

Table 1: Hospital discharges among children aged 0–14 years in Aotearoa New Zealand, 2017/2018–2022/2023.

| | 2017/2018 | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | 2022/2023 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| Acute upper respiratory infections | | | | | | |
| Number | 7,238 | 7,734 | 5,426 | 6,852 | 6,050 | 8,500 |
| Rate per 10,000 | 76.5 | 80.9 | 55.9 | 70.7 | 62.7 | 88.5 |
| Influenza | | | | | | |
| Number | 384 | 1,638 | 686 | 14 | 1,089 | 2,091 |
| Rate per 10,000 | 4.1 | 17.1 | 7.1 | 0.1 | 11.3 | 21.8 |
| Selected pneumonia, bronchitis, bronchiolitis | | | | | | |
| Number | 9,970 | 9,147 | 7,573 | 4,080 | 7,887 | 11,612 |
| Rate per 10,000 | 105.4 | 95.7 | 78.0 | 42.1 | 81.8 | 120.9 |
| Asthma/wheeze | | | | | | |
| Number | 6,788 | 6,598 | 5,556 | 5,135 | 6,597 | 8,572 |
| Rate per 10,000 | 71.7 | 69.0 | 57.2 | 53.0 | 68.4 | 89.3 |

Due to random rounding at the most detailed level, from which the totals have been calculated, the figures in this table may contain small errors.

Table 2: Relative rates of hospital discharges among children aged 0–14 years in Aotearoa New Zealand, 2017–2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Influenza | 2017/2018 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2018/2019 | 4.47 (3.60–5.55) | 4.29 (3.54–5.20) | 4.94 (3.51–6.97) | 4.39 (3.33–5.80) | 2.56 (1.65–3.95) | 3.62 (2.39–5.50) |
| | 2019/2020 | 2.14 (1.69–2.71) | 1.63 (1.31–2.03) | 1.83 (1.24–2.70) | 1.75 (1.28–2.40) | 1.28 (0.79–2.09) | 1.41 (0.88–2.28) |
| | 2020/2021 | 0.01 (0.00–0.07) | 0.04 (0.02–0.10) | * | 0.08 (0.03–0.20) | 0.07 (0.02–0.28) | 0.03 (0.00–0.24) |
| | 2021/2022 | 3.10 (2.47–3.88) | 2.58 (2.11–3.17) | 3.26 (2.27–4.67) | 2.54 (1.89–3.42) | 3.08 (2.02–4.70) | 2.70 (1.76–4.15) |
| | 2022/2023 | 5.29 (4.27–6.55) | 4.82 (3.98–5.83) | 8.42 (6.04–11.74) | 6.50 (4.96–8.52) | 3.04 (1.99–4.64) | 5.21 (3.49–7.79) |
| URTI | 2017/2018 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2018/2019 | 1.04 (0.98–1.09) | 1.05 (1.00–1.10) | 1.22 (1.06–1.40) | 1.26 (1.12–1.41) | 0.94 (0.76–1.15) | 1.09 (0.89–1.35) |
| | 2019/2020 | 0.72 (0.68–0.77) | 0.77 (0.73–0.81) | 0.66 (0.56–0.78) | 0.73 (0.64–0.84) | 0.63 (0.50–0.79) | 0.73 (0.58–0.92) |
| | 2020/2021 | 0.93 (0.88–0.98) | 1.08 (1.03–1.13) | 0.56 (0.47–0.66) | 0.69 (0.61–0.79) | 0.51 (0.40–0.65) | 0.55 (0.43–0.71) |
| | 2021/2022 | 0.86 (0.81–0.91) | 0.90 (0.86–0.94) | 0.59 (0.50–0.70) | 0.69 (0.60–0.78) | 0.63 (0.50–0.79) | 0.59 (0.46–0.75) |
| | 2022/2023 | 1.16 (1.10–1.22) | 1.22 (1.16–1.27) | 1.20 (1.05–1.39) | 1.21 (1.08–1.36) | 0.98 (0.80–1.20) | 0.93 (0.75–1.15) |
| LRTI | 2017/2018 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2018/2019 | 0.90 (0.86–0.94) | 0.92 (0.89–0.96) | 1.02 (0.86–1.21) | 0.84 (0.71–0.99) | 0.91 (0.70–1.19) | 1.07 (0.83–1.39) |
| | 2019/2020 | 0.73 (0.70–0.77) | 0.77 (0.74–0.80) | 0.76 (0.64–0.91) | 0.78 (0.66–0.92) | 0.71 (0.53–0.94) | 0.62 (0.46–0.84) |
| | 2020/2021 | 0.37 (0.35–0.40) | 0.44 (0.42–0.46) | 0.31 (0.24–0.40) | 0.35 (0.28–0.44) | 0.39 (0.27–0.55) | 0.40 (0.28–0.56) |
| | 2021/2022 | 0.83 (0.79–0.87) | 0.82 (0.79–0.85) | 0.48 (0.39–0.59) | 0.45 (0.37–0.55) | 0.41 (0.29–0.57) | 0.46 (0.33–0.63) |
| | 2022/2023 | 1.20 (1.15–1.25) | 1.19 (1.14–1.23) | 1.15 (0.97–1.35) | 0.90 (0.77–1.06) | 0.89 (0.68–1.16) | 0.89 (0.68–1.16) |

