

**COVID-19 and cancer services**

Working report on the impact of COVID-19 on cancer services for the period ending December 2021

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# Acknowledgements

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# Summary of findings

**Impact of COVID-19 on cancer diagnosis and treatmen****t**

Overall, publicly funded cancer treatment services continued during the COVID-19 Delta outbreak beginning in August 2021. The dip in cancer registrations seen during August 2021 has resolved, with similar or higher numbers of cancer registrations seen 2021 compared to previous years. The disruption to gastrointestinal endoscopy procedures seen August/September in the Auckland region has resolved. There has been some disruption to bronchoscopy procedures, not limited to Auckland. The overall impact of COVID-19 on cancer diagnoses in 2021 is considerably smaller than the disruption seen in April and May 2020.

## Background and data

* The purpose of this report is to provide a rapid assessment of the impact of COVID-19 on cancer services during the 2021 COVID-19 Delta outbreak. It includes data up until 31 December 2021.
* The report focuses on the aspects of the cancer care pathway for which we have readily available data and does not capture all aspects of cancer care.
* We acknowledge individuals with cancer may have been impacted in significant way by COVID-19, including by changes to the way care has been delivered.
* The previous COVID-19 and Cancer reports, published in 2020, compared 2020 data directly with 2019 data. Given the disruption to health services in 2020, this report uses an average of observed numbers seen in 2018/19 as the comparator for numbers seen in 2021. For the purposes of this report, we have not added an adjustment for changes in incidence over time.

## Auckland regional snapshot

* The Auckland region has been the most impacted by COVID-19 cases and restrictions in 2021.
* There has been an overall increase in registrations for the year to date compared to 2018/19.
* COVID-19 caused a disruption to diagnostics services in both August and September, with a decrease in gastrointestinal endoscopies across the region in 2021 compared to 2018/19 (noting these procedures are completed for several indications, not just cancer related). These services appear to have returned to baseline for October, November and December 2021, for Māori and for non-Māori.
* Publicly funded cancer treatment – including surgery, chemotherapy and radiation therapy – continued across the Auckland region from August to December 2021.

## Cancer diagnosis

### Registrations

* In November and December 2021, provisional data show a higher number of registrations compared to November/December 2018/19.
* For all of 2021, there has been an increase of 7% in the number of cancer registrations compared to 2018/19, with the largest increases for Asian (21%), Māori (16%) and Pacific peoples (13%).

### Diagnostics

* **Gastrointestinal endoscopies:** there was an increase in gastrointestinal endoscopies performed in November and December 2021, compared to November and December 2018/19. The 29% decrease in endoscopies seen in the month of August 2021 has gradually improved. Overall, for 2021, there has been an increase in the number of gastrointestinal endoscopies performed compared to 2018/19 across all ethnic groups.
* **Bronchoscopies:** in both November and December 2021, there was a 13% decrease in the number of bronchoscopies performed compared to November/December 2018/19. This was a smaller change compared to the 27% decrease seen in October 2021 compared with October 2018/19. Overall, there have been 7% fewer bronchoscopies performed in 2021 compared to 2018/19.

## Cancer Treatment

### Faster Cancer Treatment

* The COVID-19 Delta outbreak appears to have had a minimal impact on the number of referrals with a high suspicion of cancer, with volumes in November and December similar to the preceding four months.
* The proportion of referrals meeting the 62-day target (patients receiving their first treatment within 62 days of receipt of referral) has remained stable in 2021.
* The FCT data suggest that people who presented to their GP with signs/symptoms highly suspicious of cancer are still being referred through to secondary care. There are a similar number being referred as pre-COVID-19 and these people are being seen within a similar time frame.

### Surgery

* There was a similar number of curative cancer surgeries (prostate, lung and colorectal) performed in November 2021 compared to November 2018/19. There was a decrease of 5% in December 2021 compared with December 2018/19. This decrease appears to be driven by a decrease in colorectal surgery numbers with numbers of lung cancer and prostate cancer surgery being higher in November and December 2021 compared with November and December 2018/19. The year 2021 overall has seen a decrease of 2% of curative colorectal cancer surgeries performed in 2021 compared with 2018/19.

### Chemotherapy and radiotherapy

* **Medical oncology:** attendances for medical oncology first specialist appointments (FSAs) increased by 9% in November 2021 compared to November 2018/19 and increased by 4% in December 2021 compared to December 2018/19. For 2021 overall, there was a 7% increase in FSAs compared with 2018/19. For November and December 2021, there were increases of 9% and 8%, respectively, seen in attendances compared with November and December 2018/19. For 2021 overall, these was an 8% increase in IV chemotherapy attendances compared with 2018/19. There was a larger increase for Māori (28%) and Pacific peoples (30%) than for non-Māori/non-Pacific (4%)
* **Radiation oncology:** attendances for radiation oncology first specialist appointments (FSAs) increased by 4% in November 2021 compared to November 2018/19 and increased by 8% in December 2021 compared to December 2018/19. For 2021 overall, there was a 7% increase in radiation oncology FSAs compared with 2018/19. Attendances for radiation therapy decreased by 3% in 2021 compared to 2018/19. Further investigation has shown that this decrease likely reflects increased use of hypofractionation, where cancers are treated over a shorter time period, so that patients have fewer visits for treatment. For Māori, radiation therapy attendances have increased from 2018/19 to 2021.
* **Haematology:** overall, there has been a 4% increase in haematology FSAs in 2021 compared to 2018/19, and an 19% increase in haematology FSAs for Māori. Attendances for haematology IV chemotherapy increased by 26% in November 2021 compared with November 2018/19 and by 30% in December 2021 compared with December 2018/19. For 2021 overall, there has been an 18% increase in haematology IV chemotherapy compared with 2018/19.

# Introduction

## Background

In 2020, Te Aho o Te Kahu released a series of reports outlining the impact of COVID-19 on cancer services in New Zealand[[1]](#footnote-2). These reports showed that cancer treatment services – surgery, medical oncology, radiation oncology and haematology – continued during the start of the COVID-19 pandemic. Following an initial drop in new cancer registrations during the April 2020 lockdown, the number of cancer registrations in 2020 increased steadily in the following months and, by the end of September, had caught up to the number seen in 2019.

As the COVID-19 situation and disruptions to health care settled, Te Aho o Te Kahu stopped regular COVID-19 and cancer reporting at the end of 2020. Te Aho o Te Kahu re-instated COVID-19 monitoring with the re-emergence of COVID-19 in the community in August 2021 and the return of restrictions.

## Purpose

This is the fourth report looking at the impact of COVID-19 on cancer services during the 2021 COVID-19, Delta outbreak. It includes data up until the end of December 2021. The aim of this work is to rapidly collate evidence on any delays to cancer diagnosis and treatment to support policy development and response planning.

The report focuses on the aspects of the cancer care pathway for which we have readily available data and does not capture all aspects of the care. Critical aspects of cancer care, including access to primary health care, radiology, palliative care and patient experience are not measured in this report. While the report focuses on the impact of COVID-19 on overall cancer diagnosis and treatment, we acknowledge that individuals with cancer may have been impacted in significant ways by COVID-19, including by changes to the way care has been delivered.

## Data and analysis

The data in this report come from Ministry of Health national data collections. Each section of the report includes information on where the data is from and any limitations associated with the data. Of note Southern DHB is actively working on resolving incomplete radiotherapy treatment data. In addition, numbers in this report may not match the previous report, due to exclusion of incomplete data in the previous reports and delayed coding/submission of data.

The purpose of the analysis is to rapidly measure the impact of COVID-19 and the response on cancer services; therefore the analysis does not consider pre-existing unmet need. The report also makes direct comparisons between 2021 and previous years and does not consider any increase in cancer diagnoses over time.

### Comparator for this report

The previous COVID-19 and Cancer reports, published in 2020, compared 2020 data directly with 2019 data. Given the disruption COVID-19 caused to health services in 2020, 2020 was not considered an appropriate comparator. To improve the stability of the baseline for comparison, an average of observed numbers in 2018 and 2019 is used as a comparator for numbers seen in 2021 in this report. All graphs include data from 2021, 2020 and an average from 2018/19.

## Key dates

Key dates in relation to COVID-19, up until the end of December 2021, that may be of use when reviewing the report include:

* 17 August 2021: all of New Zealand moves to Alert Level 4
* 31 August 2021: all of New Zealand south of Auckland moves to Alert Level 3, Auckland and Northland remain at Alert Level 4.
* 2 September 2021: Northland moves to Alert Level 3. All of New Zealand (except Auckland) at Alert Level 3
* 7 September 2021: New Zealand (except Auckland) moves to Alert Level 2.
* 21 September 2021: Auckland and Upper Hauraki move to Alert Level 3.
* 25 September 2021: Upper Hauraki moves to Alert Level 2.
* 3 October 2021: Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City and some surrounding areas move to Alert Level 3 for 5 days. Auckland remains at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
* 5 October 2021: Alert Level 3 restrictions in Auckland are eased. Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City and some surrounding areas remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
* 7 October 2021: Waikato Alert Level 3 boundary is extended to include Waitomo District, including Te Kuiti, Waipa District and Ōtorohanga District. Auckland remains at Alert Level 3 with some restrictions eased. The rest of New Zealand remains at Alert Level 2.
* 8 October 2021: Northland moves to Alert Level 3. Auckland and parts of Waikato remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
* 19 October 2021: Northland moves to Alert Level 2. Auckland and parts of Waikato remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
* 27 October 2021: The parts of Waikato at Alert Level 3 move to Step 1 of Alert Level 3. Auckland remains at Step 1 of Alert Level 3. The rest of New Zealand remains at Alert Level 2.
* 3 Nov 2021: Upper Northland Alert Level 3, Auckland Step 1 of Alert Level 3, parts of Waikato Step 2 of Alert Level, rest of New Zealand Alert Level 2
* 10 Nov 2021: Upper Northland Alert Level 3, Auckland Step 2 of Alert Level 3, parts of Waikato Step 1 of Alert Level 3, rest of New Zealand Alert Level 2
* 12 Nov 2021: Auckland and parts of Waikato Step 2 of Alert Level 3, rest of New Zealand Alert Level 2
* 17 Nov 2021: Auckland Step 2 of Alert Level 3 - Restrict, rest of New Zealand Alert Level 2
* 3 Dec 2021 (End of COVID-19 Alert System): All NZ moved to the COVID-19 Protection Framework (traffic lights)

Note: the first case of Omicron in the community in New Zealand was detected on the 27th of December 2021.

Key dates in relation to COVID-19 in 2020 include:

* 23 March 2020: all of New Zealand moves to Alert Level 3
* 26 March 2020: all of New Zealand moves to Alert Level 4
* 28 April 2020: all of New Zealand moves to Alert Level 3
* 14 May 2020: all of New Zealand moves to Alert Level 2
* 9 June 2020: all of New Zealand moves to Alert Level 1
* 12 August 2020: Auckland moves to Alert Level 3, the rest of New Zealand moves to Alert Level 2
* 30 September 2020: Auckland moves to Alert Level 2.5, the rest of New Zealand stays at Alert Level 2
* 22 September 2020: all regions, except Auckland, move to Alert Level 1
* 29 November 2020: Auckland moves to Alert Level 2, without extra restrictions on travel and gatherings
* 8 October 2020: all of New Zealand moves to Alert Level 1.

## Ongoing reporting

Te Aho o Te Kahu will continue to monitor the impact of COVID-19 and lockdowns on cancer services. The next report will be released in April 2022, looking at data to the end of February 2022.

# Auckland Regional Snapshot

## Key points

* The Auckland region was the most impacted by COVID-19 in late 2021 with more cases and longer periods of time under COVID-19 restrictions compared with the rest of the country.
* There has been an overall increase in cancer registrations in 2021 compared to 2018/19.
* COVID-19 caused a disruption to diagnostics services in both August and September, with a decrease in gastrointestinal endoscopies across the region in 2021 compared to 2018/19 (noting these procedures are completed for several indications, not just cancer related). These services appear to have returned to baseline for October, November and December 2021, for Māori and for non-Māori.
* Publicly funded cancer treatment – including surgery, chemotherapy and radiation therapy – continued across the Auckland region from August to December 2021.
* For radiation therapy attendances for Māori, there appears to be a greater decrease in radiation therapy volumes in October and November 2021 compared with October and November 2018/19 (Figure 5) with resolution for December 2021 compared with December 2018/19. Te Aho o Te Kahu is following this up at a DHB level.

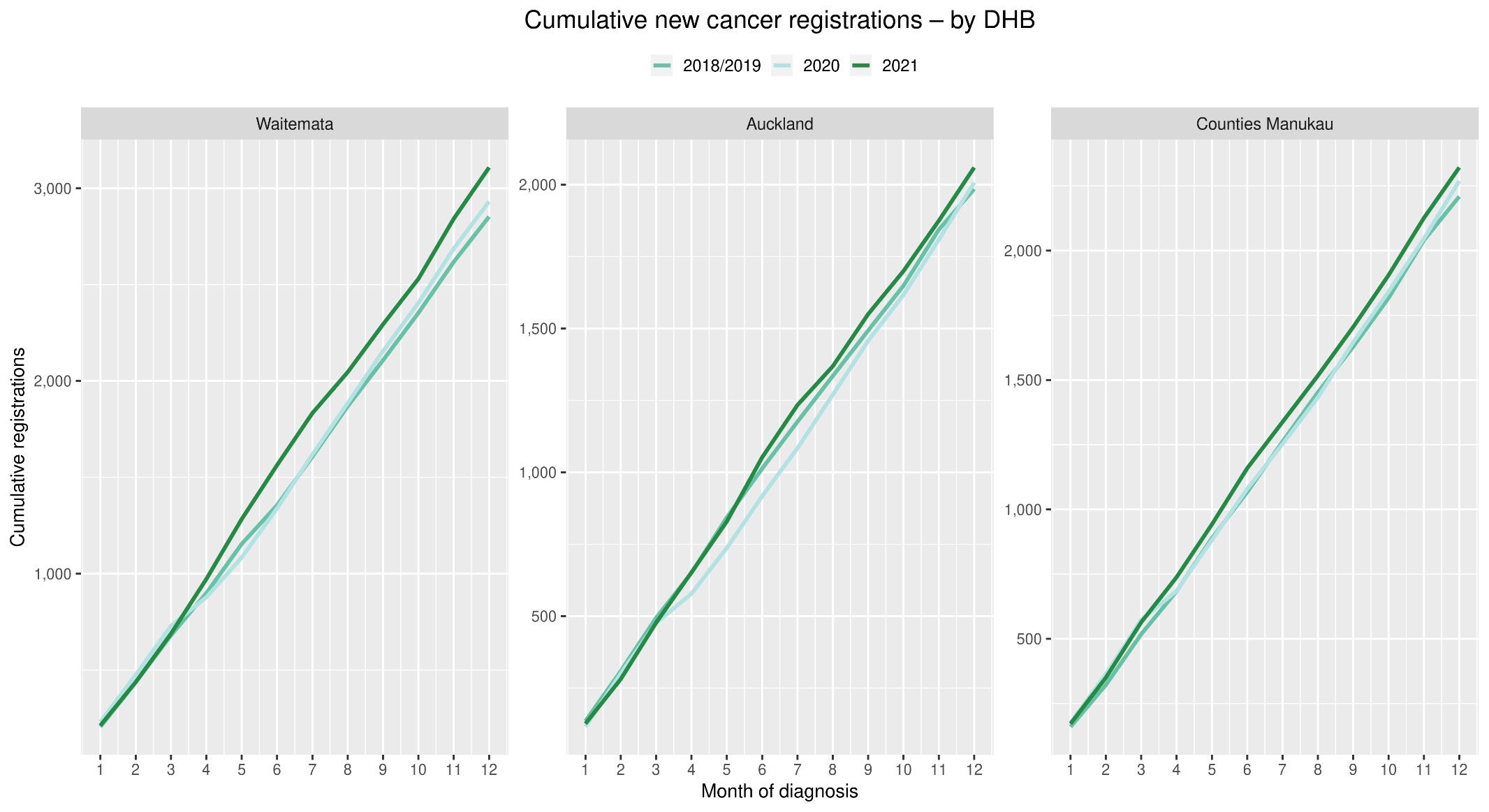
## Cancer diagnosis and treatment

### Registrations

Table : Number of provisional cancer registrations and percentage change in 2021 compared to the 2018/19 average, by month and cumulative year to date, by DHB

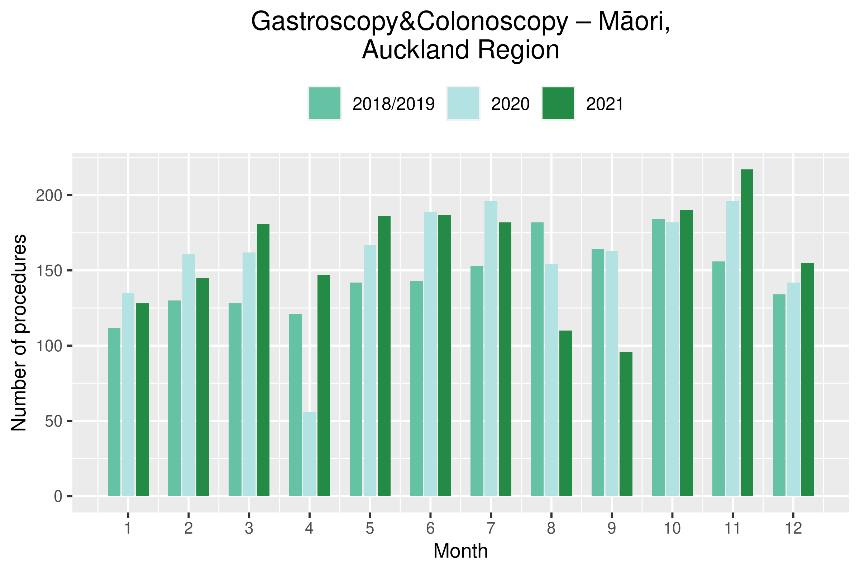
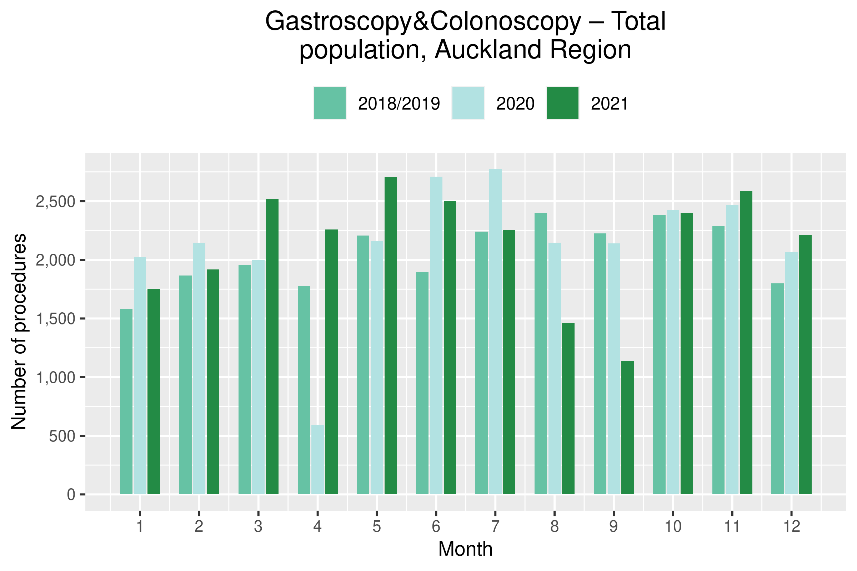
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | | **November** | | | | **December** | | | | **Cumulative January - December** | | | |
|  | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Waitematā | 245 | 236 | | -3% | 265 | 312 | | 18% | 235 | 266 | | 13% | 2,850 | 3,108 | 9% |
| Auckland | 156 | 150 | | -4% | 195 | 175 | | -10% | 141 | 185 | | 31% | 1,983 | 2,060 | 4% |
| Counties Manukau | 188 | 200 | | 6% | 223 | 221 | | -1% | 169 | 195 | | 15% | 2,207 | 2,321 | 5% |
| Total Auckland Region | 589 | 586 | | -1% | 683 | 708 | | 4% | 545 | 646 | | 19% | 7,040 | 7,489 | 6% |

Figure : Cumulative number of cancer registrations by month, 2018/19 average, 2020 and 2021, for the Auckland region, by DHB



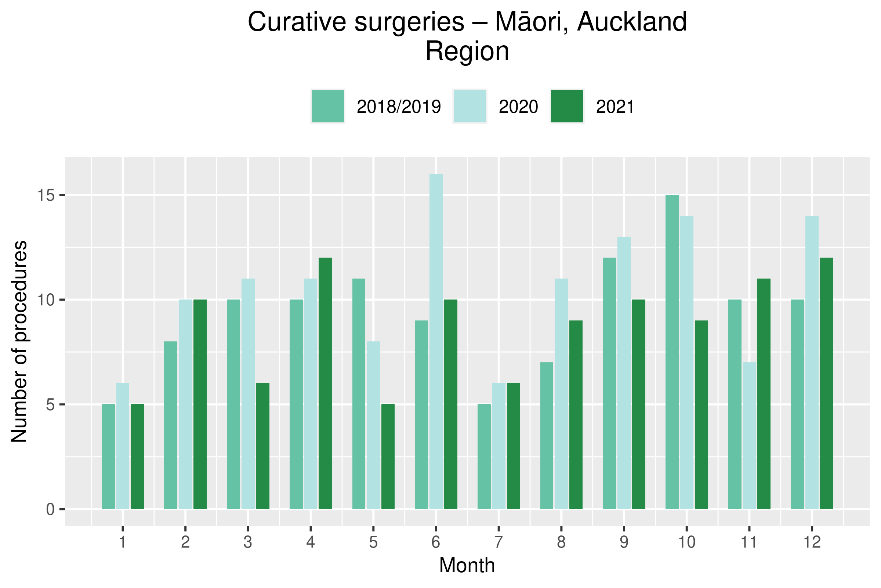
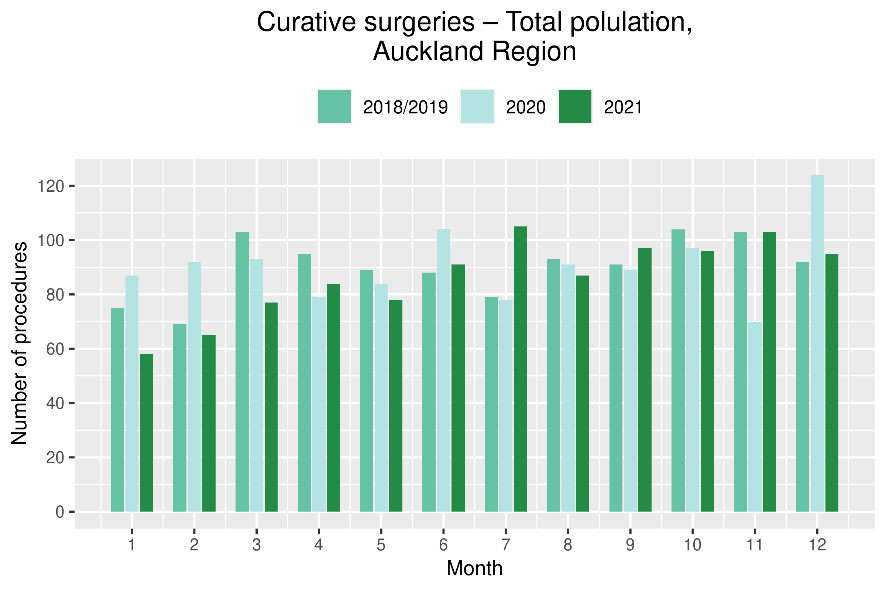
Gastrointestinal endoscopies

Figure : Number of gastrointestinal endoscopy procedures by month, 2018/19 average, 2020 and 2021, for the Auckland region



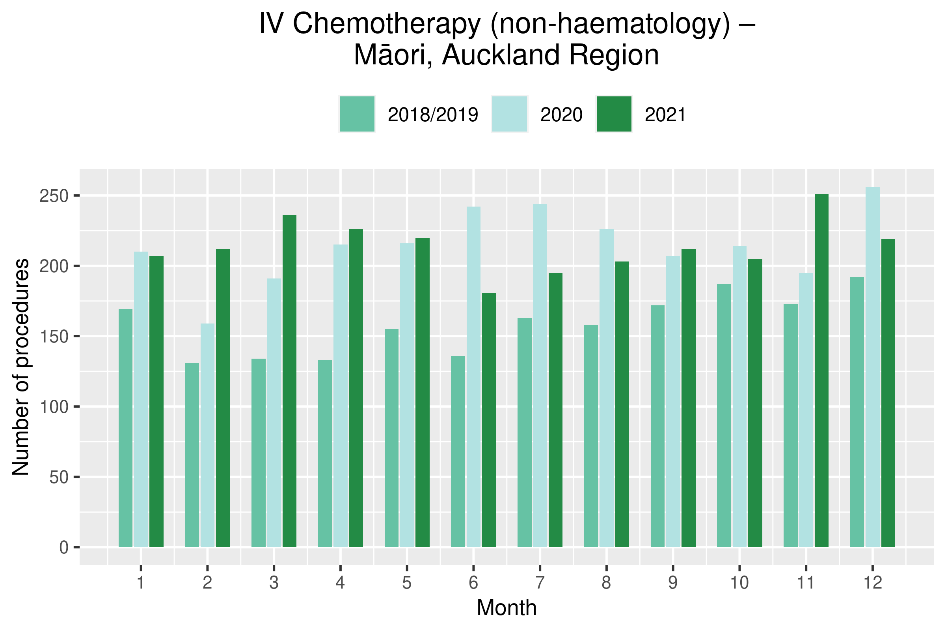
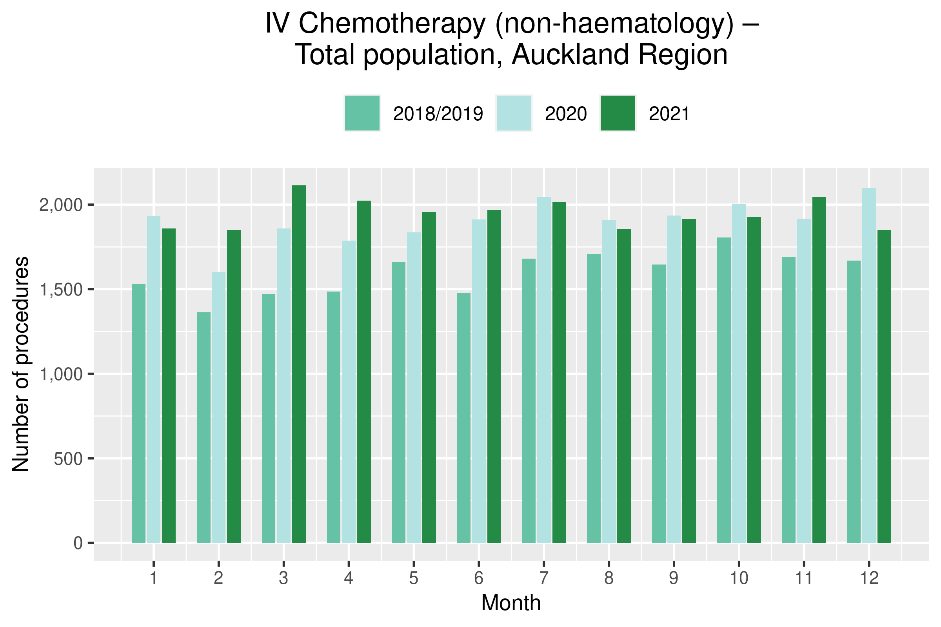
### Cancer surgery

Figure : Number of curative cancer surgeries (prostate, colorectal and lung) by month, 2018/19 average, 2020 and 2021, for the Auckland region

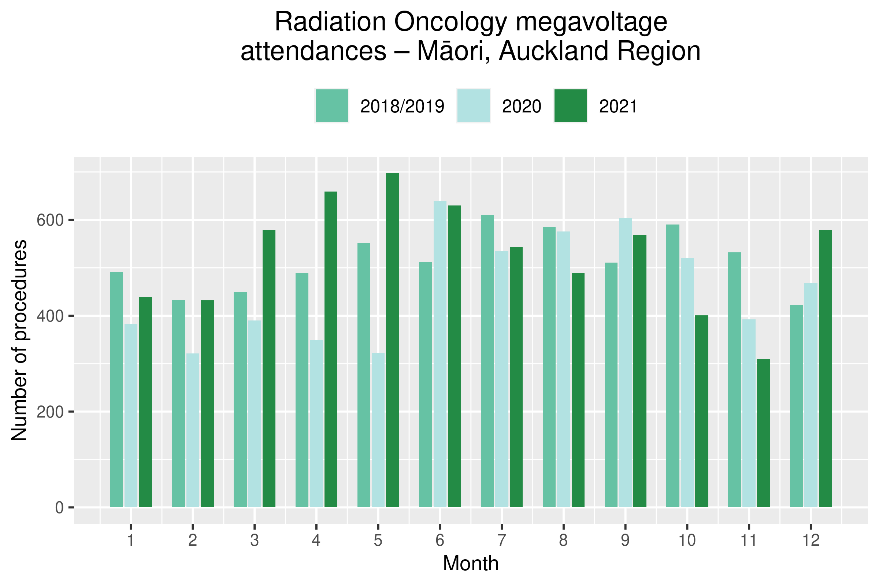
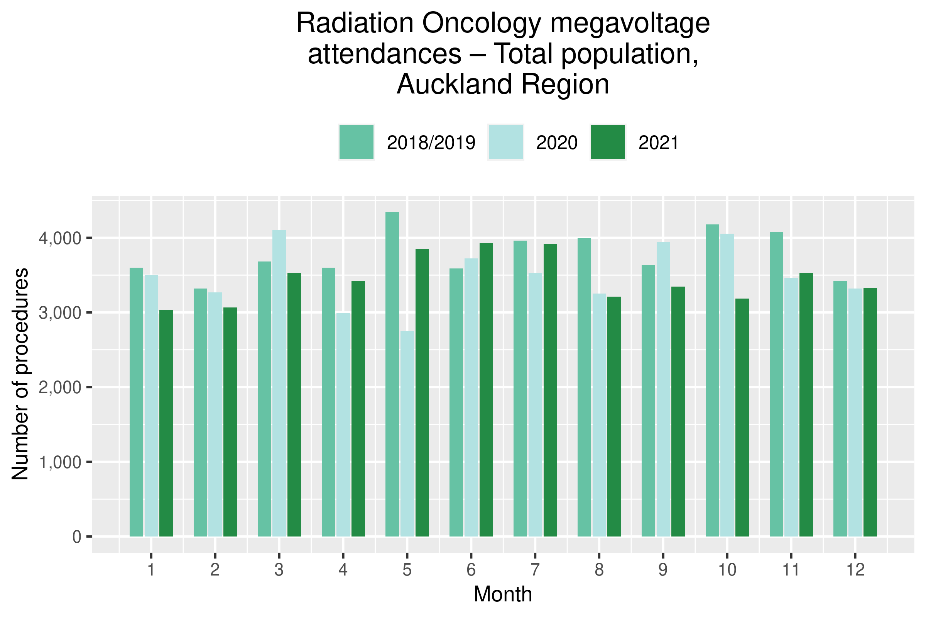


### Non-surgical treatments

Figure : Number of IV chemotherapy attendances by month, 2018/19 average, 2020 and 2021, for the Auckland region



**Figure 5: Number of radiation therapy attendances by month, 2018/19 average, 2020 and 2021, for the Auckland region**

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**National Data**

# Cancer Registrations

## Notes on data

* The data in this report come from laboratory reports to the New Zealand Cancer Register (NZCR). Cancers diagnosed without haematology or pathology, for example radiology alone, will not be counted in this analysis. Further information on these data is included in Appendix 1.
* Data included in this report are provisional, and exact numbers will change as data are finalised. Data were extracted from NZCR on 9 February 2022.
* ‘Date’ is date of diagnosis on the NZCR – usually the date the specimen was taken from the person and sent to the laboratory. Analyses include all new provisional and registered cancer events based on pathology and haematology reports.
* The extract used for this report excludes carcinoma in situ for breast and cervical, meaning the numbers are lower than in the 2020 COVID-19 and Cancer reports.

