female	Male	Total
	2042			2043		
00-04	2,420	2,570	4,980	2,450	2,590	5,040
05-09	2,370	2,520	4,890	2,390	2,550	4,950
10-14	2,340	2,500	4,840	2,370	2,530	4,900
15-19	2,490	2,650	5,140	2,530	2,690	5,220
20-24	2,390	2,530	4,920	2,410	2,540	4,950
25-29	2,250	2,290	4,530	2,240	2,310	4,550
30-34	2,290	2,480	4,770	2,320	2,460	4,780
35-39	2,070	2,240	4,320	2,150	2,330	4,490
40-44	2,020	1,950	3,970	2,000	2,010	4,010
45-49	1,680	1,820	3,490	1,800	1,830	3,630
50-54	1,490	1,550	3,040	1,500	1,620	3,110
55-59	1,180	1,190	2,370	1,230	1,260	2,490
60-64	1,040	1,040	2,080	1,090	1,050	2,140
65-69	950	890	1,840	940	910	1,850
70-74	960	830	1,790	940	860	1,800
75-79	800	680	1,480	820	670	1,490
80-84	560	470	1,030	630	500	1,130
85+	520	390	920	550	430	980
All Ages	29,800	30,600	60,400	30,400	31,100	61,500

Source: Te Whatu Ora Population Webtool (Best Available Populations).

Appendix 2: Technical notes

1. Explanation of statistical terms used in this report

95% confidence interval

Technical definition

A 95% confidence interval represents a range from a lower to an upper value that is likely to include the true average figure for the entire population. It suggests that if a similar sample of the total population was taken 100 times, the true value would be found within this range 95 times. This confidence interval can vary in size: a larger number of survey responses or participants, typically results in a narrower range, indicating more precise estimates, while a smaller number of responses may result in a broader range, indicating less certainty about the exact figure.

Plain English definition

When a health study gives a number, like how many people feel healthy, it's often not just one number but a range. This range is what's called a 95% confidence interval. It's like a safety net that says, 'We think the real number is in here.' And if we did the study over and over, 95 times out of 100, we'd get a number in this range. The more people we include in our sample, the smaller and more accurate this net becomes. So, if we ask only a few people, the net is wide, and we're less sure. If we ask a lot of people, the net gets tighter, and we're more sure we've got the right number.

Example from the report

In a survey assessing health status among residents of Te Moana a Toi⁸ (see table below), 13.0% of the sampled Māori population considered their health to be 'Excellent'. However, this percentage is an estimate from a sample of people in Te Moana a Toi, not the entire population. The 95% confidence interval, shown in brackets as "(9.8, 16.2)", indicates that there is a 95% probability that the actual percentage of all Māori residents who would rate their health as 'Excellent' falls within this range. If this survey were to be conducted 100 times with different sample groups, it is expected that 95 of those surveys would yield a true percentage that falls between 9.8% and 16.2%.

Table 6 - Health status reported by Māori aged 15 years and over, Te Moana a Toi, 2018

Health Status	Te Moana a Toi		Aotearoa	
	%	(95% CI)	%	(95% CI)
Excellent	13.0	(9.8, 16.2)	15.1	(14.0, 16.2)
Very Good	40.2	(35.6, 44.9)	36.9	(35.4, 38.3)
Good	30.1	(25.3, 35.0)	30.3	(29.0, 31.7)
Fair/poor	16.6	(12.9, 20.3)	17.7	(16.6, 18.8)

Source: Te Kupenga 2018, Statistics New Zealand customised report.

⁸ The example tables in this technical appendix are all taken from the Te Moana a Toi IMPB profile, and are presented purely as an example to facilitate understanding across all IMPB data profiles.

Age standardisation

Technical definition

Age-standardisation is a statistical method used to compare rates of events across different populations by adjusting for age differences in the two groups. This method is particularly useful when comparing health outcomes between groups like Māori and non-Māori, where there are significant differences in age distribution; for example only 8% of Māori are aged 65 and over in Te Moana a Toi compared with 26% of non-Māori (see the table below).