Table 2 (continued): Relative rates of hospital discharges among children aged 0–14 years in Aotearoa New Zealand, 2017–2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|---------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Asthma/ wheeze | 2017/2018 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2018/2019 | 0.95 (0.88–1.01) | 1.01 (0.96–1.06) | 0.98 (0.88–1.09) | 0.96 (0.88–1.05) | 0.74 (0.62–0.87) | 0.92 (0.78–1.09) |
| | 2019/2020 | 0.77 (0.72–0.83) | 0.83 (0.78–0.87) | 0.86 (0.77–0.97) | 0.82 (0.75–0.90) | 0.62 (0.52–0.73) | 0.89 (0.75–1.05) |
| | 2020/2021 | 0.73 (0.68–0.78) | 0.84 (0.79–0.88) | 0.68 (0.60–0.77) | 0.69 (0.62–0.76) | 0.47 (0.39–0.56) | 0.75 (0.63–0.89) |
| | 2021/2022 | 1.02 (0.96–1.09) | 1.09 (1.03–1.14) | 0.85 (0.76–0.96) | 0.91 (0.83–1.00) | 0.45 (0.37–0.54) | 0.66 (0.55–0.79) |
| | 2022/2023 | 1.36 (1.28–1.44) | 1.34 (1.28–1.41) | 1.20 (1.08–1.33) | 1.25 (1.15–1.37) | 0.72 (0.61–0.85) | 0.90 (0.76–1.06) |

RR = rate ratio; 95% CI = 95% confidence interval; URTI = upper respiratory tract infection; LRTI = lower respiratory tract infection.

*No cases of influenza among females aged 5–9 years were reported in 2020/2021.

Figure 1: Rates of hospital discharges for influenza.