## Key points

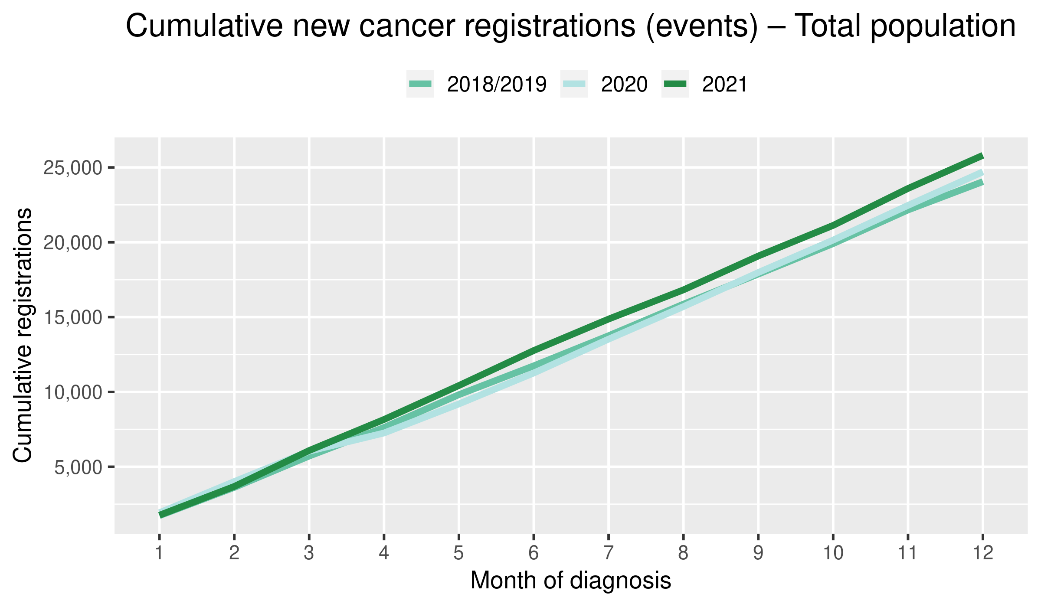
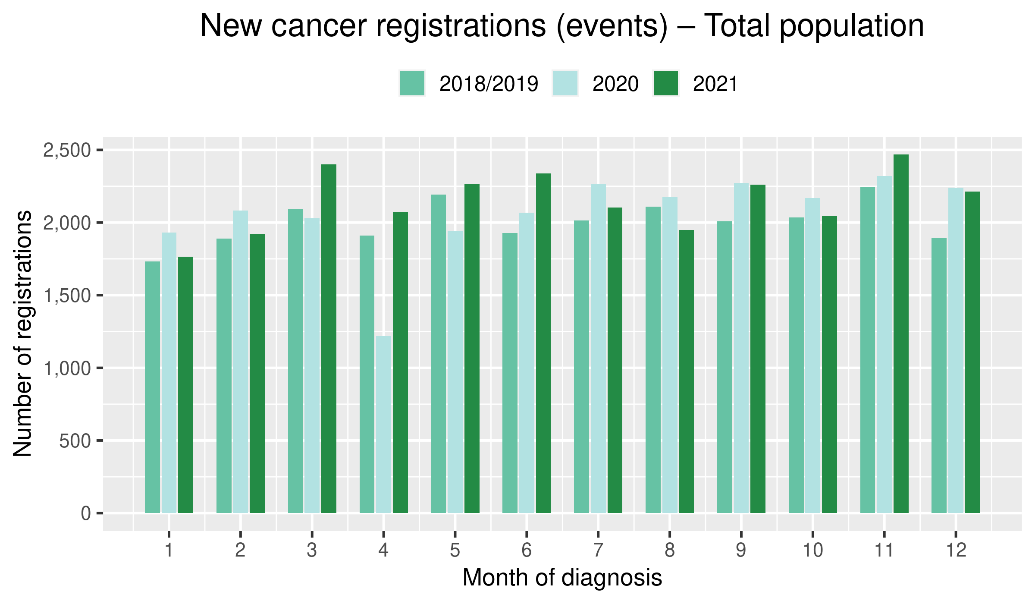
* In November and December 2021, provisional data show a higher number of registrations compared to November/December 2018/19.
* For all of 2021, there has been a 7% increase in the number of cancer registrations compared to 2018/19, with the largest increases for Asian (21%), Māori (16%) and Pacific peoples (13%).

## Results

Table : Number of provisional cancer registrations and percentage change in 2021 compared to the 2018/19 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 210 | 249 | 19% | 223 | 308 | 38% | 192 | 244 | 27% | 2,550 | 2,958 | 16% |
| Pacific peoples | 78 | 93 | 20% | 85 | 93 | 9% | 70 | 96 | 38% | 969 | 1,096 | 13% |
| Asian | 93 | 105 | 13% | 110 | 117 | 6% | 92 | 139 | 51% | 1,197 | 1,451 | 21% |
| European/Other | 1,656 | 1,599 | -3% | 1,829 | 1,950 | 7% | 1,541 | 1,735 | 13% | 19,335 | 20,306 | 5% |
| Total population | 2,036 | 2,046 | 1% | 2,247 | 2,468 | 10% | 1,894 | 2,214 | 17% | 24,050 | 25,811 | 7% |

Figure : Number of cancer registrations by month, 2018/19 average, 2020 and 2021, total population and by ethnicity



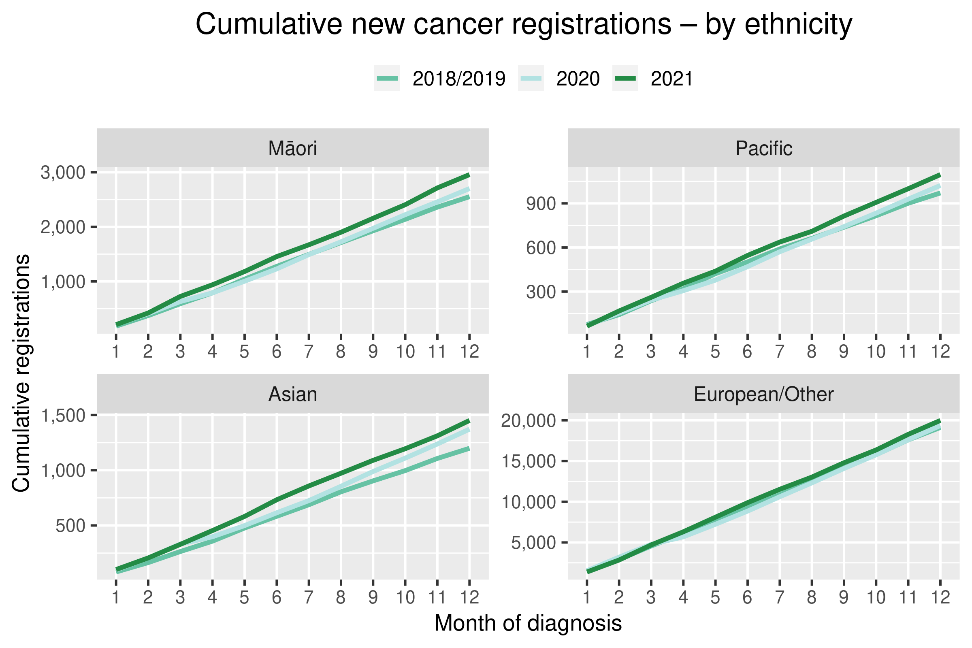
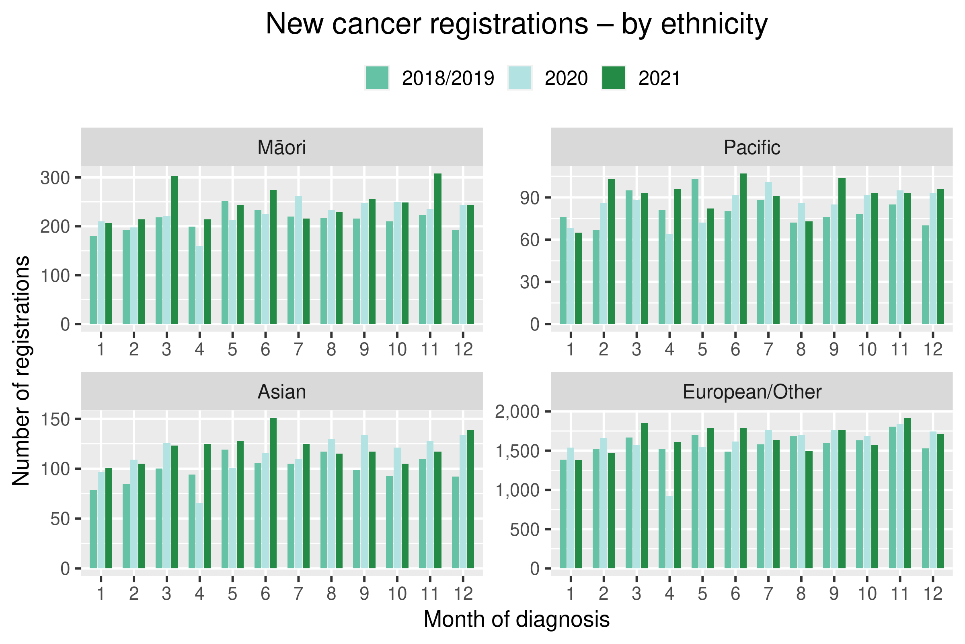
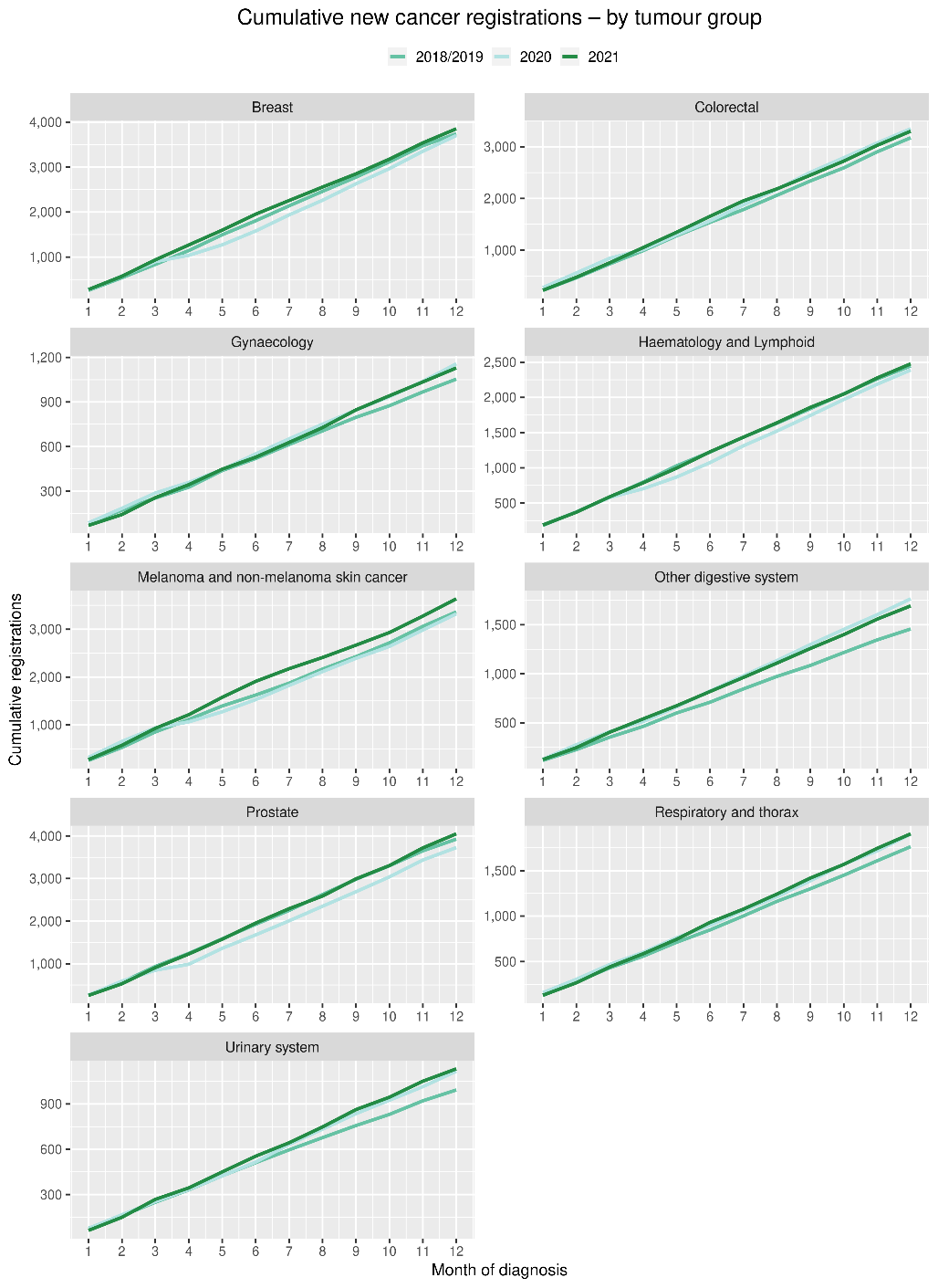


Table : Number of provisional cancer registrations and percentage change in 2021 compared to the 2018/19 average, by month and cumulative year to date, by tumour group

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
| **Tumour group** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Breast | 341 | 327 | -4% | 358 | 362 | 1% | 265 | 312 | 18% | 3,736 | 3,850 | 3% |
| Colorectal | 254 | 272 | 7% | 310 | 305 | -2% | 272 | 274 | 1% | 3,173 | 3,302 | 4% |
| Gynaecology | 78 | 95 | 22% | 93 | 93 | 1% | 86 | 94 | 9% | 1,052 | 1,129 | 7% |
| Haematology and Lymphoid | 211 | 189 | -10% | 210 | 229 | 9% | 185 | 200 | 8% | 2,442 | 2,476 | 1% |
| Melanoma and non-melanoma skin | 289 | 264 | -9% | 344 | 344 | 0% | 302 | 361 | 20% | 3,359 | 3,636 | 8% |
| Other digestive system | 132 | 142 | 8% | 129 | 158 | 22% | 111 | 135 | 22% | 1,456 | 1,693 | 16% |
| Prostate | 318 | 312 | -2% | 351 | 415 | 18% | 274 | 330 | 20% | 3,924 | 4,050 | 3% |
| Respiratory and thorax | 149 | 150 | 1% | 159 | 177 | 12% | 155 | 159 | 3% | 1,761 | 1,904 | 8% |
| Urinary system | 74 | 82 | 12% | 90 | 106 | 18% | 72 | 82 | 14% | 989 | 1,133 | 15% |

\*This analysis uses provisional data for the 2021 registrations, some cancers may initially be classified as ‘non-specified’ and subsequently be re-classified into one of the cancer groups as more information becomes available.

Figure : Number of cancer registrations by month, 2018/19 average, 2020 and 2021, by tumour group



# Gastrointestinal endoscopy

## Notes on data

* Gastrointestinal endoscopy data were extracted from the National Non-admitted Patient Collection (NNPAC) and National Minimum Dataset (NMDS) on 2 February 2022.
* Includes colonoscopies and gastroscopies for all indications – not just cancer.
* Technical information: gastroscopies (Purchase Unit Code: MS02005), colonoscopies (Purchase Unit Code: MS02007), combined gastroscopies and colonoscopies (Purchase Unit Code: MS02014).

## Key points

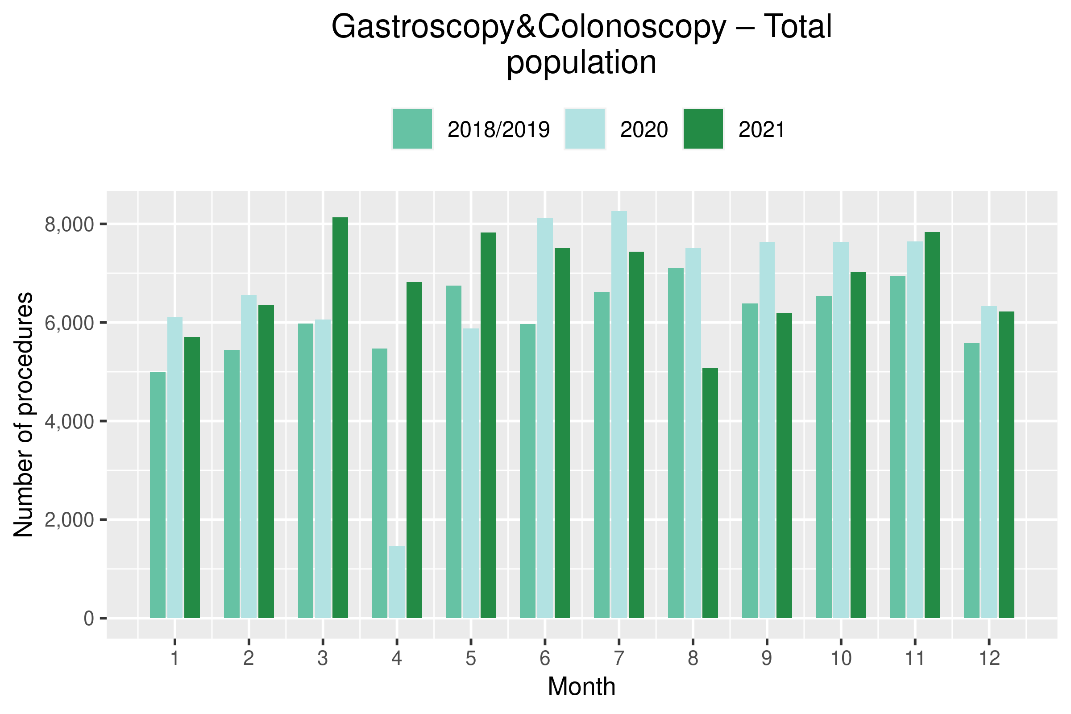
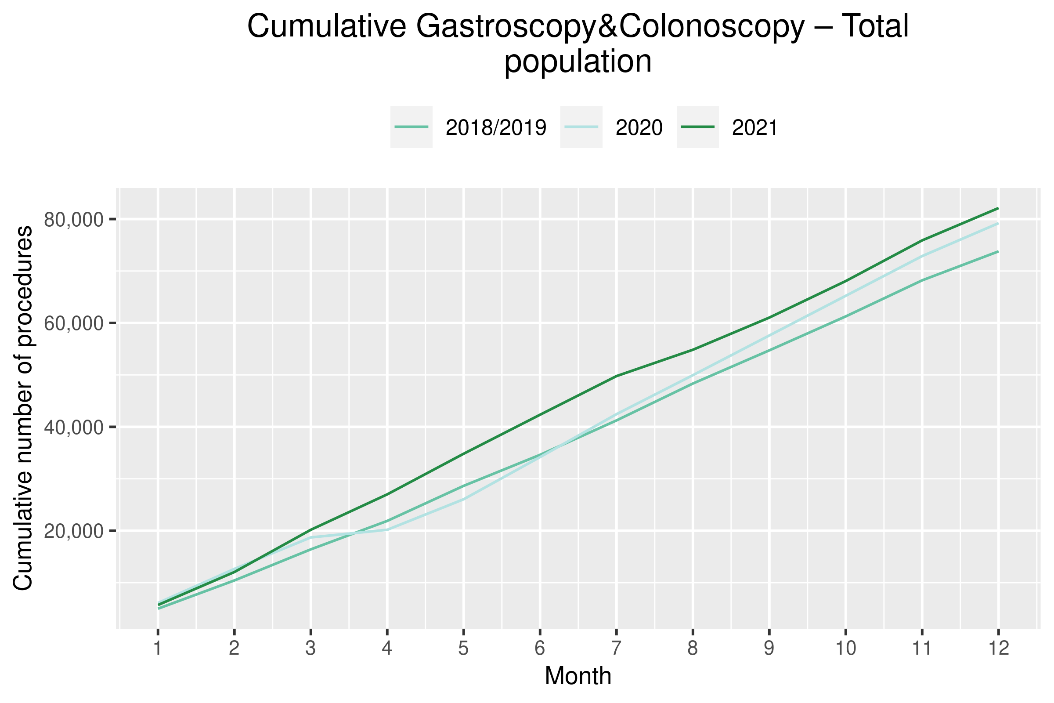
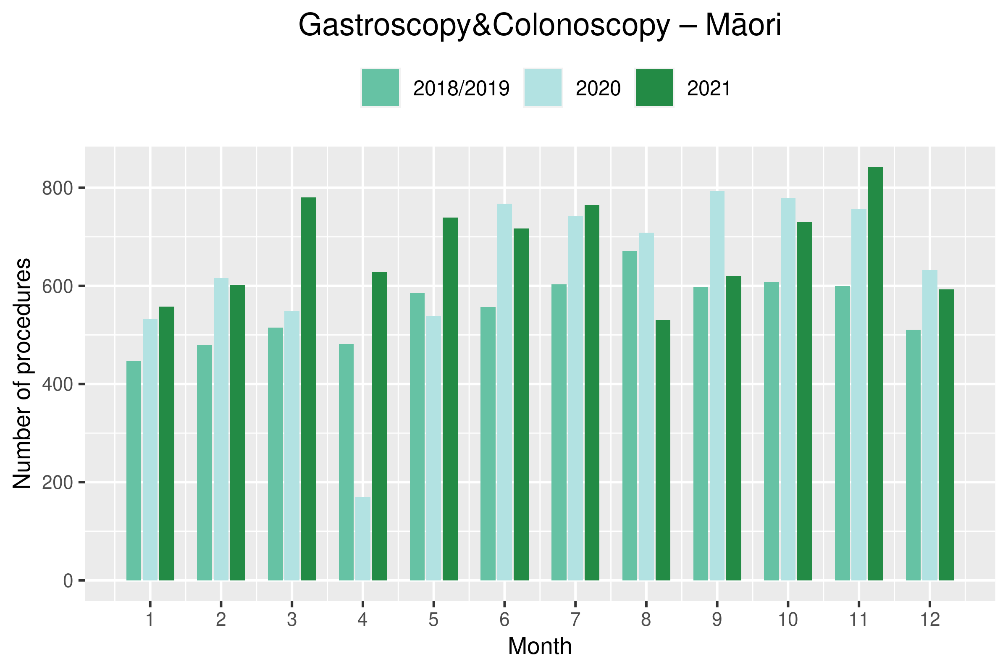
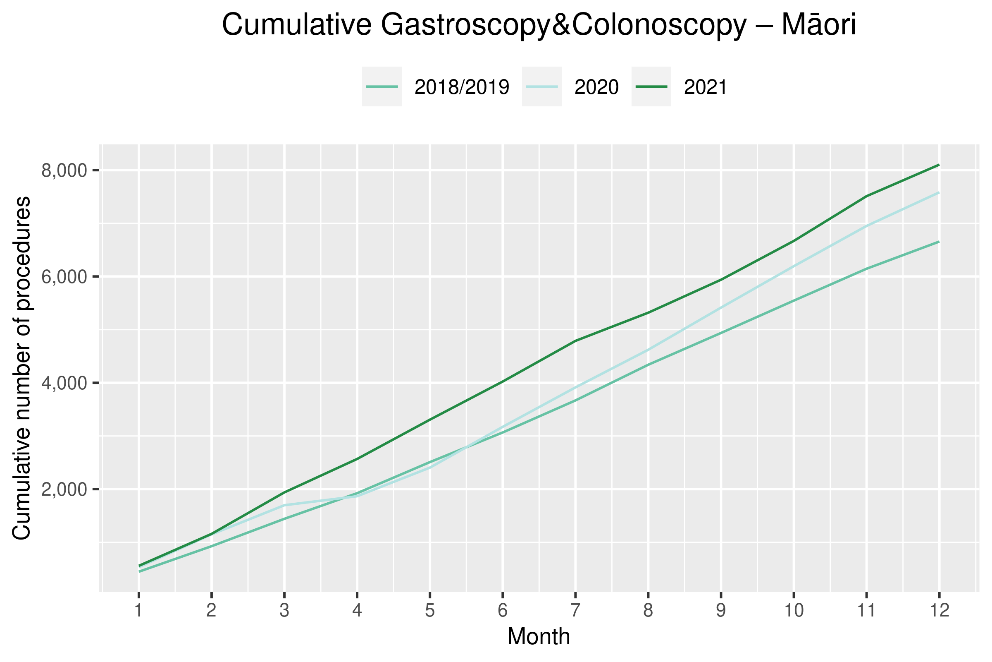
* There was an increase in gastrointestinal endoscopies performed in November and December 2021, compared to November and December 2018/19. The 29% decrease seen in the month of August 2021 has gradually resolved.
* Overall, there has been an increase in the number of gastrointestinal endoscopies performed in 2021 compared to 2018/19 across all ethnic groups.