Because of these age differences, comparing crude rates (actual observed rates) can be misleading. By applying the age-specific rates from the populations being compared to a standard population, age-standardised rates provide a clearer comparison as if the populations had the same age distribution. Almost all data in this report has been age-standardised to the 2001 Māori population. Where crude rates are presented instead, this is noted beneath the table.

Table 2 – Population estimate by age group, Te Moana a Toi, 2023

Age group (years)	Māori			non-Māori		Total IMPB number
	Number	Age distribution	% of IMPB	Number	Age distribution	
0–14	20,255	30%		30,670	15%	50,925
15–24	12,285	18%		16,810	8%	29,095
25–44	16,465	24%		50,870	25%	67,335
45–64	13,030	19%		52,935	26%	65,965
65+	5,575	8%		51,760	26%	57,335
Total	68,000	100%	25%	202,740	100%	270,740

Plain English definition

Age-standardisation is a method used to compare health between two groups fairly. It adjusts the numbers to consider how young or old the people in each group are. This way, when looking at health data, it is more likely that any differences between the groups are not just because one has more young people or more old people. It helps give a more accurate picture of health when comparing two groups with a different spread of ages.

Example from the report

The table below shows an age-standardised rate of 28.4 per 100,000 per year ischaemic heart disease events among Bay of Plenty DHB Māori women between 2014 and 2018. Without age standardisation calculations, crude rates would be lower than 28.4 among Māori women. The lower rate would be simply because a larger proportion of the Māori population is younger and ischaemic heart disease is more frequent in older people.

Table 6 - Leading causes of death for Māori, all ages, Bay of Plenty DHB, 2014 to 2018

Cause	Māori			non-Māori			Māori/non-Māori rate ratio (95% CI)	Rate difference	
	Av. no. per year	Age-standardised rate per 100,000 (95% CI)		Av. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female									
Ischaemic heart disease	19	28.4	(16.2, 45.5)	98	8.3	(6.2, 10.9)	3.40	(1.95, 5.93)	20.1

Rate ratios

Technical definition

Rate ratios, often referred to as relative risks, are a measure of the relationship between the occurrence of a certain event in two different groups, typically standardised for age (see section on age standardisation above) to allow fair comparison. It is the result of the rate of the event in the first group (for example, Māori) divided by the rate in the second group (non-Māori), which serves as the reference group. A rate ratio of 1 indicates parity between groups, above 1 indicates a higher rate in the first group, and below 1 indicates a lower rate. In general, the data presented in this report uses Māori as the first group and compares it with non-Māori as the second group.

Plain English definition

A rate ratio compares how common something, like a disease, is between two different groups of people, like Māori and non-Māori. If the ratio is exactly 1, both groups are equally affected. If it's higher than 1, it means that the first group, in this case Māori, has the event happen more often. If it's lower, Māori have it happen less often. It tells us the relative disparity between two groups.

Example from the report

In the table below, the rate ratio for ischaemic heart disease is 3.40. This tells us that Māori females are more than three times as likely to suffer from this condition compared to non-Māori females after considering the age distribution in each group.

The 95% confidence interval (see section on confidence intervals above) of 1.95 to 5.93 for this rate ratio indicates that we are very sure that the true rate ratio is significantly different from 1, indicating a genuine disparity in risk between the two populations. In this report, a statistically significant difference between groups is evident when the confidence interval for the rate ratio does not cross 1. These results are shown in **bold type**.

Table 6 - Leading causes of death for Māori, all ages, Bay of Plenty DHB, 2014 to 2018

Cause	Māori			non-Māori			Māori/non-Māori rate ratio (95% CI)	Rate difference	
	Av. no. per year	Age-standardised rate per 100,000 (95% CI)		Av. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female									
Ischaemic heart disease	19	28.4	(16.2, 45.5)	98	8.3	(6.2, 10.9)	3.40	(1.95, 5.93)	20.1

Rate difference

Technical definition

Rate differences, also known as absolute differences, quantify the disparity between two groups by showing the additional number of events occurring in one group compared to another, per population unit (like per 100,000 people). This is calculated by subtracting the event rate of the reference group from that of the comparison group.