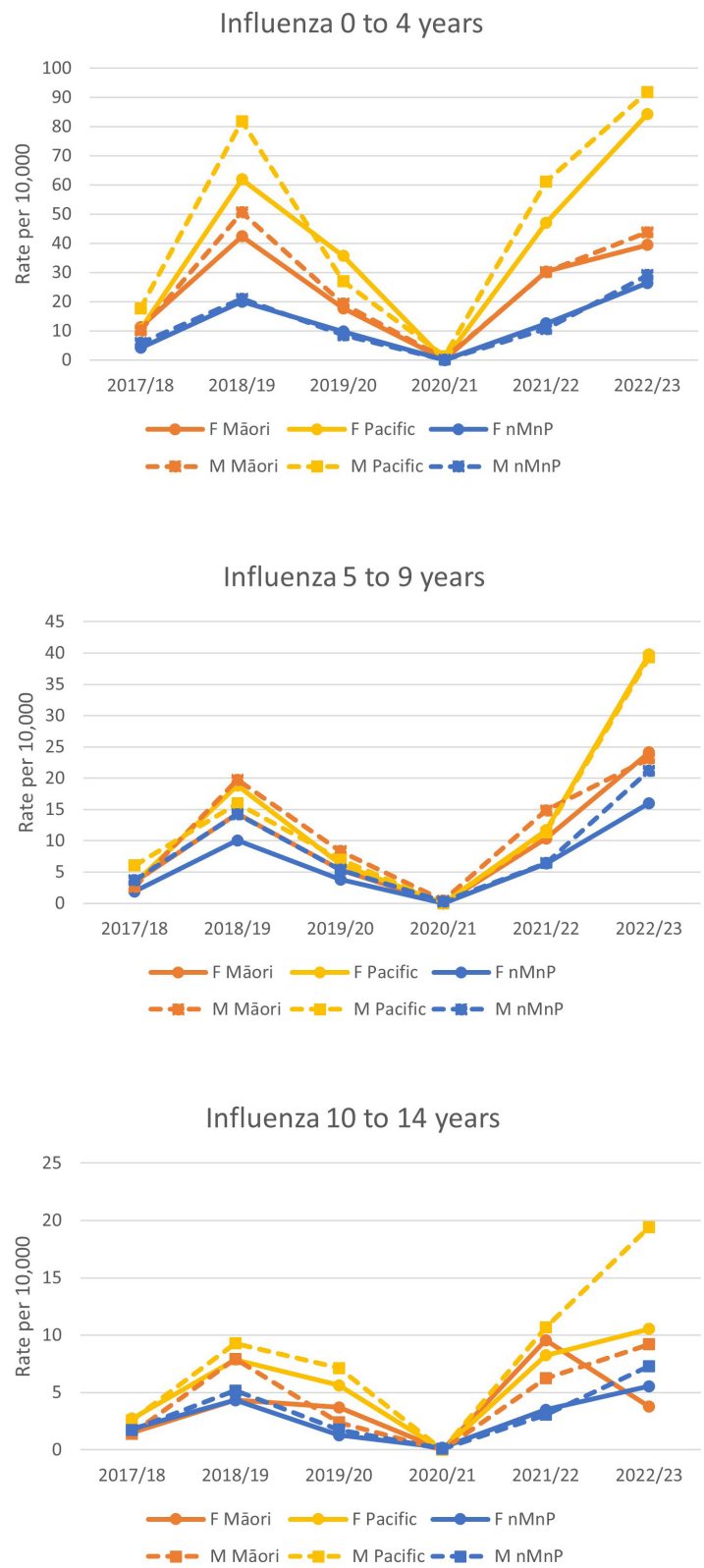


Figure 2: Rates of hospital discharges for lower respiratory tract infections.