## Results

Table : Number of colonoscopy and gastroscopy procedures and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | | **November** | | | | **December** | | | | **Cumulative January - December** | | | |
|  | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 608 | 729 | | 20% | 600 | 842 | | 40% | 511 | 593 | | 16% | 6,655 | 8,103 | 22% |
| Pacific peoples | 235 | 348 | | 48% | 228 | 307 | | 35% | 183 | 290 | | 59% | 2,482 | 3,079 | 24% |
| Non-Māori/non-Pacific | 5,696 | 5,947 | | 4% | 6,114 | 6,681 | | 9% | 4,885 | 5,342 | | 9% | 64,645 | 70,928 | 10% |
| Total population | 6,538 | 7,024 | | 7% | 6,942 | 7,830 | | 13% | 5,578 | 6,225 | | 12% | 73,782 | 82,110 | 11% |

Figure : Number of gastrointestinal endoscopy procedures by month, 2018/19 average, 2020 and 2021, total population and Māori

# Bronchoscopy

## Notes on data

* Bronchoscopy data were extracted from NNPAC and NMDS on 2 February 2022.
* These data include bronchoscopies for all indications, not solely cancer related procedures.
* Technical information: bronchoscopies (Purchase Unit Code - MS02003).

## Key points

* In both November and December 2021, there was a 13% decrease in the number of bronchoscopies performed compared to November/December 2018/19. This was a less significant change compared to the 27% decrease seen in October 2021 compared with October 2018/19. Te Aho o Te Kahu is working with DHBs and clinical experts to understand these findings.
* Overall, there have been 7% fewer bronchoscopies performed in 2021 compared to 2018/19. This decrease was smaller for non-Māori/non-Pacific (5%), than for Māori (11%), and Pacific peoples (27%, noting small numbers).

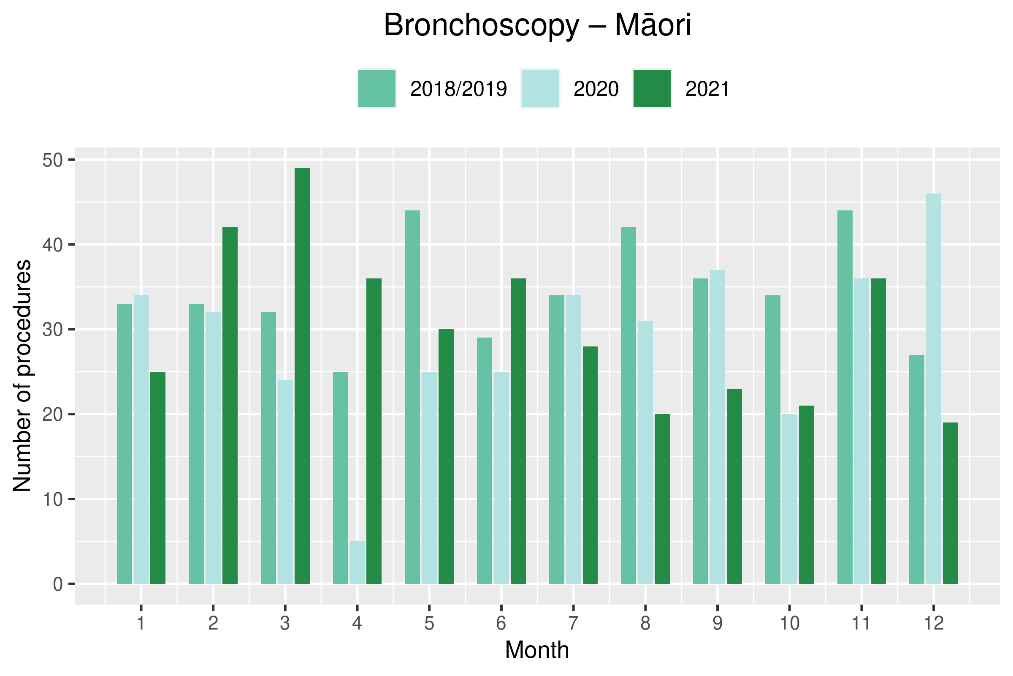
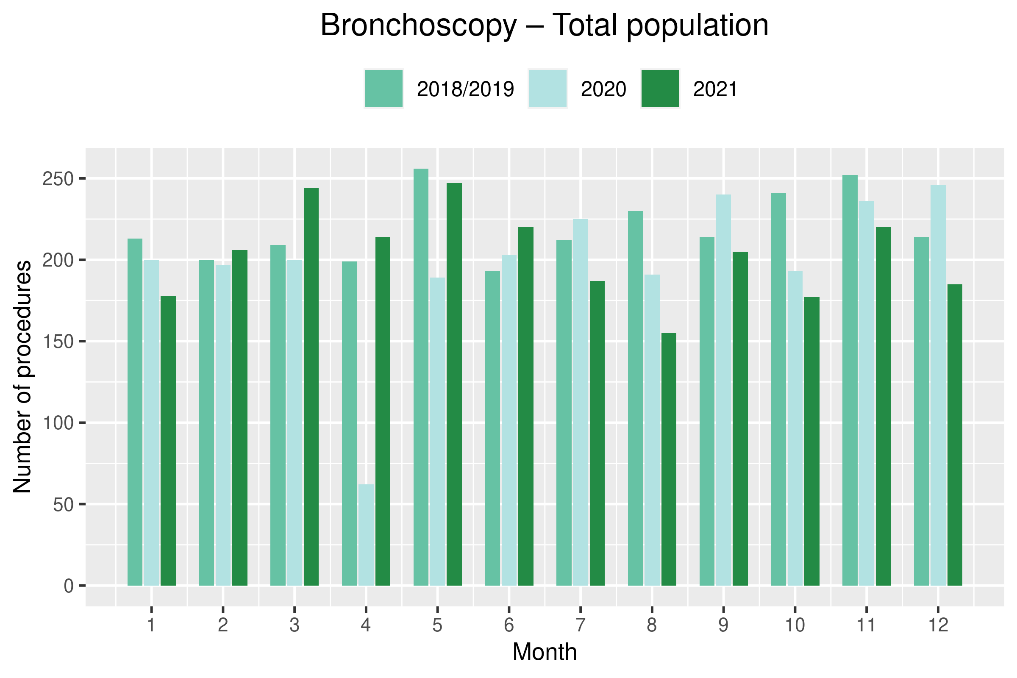
## Results

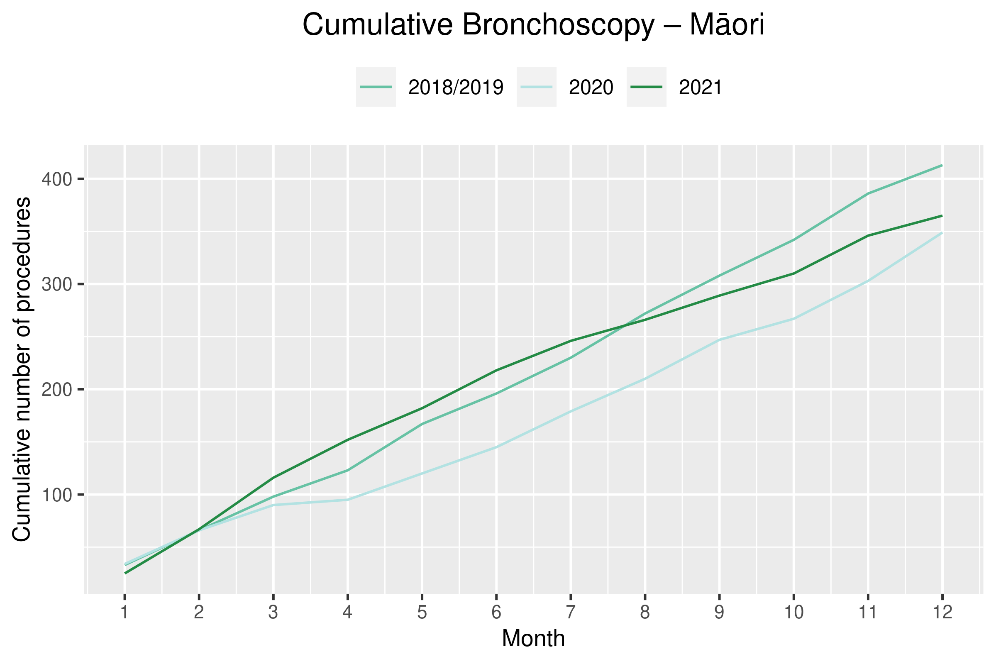
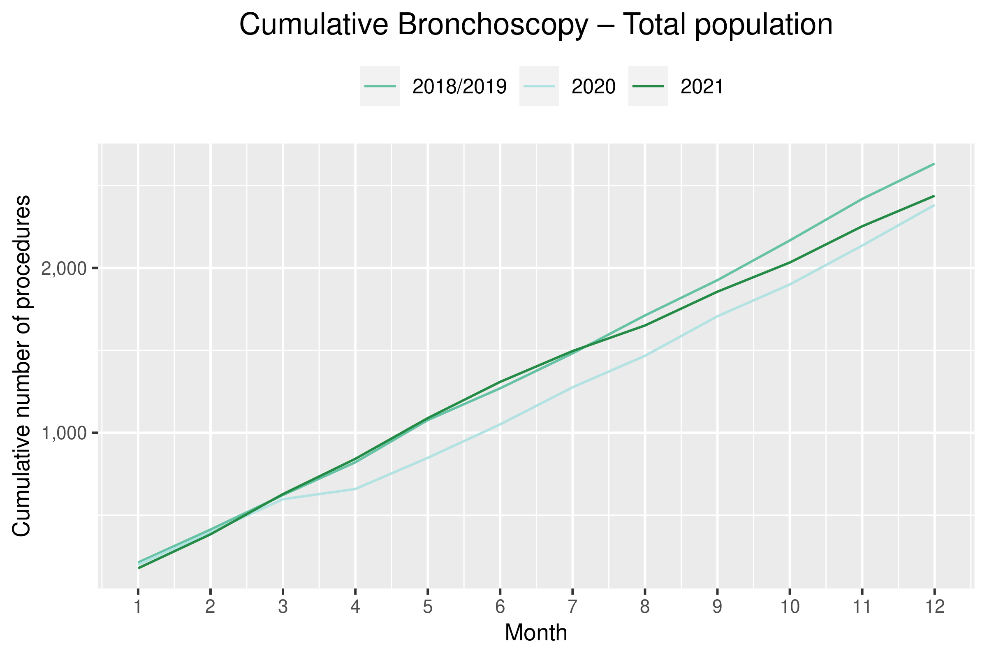
Table : Number of bronchoscopies and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori\* | - | - | - | - | - | - | - | - | - | 410 | 365 | -11% |
| Pacific peoples\* | - | - | - | - | - | - | - | - | - | 126 | 92 | -27% |
| Non-Māori/Non-Pacific | 191 | 147 | -23% | 193 | 173 | -10% | 180 | 159 | -12% | 2,094 | 1,981 | -5% |
| Total population | 241 | 177 | -27% | 252 | 220 | -13% | 214 | 185 | -13% | 2,630 | 2,438 | -7% |

\*Due to small numbers, monthly figures have not been included for Māori and Pacific peoples

Figure : Number of bronchoscopies by month, 2018/19 average, 2020 and 2021, total population and Māori





# Faster cancer treatment

## Notes on data

* The data were extracted from the Faster Cancer Treatment database on 1 February 2022. Fast Cancer Treatment Data is reported quarterly.
* These data aim to capture a broader part of the diagnostic and referral pathway; however, they only include a subset of people being investigated for cancer.
* Data relate to the 62-day pathway and includes patients with a high-suspicion of cancer and a need to be seen within two weeks. These patients should receive their first treatment within 62-day of receipt of referral. The target is 90% and Te Aho o Te Kahu has an escalation pathway for monitoring the performance of DHBs against the 62-day measure. Escalation includes regular meetings with service teams and CE to CE discussions against recovery planning and actions.
* Analysis includes all referrals onto the 62-day pathway.

## Key points

* The COVID-19 Delta outbreak appears to have had a minimal impact on the number of referrals with a high suspicion of cancer, with volumes in November and December similar to the preceding four months.
* The proportion of referrals meeting the 62-day target (patients receiving their first treatment within 62 days of receipt of referral) has remained stable in 2021.
* The FCT data suggest that people who presented to their GP with signs/symptoms highly suspicious of cancer are still being referred through to secondary care. There are a similar number being referred as pre-COVID-19 and these people are being seen within a similar time frame. For November 2021 there was a small decrease in proportion of Māori patients with a high-suspicion of cancer who received their first treatment within 62 days (noting smaller numbers), however this appears to have improved in December 2021.

## Results

Table : Number of referrals for patients with a high-suspicion of cancer, in 2021 by month, and cumulative year to date

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Total Jul-Dec** |
| Māori | 58 | 80 | 52 | 68 | 67 | 52 | 377 |
| Non-Māori/Non-Pacific | 348 | 392 | 431 | 303 | 433 | 329 | 2,236 |
| Total population | 429 | 496 | 505 | 389 | 524 | 405 | 2,748 |

\*Due to small numbers, volumes have not been included for Pacific peoples

Table : Proportion of patients with a high-suspicion of cancer and a need to be seen within 2-weeks receiving their first treatment within 62 day of receipt of referral, in 2021 by month, and average for the year to date

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Total Jul- Dec** |
| Māori | 83% | 85% | 87% | 85% | 80% | 83% | 84% |
| Non-Māori/Non-Pacific | 82% | 82% | 86% | 81% | 89% | 84% | 85% |
| Total Population | 83% | 83% | 87% | 82% | 88% | 85% | 85% |

\*Due to small numbers, percentages have not been included for Pacific peoples

Figure : Proportion of patients with a high-suspicion of cancer and a need to be seen within 2-weeks receiving their first treatment within 62 day of receipt of referral, by ethnicity, in 2021 by month

# Combined curative cancer surgery

## Notes on data

* This report includes data on curative surgery for colorectal, lung and prostate cancer. These cancers were chosen because Te Aho o Te Kahu already has a pre-validated list of surgical procedure codes for these cancers, agreed on as part of the quality performance indicator (QPI) work programme. These three cancers are therefore used as case studies for cancer surgery more generally. The surgical procedure codes are listed in Appendix 4.
* The data were extracted from the NMDS on 2 February 2022.

## Key points

* There was a similar number of curative cancer surgeries (prostate, lung and colorectal) performed in November 2021 compared to November 2018/19. There was a decrease of 5% in December 2021 compared with December 2018/19. This decrease appears to be driven by a decrease in colorectal surgery numbers (see Table 7).
* For 2021 overall, there was a similar number of curative cancer surgeries (prostate, lung and colorectal) performed compared to 2018/19. There was an increase for Māori of 25% and for Pacific peoples of 28% (noting small numbers).

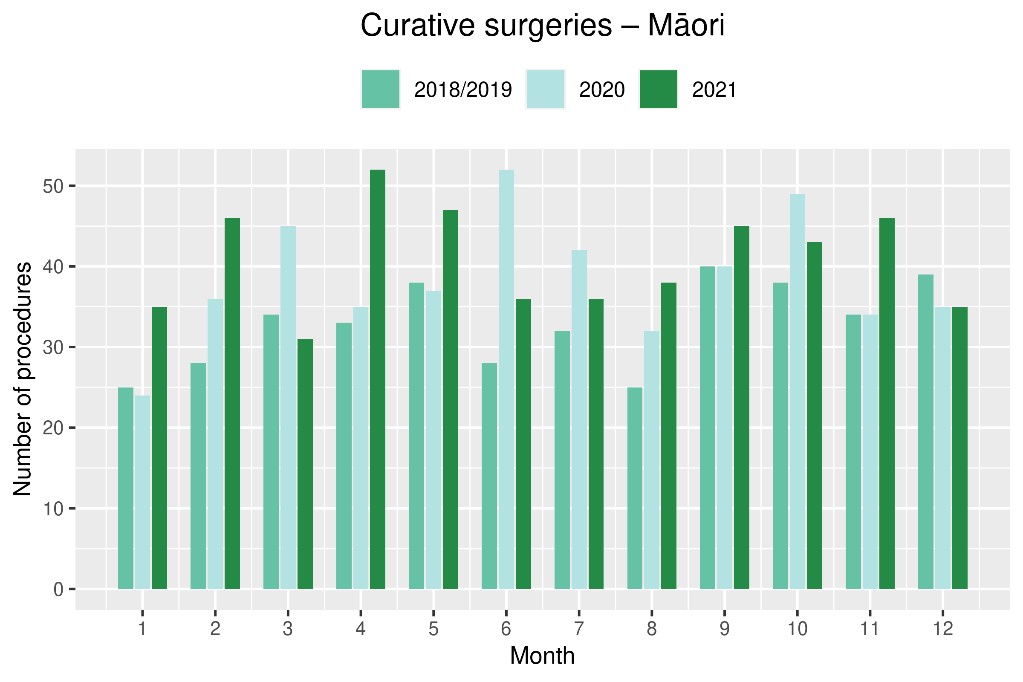
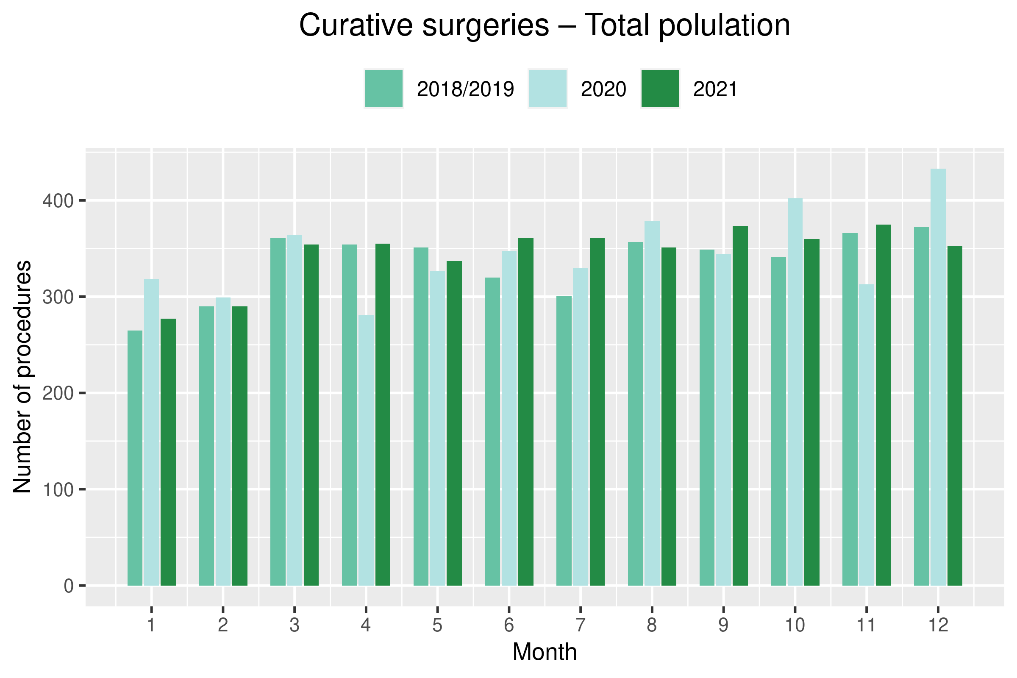
## Results

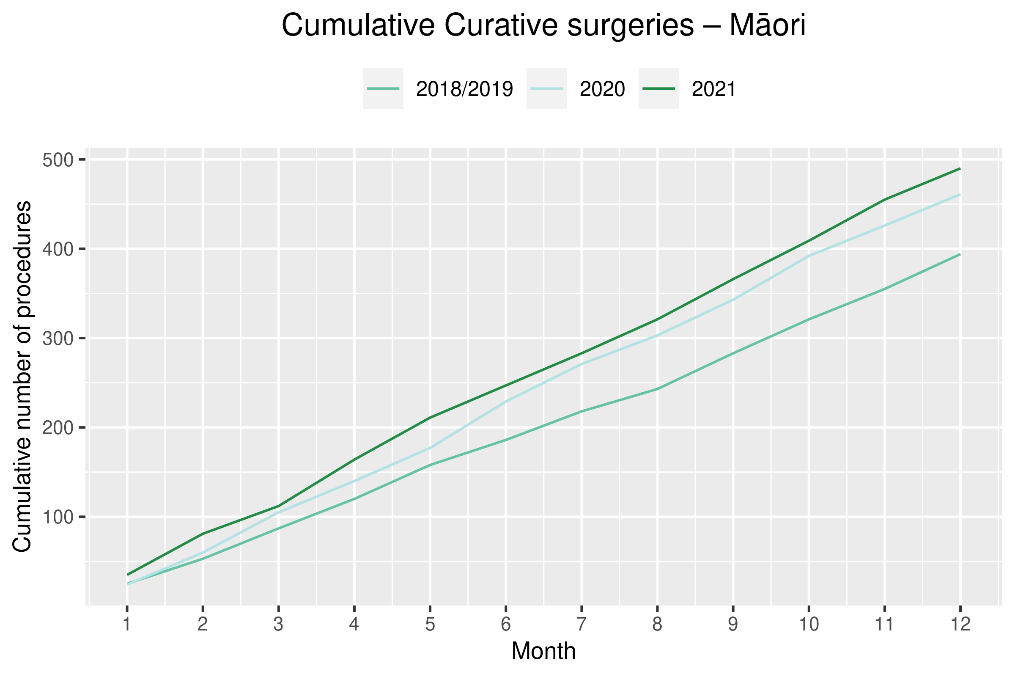
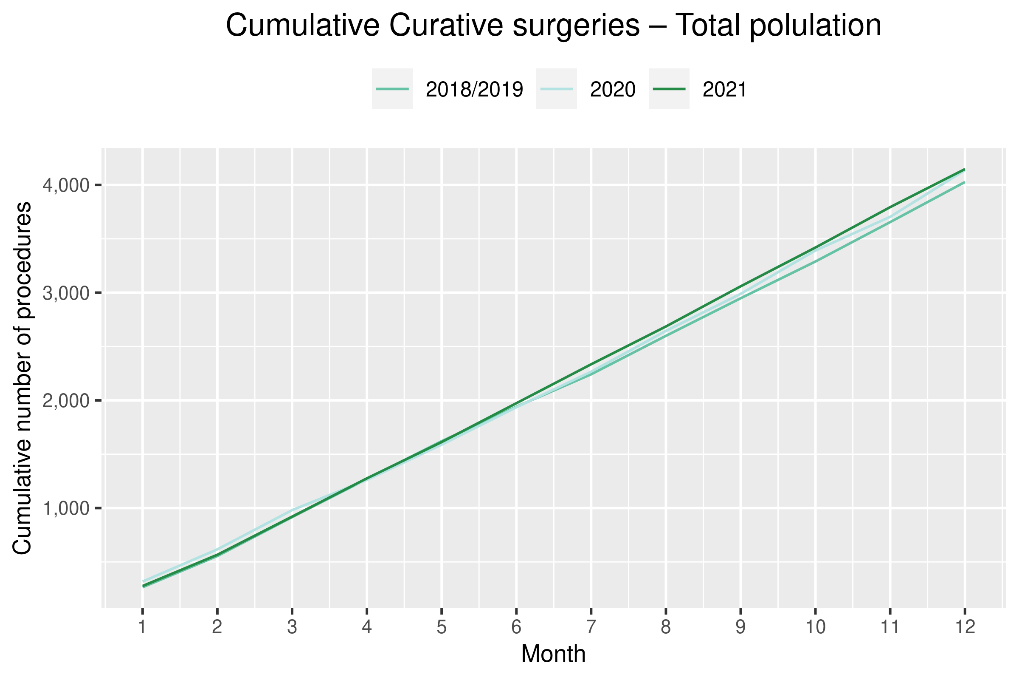
Table : Number of curative cancer surgeries (prostate, colorectal, lung) and percentage difference in 2021 compared to 2018/2019 average by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori\* | - | - | - | - | - | - | - | - | - | 392 | 490 | 25% |
| Pacific peoples\* | - | - | - | - | - | - | - | - | - | 131 | 167 | 28% |
| Non-Māori/Non-Pacific | 289 | 304 | 5% | 321 | 317 | -1% | 317 | 299 | -6% | 3,502 | 3,490 | 0% |
| Total population | 341 | 360 | 6% | 366 | 375 | 3% | 372 | 353 | -5% | 4,024 | 4,147 | 3% |

\*Due to small numbers, monthly figures have not been included for Māori and Pacific peoples

Figure : Number of curative cancer surgeries (prostate, colorectal, lung) by month, 2018/19 average, 2020 and 2021, total population and Māori





# Colorectal cancer surgery

## Notes on data

* The surgical procedure codes used for analysing colorectal cancer are listed in Appendix 4.
* The data were extracted from the NMDS on 2 February 2022.

## Key points

* There were 9% fewer curative colorectal cancer surgeries performed in November 2021 compared with November 2018/19 and 13% fewer performed in December 2021 compared with December 2018/19.
* Overall, there has been a 2% decrease in curative colorectal cancer surgeries performed in 2021 compared with 2018/19.