Plain English definition

Rate difference tells us how much more often something happens in one group compared to another. If you take the number of times an event happens per 100,000 people in one group and subtract the same from another group, you get the rate difference. This number shows if one group is experiencing more of a certain event, like a disease or death, and by how much. It's a simple way to see the actual impact of a problem on one group over another.

Example from the report

The table below show that Māori females in Bay of Plenty DHB have an age-standardised rate of ischaemic heart disease at 28.4 events per 100,000 per year, while the rate for non-Māori females is 8.3. This gives a rate difference of 20.1 events per 100,000 per year, which tells us that in a population of 100,000 Māori women and 100,000 non-Māori women there are 20.1 more cases of ischaemic heart disease among Māori females than non-Māori females each year. This figure is crucial because it doesn't just show the relative disparity (like a rate ratio does), but it tells us how many additional events are affecting Māori females, highlighting the actual impact of the disease on the population and where health resources might be most needed to address the disparity.

Table 6 - Leading causes of death for Māori, all ages, Bay of Plenty DHB, 2014 to 2018

Cause	Māori			non-Māori			Māori/non-Māori rate ratio (95% CI)		Rate difference
	Av. no. per year	Age-standardised rate per 100,000 (95% CI)		Av. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female									
Ischaemic heart disease	19	28.4 (16.2, 45.5)		98	8.3 (6.2, 10.9)		3.40	(1.95, 5.93)	20.1

2. Key methods and quality limitations of key data sources

This section describes in more detail the specific methods, and key limitations, used for each of the main data sources used in this report.

Numerators

Data in this first volume of IMPB profiles are sourced from Te Whatu Ora, Manatū Hauora (the Ministry of Health), and Statistics New Zealand (StatsNZ). Where administrative data (e.g. national mortality data) are used, the most recent five years of non-provisional data were aggregated to provide more stable rate estimates for smaller areas. Census data were taken from the 2018 Census, and data from the Te Kupenga survey were from the 2018 Te Kupenga survey, undertaken after the 2018 Census.

Denominators

StatsNZ mid-year (at 30 June) estimated resident population was used as denominator data in the calculation of population rates for deaths and Primary Healthcare Organisation (PHO) enrolment. For census variables, the denominator is the people for whom there is a response / relevant information from the census dataset for the question asked ('people stated'). This differs for each question, and is a subset of the total usually resident population identified by the census for the relevant rohe (region). For Te Kupenga survey data, the denominator is the total stated population, this means that people who refuse to answer/ don't know their answer/ answer with an invalid answer are excluded.

Ethnicity data

Ethnicity data quality

Although high quality ethnicity data are critical for Māori health improvement, ethnicity data quality in the health sector remains poor (Harris, Paine et al. 2022). It is the responsibility of the entire health system to collect, record and report ethnicity data in the ways set out in the HISO 10001:2017 Ethnicity Data Protocols (Ministry of Health. 2017). Despite the protocols being in existence for nearly 20 years, there is evidence that they are not being adhered to and Māori have continued to be systematically undercounted (Cormack D and McLeod M 2010, Harris, Paine et al. 2022). Self-identified ethnicity recorded on the Census is considered to be the "gold-standard" for ethnicity data, so this is used as the denominator for most variables in this report.

To understand what impact the ethnicity data quality is likely to have, on the accuracy of the results presented in this report, we need to consider the ethnicity data quality in both the numerator and the denominator. For some measures, it may underestimate the true number of, or rate of, a particular outcome for Māori. The potential impact of ethnicity data weaknesses is discussed for each data source later in this Appendix.

Ethnicity classification

When analysing data, there are different ways to classify people who report multiple ethnicities. The two main ways are *total response (overlapping) output* and *prioritised output*. In total response output, each respondent is counted in each of the ethnic groups they reported. So, individuals who indicate more than one ethnic group are counted more than once, and the sum of the ethnic group populations will exceed the total population of NZ. For example, using total response classification, a death from lung cancer in an individual who identifies as Māori and New Zealand European, will be reported as a lung cancer death for both ethnicities.

In prioritised output, each respondent is allocated to a single ethnic group using a prioritisation order, with Māori first, to ensure that ethnic groups of policy importance or of small size, are not swamped by the New Zealand European ethnic group. Under this method, a person is classified as Māori if any one of their recorded ethnicities are Māori. For example, using prioritised classification, a death from lung cancer

in a person recorded as both Māori and New Zealand European, would be counted as a lung cancer death for Māori, and not in non-Māori.