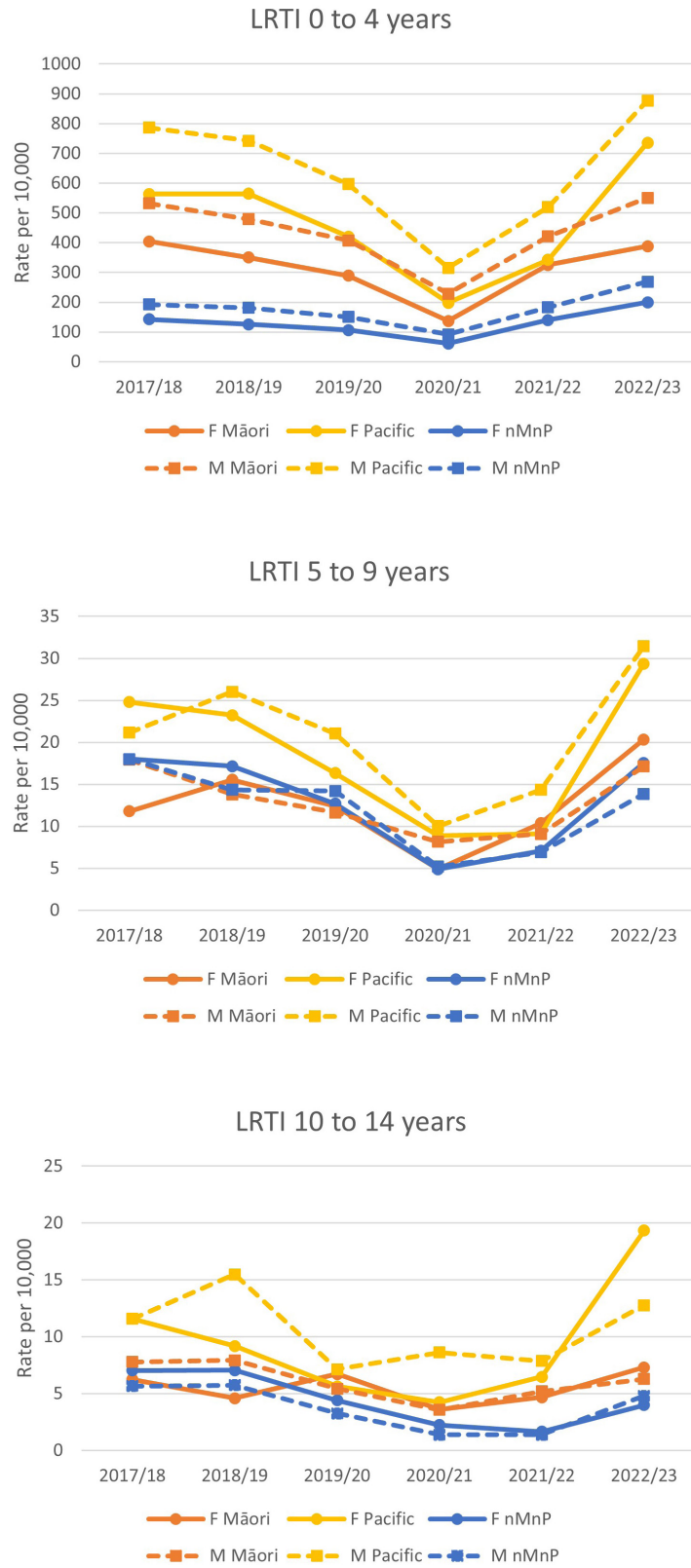


Figure 3: Rates of hospital discharges for acute upper respiratory tract infections.

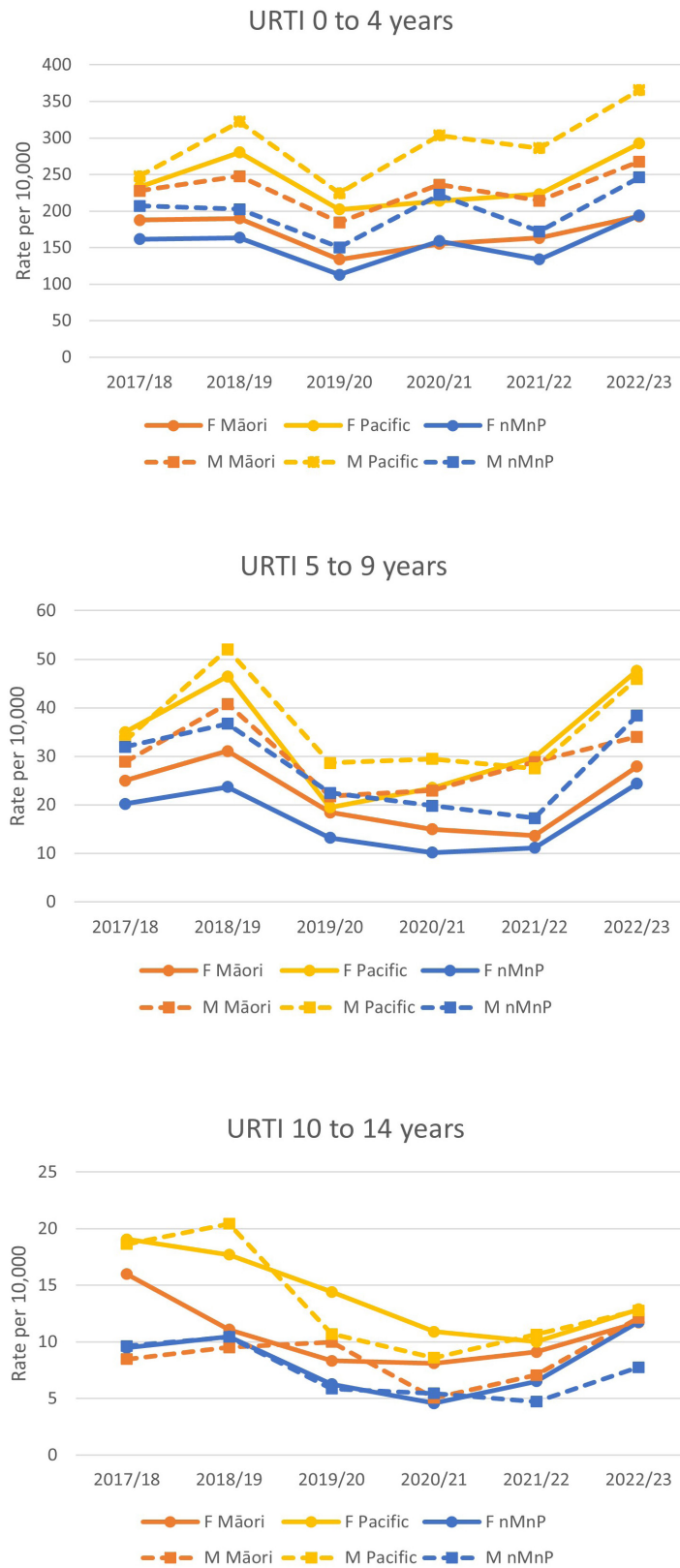


Figure 4: Rates of hospital discharges for asthma/wheeze.