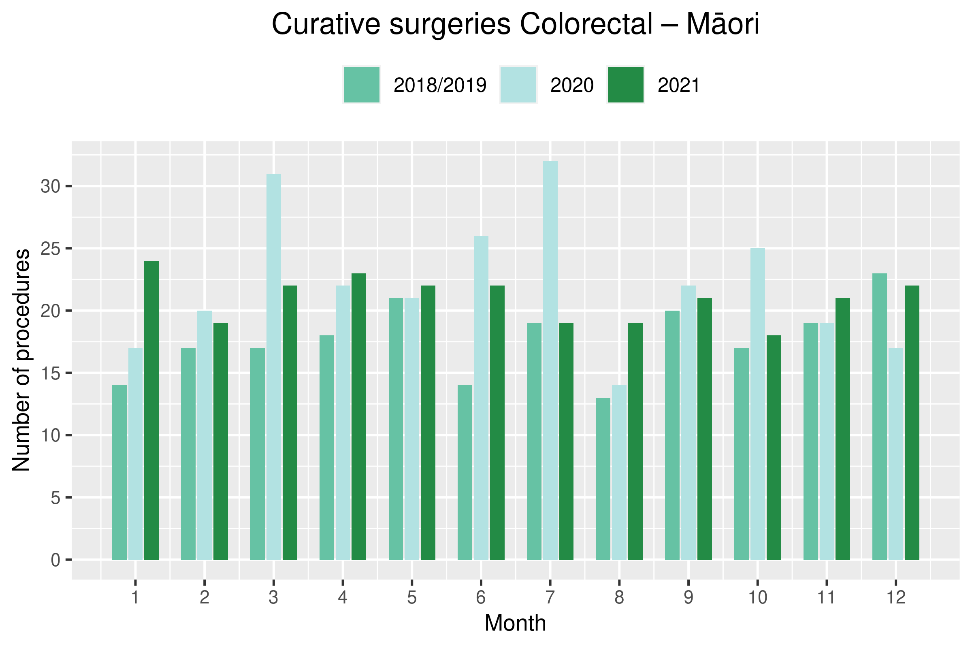
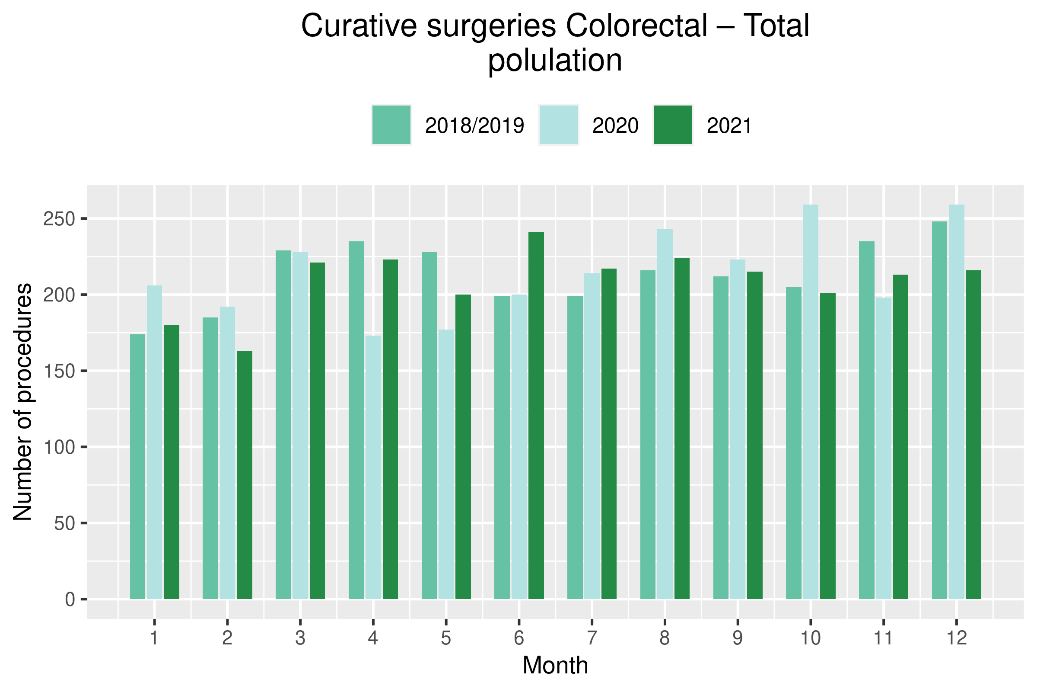
## Results

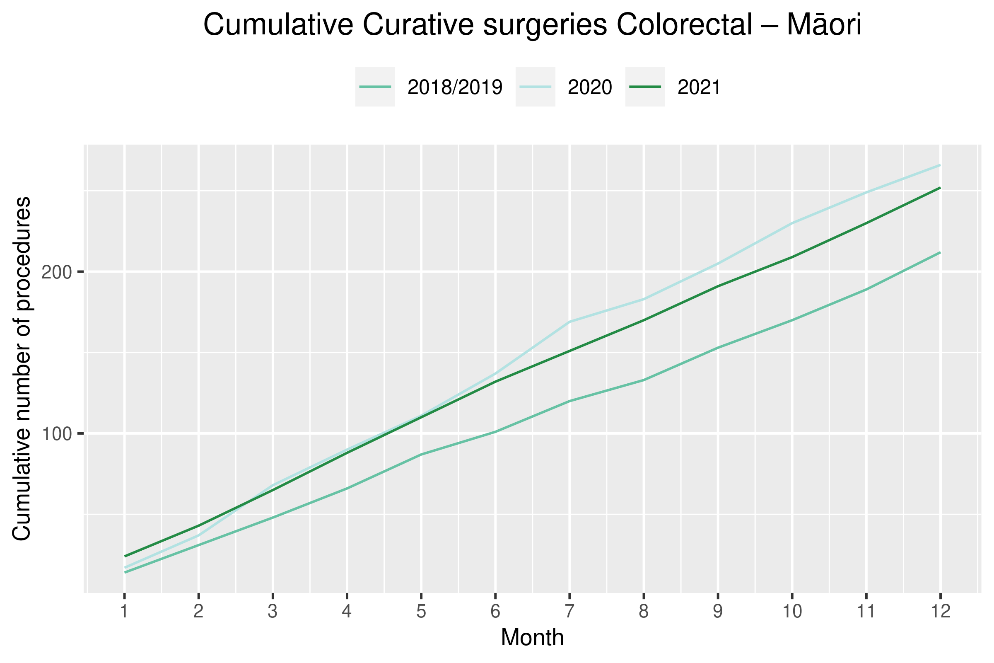
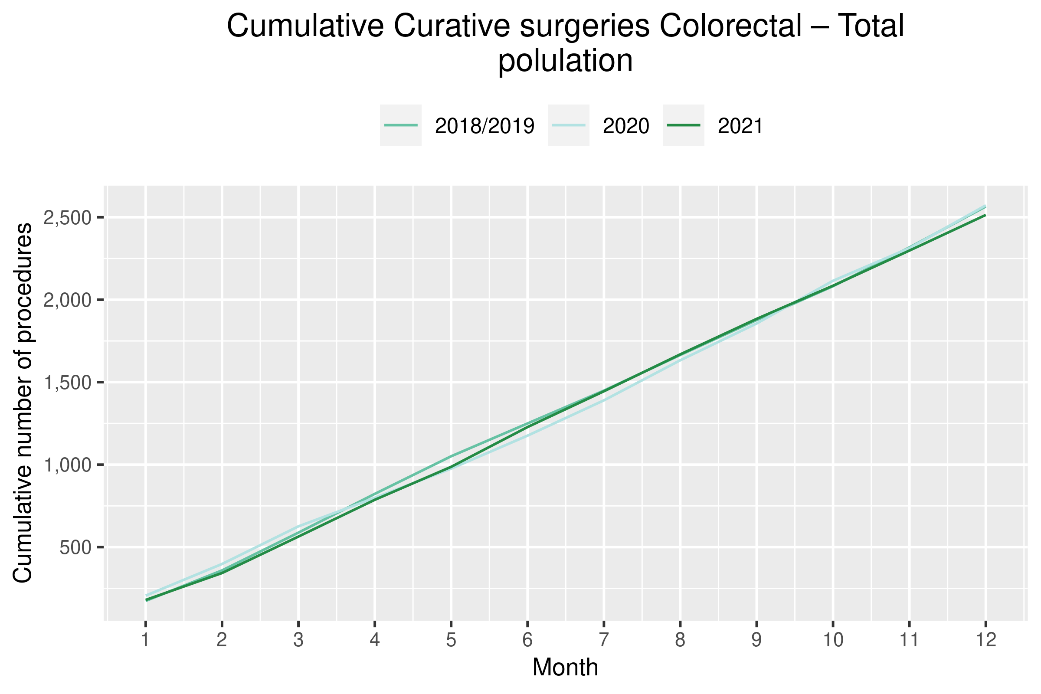
Table : Number of curative colorectal cancer surgeries and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | | **November** | | | | **December** | | | | **Cumulative January-December** | | | | |
|  | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | | **2021** | **% change** | **2018/19** | **2021** | | **% change** |
| Māori\* | - | - | | - | - | - | | - | - | - | | - | 209 | | 252 | 21% |
| Pacific peoples\* | - | | - | - | - | | - | - | - | | - | - | 80 | 93 | | 17% |
| Non-Māori/Non-Pacific | 179 | | 175 | -2% | 210 | | 183 | -13% | 216 | | 185 | -14% | 2,274 | 2,169 | | -5% |
| Total population | 205 | | 201 | -2% | 235 | | 213 | -9% | 248 | | 216 | -13% | 2,562 | 2,514 | | -2% |

\*Due to small numbers, monthly figures have not been included for Māori and Pacific peoples

**Figure 12: Number of curative colorectal cancer surgeries by month, 2018/19 average, 2020 and 2021, total population and Māori**





# Lung cancer surgery

## Notes on data

* A list of the surgical procedure codes used for analysis are included in Appendix 4.
* The data were extracted from the NMDS on 2 February 2022.
* The number of lung cancer surgeries performed each month is relatively small, so caution is needed when comparing data by month.

## Key points

* There was an increase in curative lung cancer surgeries in November and December 2021 compared to November and December 2018/19 with 21 more surgeries in November 2021 and 10 more surgeries in December 2021 compared with 2018/19.
* Overall, for 2021 there were 5% more lung cancer surgeries performed (34 more surgeries) compared to 2018/19, and an increase in the number of surgeries for Māori (11%, 13 more surgeries).

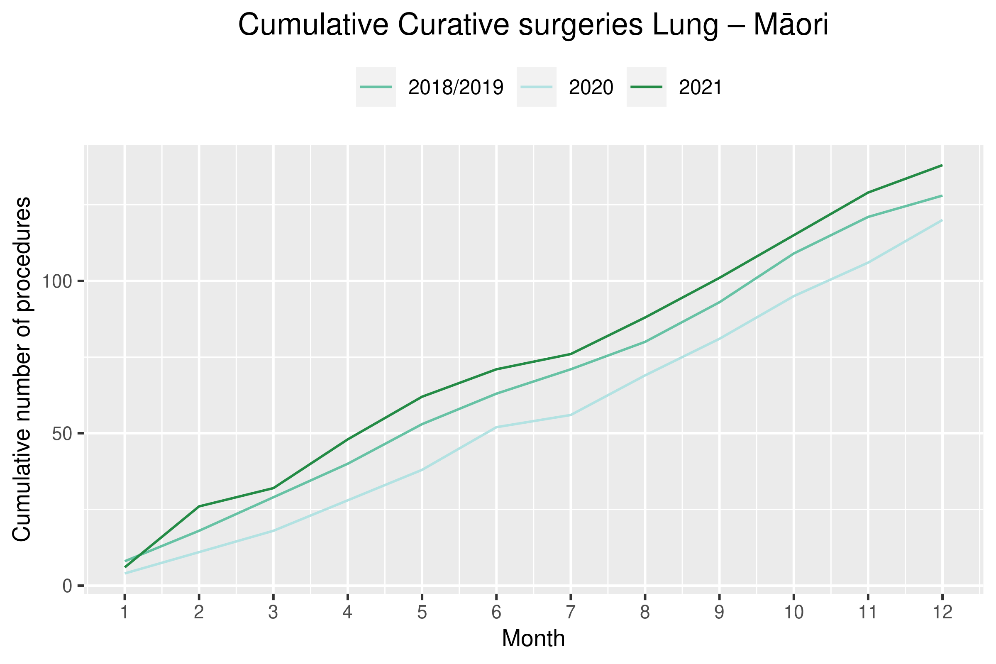
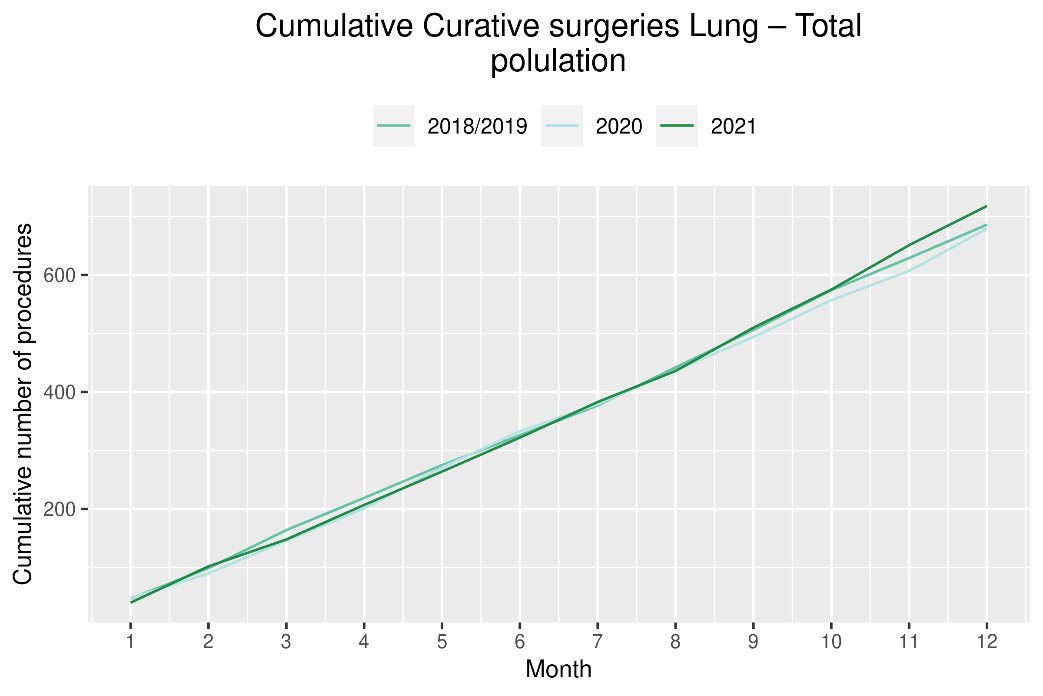
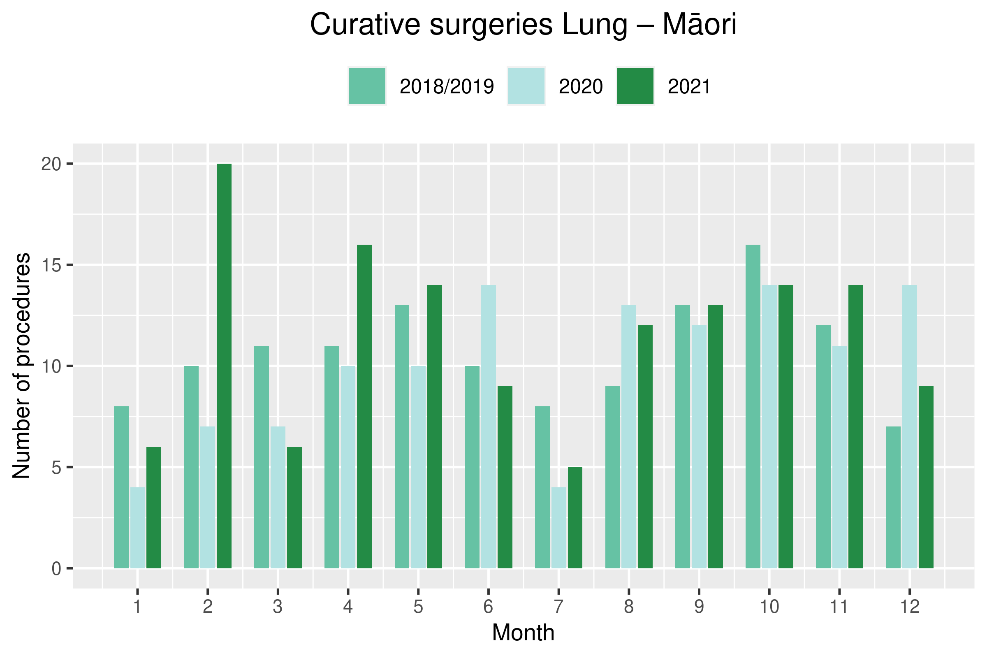
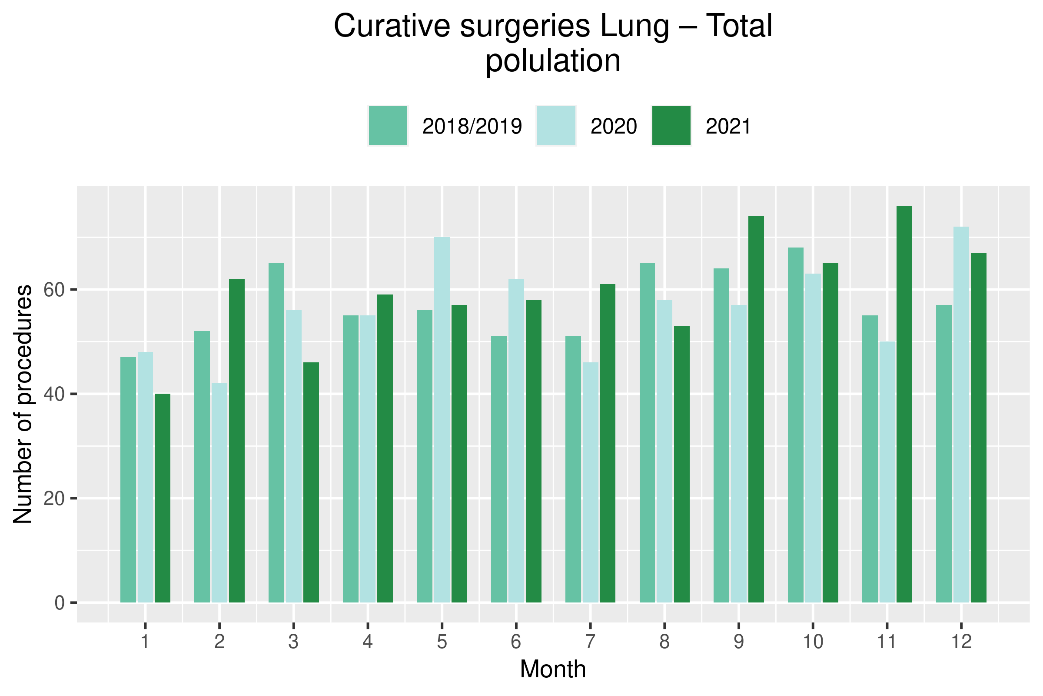
## Results

Table : Number of curative lung cancer surgeries and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori\* | - | - | - | - | - | - | - | - | - | 125 | 138 | 11% |
| Pacific peoples\* | - | - | - | - | - | - | - | - | - | 31 | 30 | -3% |
| Non-Māori/Non-Pacific | 49 | 49 | 0% | 41 | 62 | 51% | 46 | 55 | 21% | 528 | 550 | 4% |
| Total population | 68 | 65 | -4% | 55 | 76 | 38% | 57 | 67 | 19% | 684 | 718 | 5% |

\* Due to small numbers, monthly figures have not been included for Māori and Pacific peoples

Figure : Number of curative lung cancer surgeries by month, 2018/19 average, 2020 and 2021, total population and Māori (cumulative only due to small numbers)



# Prostate cancer surgery

## Notes on data

* A list of the surgical procedure codes used for analysis are included in Appendix 4.
* The data was extracted from the NMDS on 2 February 2022.
* The volumes for prostate surgery are higher in this report than previously reported due to the inclusion of data from a private provider who provides publicly funded surgery.
* The number of curative prostate cancer surgeries performed each month is relatively small, so caution is needed when comparing data by month.

## Key points

* There has been an increase in prostate cancer surgeries performed in Novembers 2021 compared to November 2018/19 (14%, 10 more surgeries) and for December 2021 compared to December 2018/19 (4%, 3 more surgeries)
* For 2021 overall, there has been an increase in prostate cancer surgery of 18% compared to 2018/19.

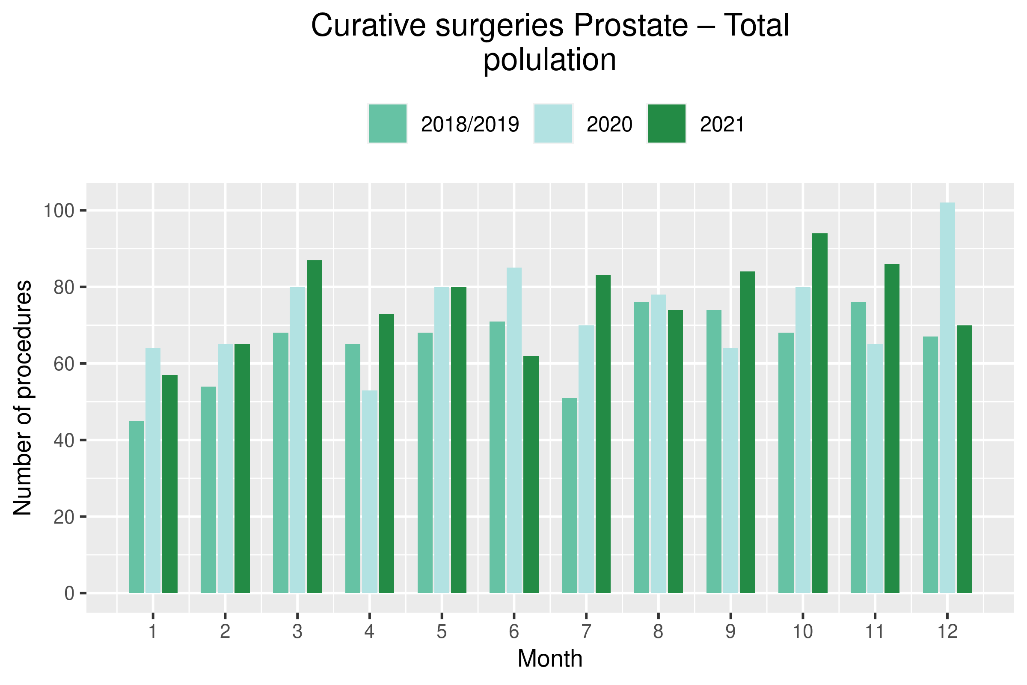
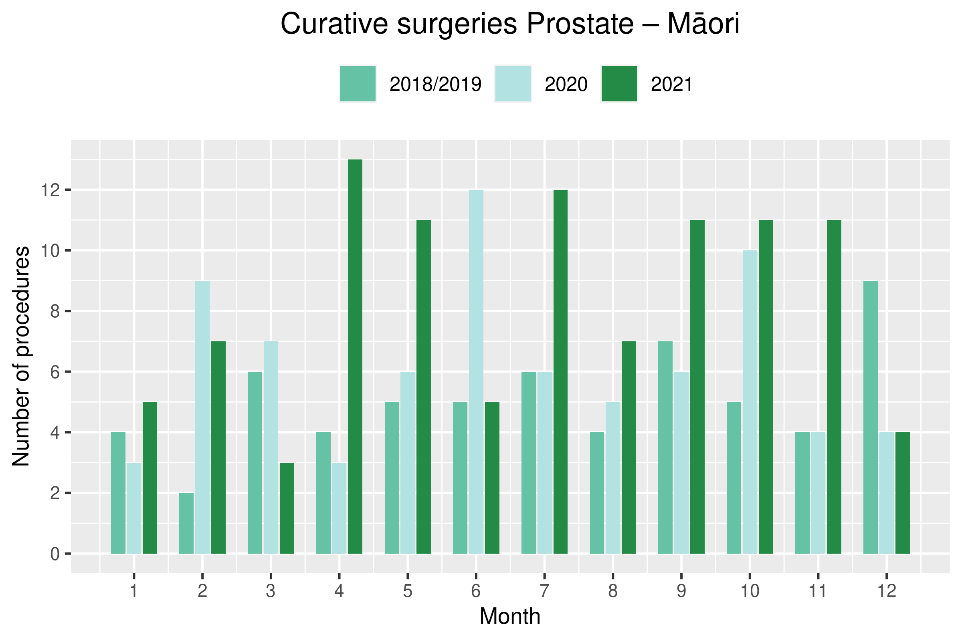
## Results

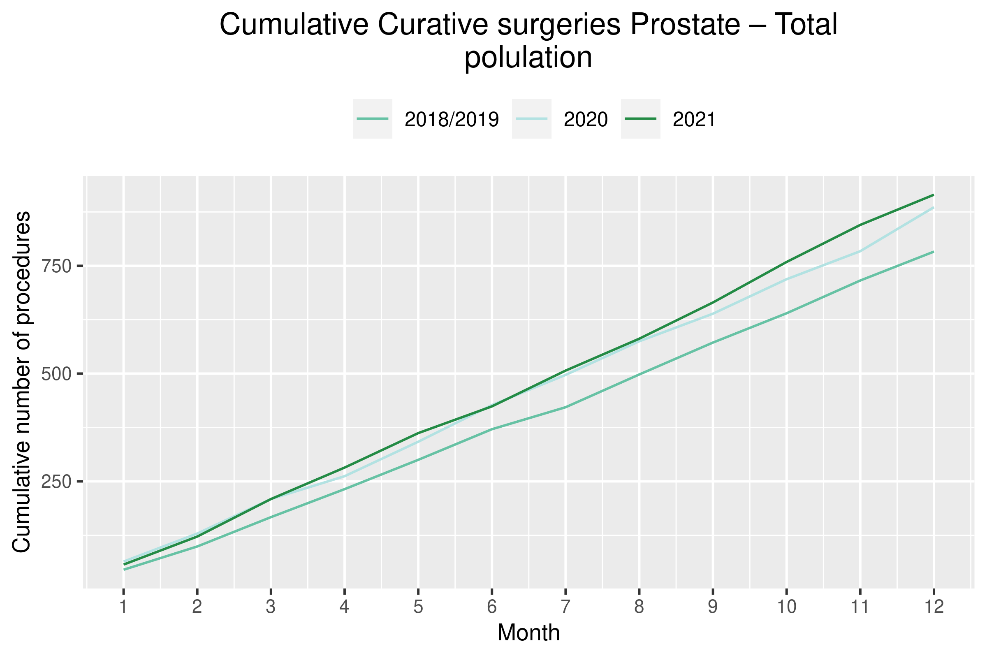
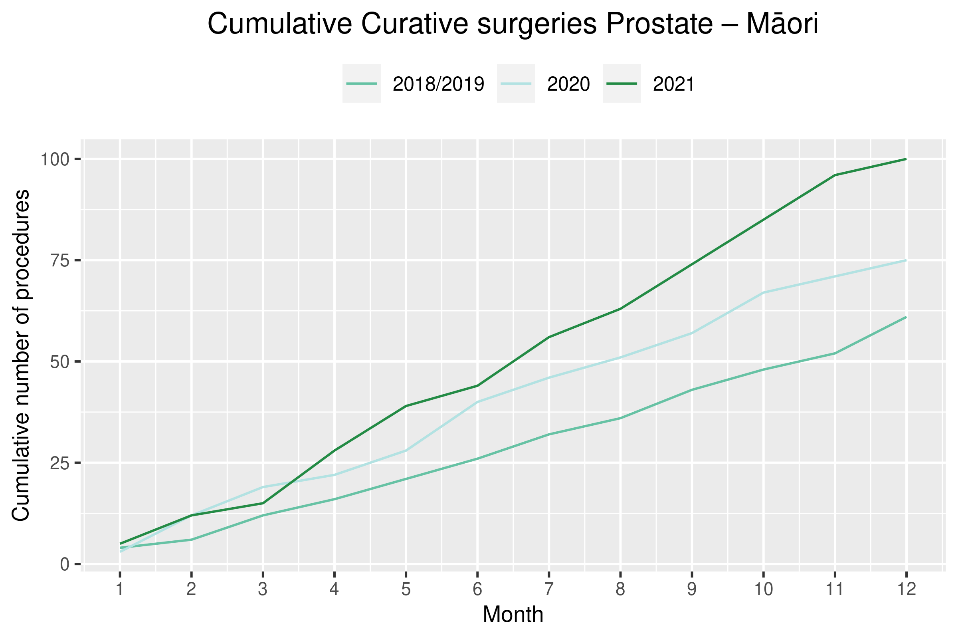
Table : Number of curative prostate cancer surgeries and percentage difference in 2021 compared to 2018/2019 average by month and cumulative year to date

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Total population | 68 | 94 | 38% | 76 | 86 | 14% | 67 | 70 | 4% | 779 | 915 | 18% |

\* Due to small numbers, monthly figures have not been included for ethnic subgroups

Figure : Number of curative prostate cancer surgeries by month, 2018/19 average, 2020 and 2021, total population and Māori (cumulative only due to small numbers)

# Medical oncology

## Notes on data

* Data were extracted from NNPAC 2 February 2022.
* First specialist assessment (FSA) reflects counts of first attendance for specialist medical oncology assessment.
* Intravenous (IV) chemotherapy reflects appointments for outpatient and inpatient IV chemotherapy for non-haematological indications.
* Technical information: medical oncology FSA (PUC M50020) and IV chemotherapy (PUC MS02009).