In this report, the method of ethnicity classification is noted under each table or figure. Wherever possible, prioritised ethnicity classification was used when people identified with more than one ethnic group.

Comparison group

Most indicators compare Māori with non-Māori. Non-Māori includes all people who do not identify as Māori and represent a comparative or reference group. Some indicators in this report (e.g. life expectancy) use non-Māori non-Pacific (all people who do not identify as either Māori or Pacific or both) as the comparison group. This is done because in areas where there are large Pacific populations, grouping the Pacific population with the non-Māori group skews the result for the comparison group toward the Māori population. This is particularly necessary in regions where there is a high Pacific population such as South Auckland.

Age-standardised and crude rates

This report uses direct age-standardisation; most rates (unless noted otherwise) are standardised to the 2001 Census Māori population. Where data were not available with sufficient age group breakdown to allow age standardisation, or data for a specific age were presented, crude rates were calculated. In this case, caution should be taken when comparing Māori with non-Māori results. Crude rates accurately portray a situation in each population, but make comparisons difficult, because they do not consider the different age distributions in each of the populations (e.g., the Māori population is much younger than the non-Māori population). Rates were not calculated for counts fewer than five in data from national collections. For Te Kupenga data, if the weighted count (estimate) was less than 1000 then the data was suppressed.

Confidence intervals

This report has endeavoured where possible to provide local data specific to IMPBs and their relevant DHB areas. Some of these areas have small populations. As the size of the group becomes smaller, the confidence interval (CI) becomes wider, and there is less certainty about the rate. This means the degree of confidence and certainty about the numbers diminishes for rohe (regions) with smaller populations. Thinking of the data as 'indicative' rather than precise is important in these rohe, as well as considering Māori-specific regional and national data, which will have greater certainty around rates, because of the larger sample size.

When the CIs of two groups do not overlap, the difference in rates between the groups is considered statistically significant. Sometimes, even when there are overlapping CIs, the difference between the groups may be statistically significant. Determining that would require further statistical testing which has not been undertaken for this report.

Rate ratios

Age-standardised rate ratios are used in this report to compare age-standardised rates between Māori and non-Māori. The rate ratio (RR) is equal to the age-standardised Māori rate divided by the age-standardised non-Māori rate. The non-Māori population is used as the reference population. For example, an age-standardised RR of 1.5 means that the rate is 50 percent higher (or 1.5 times as high) in Māori than in non-Māori, after taking into account the different age structures of these two populations. This report gives rate ratios and their 95 percent CIs. In this profile, if the CI of the rate ratio does not include the number 1, the ratio is said to be statistically significant. Differences presented in this profile in **bold** are statistically significant.

Demography data

Indicators on population demography and projections use the estimated resident population (ERP) and projections provided by StatsNZ for the health sector, from a 2018 base. The ERP is an estimate designed to adjust for the undercount for various groups in the census response rate, people temporarily overseas or elsewhere in NZ from their usual residence on census night, and key population changes (births, deaths, mobility) since the 2018 census.

In the estimates and projections prioritised ethnicity was used to identify Māori individuals (any person who identified Māori as any of their ethnic groups in the base census data on which the estimates and projections are built) and non-Māori included people who had at least one valid ethnic response, none of which was/were Māori.

The Census of Population and Dwellings

Indicators using data from the 2018 Census of Population and Dwellings are derived from the census usually resident (UR) population (residents of an area living in the area on census night and people living elsewhere in Aotearoa from their usual residence on census night). Data used in this report were sourced from the publicly available UR data provided on the StatsNZ website, and for some indicators, from a custom data extract produced by StatsNZ for the previous Northern Region DHBs (which included data for the whole of Aotearoa).

StatsNZ apply confidentiality rules to census data to protect the confidentiality of individuals, families, households, dwellings, and undertakings in 2018 Census data. Counts are calculated using a method called fixed random rounding to base 3, and suppression of 'sensitive' counts less than six, where tables report multiple geographic variables and/or small populations. This means individual figures may not always sum to stated totals⁹.