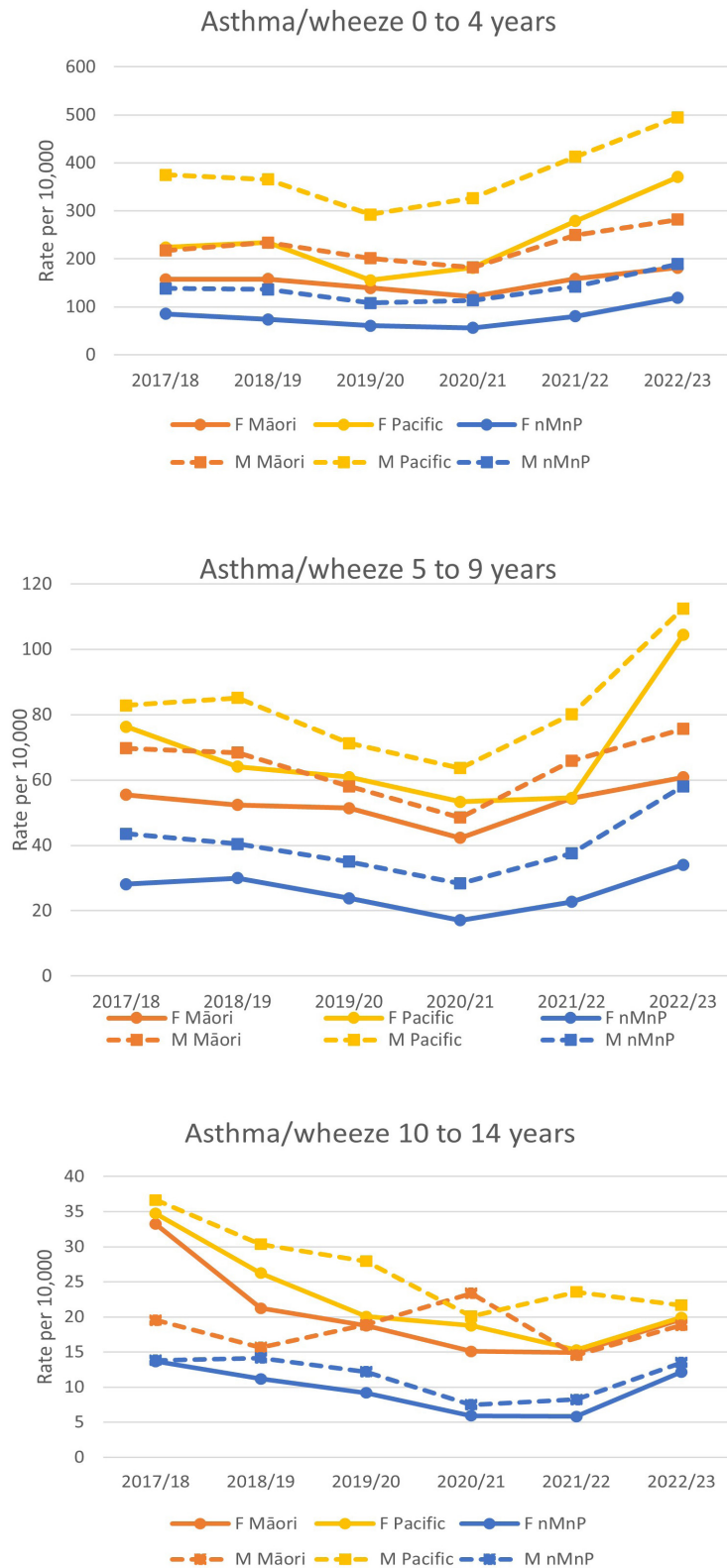


Table 3: Relative rates of hospital discharges for Māori compared to non-Māori, non-Pacific children aged 0–14 years in Aotearoa New Zealand, 2017/2018–2022/2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Influenza | 2017/2018 | 2.70 (1.76–4.13) | 1.75 (1.18–2.59) | 1.84 (0.93–3.61) | 0.71 (0.37–1.36) | 0.82 (0.32–2.06) | 0.81 (0.32–2.03) |
| | 2018/2019 | 2.12 (1.72–2.60) | 2.41 (2.00–2.92) | 1.43 (1.04–1.96) | 1.38 (1.07–1.79) | 1.00 (0.58–1.74) | 1.54 (1.00–2.35) |
| | 2019/2020 | 1.81 (1.33–2.46) | 2.26 (1.67–3.05) | 1.41 (0.84–2.36) | 1.55 (1.03–2.34) | 2.91 (1.40–6.05) | 1.35 (0.64–2.84) |
| | 2020/2021* | | | | | | |
| | 2021/2022 | 2.42 (1.88–3.12) | 2.83 (2.19–3.66) | 1.63 (1.11–2.39) | 2.31 (1.65–3.25) | 2.73 (1.75–4.25) | 2.04 (1.25–3.35) |
| | 2022/2023 | 1.49 (1.23–1.82) | 1.51 (1.25–1.81) | 1.51 (1.17–1.93) | 1.09 (0.86–1.38) | 0.68 (0.39–1.17) | 1.26 (0.87–1.82) |
| URTI | 2017/2018 | 1.16 (1.07–1.27) | 1.10 (1.02–1.19) | 1.24 (0.98–1.56) | 0.90 (0.74–1.10) | 1.68 (1.23–2.32) | 0.88 (0.60–1.29) |
| | 2018/2019 | 1.16 (1.07–1.26) | 1.22 (1.14–1.31) | 1.31 (1.06–1.62) | 1.11 (0.93–1.32) | 1.06 (0.75–1.50) | 0.91 (0.64–1.30) |