## Key points

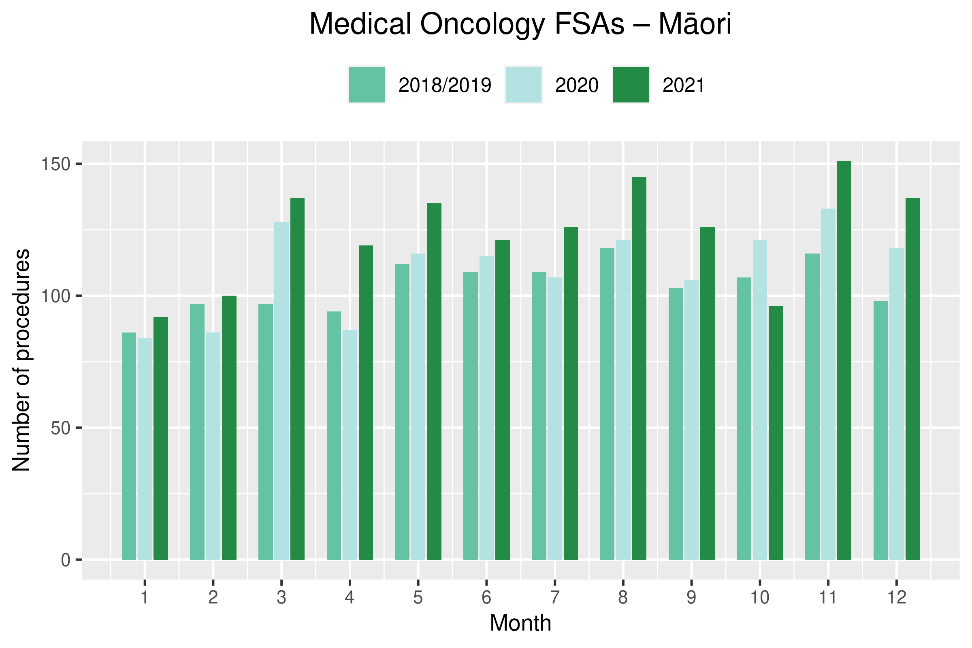
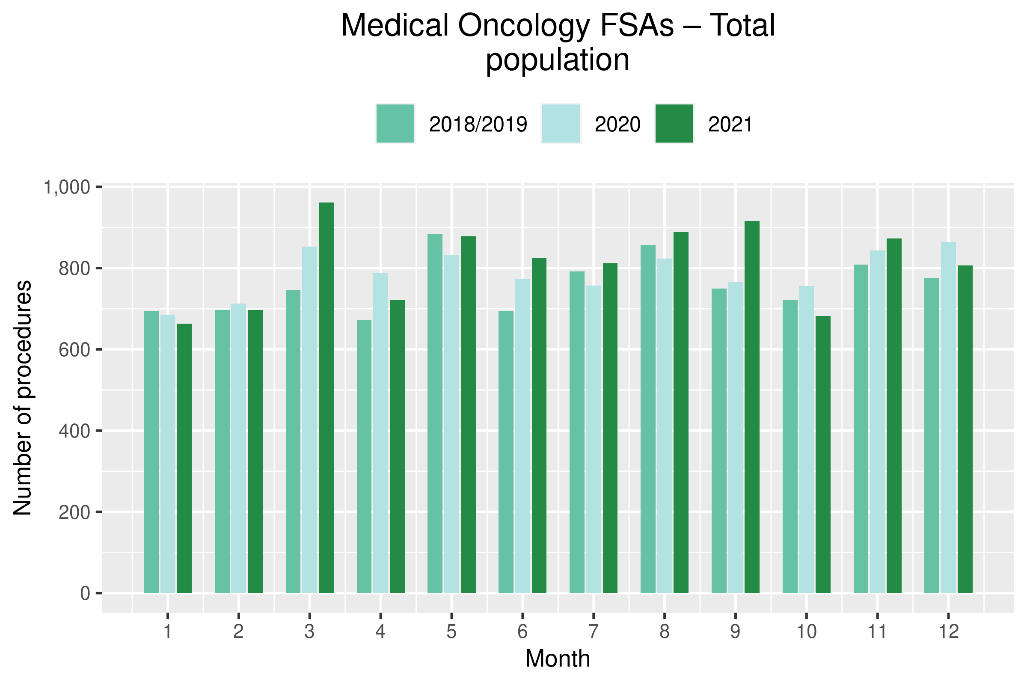
* Attendances for medical oncology first specialist appointments (FSAs) increased by 9% in November 2021 compared to November 2018/19 and increased by 4% in December 2021 compared to December 2018/19. This is a return to baseline compared to the previous report where there was a decrease in FSAs seen in October 2021 compared with October 2018/19.
* Overall, there was a 7% increase in FSAs in 2021 compared with 2018/19.
* Attendances for intravenous (IV) chemotherapy decreased by 4% in October 2021 compared with October 2018/19. For November and December 2021 there has been an increase of 9% and 8%, respectively, seen in attendances compared with November and December 2018/19.
* For 2021 overall, these was an 8% increase in IV chemotherapy attendances compared with 2018/19. There was a larger increase for Māori (28%) and Pacific peoples (30%) than for non-Māori/non-Pacific (4%)

## Results

Table : Number of medical oncology first specialist assessments and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 107 | 96 | -10% | 116 | 155 | 34% | 98 | 137 | 40% | 1,243 | 1,485 | 20% |
| Pacific peoples | 33 | 33 | 0% | 38 | 60 | 60% | 36 | 45 | 25% | 422 | 514 | 22% |
| Non-Māori/Non-Pacific | 581 | 553 | -5% | 656 | 666 | 2% | 641 | 625 | -2% | 7,421 | 7,725 | 4% |
| Total population | 721 | 682 | -5% | 809 | 881 | 9% | 775 | 807 | 4% | 9,086 | 9,724 | 7% |

Figure : Number of medical oncology first specialist assessments by month, 2018/19 average, 2020 and 2021, total population and Māori



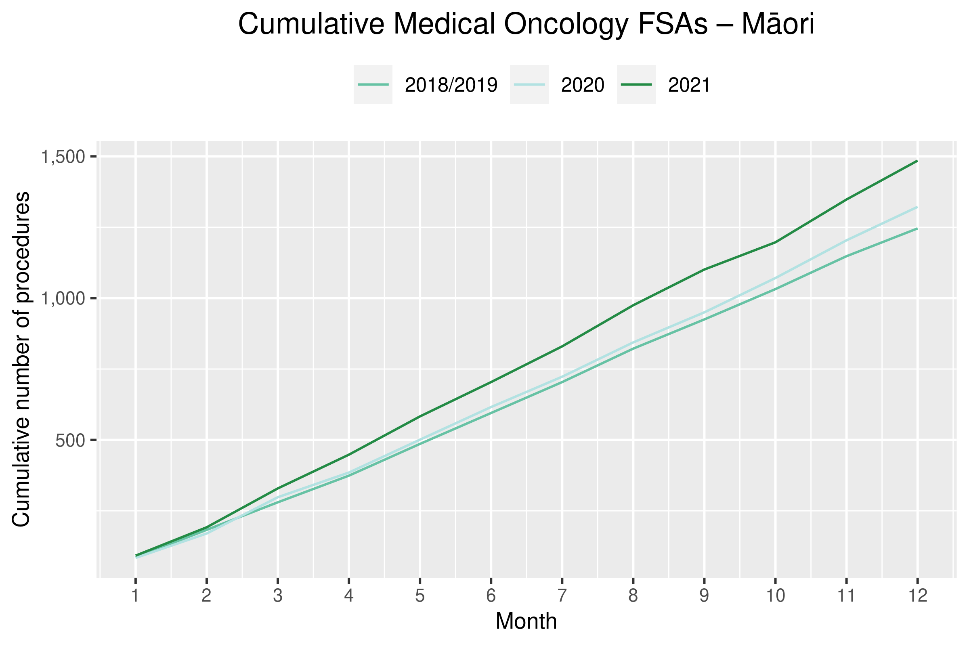
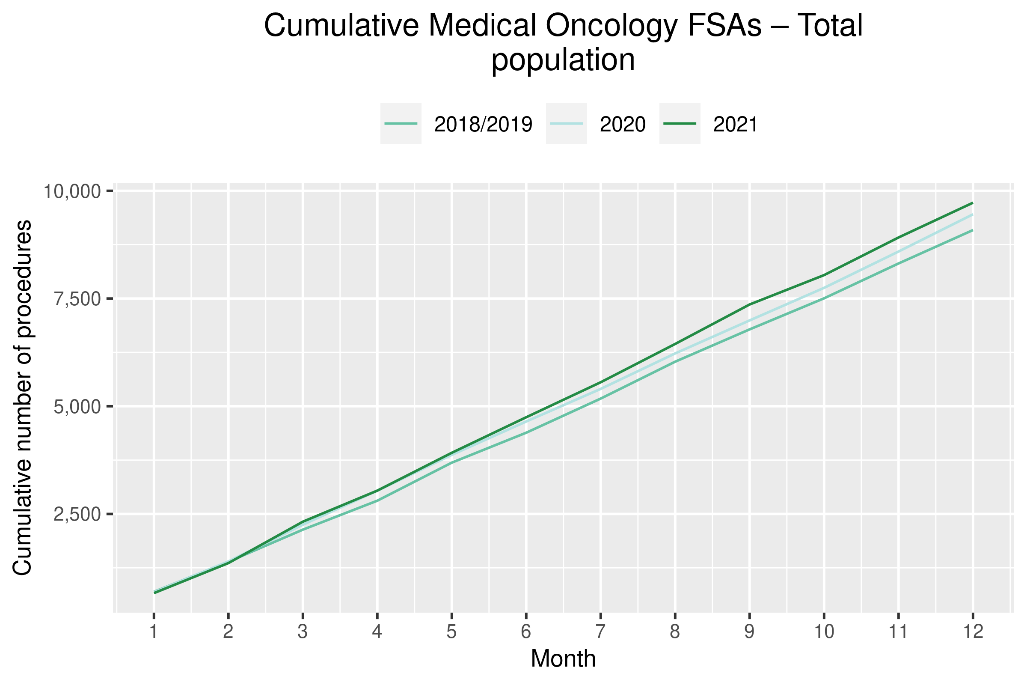
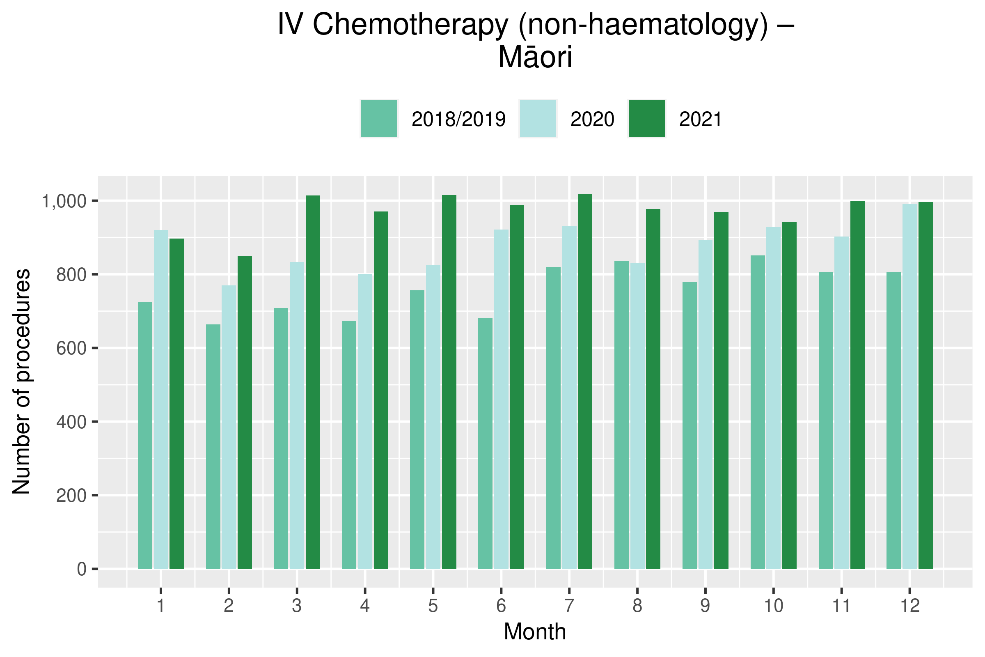


Table : Number of IV chemotherapy attendances and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 851 | 943 | 11% | 807 | 999 | 24% | 806 | 996 | 24% | 9,108 | 11,638 | 28% |
| Pacific peoples | 303 | 337 | 11% | 286 | 361 | 26% | 270 | 328 | 21% | 3,256 | 4,236 | 30% |
| Non-Māori/Non-Pacific | 5,551 | 5,189 | -7% | 5,178 | 5,463 | 6% | 4,938 | 5,191 | 5% | 60,144 | 62,318 | 4% |
| Total population | 6,705 | 6,469 | -4% | 6,271 | 6,823 | 9% | 6,014 | 6,515 | 8% | 72,508 | 78,192 | 8% |

Figure : Number of IV chemotherapy attendances by month, 2018/19 average, 2020 and 2021, total population and Māori



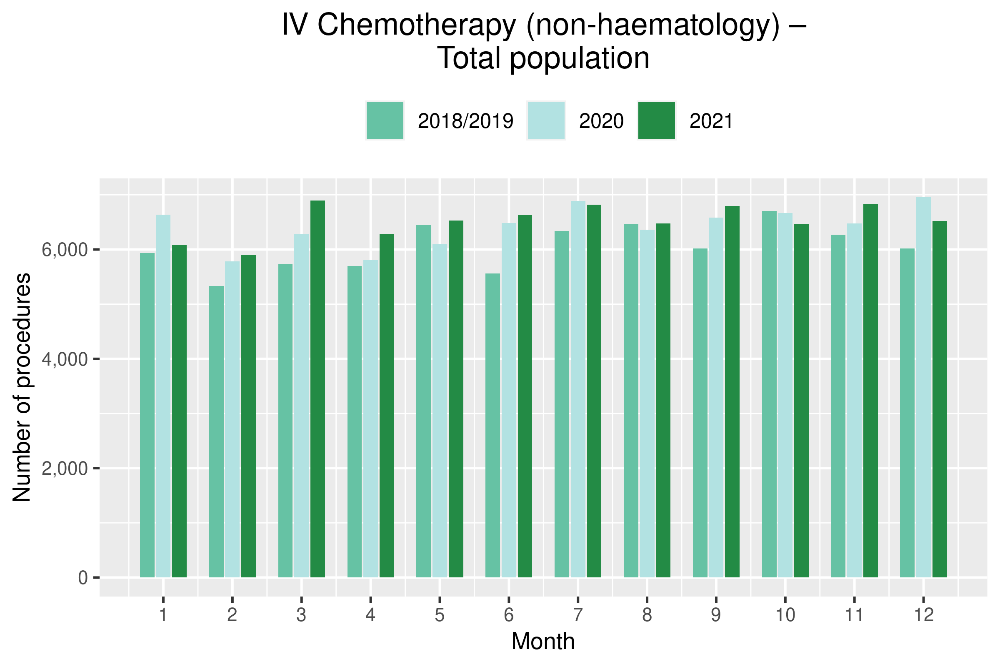
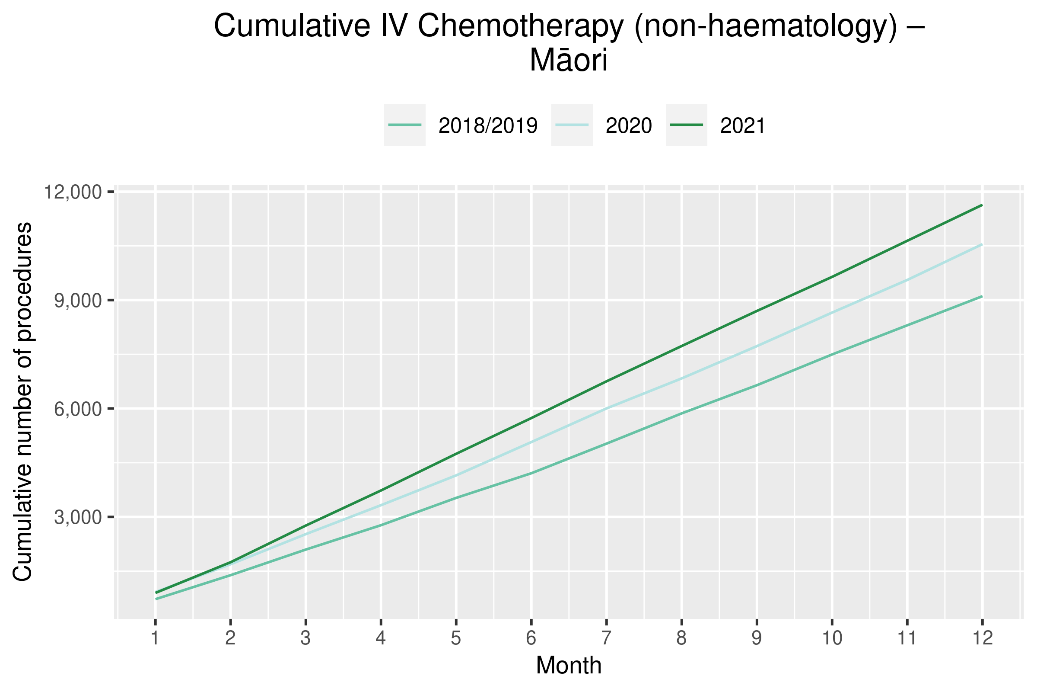
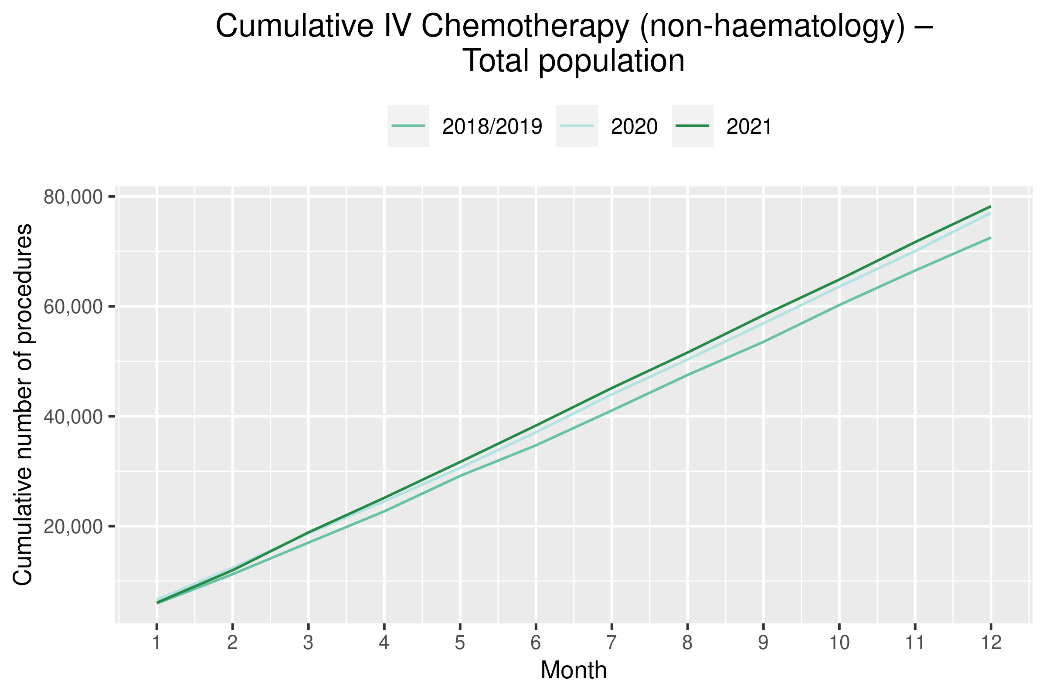


Figure : Cumulative number of attendances for IV chemotherapy, 2018/19 average, 2020 and 2021, total population and for Māori



# Radiation oncology

## Notes on data

* Data were extracted from NNPAC on 2 February 2022.
* First specialist assessment (FSA) reflects counts of first attendance for radiation oncology specialist assessment.
* Radiation therapy attendances include appointments for planning/simulation and for treatment with radiation therapy on a linear accelerator.
* Technical information: radiation oncology FSA (PUC M50022), megavoltage attendances (Purchase Unit Code M50025)

## Key points

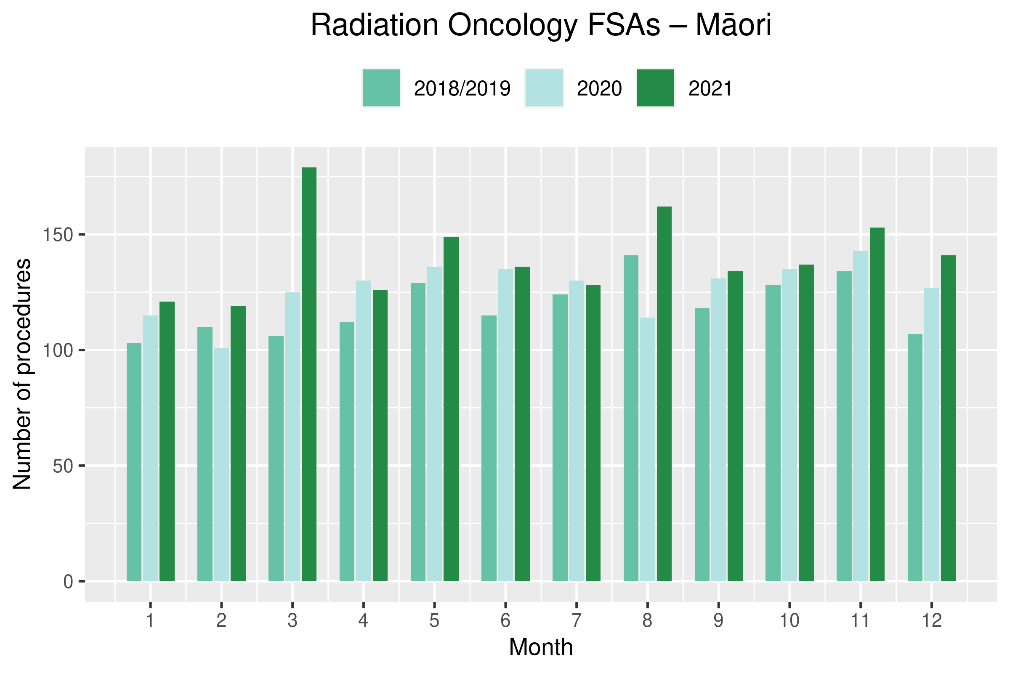
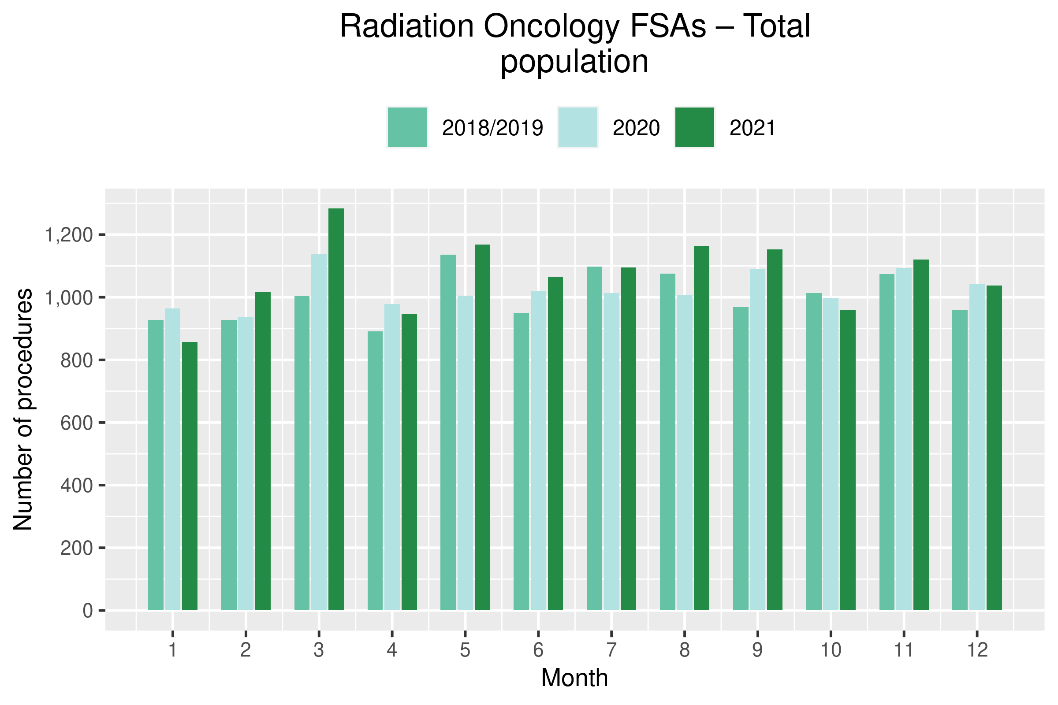
* Attendances for radiation oncology FSAs increased by 4% in November 2021 compared to November 2018/19 and increased by 8% in December 2021 compared to December 2018/19. This is a return to baseline compared to the previous report where there was a decrease of 5% in attendances for FSAs in October 2021 compared with October 2018/19.
* Overall, there was a 7% increase in radiation oncology FSAs in 2021 compared with 2018/19.
* Attendances for radiation therapy decreased by 3% in 2021 compared to 2018/19. Te Aho o Te Kahu has further investigated this by exploring data related to course of treatment, in addition to individual attendances for radiation therapy. Data show that courses of treatment are not decreasing, therefore the trends seen here are likely to be related to utilisation of hypofractionation[[2]](#footnote-3).
* For Māori and Pacific peoples, radiation therapy attendances have increased from 2018/19 to 2021.

## Results

Table : Number of radiation oncology first specialist assessments and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 128 | 137 | 7% | 134 | 153 | 15% | 107 | 141 | 32% | 1,423 | 1,685 | 18% |
| Pacific peoples | 49 | 41 | -15% | 51 | 48 | -5% | 37 | 46 | 26% | 547 | 579 | 6% |
| Non-Māori/Non-Pacific | 838 | 781 | -7% | 890 | 920 | 3% | 815 | 851 | 4% | 10,053 | 10,603 | 5% |
| Total population | 1,014 | 959 | -5% | 1,074 | 1,121 | 4% | 958 | 1,038 | 8% | 12,022 | 12,867 | 7% |

Figure : Number of radiation oncology first specialist assessments by month, 2018/19 average, 2020 and 2021, total population and Māori



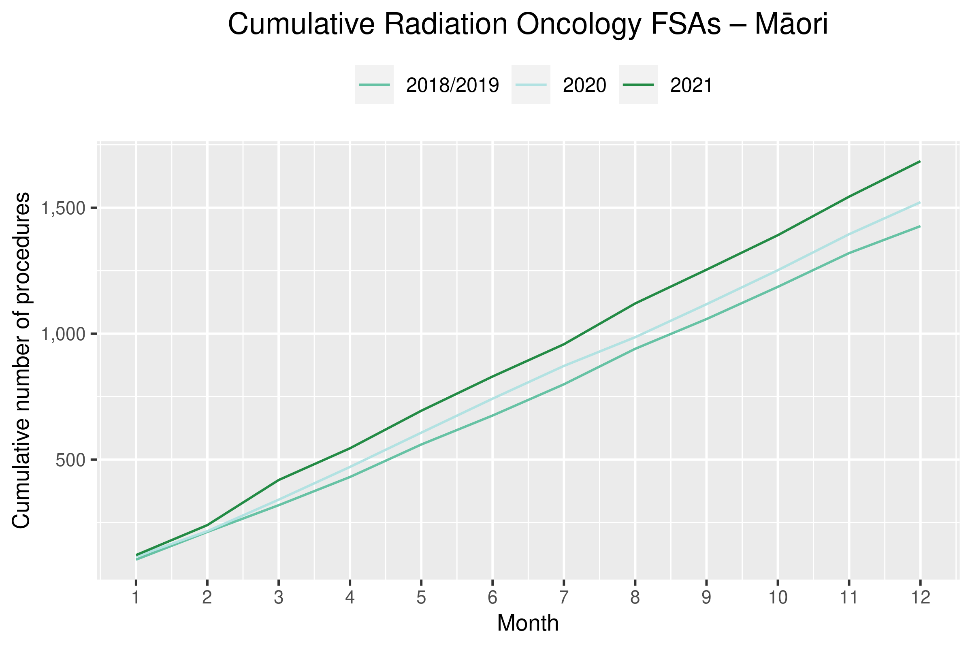
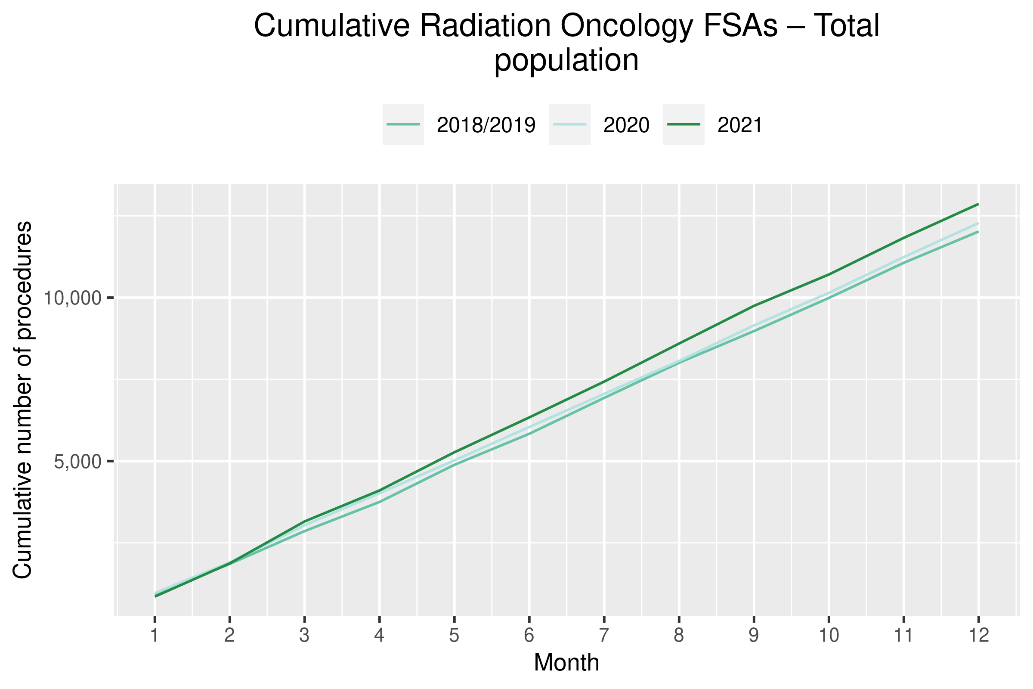