Due to changes in the 2018 Census methodology and lower than anticipated response rates, as described further below, time series data for census variables should be interpreted with care.

Most census variables in the Wai Ora chapter have been age-standardised to the 2001 Māori population. The unpaid work variables were not able to be age-standardised for this report, and crude rates are presented. In this case, caution should be taken when comparing Māori with non-Māori results.

The 2018 Census was the first 'digital-first' census undertaken in Aotearoa, as a part of modernising and streamlining the census process. Unfortunately, the 2018 Census had a very low response rate overall, and especially for Māori and Pacific peoples - approximately 68% for Māori and 65% for Pacific peoples. Adjustments were made to improve the quality of the data (for example, using data from previous censuses and other administrative datasets), and the overall quality of the 2018 Census data is now considered moderate/good. However, the adjustments do not affect the Māori and non-Māori population in the same way. For example, in the 2018 Census, 29% or more of the ethnicity data for Māori came from other sources. This means that the ethnicity data in the 2018 census for Māori is not of the same quality as the data for the NZ European ethnic population, for example, which had only 11.5% of their responses from these other sources.

Further details on the adjustment methods used in the 2018 Census can be found online via Stats NZ¹⁰. In summary, the core self-response data from the 2013 Census was combined with administrative data (e.g. from the education or health system), and in some situations data derived by statistical models to predict what the missing data would have been (called imputation). In addition to different levels of self-response, people identified as living in NZ at the time of the census have different levels of information from other sources available to StatsNZ to draw on.

⁹ More info on Census confidentiality rules: [Applying confidentiality rules to 2018 Census data and summary of changes since 2013 | Stats NZ](#)

¹⁰ <https://www.stats.govt.nz/assets/Uploads/Reports/Final-report-of-the-2018-Census-External-Data-Quality-Panel/Downloads/Final-report-of-the-2018-Census-External-Data-Quality-Panel-corrected.pdf>

However, on the other hand, the census is a key source for population level data about factors that are important for health, such as income, employment, and housing. StatsNZ has provided quality ratings for the 2018 Census data to help users determine how to interpret the data. Along with StatsNZ's own quality ratings, they also engaged an External Data Quality Panel which included Māori population experts, who provided their assessment of the census data quality. The table below shows the ratings of both for the data variables used in this report. The overall message from these ratings is that the data can provide insights into the situation for Māori whānau, but it should be seen as indicative, rather than precise.

Table 150 - Quality ratings 2018 Census variables included in this report

Variable name	StatsNZ quality rating	External Data Quality Panel quality rating	Notes
Census usually resident population count	Very high	Very high	
Ethnicity	High	Moderate	
Number of bedrooms	High	High	Number of bedrooms is used to help derive estimates of household crowding. There were over 300,000 people who could not be placed into households in the 2018 data. This means the number of people who lived in a crowded house may be undercounted.
Number of rooms	Moderate	Poor	
Housing quality: dwelling dampness and mould indicators	Moderate	Moderate	This is a self-evaluated assessment of whether the home has mould that is larger than an A4 sheet of paper (in total).
Main types of heating and fuel types used to heat dwellings	Moderate	Moderate	This question was first introduced in the 2018 Census. Each type of heating reported was recorded once only.
Tenure of household	Moderate	Moderate	
Access to telecommunication systems	Moderate	Moderate	The online data collection methodology of the 2018 Census may have affected this variable. The proportion of households with no access to telecommunications was lower than expected. The proportion of households with access to a telephone was higher than expected. This data provides information on access to telecommunication systems at the household level. It does not show whether a particular household member has access to those amenities. In some cases, not every member of a household has equal access to particular telecommunication systems.
Number of motor vehicles	Moderate	Moderate	
Industry	High	High	Industry is the type of activity undertaken by the organisation or business where people work.
Occupation	Moderate	Poor	An occupation is a set of jobs that require the performance of similar or identical sets of tasks. Occupations are organised based on skills, using the ANZSCO classification. The significant use of imputation may have inflated the total number of respondents in all categories.