| | 2019/2020 | 1.19 (1.07–1.31) | 1.23 (1.13–1.34) | 1.40 (1.06–1.85) | 0.97 (0.77–1.22) | 1.33 (0.88–2.00) | 1.70 (1.17–2.49) |
| | 2020/2021 | 0.98 (0.89–1.07) | 1.06 (0.99–1.14) | 1.47 (1.08–2.02) | 1.16 (0.92–1.46) | 1.77 (1.15–2.74) | 0.93 (0.58–1.49) |
| | 2021/2022 | 1.22 (1.11–1.34) | 1.24 (1.15–1.35) | 1.23 (0.89–1.69) | 1.67 (1.33–2.09) | 1.40 (0.95–2.06) | 1.50 (0.97–2.31) |
| | 2022/2023 | 0.99 (0.91–1.08) | 1.09 (1.02–1.17) | 1.15 (0.92–1.43) | 0.89 (0.74–1.07) | 1.00 (0.72–1.38) | 1.56 (1.12–2.19) |
| LRTI | 2017/2018 | 2.83 (2.63–3.04) | 2.77 (2.61–2.94) | 0.65 (0.48–0.89) | 1.00 (0.77–1.29) | 0.89 (0.56–1.40) | 1.10 (0.73–1.67) |
| | 2018/2019 | 2.79 (2.59–3.01) | 2.65 (2.49–2.82) | 0.90 (0.68–1.20) | 0.96 (0.72–1.29) | 0.65 (0.39–1.08) | 1.12 (0.75–1.69) |
| | 2019/2020 | 2.72 (2.51–2.96) | 2.71 (2.53–2.90) | 0.98 (0.71–1.34) | 0.82 (0.60–1.12) | 1.52 (0.96–2.43) | 1.23 (0.76–2.01) |
| | 2020/2021 | 2.24 (1.99–2.51) | 2.48 (2.27–2.71) | 1.01 (0.60–1.68) | 1.57 (1.04–2.39) | 1.61 (0.85–3.05) | 1.60 (0.85–2.99) |
| | 2021/2022 | 2.33 (2.16–2.51) | 2.31 (2.16–2.46) | 1.46 (1.00–2.13) | 1.32 (0.90–1.93) | 2.82 (1.49–5.35) | 3.14 (1.70–5.82) |
| | 2022/2023 | 1.94 (1.82–2.07) | 2.05 (1.94–2.16) | 1.16 (0.89–1.50) | 1.24 (0.94–1.63) | 1.83 (1.16–2.90) | 1.57 (0.98–2.52) |