Table : Number of radiation oncology attendances and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 1,906 | 1,895 | -1% | 1,964 | 1,871 | -5% | 1,731 | 2,075 | 20% | 21,506 | 22,448 | 4% |
| Pacific peoples | 570 | 671 | 18% | 597 | 679 | 14% | 605 | 490 | -19% | 6,967 | 7,214 | 4% |
| Non-Māori/Non-Pacific | 11,895 | 10,988 | -8% | 12,021 | 11,545 | -4% | 10,900 | 10,856 | 0% | 139,052 | 132,045 | -5% |
| Total population | 14,371 | 13,554 | -6% | 14,581 | 14,095 | -3% | 13,235 | 13,421 | 1% | 167,524 | 161,707 | -3% |

Figure : Number of radiation therapy attendances by month, 2018/19 average, 2020 and 2021, total population and for Māori

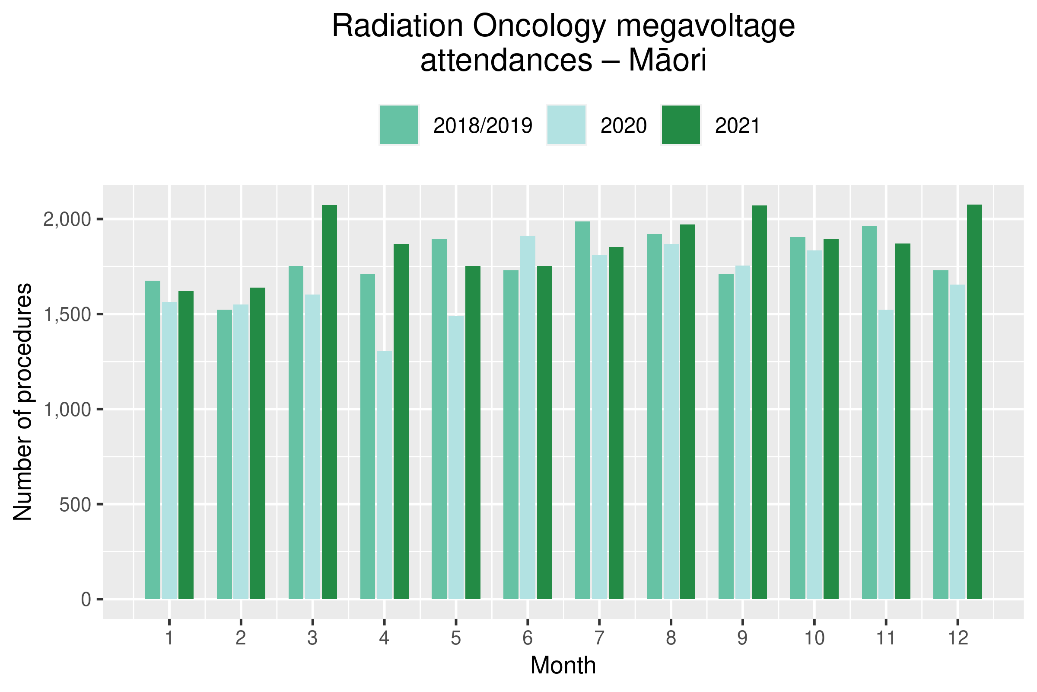
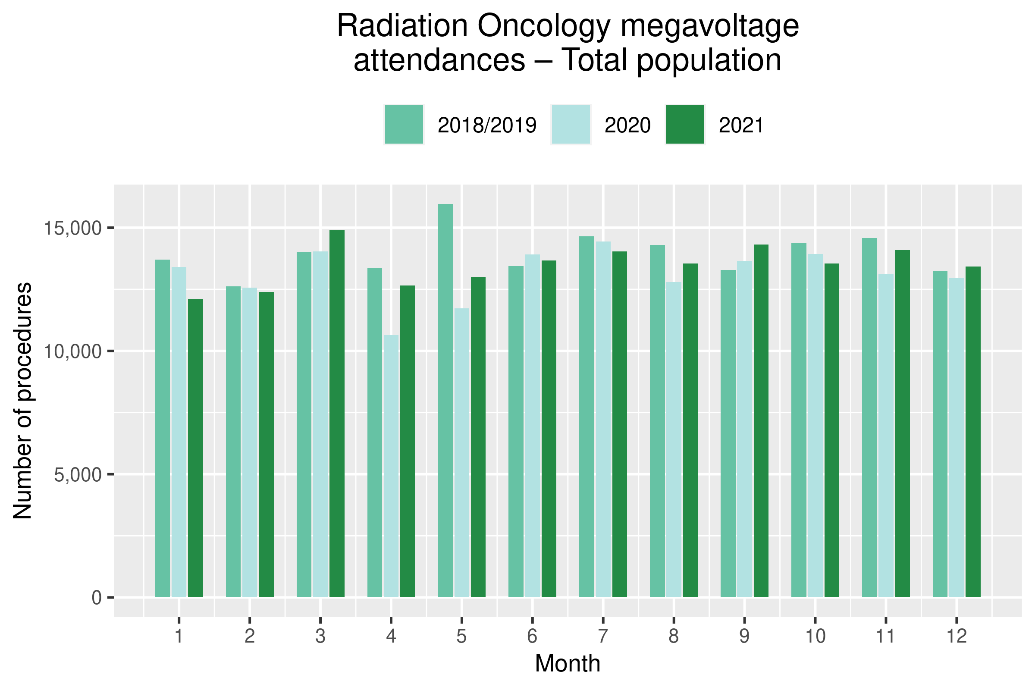
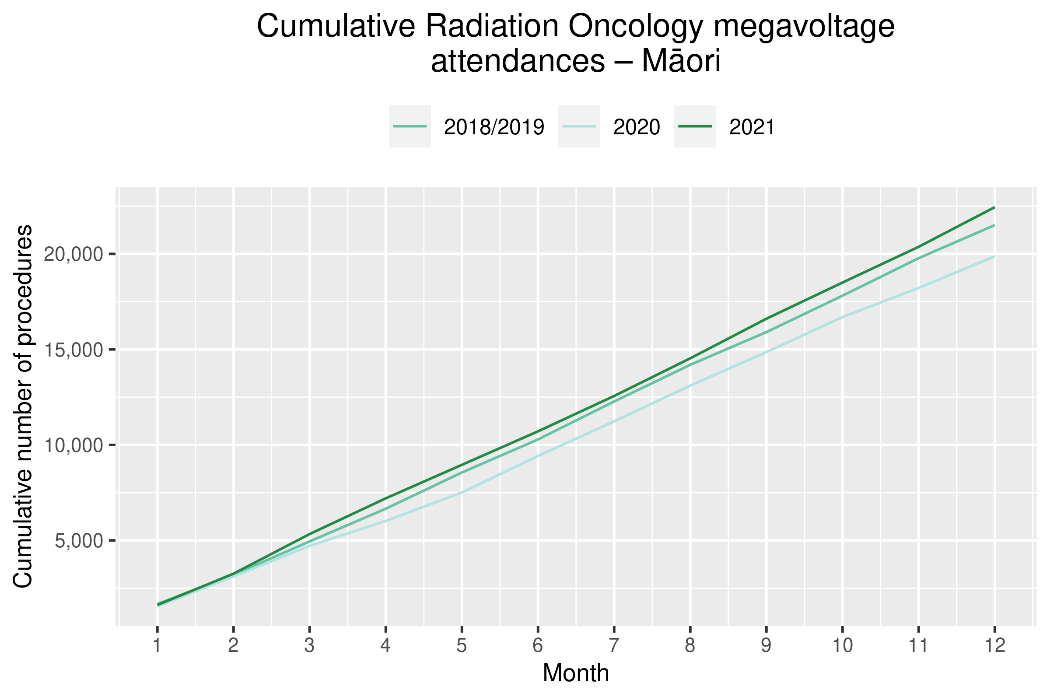
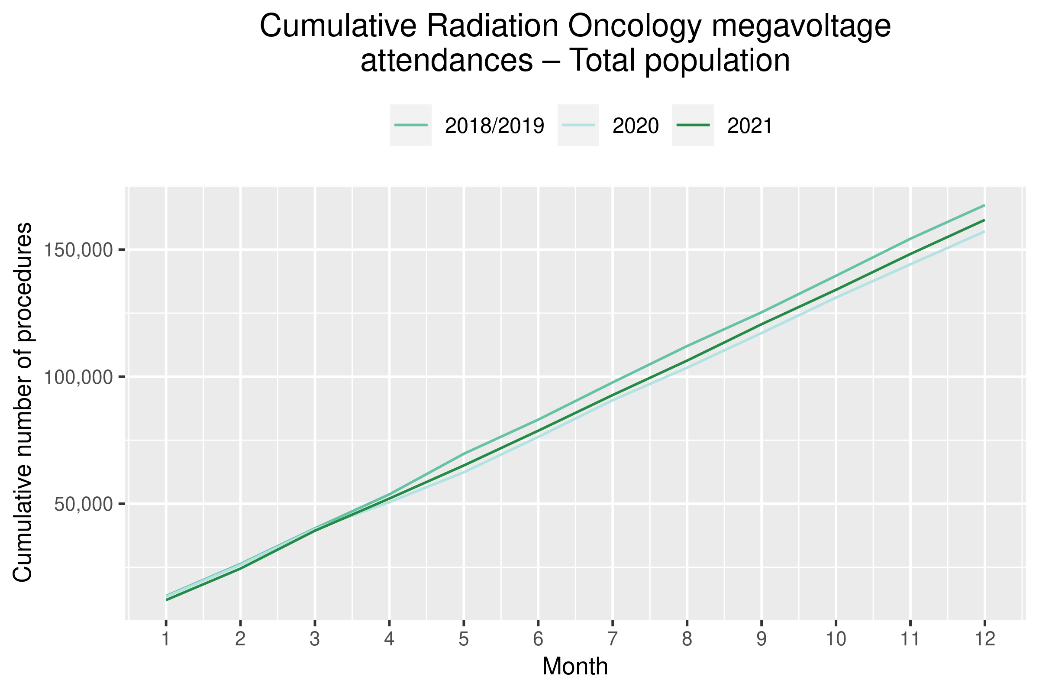


Figure : Cumulative number of attendances for radiation therapy, 2018/19 average, 2020 and 2021, total population and for Māori



# Haematology

## Notes on data

* Data were extracted from NNPAC and NMDS on 2 February 2022.
* First specialist assessment (FSA) reflects counts of first attendance for specialist haematology assessment for any indication, not just cancer.
* IV chemotherapy reflects appointments for IV chemotherapy for haematological malignancies.
* Technical information: Haematology FSA (Purchase Unite Code: M30002), IV haem/chemo (Purchase Unit Code: M30020).

## Key points

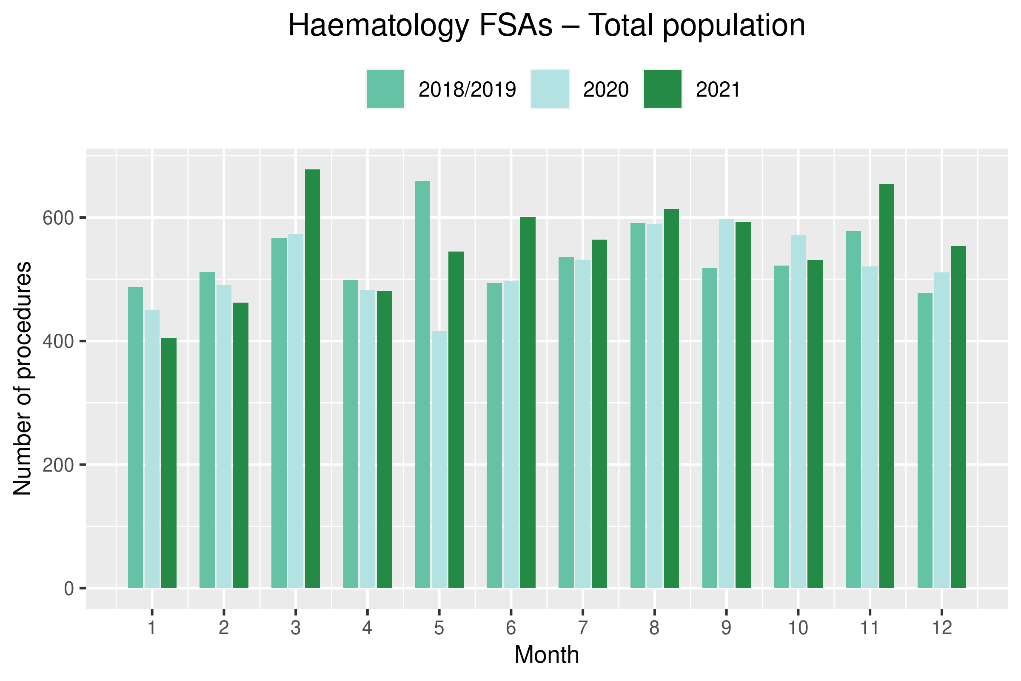
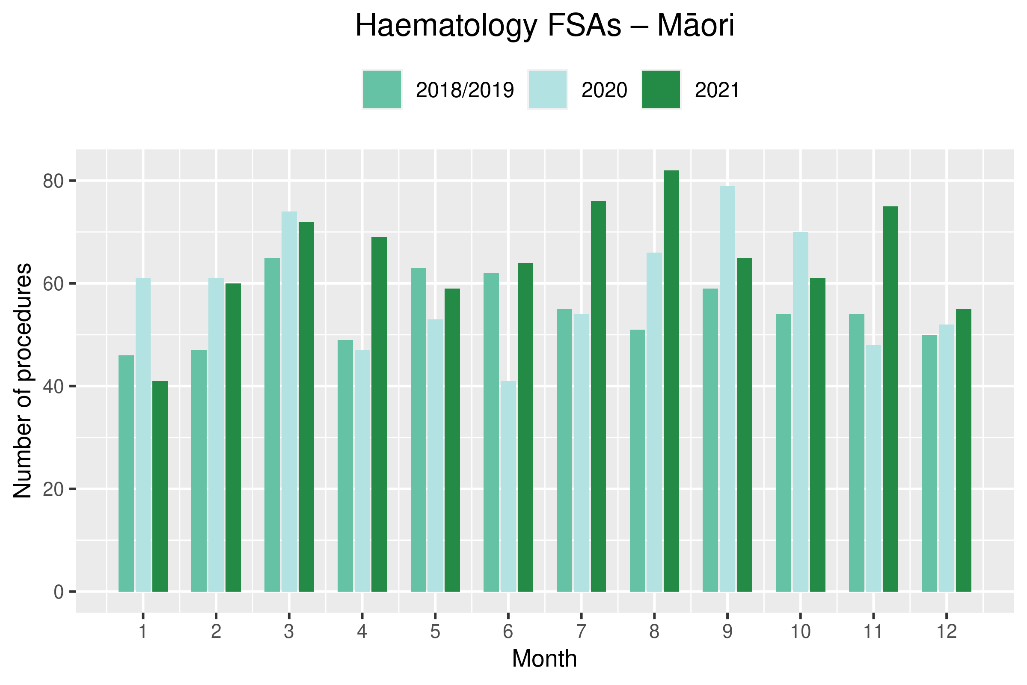
* Attendances for haematology FSAs increased by 13% in November 2021 and 16% in December 2021 compared with the same months in 2018/19.
* Overall, for 2021, there has been a 4% increase in haematology FSAs in 2021 compared to 2018/19, and an 19% increase in haematology FSAs for Māori.
* Attendances for haematology IV chemotherapy increased by 26% in November 2021 compared with November 2018/19 and by 30% in December 2021 compared with December 2018/19.
* For 2021 overall, there has been an 18% increase in haematology IV chemotherapy compare with 2018/19 with a larger increase for Pacific peoples of 48%. This increase was smaller for Māori (7%) and non-Māori/non-Pacific peoples (17%).

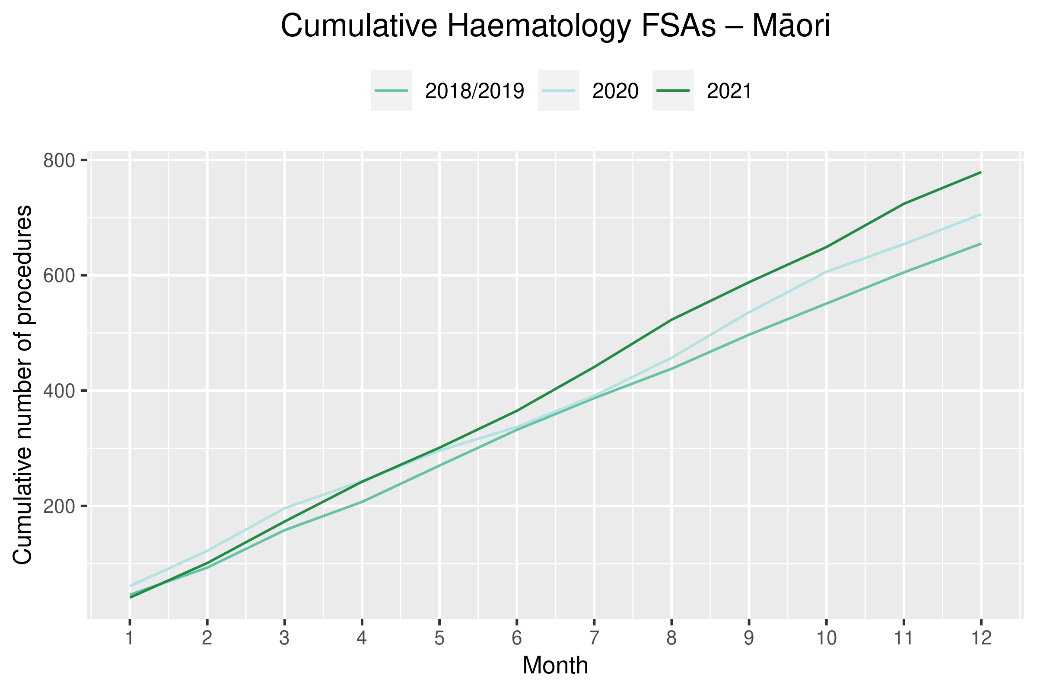
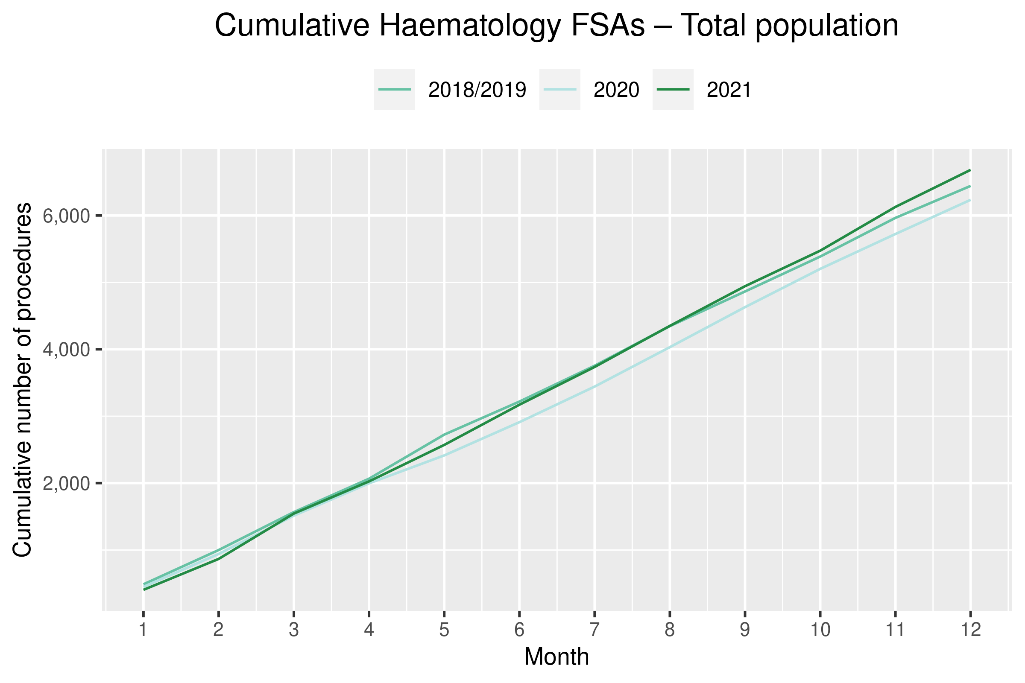
## Results

Table : Number of haematology first specialist assessment attendances and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 54 | 61 | 13% | 54 | 75 | 40% | 50 | 55 | 11% | 653 | 779 | 19% |
| Pacific peoples | 30 | 33 | 10% | 25 | 39 | 56% | 21 | 39 | 86% | 316 | 369 | 17% |
| Non-Māori/Non-Pacific | 438 | 437 | 0% | 500 | 540 | 8% | 408 | 459 | 13% | 5,471 | 5,533 | 1% |
| Total population | 522 | 531 | 2% | 578 | 654 | 13% | 478 | 553 | 16% | 6,440 | 6,681 | 4% |

Figure : Number of haematology first specialist assessments by month, 2018/19 average, 2020 and 2021, total population and Māori



**Table 17: Number of IV chemotherapy attendances for haematological malignancies and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by ethnicity**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | | |
|  | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** | **2018/19** | **2021** | **% change** |
| Māori | 233 | 243 | 5% | 232 | 270 | 16% | 222 | 242 | 9% | 2,489 | 2,663 | 7% |
| Pacific peoples | 100 | 156 | 57% | 93 | 149 | 61% | 75 | 159 | 112% | 1,172 | 1,731 | 48% |
| Non-Māori/Non-Pacific | 1,862 | 1,877 | 1% | 1,738 | 2,186 | 26% | 1,631 | 2,107 | 29% | 20,471 | 24,031 | 17% |
| Total population | 2,194 | 2,276 | 4% | 2,063 | 2,605 | 26% | 1,928 | 2,508 | 30% | 24,131 | 28,425 | 18% |

Figure : Number of attendances for IV chemotherapy for haematological malignancies by month, 2018/19 average, 2020 and 2021, total population and Māori

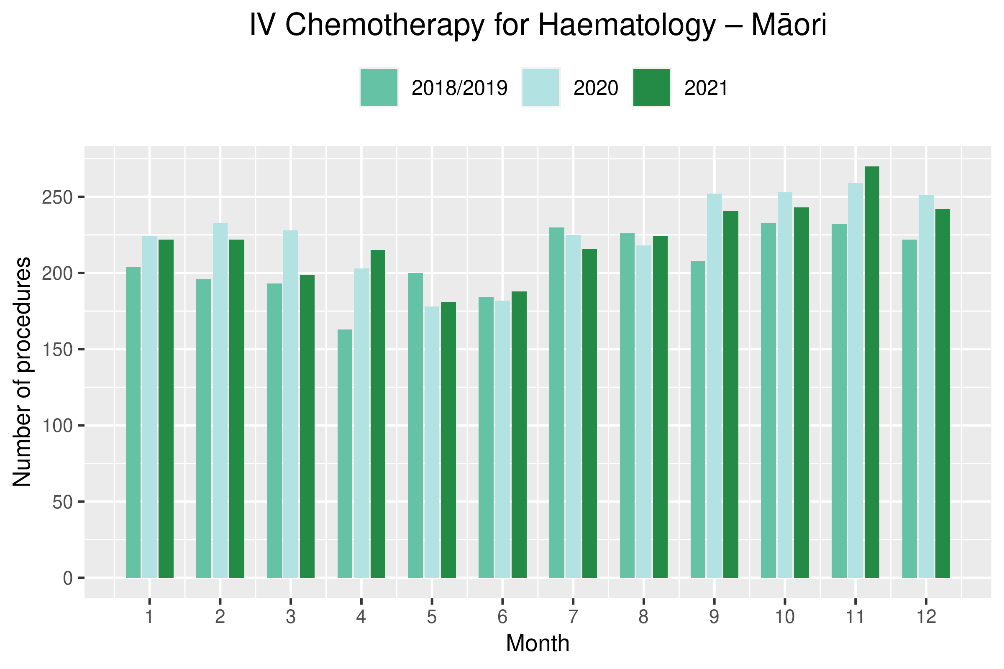
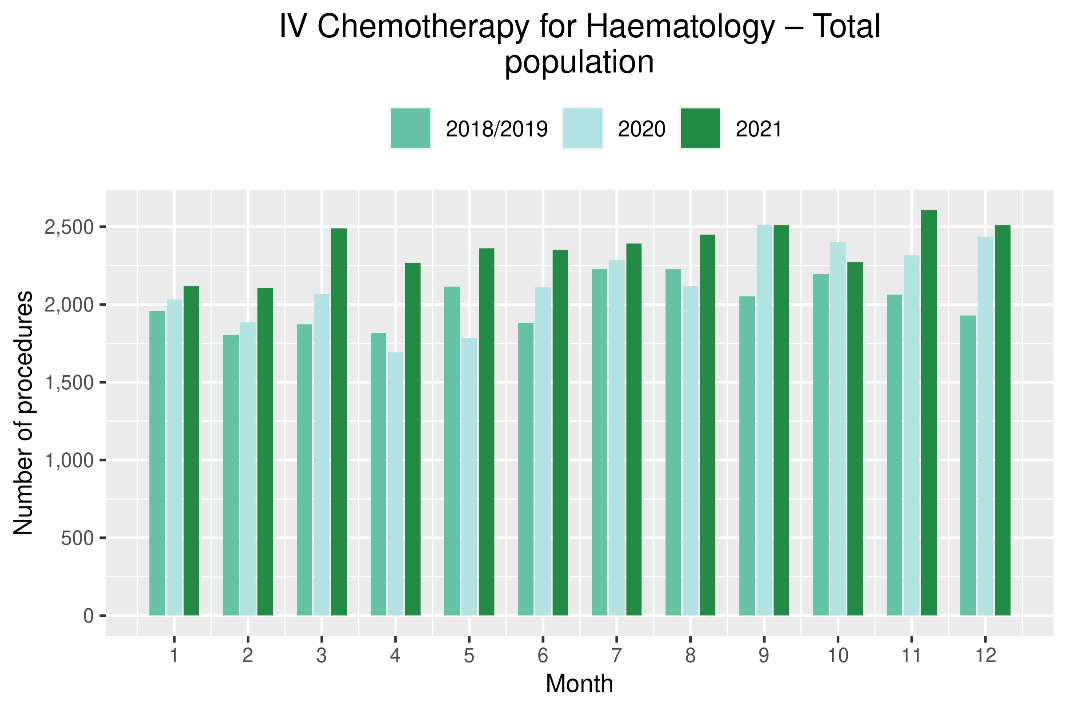
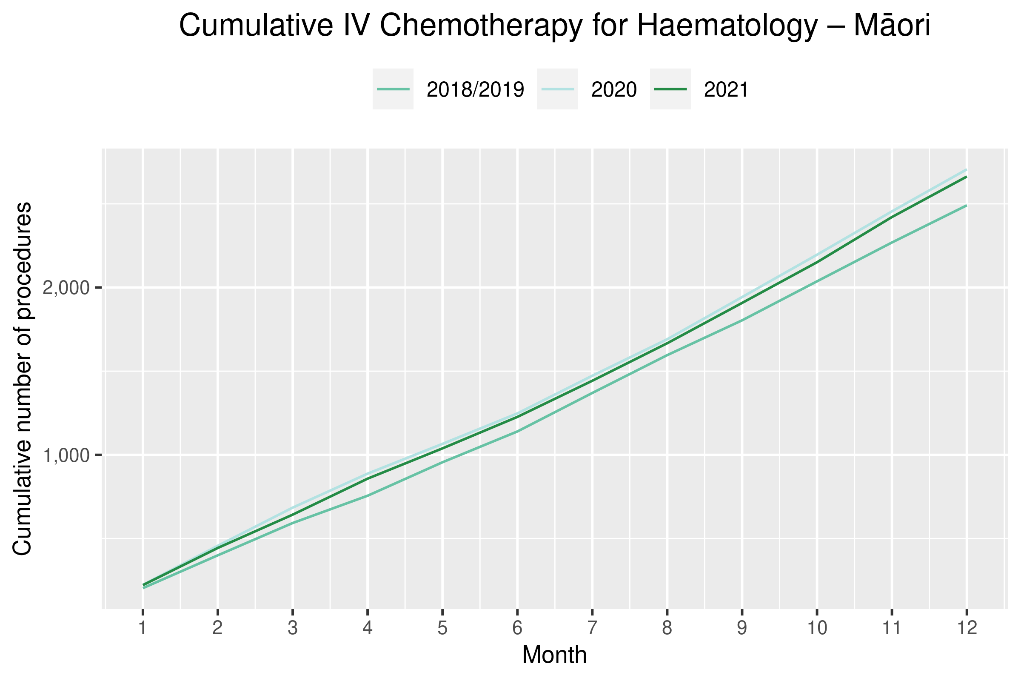
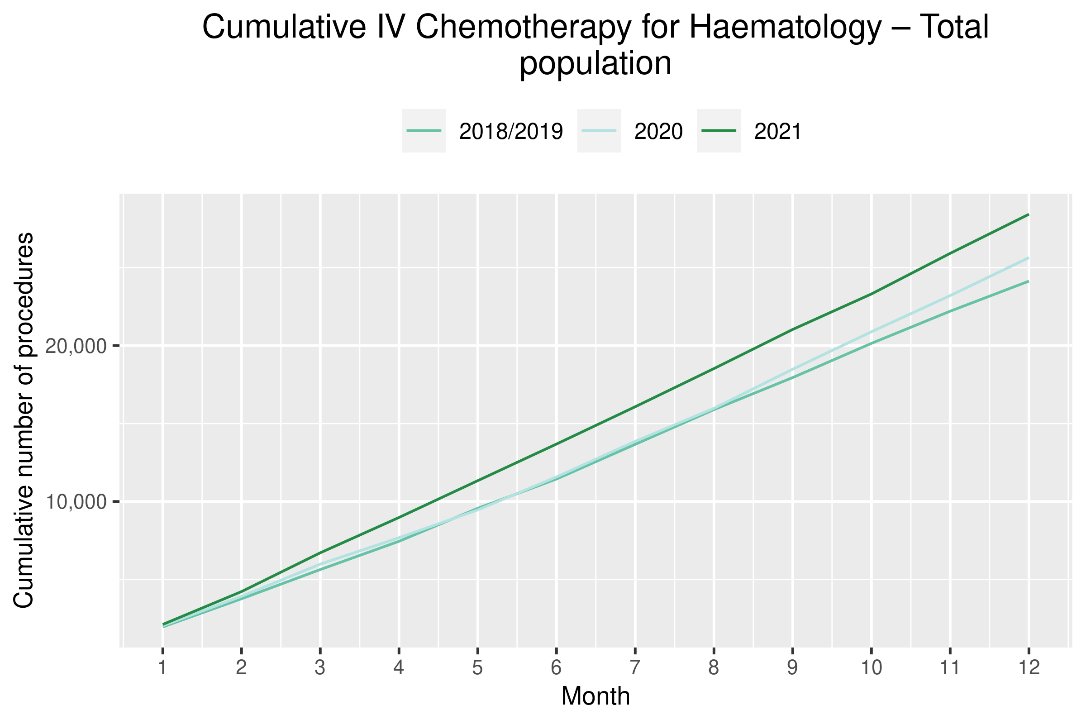


Figure : Cumulative number of attendances for IV chemotherapy for haematological malignancies, 2018/19 average, 2020 and 2021, total population and for Māori



# Appendix 1: NZCR data information

## The New Zealand Cancer Registry as a data source for new cancer diagnoses

Cancer registration is a process where data is collated from multiple sources about people diagnosed with cancer and rules are applied to determine the type of cancer they have. This information is recorded in the New Zealand Cancer Registry. Each tumour is classified using an international World Health Organization standard so that cancer incidence can be compared between countries. The tumour is staged based on all the information available within 4 months of diagnosis. This process may take up to six months or more depending on the number of missing reports that need to be followed up with laboratories.