Variable name	StatsNZ quality rating	External Data Quality Panel quality rating	Notes
Qualifications: highest qualification	Moderate	Moderate/poor	
Total personal income	High	High	Total personal income received is the total before-tax income of a person in the 12 months ended 31 March 2018. The information is collected as income bands rather than in actual dollars. This includes all possible sources of income.
Status in employment	High	Moderate	Employment is described as full-time (30 hours or more / week) or part-time (< 30 hours per week). A person not employed is described as either 'unemployed' or 'not in the labour force'. Not in the labour force means not employed and not actively seeking work or not available for work
Unpaid activities	Poor	Not applicable	Because of the low quality ratings, Stats NZ recommend very careful use of this data particularly for Māori and Pacific peoples and at small geographies. No alternative data source or imputation was available to replace missing responses.

Geographical alignment between IMPB and DHB areas

This report has endeavored to report data specific to each IMPB health planning area and has used several slightly different methods to do this in different chapters of the report.

For population estimates, and Te Kupenga survey data, the population for an IMPB has been calculated using geographies (SA2 areas or Territorial Authority/Local Boards) that are smaller than the previous DHB districts, to be able to better align with the IMPB health planning areas. This means the Te Taura Ora o Waiariki and Tūwharetoa IMPBs have been able to be split out separately, and Ōtāhuhu has been included as part of Ngaa Pou Hauora oo Taamaki Makaurau, rather than Te Taumata Hauora o Te Kahu o Taonui (historically Ōtāhuhu was part of Auckland DHB rather than Counties Manukau DHB, so the Auckland Council Local Board Māngere-Ōtāhuhu spanned the boundary between the DHBs)¹¹. In some cases, for example at the Nelson-Marlborough/Te Tauraki border, the IMPB health planning area did not align completely with SA2 areas.

There may be some variation between the IMPB population estimates presented here compared to estimation using data from the previous DHB. This is due to there being a higher level of uncertainty around the SA2 population estimates and they will not always sum to exactly the same population by age, sex and ethnicity as the district population estimates.

For other measures, including mortality data, NZDep2018 and PHO enrolment, the IMPB population has been calculated using the sum of the main DHBs it contains. So, for example IMPB mortality data for Te Taumata Hauora o Te Kahu o Taonui will include all of Northland, Auckland and Waitematā DHBs, even though that includes communities such as Ōtāhuhu which are not part of the IMPB.

Life expectancy

There are two parts to the life expectancy data provided in this report. There is a 'standard' calculation of life expectancy at birth for each IMPB, using mortality data from Manatū Hauora and population data from

¹¹ Ōtāhuhu has a population of approximately 16,000 people, the majority of whom identify as Pacific and Asian (Indian). The area is classified as NZDep2018 deciles 9 and 10 – the most socioeconomically challenged areas.

StatsNZ and presented as the gap between Māori and non-Māori. It uses five years of data to be able to provide ethnicity and male/female information.

There is also information on what conditions contribute to those life expectancy gaps, from an analysis completed by the Service Innovation and Improvement Directorate, Te Whatu Ora in May 2023 titled “The Contribution of Avoidable Mortality to the Life Expectancy Gap among the Māori and Pacific population. Regional Summary.” This analysis compared Māori with the non-Māori, non-Pacific population, so that is why this comparator group is used for this section in this IMPB report.

The Arriaga method—a life table decomposition technique accounting for both age and cause of death—was used. The analyses and calculations are based on official death data from the Te Whatu Ora mortality collection, while population data are derived from official StatsNZ population estimates.

The analysis hinges on the principal underlying cause of death classification, which simplifies the reality that multiple factors can contribute to a single death. This may result in an underestimation of the effects of prevalent conditions contributing to, but not the final causes of death. As it requires cause of death information, these are often two years delayed to allow coronial processes to be completed. As such, the life expectancy figures here may not be the most recent available, but are the most recent that allows this type of gap analysis.

Causes of death are divided into 50 potentially avoidable conditions. Avoidable deaths encompass those deemed amenable to high-quality healthcare, preventable through public health interventions, or both. A comprehensive list of the conditions used in this analysis, along with their corresponding ICD codes, can be found in the Te Whatu Ora report. Most are limited to those under 75 years, except leukemia which is only considered avoidable under the age of 45 years and external injuries which includes all ages.