Table 3 (continued): Relative rates of hospital discharges for Māori compared to non-Māori, non-Pacific children aged 0–14 years in Aotearoa New Zealand, 2017/2018–2022/2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|---------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Asthma/ wheeze | 2017/2018 | 1.85 (1.67–2.05) | 1.57 (1.45–1.71) | 1.97 (1.66–2.34) | 1.60 (1.39–1.85) | 2.43 (1.91–3.09) | 1.41 (1.08–1.85) |
| | 2018/2019 | 2.15 (1.93–2.39) | 1.72 (1.59–1.87) | 1.75 (1.47–2.07) | 1.69 (1.46–1.96) | 1.90 (1.43–2.51) | 1.10 (0.83–1.47) |
| | 2019/2020 | 2.30 (2.05–2.58) | 1.86 (1.70–2.03) | 2.16 (1.80–2.59) | 1.66 (1.42–1.94) | 2.04 (1.51–2.74) | 1.55 (1.18–2.03) |
| | 2020/2021 | 2.16 (1.92–2.45) | 1.60 (1.46–1.75) | 2.47 (2.01–3.05) | 1.71 (1.44–2.03) | 2.54 (1.80–3.59) | 3.12 (2.35–4.16) |
| | 2021/2022 | 1.98 (1.78–2.19) | 1.76 (1.62–1.90) | 2.39 (1.99–2.87) | 1.75 (1.51–2.04) | 2.55 (1.80–3.62) | 1.77 (1.29–2.42) |
| | 2022/2023 | 1.52 (1.39–1.67) | 1.49 (1.39–1.60) | 1.78 (1.52–2.10) | 1.30 (1.14–1.49) | 1.62 (1.24–2.13) | 1.40 (1.07–1.82) |

Figures displayed are rate ratios for Māori children compared with the reference category of 1.0 for non-Māori, non-Pacific children.

RR = rate ratio; 95% CI = 95% confidence interval; URTI = upper respiratory tract infection; LRTI = lower respiratory tract infection.

*Very few cases of influenza in 2020/2021 precluded the calculation of RRs.

Table 4: Relative rates of hospital discharges for Pacific children compared to non-Māori, non-Pacific children aged 0–14 years in Aotearoa New Zealand, 2017/2018–2022/2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Influenza | 2017/2018 | 2.51 (1.38–4.55) | 3.05 (1.93–4.82) | 1.68 (0.63–4.51) | 1.64 (0.82–3.29) | 1.48 (0.50–4.38) | 1.47 (0.50–4.33) |
| | 2018/2019 | 3.10 (2.41–3.99) | 3.90 (3.12–4.87) | 1.87 (1.25–2.81) | 1.12 (0.74–1.69) | 1.82 (0.96–3.44) | 1.80 (1.01–3.18) |
| | 2019/2020 | 3.65 (2.59–5.13) | 3.16 (2.18–4.59) | 1.65 (0.82–3.31) | 1.30 (0.70–2.42) | 4.43 (1.89–10.37) | 4.04 (1.96–8.32) |
| | 2020/2021* | | | | | | |
| | 2021/2022 | 3.76 (2.78–5.08) | 5.73 (4.33–7.59) | 1.84 (1.09–3.10) | 1.77 (1.06–2.94) | 2.35 (1.27–4.36) | 3.49 (1.99–6.14) |
| | 2022/2023 | 3.19 (2.56–3.97) | 3.15 (2.57–3.87) | 2.49 (1.85–3.34) | 1.86 (1.41–2.45) | 1.90 (1.12–3.23) | 2.66 (1.79–3.97) |
| URTI | 2017/2018 | 1.44 (1.28–1.62) | 1.20 (1.07–1.33) | 1.73 (1.29–2.33) | 1.04 (0.78–1.38) | 2.01 (1.32–3.07) | 1.93 (1.28–2.92) |
| | 2018/2019 | 1.71 (1.54–1.91) | 1.59 (1.44–1.75) | 1.96 (1.51–2.55) | 1.42 (1.13–1.79) | 1.69 (1.11–2.58) | 1.96 (1.33–2.89) |
| | 2019/2020 | 1.79 (1.57–2.04) | 1.50 (1.33–1.68) | 1.48 (1.00–2.18) | 1.27 (0.94–1.73) | 2.30 (1.43–3.70) | 1.83 (1.08–3.08) |
| | 2020/2021 | 1.35 (1.19–1.52) | 1.37 (1.24–1.51) | 2.31 (1.59–3.37) | 1.49 (1.09–2.03) | 2.38 (1.38–4.10) | 1.58 (0.90–2.78) |
| | 2021/2022 | 1.67 (1.48–1.89) | 1.66 (1.50–1.85) | 2.69 (1.91–3.79) | 1.59 (1.15–2.20) | 1.54 (0.90–2.61) | 2.26 (1.34–3.83) |
| | 2022/2023 | 1.51 (1.36–1.67) | 1.48 (1.36–1.63) | 1.95 (1.50–2.54) | 1.20 (0.94–1.53) | 1.10 (0.70–1.72) | 1.65 (1.04–2.61) |
| LRTI | 2017/2018 | 3.95 (3.62–4.30) | 4.09 (3.81–4.39) | 1.38 (0.98–1.95) | 1.17 (0.82–1.68) | 1.64 (0.97–2.80) | 1.64 (0.98–2.76) |
| | 2018/2019 | 4.50 (4.12–4.91) | 4.10 (3.81–4.41) | 1.35 (0.95–1.93) | 1.81 (1.30–2.53) | 1.30 (0.73–2.31) | 2.19 (1.39–3.46) |
| | 2019/2020 | 3.96 (3.58–4.37) | 3.97 (3.66–4.30) | 1.29 (0.85–1.96) | 1.48 (1.03–2.13) | 1.28 (0.63–2.62) | 1.62 (0.86–3.06) |
| | 2020/2021 | 3.23 (2.80–3.72) | 3.42 (3.07–3.82) | 1.82 (1.01–3.30) | 1.93 (1.12–3.33) | 1.89 (0.81–4.41) | 3.85 (2.01–7.37) |
| | 2021/2022 | 2.45 (2.21–2.71) | 2.85 (2.62–3.09) | 1.29 (0.72–2.28) | 2.08 (1.31–3.30) | 3.92 (1.83–8.36) | 4.75 (2.34–9.64) |
| | 2022/2023 | 3.68 (3.42–3.96) | 3.26 (3.06–3.48) | 1.67 (1.20–2.32) | 2.27 (1.65–3.11) | 4.85 (3.07–7.67) | 3.20 (1.92–5.34) |