For each registration there may be multiple pathology reports as there may be multiple procedures performed on the tumour. This means there will be more than one registration for people diagnosed with more than one type of tumour.

Cancer registrations come from pathology laboratories, haematology laboratories, mortality records and reviewing hospital discharge records. Laboratory reports provide the best source of near real time data to monitor new diagnoses of cancer in New Zealand.

## Pathology reports as a data source for providing near real time monitoring cancer diagnoses

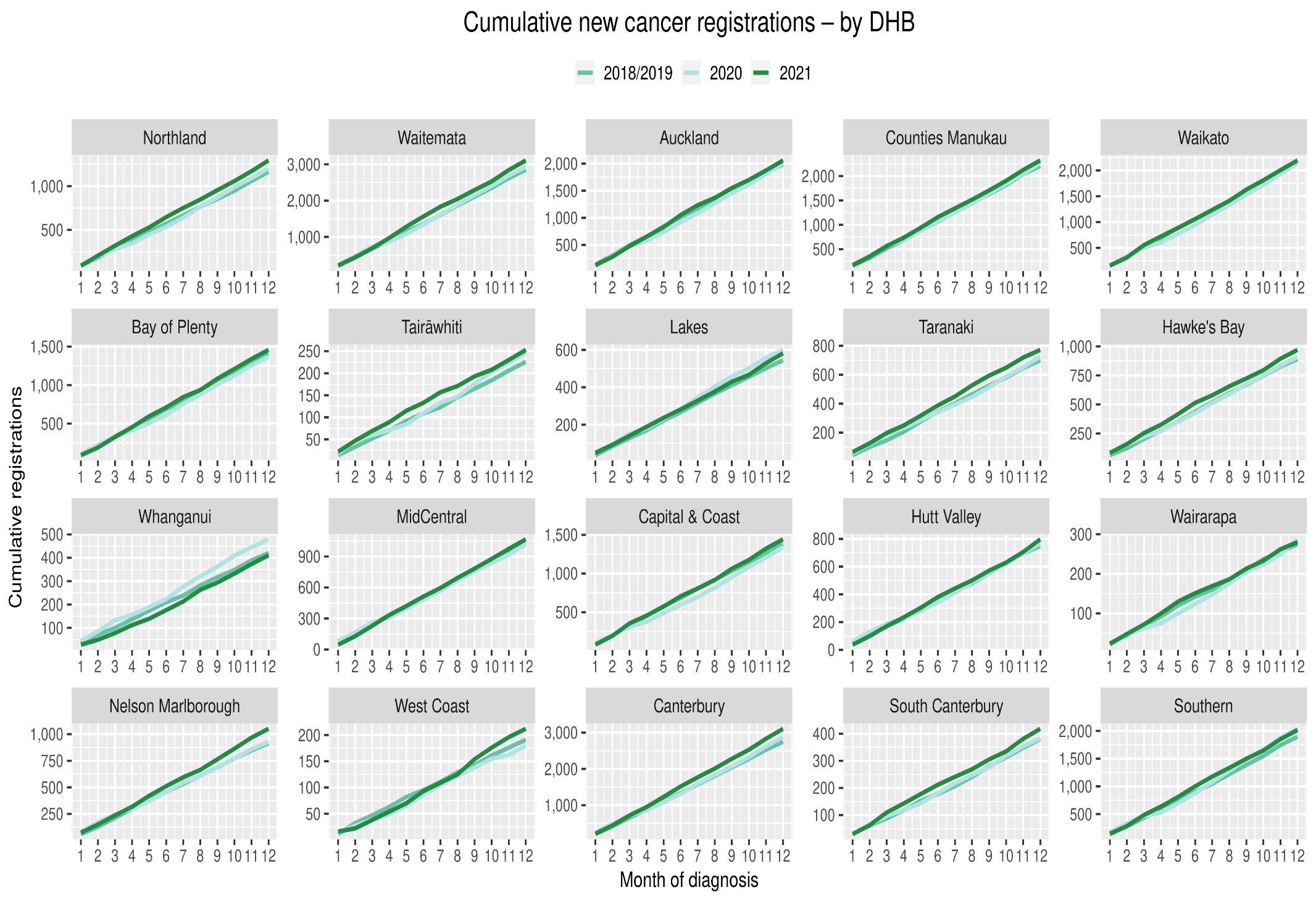
Pathology reports (documents) are received by the NZCR as electronic messages. An administrator triages these documents each day and if the document appears to meet the requirements for registration the document is “administered”. The document may relate to an existing registration or may contain information for a new cancer event. Documents that do not meet the cancer reporting requirements will be marked as “deleted”, “rejected” or “agreed not for registration”.

The administrator creates a new provisional cancer event if the pathology report identifies a new cancer diagnosis for this person. This new cancer event is assigned to a cancer group and this provisional event is then queued for further assessment by a clinical coder. If the required information has been provided the coder creates a new registration. If some information is not yet available, then the registration is held open until further information arrives to complete the registration or determine that the tumour does not meet the registration criteria.

# Appendix 2: NZCR registrations by DHB

Number of cancer registrations and percentage difference in 2021 compared to 2018/2019 average, by month and cumulative year to date, by DHB of domicile

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **October** | | | **November** | | | **December** | | | **Cumulative January-December** | | |
|  | **2018/2019 average** | **2021** | **%** | **2018/2019 average** | **2021** | **%** | **2018/2019 average** | **2021** | **%** | **2018/2019 average** | **2021** | **%** |
| Northland | 94 | 104 | 11% | 111 | 113 | 2% | 104 | 123 | 18% | 1,160 | 1,294 | 12% |
| Waitematā | 245 | 236 | -3% | 265 | 312 | 18% | 235 | 266 | 13% | 2,850 | 3,108 | 9% |
| Auckland | 156 | 150 | -4% | 195 | 175 | -10% | 141 | 185 | 31% | 1,983 | 2,060 | 4% |
| Counties Manukau | 188 | 200 | 6% | 223 | 221 | -1% | 169 | 195 | 15% | 2,207 | 2,321 | 5% |
| Waikato | 179 | 181 | 1% | 204 | 196 | -4% | 172 | 188 | 9% | 2,152 | 2,194 | 2% |
| Bay of Plenty | 113 | 127 | 13% | 129 | 129 | 0% | 117 | 118 | 1% | 1,403 | 1,458 | 4% |
| Tairāwhiti | 19 | 15 | -19% | 22 | 22 | 2% | 20 | 23 | 18% | 221 | 253 | 14% |
| Lakes | 45 | 37 | -18% | 46 | 62 | 36% | 43 | 53 | 25% | 543 | 582 | 7% |
| Taranaki | 56 | 55 | -2% | 66 | 70 | 7% | 53 | 53 | 1% | 696 | 772 | 11% |
| Hawke's Bay | 76 | 71 | -7% | 80 | 99 | 25% | 63 | 76 | 21% | 888 | 970 | 9% |
| Whanganui | 31 | 38 | 25% | 41 | 41 | 0% | 31 | 38 | 25% | 417 | 411 | -1% |
| MidCentral | 88 | 94 | 7% | 91 | 97 | 7% | 79 | 92 | 16% | 1,022 | 1,066 | 4% |
| Capital & Coast | 114 | 113 | 0% | 119 | 147 | 24% | 110 | 119 | 9% | 1,372 | 1,442 | 5% |
| Hutt Valley | 73 | 59 | -19% | 72 | 76 | 6% | 52 | 91 | 75% | 745 | 797 | 7% |
| Wairarapa | 29 | 20 | -31% | 19 | 29 | 57% | 19 | 18 | -3% | 272 | 280 | 3% |
| Nelson Marlborough | 84 | 100 | 19% | 75 | 104 | 40% | 69 | 83 | 21% | 913 | 1,051 | 15% |
| West Coast | 18 | 22 | 22% | 15 | 20 | 38% | 15 | 16 | 10% | 188 | 212 | 13% |
| Canterbury | 235 | 247 | 5% | 251 | 304 | 21% | 222 | 274 | 24% | 2,747 | 3,105 | 13% |
| South Canterbury | 34 | 30 | -12% | 35 | 46 | 31% | 32 | 37 | 17% | 378 | 418 | 11% |
| Southern | 162 | 147 | -9% | 194 | 205 | 6% | 154 | 166 | 8% | 1,896 | 2,017 | 6% |



## Cumulative cancer registrations by DHB and ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative January-December | | | Difference between 2018/19 average and 2021 | |  | Cumulative January-December | | | Difference between 2018/19 average and 2021 | | | |  | Cumulative January-December | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | | | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 1,160 | 1,205 | 1,294 | 134 | 12% |  | 268 | 279 | 329 | | 61 | 23% | |  | 879 | 912 | 956 | 78 | 9% |
| Waitematā | 2,850 | 2,931 | 3,108 | 259 | 9% |  | 170 | 184 | 186 | | 16 | 9% | |  | 2,552 | 2,582 | 2,769 | 217 | 9% |
| Auckland | 1,983 | 2,008 | 2,060 | 77 | 4% |  | 122 | 111 | 147 | | 25 | 20% | |  | 1,670 | 1,691 | 1,723 | 54 | 3% |
| Counties Manukau | 2,207 | 2,269 | 2,321 | 115 | 5% |  | 268 | 322 | 313 | | 46 | 17% | |  | 1,550 | 1,580 | 1,585 | 36 | 2% |
| Waikato | 2,152 | 2,143 | 2,194 | 42 | 2% |  | 335 | 324 | 324 | | -11 | -3% | |  | 1,789 | 1,787 | 1,829 | 40 | 2% |
| Bay of Plenty | 1,403 | 1,367 | 1,458 | 55 | 4% |  | 232 | 235 | 248 | | 17 | 7% | |  | 1,164 | 1,121 | 1,199 | 36 | 3% |
| Tairāwhiti | 221 | 247 | 253 | 32 | 14% |  | 79 | 95 | 98 | | 19 | 24% | |  | 140 | 148 | 153 | 14 | 10% |
| Lakes | 543 | 600 | 582 | 40 | 7% |  | 129 | 167 | 166 | | 37 | 29% | |  | 407 | 426 | 399 | -8 | -2% |
| Taranaki | 696 | 725 | 772 | 76 | 11% |  | 73 | 84 | 99 | | 26 | 36% | |  | 620 | 640 | 662 | 43 | 7% |
| Hawke's Bay | 888 | 908 | 970 | 82 | 9% |  | 63 | 70 | 85 | | 22 | 35% | |  | 352 | 406 | 323 | -29 | -8% |
| Whanganui | 417 | 479 | 411 | -6 | -1% |  | 101 | 113 | 121 | | 20 | 20% | |  | 911 | 889 | 933 | 22 | 2% |
| MidCentral | 1,022 | 1,018 | 1,066 | 44 | 4% |  | 97 | 75 | 106 | | 10 | 10% | |  | 619 | 654 | 645 | 26 | 4% |
| Capital & Coast | 1,372 | 1,344 | 1,442 | 70 | 5% |  | 22 | 31 | 34 | | 12 | 55% | |  | 248 | 255 | 244 | -4 | -1% |
| Hutt Valley | 745 | 767 | 797 | 52 | 7% |  | 51 | 44 | 60 | | 10 | 19% | |  | 855 | 877 | 985 | 130 | 15% |
| Wairarapa | 272 | 287 | 280 | 9 | 3% |  | 17 | 10 | 22 | | 5 | 29% | |  | 170 | 170 | 190 | 20 | 12% |
| Nelson Marlborough | 913 | 929 | 1,051 | 139 | 15% |  | 154 | 145 | 171 | | 17 | 11% | |  | 2,547 | 2,697 | 2,896 | 349 | 14% |
| West Coast | 188 | 180 | 212 | 24 | 13% |  | 104 | 124 | 137 | | 34 | 32% | |  | 1,199 | 1,144 | 1,214 | 15 | 1% |
| Canterbury | 2,747 | 2,878 | 3,105 | 359 | 13% |  | 154 | 171 | 173 | | 20 | 13% | |  | 717 | 727 | 781 | 64 | 9% |
| South Canterbury | 378 | 383 | 418 | 40 | 11% |  | 19 | 11 | 15 | | -4 | -19% | |  | 358 | 371 | 403 | 45 | 13% |
| Southern | 1,896 | 2,039 | 2,017 | 121 | 6% |  | 96 | 107 | 124 | | 29 | 30% | |  | 1,788 | 1,906 | 1,868 | 80 | 4% |
| Total | 24,050 | 24,707 | 25,811 | 1,761 | 7% |  | 2,550 | 2,702 | 2,958 | | 408 | | 16% |  | 20,531 | 20,983 | 21,757 | 1,226 | 6% |

# Appendix 3: Diagnosis and treatment data by DHB

Percentage differences are only presented if the cumulative total is 10 or greater. In some cases, the totals may differ to those presented in the national report due to non-DHB providers being excluded from the analyses within this appendix.

## Gastrointestinal endoscopy

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 3,974 | 3,835 | 4,590 | 616 | 16% |  | 710 | 745 | 922 | 212 | 30% |  | 3,233 | 3,061 | 3,621 | 388 | 12% |
| Waitematā | 9,244 | 9,645 | 9,600 | 357 | 4% |  | 518 | 560 | 639 | 122 | 23% |  | 8,417 | 8,671 | 8,582 | 166 | 2% |
| Auckland | 6,190 | 6,287 | 6,316 | 127 | 2% |  | 327 | 372 | 389 | 62 | 19% |  | 5,438 | 5,425 | 5,460 | 23 | 0% |
| Counties Manukau | 9,198 | 9,704 | 9,798 | 601 | 7% |  | 901 | 971 | 896 | -5 | -1% |  | 7,158 | 7,412 | 7,430 | 272 | 4% |
| Waikato | 5,805 | 6,611 | 5,755 | -50 | -1% |  | 690 | 785 | 764 | 75 | 11% |  | 5,043 | 5,741 | 4,916 | -127 | -3% |
| Bay of Plenty | 4,857 | 5,364 | 6,628 | 1,772 | 36% |  | 588 | 707 | 812 | 224 | 38% |  | 4,246 | 4,626 | 5,771 | 1,526 | 36% |
| Lakes | 1,966 | 1,997 | 2,326 | 361 | 18% |  | 363 | 406 | 458 | 96 | 26% |  | 1,575 | 1,557 | 1,835 | 260 | 17% |
| Tairāwhiti | 763 | 770 | 828 | 66 | 9% |  | 224 | 222 | 229 | 6 | 2% |  | 534 | 537 | 592 | 58 | 11% |
| Taranaki | 1,896 | 2,281 | 2,569 | 674 | 36% |  | 187 | 217 | 272 | 86 | 46% |  | 1,700 | 2,041 | 2,286 | 587 | 35% |
| Whanganui | 1,504 | 1,322 | 1,291 | -213 | -14% |  | 210 | 198 | 180 | -30 | -14% |  | 1,284 | 1,115 | 1,101 | -183 | -14% |
| Hawke's Bay | 2,832 | 3,201 | 3,440 | 609 | 21% |  | 355 | 452 | 483 | 129 | 36% |  | 2,442 | 2,700 | 2,918 | 477 | 20% |
| MidCentral | 2,236 | 2,390 | 2,743 | 507 | 23% |  | 167 | 224 | 279 | 112 | 67% |  | 2,048 | 2,134 | 2,434 | 387 | 19% |
| Capital and Coast | 2,792 | 3,269 | 3,295 | 504 | 18% |  | 198 | 257 | 298 | 100 | 51% |  | 2,478 | 2,893 | 2,859 | 381 | 15% |
| Hutt Valley | 2,657 | 3,368 | 3,273 | 616 | 23% |  | 229 | 344 | 334 | 106 | 46% |  | 2,339 | 2,896 | 2,796 | 457 | 20% |
| Wairarapa | 1,029 | 986 | 1,036 | 7 | 1% |  | 92 | 92 | 101 | 9 | 10% |  | 928 | 888 | 928 | 0 | 0% |
| Nelson Marlborough | 2,284 | 2,835 | 2,786 | 503 | 22% |  | 113 | 161 | 149 | 37 | 32% |  | 2,160 | 2,654 | 2,620 | 461 | 21% |
| West Coast | 672 | 709 | 831 | 159 | 24% |  | 48 | 36 | 66 | 19 | 39% |  | 622 | 669 | 761 | 140 | 22% |
| Canterbury | 7,897 | 8,302 | 7,840 | -57 | -1% |  | 459 | 481 | 479 | 21 | 4% |  | 7,330 | 7,705 | 7,267 | -63 | -1% |
| South Canterbury | 1,246 | 1,160 | 1,291 | 45 | 4% |  | 45 | 61 | 41 | -4 | -9% |  | 1,198 | 1,097 | 1,242 | 45 | 4% |
| Southern | 4,746 | 5,175 | 5,888 | 1,142 | 24% |  | 236 | 292 | 313 | 78 | 33% |  | 4,478 | 4,823 | 5,522 | 1,044 | 23% |
| Grand Total | 73,782 | 79,211 | 82,124 | 8,342 | 11% |  | 6,655 | 7,583 | 8,104 | 1,450 | 22% |  | 64,646 | 68,645 | 70,941 | 6,296 | 10% |

## Bronchoscopy

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 83 | 86 | 96 | 13 | 16% |  | 24 | 31 | 26 | 2 | 8% |  | 58 | 54 | 68 | 11 | 18% |
| Waitematā | 142 | 155 | 202 | 60 | 42% |  | 7 | 13 | 23 | 16 |  |  | 127 | 134 | 175 | 48 | 38% |
| Auckland | 381 | 314 | 294 | -87 | -23% |  | 54 | 33 | 42 | -12 | -21% |  | 294 | 256 | 239 | -55 | -19% |
| Counties Manukau | 360 | 346 | 311 | -49 | -13% |  | 65 | 51 | 59 | -6 | -9% |  | 239 | 242 | 201 | -38 | -16% |
| Waikato | 275 | 224 | 219 | -56 | -20% |  | 62 | 48 | 35 | -27 | -43% |  | 209 | 172 | 182 | -27 | -13% |
| Bay of Plenty | 165 | 154 | 166 | 2 | 1% |  | 37 | 42 | 44 | 7 | 19% |  | 126 | 112 | 122 | -4 | -3% |
| Lakes | 92 | 83 | 83 | -9 | -9% |  | 30 | 27 | 25 | -5 | -15% |  | 60 | 53 | 58 | -2 | -3% |
| Tairāwhiti | 6 | 22 | 24 | 18 |  |  | 3 | 10 | 7 | 4 |  |  | 3 | 12 | 17 | 14 |  |
| Taranaki | 60 | 45 | 63 | 3 | 5% |  | 10 | 9 | 12 | 2 | 20% |  | 50 | 36 | 51 | 1 | 2% |
| Whanganui | 17 | 12 | 13 | -4 | -21% |  | 6 | 5 | 8 | 2 |  |  | 11 | 7 | 5 | -6 | -52% |
| Hawke's Bay | 67 | 44 | 69 | 3 | 4% |  | 17 | 11 | 19 | 3 | 15% |  | 48 | 32 | 49 | 1 | 2% |
| MidCentral | 38 | 33 | 35 | -3 | -8% |  | 8 | 6 | 8 | 0 |  |  | 30 | 27 | 26 | -4 | -13% |
| Capital and Coast | 94 | 67 | 68 | -26 | -27% |  | 11 | 8 | 6 | -5 | -43% |  | 78 | 56 | 57 | -21 | -27% |
| Hutt Valley | 115 | 95 | 91 | -24 | -21% |  | 23 | 14 | 14 | -9 | -38% |  | 88 | 75 | 70 | -18 | -20% |
| Nelson Marlborough | 75 | 79 | 88 | 13 | 17% |  | 6 | 6 | 2 | -4 |  |  | 69 | 72 | 86 | 17 | 25% |
| Canterbury | 408 | 386 | 338 | -70 | -17% |  | 29 | 24 | 20 | -9 | -30% |  | 374 | 352 | 315 | -59 | -16% |
| South Canterbury | 15 | 21 | 14 | -1 | -3% |  | 1 | 1 | 0 | -1 |  |  | 14 | 20 | 14 | 0 | 0% |
| Southern | 242 | 216 | 264 | 23 | 9% |  | 22 | 10 | 15 | -7 | -30% |  | 219 | 200 | 246 | 28 | 13% |
| Grand Total | 2,630 | 2,382 | 2,438 | -192 | -7% |  | 410 | 349 | 365 | -45 | -11% |  | 2,094 | 1,912 | 1,981 | -113 | -5% |

## Colorectal cancer surgery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 92 | 93 | 99 | 8 | 8% |  | 15 | 19 | 17 | 2 | 13% |  | 76 | 73 | 82 | 6 | 8% |
| Waitematā | 249 | 221 | 193 | -56 | -22% |  | 17 | 11 | 12 | -5 | -27% |  | 219 | 207 | 173 | -46 | -21% |
| Auckland | 197 | 213 | 233 | 37 | 19% |  | 12 | 25 | 17 | 5 | 42% |  | 162 | 175 | 186 | 25 | 15% |
| Counties Manukau | 153 | 144 | 114 | -39 | -25% |  | 11 | 20 | 11 | 0 | 0% |  | 125 | 107 | 84 | -41 | -33% |
| Waikato | 224 | 292 | 260 | 37 | 16% |  | 26 | 43 | 42 | 16 | 62% |  | 194 | 247 | 214 | 20 | 10% |
| Bay of Plenty | 138 | 183 | 145 | 7 | 5% |  | 16 | 26 | 24 | 9 | 55% |  | 122 | 156 | 115 | -7 | -6% |
| Lakes | 73 | 79 | 81 | 9 | 12% |  | 12 | 11 | 12 | 0 | 0% |  | 59 | 67 | 66 | 7 | 12% |
| Tairāwhiti | 25 | 31 | 33 | 8 | 32% |  | 6 | 11 | 15 | 9 |  |  | 19 | 19 | 17 | -2 | -11% |
| Taranaki | 90 | 84 | 84 | -6 | -7% |  | 8 | 10 | 10 | 2 |  |  | 82 | 74 | 74 | -8 | -10% |
| Whanganui | 53 | 56 | 44 | -9 | -16% |  | 6 | 4 | 2 | -4 |  |  | 47 | 52 | 42 | -5 | -11% |
| Hawke's Bay | 146 | 150 | 135 | -11 | -7% |  | 19 | 19 | 13 | -6 | -30% |  | 127 | 127 | 120 | -7 | -5% |
| MidCentral | 113 | 121 | 130 | 18 | 16% |  | 8 | 12 | 20 | 13 |  |  | 104 | 108 | 109 | 5 | 5% |
| Capital and Coast | 162 | 136 | 145 | -17 | -10% |  | 15 | 14 | 19 | 5 | 31% |  | 140 | 117 | 116 | -24 | -17% |
| Hutt Valley | 76 | 61 | 61 | -15 | -20% |  | 7 | 4 | 4 | -3 |  |  | 68 | 54 | 55 | -13 | -19% |
| Wairarapa | 21 | 7 | 20 | -1 | -2% |  | 2 | 0 | 2 | 1 |  |  | 19 | 7 | 18 | -1 | -5% |
| Nelson Marlborough | 95 | 77 | 83 | -12 | -12% |  | 4 | 6 | 1 | -3 |  |  | 91 | 71 | 81 | -10 | -10% |
| West Coast | 5 | 8 | 6 | 2 |  |  | 0 | 0 | 0 | 0 |  |  | 5 | 8 | 6 | 2 |  |
| Canterbury | 323 | 313 | 354 | 32 | 10% |  | 18 | 22 | 20 | 2 | 11% |  | 301 | 288 | 331 | 31 | 10% |
| South Canterbury | 59 | 49 | 61 | 2 | 3% |  | 1 | 3 | 0 | -1 |  |  | 58 | 46 | 61 | 3 | 5% |
| Southern | 274 | 254 | 233 | -41 | -15% |  | 10 | 6 | 11 | 2 |  |  | 261 | 244 | 219 | -42 | -16% |
| Grand Total | 2,562 | 2,572 | 2,514 | -48 | -2% |  | 209 | 266 | 252 | 44 | 21% |  | 2,274 | 2,247 | 2,169 | -105 | -5% |