Mortality data

Indicators on cause of death and mortality come from the national Mortality Collection. This classifies the underlying cause of death for all deaths registered in Aotearoa and all registered fetal deaths (stillbirths). Aotearoa is currently using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) classification and the World Health Organization (WHO) ICD Rules and Guidelines for Mortality Coding. Mortality data are presented for Māori and non-Māori. In each data set a person was classified as Māori if any one of their recorded ethnicity was Māori. The year range of 2014 to 2018 was used as complete mortality data records were not available for 2019 and 2020 at the time of writing. The DHB of residence was determined from the domicile code attached to the death registration (so even if a person passed away at a tertiary hospital outside their home region, their death would be recorded as one in their home DHB). In tables presenting data on causes of death, data is not presented where there were fewer than five Māori events during the period represented by the data. There are several different methods of classifying causes of death as “potentially avoidable”, “preventable” or “amenable”. The ICD-10-AM codes used for potentially avoidable death tables in this report are listed in the next Appendix.

Te Kupenga Survey

Te Kupenga 2018 is StatsNZ's survey of Māori wellbeing. A survey of almost 8,500 adults (aged 15 years and over) of Māori ethnicity and/or descent, Te Kupenga gives an overall picture of the social, cultural, and economic wellbeing of Māori people in Aotearoa.

Te Kupenga is a post-census survey. This means the survey sample was selected from people who identified as having Māori ethnicity and/or descent on their 2018 census form, so only those who completed the census were able to be selected. Given that a lower proportion of Māori people completed the 2018 Census than planned or anticipated, StatsNZ investigated the potential impact this may have had on the Te Kupenga sample. They found some bias in the sample frame (the group of people who could have been selected to participate) compared with the total Māori population. However, this bias was small, and they were able to remove most of the effect of the bias through the statistical weighting process. See StatsNZ website for more information on this¹².

In this IMPB profile, all estimates of numbers, percentages, and confidence intervals for data presented from Te Kupenga were calculated by StatsNZ and provided in a customised extract. Estimates of counts were rounded to the nearest thousand. Estimates of proportions were rounded to 1 decimal point. All percentages were calculated from unrounded data. If the weighted count (estimate) was less than 1000 then the data was suppressed. Further details on the survey measures are available in the Te Kupenga 2018 report and can be found at the StatsNZ website¹³.

Primary care enrolment

Primary care enrolment data is based on the National Enrolment System using the National Health Index (NHI). Ethnicity data in the NHI is known to undercount Māori by 15.7% compared to the ethnicity people report in the census, with higher undercounts for Māori men (Harris, Paine et al. 2022). The denominator for calculating the percentage of people enrolled in a PHO is the estimated resident population, which uses ethnicity based on the 2018 Census. The poor ethnicity data quality in the NHI makes it difficult to assess how many Māori are actually missing out on being enrolled with primary health care, and how many are actually enrolled but misclassified with a non-Māori ethnicity. It is likely that both of these factors make a contribution to the inequity in primary care enrolment data. Primary care enrolment data presented in this report are not age-standardised. In this case, caution should be taken when comparing Māori with non-Māori results. Crude rates make comparisons difficult, because they do not take into account different age distributions in each of the populations.

NZ Index of Deprivation 2018

NZDep2018 is an area-based measure of relative socioeconomic deprivation. It is based on nine variables from the 2018 Census which cover eight different dimensions of socioeconomic hardship. These variables relate to home internet access, receipt of welfare benefits, household income, employment, qualifications, home ownership, family structure, household crowding and housing quality. NZDep2018 gives a deprivation score for small area geographies (i.e. meshblocks, and SA1s) (Atkinson, Salmond et al. 2019). These scores are aggregated into deciles (1-10, 1 being areas with the least socioeconomic challenge and 10 being those the most disadvantage). This report uses NZDep2018 information supplied by StatsNZ for the health sector, applying the scores to estimated resident populations to estimate the number of people living in each decile.