Table 4 (continued): Relative rates of hospital discharges for Pacific children compared to non-Māori, non-Pacific children aged 0–14 years in Aotearoa New Zealand, 2017/2018–2022/2023.

| | | 0–4 years (F) | 0–4 years (M) | 5–9 years (F) | 5–9 years (M) | 10–14 years (F) | 10–14 years (M) |
|---------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| Asthma/ wheeze | 2017/2018 | 2.63 (2.31–2.99) | 2.71 (2.46–2.99) | 2.71 (2.19–3.35) | 1.90 (1.57–2.30) | 2.54 (1.84–3.51) | 2.65 (1.95–3.60) |
| | 2018/2019 | 3.18 (2.79–3.62) | 2.69 (2.44–2.96) | 2.14 (1.71–2.67) | 2.11 (1.75–2.54) | 2.34 (1.63–3.36) | 2.14 (1.55–2.96) |
| | 2019/2020 | 2.57 (2.20–2.99) | 2.71 (2.43–3.02) | 2.56 (2.02–3.24) | 2.04 (1.66–2.50) | 2.18 (1.46–3.25) | 2.29 (1.64–3.20) |
| | 2020/2021 | 3.24 (2.79–3.76) | 2.87 (2.59–3.19) | 3.12 (2.40–4.04) | 2.24 (1.80–2.79) | 3.16 (2.05–4.87) | 2.68 (1.81–3.99) |
| | 2021/2022 | 3.48 (3.08–3.93) | 2.91 (2.65–3.19) | 2.40 (1.87–3.08) | 2.13 (1.75–2.59) | 2.62 (1.66–4.15) | 2.86 (1.99–4.13) |
| | 2022/2023 | 3.11 (2.81–3.45) | 2.62 (2.41–2.84) | 3.06 (2.54–3.70) | 1.94 (1.64–2.28) | 1.64 (1.12–2.39) | 1.61 (1.13–2.29) |

Figures displayed are rate ratios for Pacific children compared with the reference category of 1.0 for non-Māori, non-Pacific children.

RR = rate ratio; 95% CI = 95% confidence interval; URTI = upper respiratory tract infection; LRTI = lower respiratory tract infection.

*Very few cases of influenza in 2020/2021 precluded the calculation of RRs.