## Lung cancer surgery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Waitematā | 0 | 0 | 1 | 1 |  |  | 0 | 0 | 0 | 0 |  |  | 0 | 0 | 1 | 1 |  |
| Auckland | 292 | 263 | 258 | -34 | -12% |  | 56 | 51 | 41 | -15 | -26% |  | 214 | 192 | 198 | -16 | -7% |
| Counties Manukau | 2 | 2 | 1 | -1 |  |  | 1 | 1 | 0 | -1 |  |  | 1 | 1 | 1 | 0 |  |
| Waikato | 135 | 164 | 154 | 19 | 14% |  | 36 | 37 | 44 | 8 | 22% |  | 97 | 126 | 108 | 11 | 11% |
| Bay of Plenty | 0 | 0 | 1 | 1 |  |  | 0 | 0 | 0 | 0 |  |  | 0 | 0 | 1 | 1 |  |
| Taranaki | 1 | 0 | 0 | -1 |  |  | 0 | 0 | 0 | 0 |  |  | 1 | 0 | 0 | -1 |  |
| Hawke's Bay | 1 | 1 | 0 | -1 |  |  | 1 | 0 | 0 | -1 |  |  | 0 | 0 | 0 | 0 |  |
| MidCentral | 0 | 0 | 1 | 1 |  |  | 0 | 0 | 1 | 1 |  |  | 0 | 0 | 0 | 0 |  |
| Capital and Coast | 122 | 100 | 160 | 38 | 31% |  | 24 | 16 | 29 | 6 | 23% |  | 93 | 79 | 125 | 32 | 34% |
| Canterbury | 90 | 112 | 94 | 5 | 5% |  | 6 | 10 | 20 | 14 |  |  | 83 | 98 | 71 | -12 | -14% |
| Southern | 42 | 37 | 48 | 6 | 14% |  | 3 | 5 | 3 | 1 |  |  | 40 | 32 | 45 | 6 | 14% |
| Grand Total | 684 | 679 | 718 | 35 | 5% |  | 125 | 120 | 138 | 14 | 11% |  | 528 | 528 | 550 | 22 | 4% |

## Prostate cancer surgery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Total population** | | | | |  | | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | | |
|  | Cumulative number for Jan to Dec | | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | | Difference between 2018/19 average and 2021 | | | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | | |
|  | 2018/19 | | 2020 | 2021 | Number | % |  | 2018/19 | | 2020 | 2021 | Number | % | | |  | 2018/19 | 2020 | 2021 | Number | | % |
| Northland | 54 | | 40 | 48 | -6 | -10% |  | 8 | | 7 | 7 | -1 |  | | |  | 45 | 33 | 40 | -5 | | -11% |
| Waitematā | 81 | | 104 | 108 | 28 | 34% |  | 4 | | 6 | 12 | 8 |  | | |  | 75 | 94 | 93 | 19 | | 25% |
| Auckland | 104 | | 138 | 106 | 2 | 2% |  | 9 | | 12 | 10 | 1 |  | | |  | 85 | 118 | 76 | -9 | | -10% |
| Counties Manukau | 1 | | 3 | 22 | 21 |  |  | 0 | | 1 | 2 | 2 |  | | |  | 1 | 2 | 16 | 15 | |  |
| Waikato | 64 | | 63 | 57 | -7 | -11% |  | 4 | | 4 | 13 | 9 |  | | |  | 60 | 58 | 41 | -19 | | -31% |
| Bay of Plenty | 39 | | 35 | 25 | -14 | -35% |  | 5 | | 5 | 4 | -1 |  | | |  | 34 | 30 | 21 | -13 | | -38% |
| Lakes | 19 | | 23 | 19 | 1 | 3% |  | 2 | | 8 | 6 | 4 |  | | |  | 16 | 15 | 12 | -4 | | -25% |
| Tairāwhiti | 6 | | 7 | 12 | 7 |  |  | 2 | | 2 | 5 | 3 |  | | |  | 4 | 5 | 7 | 4 | |  |
| Taranaki | 28 | | 35 | 48 | 20 | 71% |  | 3 | | 6 | 5 | 2 |  | | |  | 25 | 29 | 43 | 19 | | 76% |
| Whanganui | 5 | | 8 | 10 | 6 |  |  | 1 | | 1 | 0 | -1 |  | | |  | 4 | 7 | 10 | 6 | |  |
| Hawke's Bay | 16 | | 28 | 34 | 19 | 119% |  | 2 | | 5 | 4 | 3 |  | | |  | 14 | 23 | 30 | 16 | | 114% |
| MidCentral | 80 | | 83 | 63 | -17 | -21% |  | 8 | | 4 | 5 | -3 |  | | |  | 73 | 79 | 57 | -16 | | -21% |
| Capital and Coast | 66 | | 77 | 98 | 32 | 48% |  | 5 | | 4 | 6 | 2 |  | | |  | 58 | 71 | 85 | 28 | | 48% |
| Wairarapa | 9 | | 10 | 10 | 2 |  |  | 1 | | 2 | 1 | 1 |  | | |  | 8 | 8 | 9 | 1 | |  |
| Nelson Marlborough | 43 | | 52 | 53 | 11 | 25% |  | 0 | | 0 | 3 | 3 |  | | |  | 42 | 52 | 49 | 7 | | 17% |
| West Coast | 8 | | 8 | 8 | 1 |  |  | 1 | | 0 | 0 | -1 |  | | |  | 7 | 8 | 8 | 1 | |  |
| Canterbury | 66 | | 67 | 75 | 10 | 15% |  | 2 | | 3 | 6 | 5 |  | | |  | 64 | 63 | 67 | 3 | | 5% |
| South Canterbury | 14 | | 12 | 10 | -4 | -26% |  | 0 | | 0 | 0 | 0 |  | | |  | 14 | 12 | 10 | -4 | | -26% |
| Southern | 82 | | 93 | 109 | 28 | 34% |  | 6 | | 5 | 11 | 6 |  | | |  | 75 | 88 | 97 | 22 | | 29% |
| Grand Total | 779 | | 886 | 915 | 137 | 18% |  | 59 | | 75 | 100 | 42 | 71% | | |  | 700 | 795 | 771 | 71 | | 10% |

## Medical oncology first specialist assessments

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 451 | 430 | 521 | 70 | 16% |  | 126 | 121 | 150 | 24 | 19% |  | 321 | 304 | 366 | 45 | 14% |
| Auckland | 2,377 | 2,647 | 2,653 | 277 | 12% |  | 276 | 302 | 324 | 49 | 18% |  | 1,798 | 1,977 | 1,967 | 169 | 9% |
| Waikato | 809 | 883 | 811 | 3 | 0% |  | 176 | 182 | 190 | 14 | 8% |  | 620 | 690 | 609 | -11 | -2% |
| Bay of Plenty | 481 | 517 | 586 | 106 | 22% |  | 98 | 94 | 122 | 24 | 24% |  | 379 | 418 | 456 | 77 | 20% |
| Lakes | 155 | 222 | 254 | 99 | 64% |  | 54 | 72 | 90 | 37 | 68% |  | 99 | 148 | 158 | 60 | 60% |
| Tairāwhiti | 120 | 155 | 128 | 9 | 7% |  | 52 | 63 | 58 | 6 | 12% |  | 67 | 90 | 70 | 4 | 5% |
| Taranaki | 238 | 238 | 246 | 9 | 4% |  | 27 | 34 | 40 | 14 | 51% |  | 210 | 203 | 203 | -7 | -3% |
| MidCentral | 1,106 | 1,132 | 1,168 | 62 | 6% |  | 168 | 205 | 229 | 61 | 36% |  | 921 | 914 | 919 | -2 | 0% |
| Capital and Coast | 884 | 888 | 942 | 58 | 7% |  | 100 | 113 | 118 | 18 | 18% |  | 735 | 717 | 751 | 17 | 2% |
| Nelson Marlborough | 421 | 450 | 475 | 54 | 13% |  | 30 | 22 | 26 | -4 | -13% |  | 389 | 425 | 445 | 56 | 14% |
| West Coast | 32 | 22 | 37 | 5 | 16% |  | 5 | 0 | 4 | -1 |  |  | 27 | 22 | 33 | 7 | 25% |
| Canterbury | 1,331 | 1,154 | 1,231 | -100 | -7% |  | 92 | 76 | 93 | 2 | 2% |  | 1,220 | 1,059 | 1,127 | -93 | -8% |
| South Canterbury | 7 | 71 | 126 | 120 |  |  | 1 | 2 | 4 | 4 |  |  | 6 | 69 | 122 | 116 |  |
| Southern | 677 | 646 | 546 | -131 | -19% |  | 40 | 36 | 37 | -3 | -8% |  | 633 | 599 | 499 | -134 | -21% |
| Grand Total | 9,086 | 9,455 | 9,724 | 639 | 7% |  | 1,243 | 1,322 | 1,485 | 243 | 20% |  | 7,421 | 7,635 | 7,725 | 304 | 4% |

## Medical oncology IV chemotherapy

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 3,008 | 3,369 | 3,479 | 472 | 16% |  | 708 | 1,042 | 1,086 | 378 | 53% |  | 2,264 | 2,301 | 2,346 | 82 | 4% |
| Auckland | 19,180 | 22,835 | 23,380 | 4,200 | 22% |  | 1,902 | 2,575 | 2,566 | 665 | 35% |  | 15,028 | 17,587 | 17,643 | 2,616 | 17% |
| Waikato | 7,443 | 6,998 | 7,831 | 388 | 5% |  | 1,228 | 1,122 | 1,327 | 99 | 8% |  | 6,134 | 5,753 | 6,395 | 262 | 4% |
| Bay of Plenty | 5,168 | 5,606 | 5,376 | 208 | 4% |  | 933 | 1,139 | 1,154 | 221 | 24% |  | 4,187 | 4,421 | 4,174 | -13 | 0% |
| Lakes | 3,068 | 3,158 | 3,273 | 206 | 7% |  | 892 | 941 | 1,059 | 168 | 19% |  | 2,124 | 2,181 | 2,130 | 7 | 0% |
| Tairāwhiti | 643 | 1,037 | 1,656 | 1,013 | 158% |  | 273 | 418 | 723 | 451 | 165% |  | 366 | 617 | 908 | 543 | 148% |
| Taranaki | 1,786 | 2,104 | 2,152 | 367 | 21% |  | 180 | 215 | 354 | 175 | 97% |  | 1,589 | 1,870 | 1,786 | 198 | 12% |
| Whanganui | 104 | 89 | 115 | 11 | 11% |  | 16 | 9 | 12 | -4 | -25% |  | 88 | 80 | 103 | 15 | 17% |
| Hawke's Bay\* | 46 | 70 | 48 | 3 | 5% |  | 18 | 59 | 28 | 10 | 56% |  | 28 | 11 | 17 | -11 | -38% |
| MidCentral\* | 7,308 | 8,061 | 8,502 | 1,194 | 16% |  | 1,211 | 1,418 | 1,784 | 574 | 47% |  | 5,935 | 6,541 | 6,599 | 665 | 11% |
| Capital and Coast | 6,760 | 6,118 | 5,716 | -1,044 | -15% |  | 709 | 671 | 645 | -64 | -9% |  | 5,725 | 5,065 | 4,642 | -1,083 | -19% |
| Hutt Valley | 115 | 123 | 148 | 33 | 29% |  | 10 | 13 | 13 | 3 | 30% |  | 98 | 102 | 128 | 31 | 31% |
| Wairarapa | 34 | 75 | 50 | 16 | 47% |  | 3 | 22 | 2 | -1 |  |  | 32 | 42 | 42 | 11 | 33% |
| Nelson Marlborough | 2,981 | 3,142 | 2,966 | -15 | -1% |  | 211 | 124 | 171 | -40 | -19% |  | 2,721 | 2,996 | 2,791 | 71 | 3% |
| West Coast | 28 | 34 | 22 | -6 | -20% |  | 1 | 5 | 0 | -1 |  |  | 27 | 29 | 22 | -5 | -17% |
| Canterbury | 6,565 | 6,333 | 6,421 | -144 | -2% |  | 406 | 410 | 407 | 2 | 0% |  | 5,999 | 5,732 | 5,928 | -71 | -1% |
| South Canterbury | 1,051 | 1,084 | 1,224 | 173 | 16% |  | 11 | 25 | 48 | 38 | 357% |  | 1,033 | 1,059 | 1,176 | 143 | 14% |
| Southern | 7,243 | 6,773 | 5,850 | -1,393 | -19% |  | 400 | 341 | 258 | -142 | -36% |  | 6,791 | 6,340 | 5,507 | -1,284 | -19% |
| Grand Total | 72,529 | 77,009 | 78,212 | 5,683 | 8% |  | 9,108 | 10,549 | 11,638 | 2,530 | 28% |  | 60,166 | 62,727 | 62,338 | 2,173 | 4% |

\* Data quality issues have been identified in MidCentral DHB’s (MDHB) data in the previous reporting period. The team have reviewed this and identified that data transfer between Hawke’s Bay DHB (HBDHB) and MDHB is not configured correctly to pick up HBDHB volumes. This means that HBDHB volumes are appearing under MDHB. A sustainable solution to manage this is being developed and worked on as a matter of urgency.

## Radiation oncology first specialist assessments

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 360 | 292 | 406 | 47 | 13% |  | 96 | 104 | 121 | 26 | 27% |  | 258 | 186 | 282 | 24 | 9% |
| Auckland | 3,208 | 3,245 | 3,171 | -37 | -1% |  | 375 | 377 | 387 | 12 | 3% |  | 2,434 | 2,512 | 2,383 | -51 | -2% |
| Waikato | 1,391 | 1,525 | 1,545 | 154 | 11% |  | 251 | 322 | 301 | 51 | 20% |  | 1,117 | 1,180 | 1,219 | 103 | 9% |
| Bay of Plenty | 917 | 969 | 1,088 | 171 | 19% |  | 143 | 155 | 189 | 47 | 33% |  | 766 | 807 | 890 | 124 | 16% |
| Lakes | 31 | 17 | 18 | -13 | -42% |  | 11 | 7 | 8 | -3 | -27% |  | 20 | 10 | 10 | -10 | -49% |
| Tairāwhiti | 65 | 42 | 71 | 7 | 10% |  | 28 | 23 | 24 | -4 | -14% |  | 36 | 19 | 47 | 12 | 32% |
| MidCentral | 1,724 | 1,798 | 1,880 | 157 | 9% |  | 221 | 237 | 306 | 86 | 39% |  | 1,486 | 1,538 | 1,554 | 68 | 5% |
| Capital and Coast | 1,424 | 1,372 | 1,515 | 91 | 6% |  | 133 | 128 | 154 | 22 | 16% |  | 1,233 | 1,178 | 1,278 | 46 | 4% |
| Wairarapa | 0 | 0 | 9 | 9 |  |  | 0 | 0 | 2 | 2 |  |  | 0 | 0 | 7 | 7 |  |
| Nelson Marlborough | 176 | 177 | 235 | 59 | 34% |  | 9 | 9 | 17 | 9 |  |  | 167 | 167 | 216 | 49 | 29% |
| West Coast | 10 | 7 | 15 | 6 |  |  | 1 | 0 | 1 | 1 |  |  | 9 | 7 | 14 | 5 |  |
| Canterbury | 1,652 | 1,772 | 1,871 | 220 | 13% |  | 101 | 86 | 109 | 9 | 8% |  | 1,533 | 1,660 | 1,740 | 208 | 14% |
| Southern | 1,067 | 1,067 | 1,043 | -24 | -2% |  | 58 | 74 | 66 | 9 | 15% |  | 996 | 977 | 963 | -33 | -3% |
| Grand Total | 12,022 | 12,283 | 12,867 | 846 | 7% |  | 1,423 | 1,522 | 1,685 | 263 | 18% |  | 10,053 | 10,241 | 10,603 | 551 | 5% |

## Radiation oncology megavoltage fractions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 average and 2021 | |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Auckland | 45,403 | 41,897 | 41,348 | -4,055 | -9% |  | 6,174 | 5,499 | 6,326 | 152 | 2% |  | 34,485 | 32,076 | 30,184 | -4,301 | -12% |
| Waikato | 22,219 | 19,503 | 19,302 | -2,917 | -13% |  | 4,306 | 4,311 | 4,129 | -177 | -4% |  | 17,505 | 14,875 | 14,862 | -2,643 | -15% |
| Bay of Plenty | 16,389 | 16,725 | 17,125 | 736 | 4% |  | 2,732 | 2,892 | 3,110 | 378 | 14% |  | 13,491 | 13,650 | 13,863 | 373 | 3% |
| MidCentral | 22,816 | 22,726 | 25,324 | 2,508 | 11% |  | 3,332 | 2,964 | 4,136 | 805 | 24% |  | 19,331 | 19,348 | 20,970 | 1,640 | 8% |
| Capital and Coast | 20,220 | 19,608 | 20,220 | 0 | 0% |  | 2,312 | 2,176 | 2,635 | 323 | 14% |  | 16,951 | 16,352 | 16,418 | -533 | -3% |
| Canterbury | 26,003 | 24,437 | 25,883 | -120 | 0% |  | 1,846 | 1,460 | 1,344 | -502 | -27% |  | 23,788 | 22,707 | 24,166 | 379 | 2% |
| Southern\* | 14,475 | 12,274 | 12,505 | -1,970 |  |  | 805 | 567 | 768 | -37 |  |  | 13,503 | 11,507 | 11,582 | -1,921 |  |
| Grand Total | 167,524 | 157,176 | 161,707 | -5,817 | -3% |  | 21,506 | 19,872 | 22,448 | 943 | 4% |  | 139,052 | 130,518 | 132,045 | -7,007 | -5% |

\* Southern DHB radiation therapy treatment data is incomplete for 2021. The DHB is actively working to resolve this issue.

## Haematology first specialist assessment

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |
|  |  |  |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018 | 2019 | 2021 | Number | % |
| Northland | 214 | 276 | 194 | -20 | -9% |  | 43 | 68 | 50 | 8 | 18% |  | 169 | 205 | 141 | -28 | -16% |
| Waitematā | 697 | 684 | 682 | -15 | -2% |  | 38 | 43 | 50 | 12 | 32% |  | 628 | 607 | 597 | -31 | -5% |
| Auckland | 990 | 826 | 1,080 | 91 | 9% |  | 75 | 67 | 107 | 32 | 43% |  | 823 | 660 | 868 | 46 | 6% |
| Counties Manukau | 734 | 690 | 738 | 4 | 1% |  | 77 | 77 | 76 | -1 | -1% |  | 547 | 501 | 534 | -13 | -2% |
| Waikato | 696 | 707 | 751 | 56 | 8% |  | 123 | 120 | 125 | 2 | 2% |  | 563 | 578 | 609 | 46 | 8% |
| Bay of Plenty | 380 | 328 | 376 | -4 | -1% |  | 64 | 48 | 52 | -12 | -18% |  | 311 | 277 | 318 | 7 | 2% |
| Tairāwhiti | 39 | 47 | 52 | 14 | 35% |  | 13 | 12 | 19 | 6 | 46% |  | 25 | 35 | 31 | 6 | 24% |
| Taranaki | 163 | 181 | 197 | 35 | 21% |  | 17 | 27 | 24 | 7 | 41% |  | 144 | 153 | 173 | 29 | 20% |
| MidCentral | 782 | 830 | 849 | 68 | 9% |  | 93 | 112 | 135 | 43 | 46% |  | 679 | 703 | 703 | 25 | 4% |
| Capital and Coast | 773 | 672 | 650 | -123 | -16% |  | 61 | 77 | 70 | 10 | 16% |  | 679 | 561 | 533 | -146 | -22% |
| Nelson Marlborough | 164 | 116 | 142 | -22 | -13% |  | 4 | 6 | 5 | 1 |  |  | 159 | 110 | 137 | -22 | -14% |
| West Coast | 15 | 6 | 8 | -7 | -45% |  | 1 | 0 | 1 | 0 |  |  | 14 | 6 | 7 | -7 | -48% |
| Canterbury | 497 | 534 | 574 | 77 | 15% |  | 27 | 29 | 34 | 8 | 28% |  | 457 | 501 | 531 | 74 | 16% |
| Southern | 299 | 336 | 389 | 91 | 30% |  | 20 | 20 | 31 | 12 | 59% |  | 275 | 313 | 352 | 77 | 28% |
| Grand Total | 6,440 | 6,234 | 6,682 | 243 | 4% |  | 653 | 706 | 779 | 126 | 19% |  | 5,471 | 5,211 | 5,534 | 64 | 1% |
|  | | | | | | | | | | | | | | | | | |

## Haematology IV chemotherapy

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total population** | | | | |  | **Māori** | | | | |  | **Non-Māori / Non-Pacific** | | | | |
|  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |  | Cumulative number for Jan to Dec | | | Difference between 2018/19 and 2021 | |
|  |  |  |
|  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |  | 2018/19 | 2020 | 2021 | Number | % |
| Northland | 1,675 | 1,498 | 1,547 | -128 | -8% |  | 385 | 322 | 374 | -11 | -3% |  | 1,257 | 1,125 | 1,150 | -107 | -8% |
| Waitematā | 4,067 | 3,789 | 3,951 | -116 | -3% |  | 113 | 149 | 165 | 52 | 46% |  | 3,741 | 3,439 | 3,608 | -133 | -4% |
| Auckland | 3,609 | 3,569 | 4,178 | 570 | 16% |  | 225 | 169 | 286 | 61 | 27% |  | 3,013 | 2,984 | 3,375 | 362 | 12% |
| Counties Manukau | 2,009 | 2,767 | 3,190 | 1,181 | 59% |  | 236 | 325 | 311 | 75 | 32% |  | 1,407 | 1,977 | 2,315 | 909 | 65% |
| Waikato | 2,102 | 2,379 | 2,562 | 461 | 22% |  | 383 | 459 | 439 | 57 | 15% |  | 1,710 | 1,919 | 2,040 | 330 | 19% |
| Bay of Plenty | 1,305 | 1,411 | 1,677 | 373 | 29% |  | 137 | 213 | 204 | 67 | 49% |  | 1,148 | 1,180 | 1,422 | 275 | 24% |
| Lakes | 478 | 746 | 771 | 293 | 61% |  | 143 | 209 | 184 | 41 | 29% |  | 335 | 533 | 543 | 208 | 62% |
| Tairāwhiti | 156 | 104 | 151 | -5 | -3% |  | 25 | 29 | 30 | 5 | 20% |  | 123 | 75 | 121 | -2 | -2% |
| MidCentral | 2,766 | 2,310 | 2,401 | -365 | -13% |  | 319 | 178 | 236 | -83 | -26% |  | 2,432 | 2,109 | 2,145 | -287 | -12% |
| Capital and Coast | 3,285 | 3,457 | 2,681 | -604 | -18% |  | 303 | 358 | 204 | -99 | -33% |  | 2,875 | 2,733 | 2,254 | -621 | -22% |
| Nelson Marlborough | 5 | 10 | 0 | -5 |  |  | 1 | 0 | 0 | -1 |  |  | 4 | 10 | 0 | -4 |  |
| West Coast | 13 | 11 | 10 | -3 | -20% |  | 2 | 0 | 0 | -2 |  |  | 11 | 11 | 10 | -1 | -5% |
| Canterbury | 2,431 | 2,689 | 2,813 | 382 | 16% |  | 212 | 222 | 85 | -127 | -60% |  | 2,190 | 2,418 | 2,713 | 523 | 24% |
| Southern\* | 234 | 901 | 2,493 | 2,260 |  |  | 7 | 73 | 145 | 138 |  |  | 227 | 821 | 2,335 | 2,109 |  |
| Total | 24,131 | 25,641 | 28,425 | 4,294 | 18% |  | 2,489 | 2,706 | 2,663 | 174 | 7% |  | 20,471 | 21,334 | 24,031 | 3,561 | 17% |
|  | | | | | | | | | | | | | | | | | |

\* Note the relatively low volumes in Southern DHB in prior years are due to variation in coding.

# Appendix 4: Surgical procedure codes

Below is a list of the surgical procedure codes that were used for analysis on curative cancer surgery.

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| --- | --- | --- |
| **COLORECTAL CANCER SURGERY** | | |
| Clinical code | Block short description | Clinical code description |
| 3200000 | Colectomy | Limited excision of large intestine with formation of stoma |
| 3200001 | Colectomy | Right hemicolectomy with formation of stoma |
| 3200300 | Colectomy | Limited excision of large intestine with anastomosis |
| 3200301 | Colectomy | Right hemicolectomy with anastomosis |
| 3200400 | Colectomy | Subtotal colectomy with formation of stoma |
| 3200401 | Colectomy | Extended right hemicolectomy with formation of stoma |
| 3200500 | Colectomy | Subtotal colectomy with anastomosis |
| 3200501 | Colectomy | Extended right hemicolectomy with anastomosis |
| 3200600 | Colectomy | Left hemicolectomy with anastomosis |
| 3200601 | Colectomy | Left hemicolectomy with formation of stoma |
| 3200900 | Colectomy | Total colectomy with ileostomy |
| 3201200 | Colectomy | Total colectomy with ileorectal anastomosis |
| 3201500 | Total proctocolectomy | Total proctocolectomy with ileostomy |
| 3202400 | Anterior resection of rectum | High anterior resection of rectum |
| 3202500 | Anterior resection of rectum | Low anterior resection of rectum |
| 3202600 | Anterior resection of rectum | Ultra low anterior resection of rectum |
| 3202800 | Anterior resection of rectum | Ultra low anterior resection of rectum with hand sutured coloanal anastomosis |
| 3203000 | Rectosigmoidectomy or proctectomy | Rectosigmoidectomy with formation of stoma |
| 3203900 | Rectosigmoidectomy or proctectomy | Abdominoperineal proctectomy |
| 3205100 | Total proctocolectomy | Total proctocolectomy with ileo-anal anastomosis |
| 3205101 | Total proctocolectomy | Total proctocolectomy with ileo-anal anastomosis and formation of temporary ileostomy |
| 3206000 | Rectosigmoidectomy or proctectomy | Restorative proctectomy |
| 3209900 | Excision of lesion or tissue of rectum or anus | Per anal submucosal excision of lesion or tissue of rectum |
| 3211200 | Rectosigmoidectomy or proctectomy | Perineal rectosigmoidectomy |
| 9220800 | Anterior resection of rectum | Anterior resection of rectum, level unspecified |

|  |  |  |
| --- | --- | --- |
| **LUNG CANCER SURGERY** | | |
| Clinical code | Clinical code description | Block Description |
| 3844000 | Wedge resection of lung | Partial resection of lung |
| 3844001 | Radical wedge resection of lung | Partial resection of lung |
| 3843800 | Segmental resection of lung | Partial resection of lung |
| 9016900 | Endoscopic wedge resection of lung | Partial resection of lung |
| 3843801 | Lobectomy of lung | Lobectomy of lung |
| 3844100 | Radical lobectomy | Lobectomy of lung |
| 3844101 | Radical pneumonectomy | Pneumonectomy |
| 3843802 | Pneumonectomy | Pneumonectomy |

|  |  |  |
| --- | --- | --- |
| **PROSTATE CANCER SURGERY** | | |
| Clinical code | Block short description | Clinical code description |
| 3720004 | Open prostatectomy | Retropubic prostatectomy |
| 3720900 | Open prostatectomy | Radical prostatectomy |
| 3720901 | Other closed prostatectomy | Laparoscopic radical prostatectomy |
| 3721000 | Open prostatectomy | Radical prostatectomy with bladder neck reconstruction |
| 3721001 | Other closed prostatectomy | Laparoscopic radical prostatectomy with bladder neck reconstruction |
| 3721100 | Open prostatectomy | Radical prostatectomy with bladder neck reconstruction and pelvic lymphadenectomy |
| 3721101 | Other closed prostatectomy | Laparoscopic radical prostatectomy with bladder neck reconstruction and pelvic lymphadenectomy |
| 3720900 | Open prostatectomy | Radical prostatectomy |
| 3720901 | Closed prostatectomy | Laparoscopic radical prostatectomy |
| 3721000 | Open prostatectomy | Radical prostatectomy with bladder neck reconstruction |
| 3721001 | Closed prostatectomy | Laparoscopic radical prostatectomy with bladder neck reconstruction |
| 3721100 | Open prostatectomy | Radical prostatectomy with bladder neck reconstruction and pelvic lymphadenectomy |

1. Reports available here: <https://teaho.govt.nz/reports/cancer-care> [↑](#footnote-ref-2)
2. Hypofractionation is a radiation treatment technique used to treat some cancers, whereby larger doses of radiation are given each treatment, meaning that patients require fewer sessions to complete their treatment. The technique is being increasingly used for some prostate and breast cancers. [↑](#footnote-ref-3)