¹² <https://www.stats.govt.nz/methods/assessment-of-potential-bias-in-the-te-kupenga-sample-frame-2018>

¹³ <https://www.stats.govt.nz/information-releases/te-kupenga-2018-final-english/>

Geographic Classification of Health

The Geographic Classification for Health (GCH) is a rural-urban geographic classification designed to allow Aotearoa's health researchers and policy makers to accurately monitor rural-urban variations in health outcomes. The GCH classifies all areas of Aotearoa as rural or urban according to their proximity to larger urban areas with respect to health (Whitehead, Davie et al. 2021).

The GCH is comprised of five categories, two urban and three rural, that reflect degrees of reducing urban influence and increasing rurality. 'Urban 1' to 'Urban 2' are based on population size, and 'Rural 1' to 'Rural 3' based on drive time to their closest major, large, medium, and small urban areas. The population and drive time thresholds used in the GCH were developed from a health perspective and tested in partnership with a wide range of rural health stakeholders.

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Appendix 3: ICD-10-AM Codes

The International Classification of Diseases (ICD-10-AM) codes used for the calculation of potentially avoidable mortality are presented below.

Table 151 - Potentially avoidable mortality ICD-10-AM codes

Condition	ICD-10-AM Code
Tuberculosis	A15-A19, B90
Selected invasive bacterial and protozoal infection	A38-A41, A46, A481, B50-B54, G00, G03, J020, J13-J15, J18, L03
Hepatitis	B15-B19
HIV/AIDS	B20-B24
Lip, oral cavity and pharynx cancers	C00-C14
Oesophageal cancer	C15
Stomach cancer	C16
Colorectal cancer	C18-C21
Liver cancer	C22
Lung cancer	C33-C34
Melanoma of skin	C43
Non-melanotic skin cancer	C44
Breast cancer (female only)	C50
Cervical cancer	C53
Uterine cancer	C54-C55
Bladder cancer	C67
Thyroid cancer	C73
Hodgkin's disease	C81
Leukaemia	C910-C911
Benign tumours	D10-D36
Thyroid disorders	E00-E07
Diabetes	E10-E14
Alcohol-related diseases	F10, I426, K292, K70
Illicit drug use disorders	F11-F16, F18-F19
Epilepsy	G40-G41
Birth defects	H311, P00, P04, Q00-Q99
Rheumatic and other valvular heart disease	I01-I09
Hypertensive heart disease	I10-I15
Nephritis and nephrosis	I12-I13, N00-N09, N17-N19

Condition	ICD-10-AM Code
Ischaemic heart disease	I20-I25
Deep vein thrombosis with pulmonary embolism	I26, I802
Cerebrovascular diseases	I60-I69
Aortic aneurysm	I71
Viral pneumonia and influenza	J10, J12, J171, J21
COPD	J40-J44
Asthma	J45-J46
Peptic ulcer disease	K25-K28
Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/lithiasis, pancreatitis, hernia	K35-K38, K40-K46, K80-K83, K85-K86, K915
Chronic liver disease (excluding alcohol-related disease)	K73-K74
Obstructive uropathy and prostatic hyperplasia	N13, N20-N21, N35, N40, N991
Complications of perinatal period	P03, P05-P95
Motor vehicle accidents	V01-V04, V06, V09-V80, V87, V89, V99
Falls	W00-W19
Drownings	W65-W74
Fires, burns	X00-X09
Accidental poisonings	X40-X49
Suicide and self-inflicted injuries	X60-X84, Y870
Violence	X85-Y09, Y871

Appendix 4: Māori 2001 Population

The table below shows the 2001 Māori population standard used for age-standardisation in this report, including the weightings applied to each age-group.

Table 152 - 2001 Census total Māori population

Age group (years)	2001 Census total Māori population	Weighting
0–4	67,404	12.81
5–9	66,186	12.58
10–14	62,838	11.94
15–19	49,587	9.42
20–24	42,153	8.01
25–29	40,218	7.64
30–34	39,231	7.46
35–39	38,412	7.30
40–44	32,832	6.24
45–49	25,101	4.77
50–54	19,335	3.67
55–59	13,740	2.61
60–64	11,424	2.17
65–69	8043	1.53
70–74	5046	0.96
75–79	2736	0.52
80–84	1251	0.24
85+	699	0.13

Te rārangi tohutoro

References

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