TE MARAE ORA
COOK ISLANDS Ministry of Health

COOK ISLANDS

National Health Information Bulletin

2024

Ripoti Mataiti O Te Marae Ora
Te Marae Ora Annual Report 2024

CONTENTS | Ranga'ranga Korero

Aim of this report

This report provides a comprehensive description of health statistics and services in the Cook Islands for the year 2024. Its primary purposes are to enable users to conduct further in-depth analysis (*why*), identify emerging trends over time (*how*), and support evidence-based decision making. Additionally, the report serves as a vital resource for guiding future health policies, strategic planning, targeted interventions and aligning work plans across directorates to improve overall health outcomes.

Who this report is for

This report is intended for all individuals and organizations with an interest in health statistics. It provides a useful reference for Te Marae Ora (TMO) staff, stakeholders, development partners, government and non-government agencies, and researchers. The data presented serves as a baseline to support further investigation, planning, and informed decision-making across the health sector.

What this report contains

Population Health Indicators: Key measures reflecting the health status and well-being of the Cook Islands population.

Healthcare Services and Facilities: Information on the range of health services, workforce, financing and infrastructure available in the Cook Islands.

Notifiable Diseases: Data on diseases identified and tested by healthcare professionals, highlighting public health concerns and surveillance efforts in the Cook Islands.

For further details about age, sex and location - please refer to the appendix, which covers the methodology, exemptions, definitions and standard formulas.

Please note that some data from the previous bulletin has been updated, and the information provided in this release may differ accordingly. The 2024 data presented are provisional and may be subject to change in future editions of the national health bulletins.

FOREWORD

A Message from the Secretary of Health

Kia Orana tatou katoatoa ite aroa ranuinui o to tatou Atua, ko Iesu Mesia. Te rauka nei iaku ite akameitaki atu ia kotou katoatoa no te au tauturu o teia Turanga Ora 2024 Ripoti. I am pleased to present the 2024 National Health Information Bulletin, highlighting our collective work and achievements in health across the Cook Islands.

It is my pleasure to present the 2024 National Health Bulletin. This report provides an overview of key health data and trends in the Cook Islands, helping guide our efforts to improve health services and enhance the wellbeing of our communities.

The Information in this report is drawn primarily from our national patient information systems (MedTech Evolution), directorate reports, health registries, MSupply, and other official sources.

The Ministry acknowledges and sincerely appreciates the hard work, dedication, and ongoing commitment demonstrated by all staff, including those from private community health clinics, in consistently delivering quality health services.

For further information or questions, please contact the Health Information Systems (HIS) team at TMO.

Meitaki Ranuinui,
Mr Bob Williams

Acknowledgement

TMO extends its sincere appreciation to everyone who supported the completion of the 2024 National Health Information Bulletin.

TMO acknowledges the contributions of the Ministry of Justice (MOJ) and National Statistics Office (MFEM-NSO). Moreover, appreciation goes to all doctors, nurses, allied health professionals, and staff across all directorates who contributed in data entry and report. Your dedication and hard work have been fundamental to this publication.

TMO also acknowledges the valuable contributions of private health clinics and non-government organisations that utilize MedTech Evolution (MedTech Evo) for entering data from their respective services. These clinics operate under an Agreement of Operation (AOC) with TMO, and their participation strengthens the overall quality and completeness of national health information.

TMO also extends its appreciation to the Information and Communication Technology (ICT) team for their technical support throughout the process. Special thanks are given to the Policy and Planning Manager, Abegail Tuazon, for her support toward the HIS team in completing this report, and to the Director of Planning and Funding, Roana Mataitini, for her continued guidance and oversight.

Gratitude is extended to all individuals who provided supplementary materials, enriching the content and visual appeal of the National Health Bulletin. Their contributions also included additional data, enabling the HIS team to compare and analyze information more effectively. Among these contributors were: Dr Koko Lwin, Dr Hannah Cummings, Dr Teariki Faireka, Dr Seema Kumar, Dr Kirianu Nio, Lagaau Vaevae Uele, Vaine Ngatokorua, Muraai Herman, Tereapii Nimerota, Roger Nehemia, Karen Ngamata, Rangi Tairi, Ligipati Dowling, Theresa Tatuava, Geoffrey Wuatai, Moana Michaela Tangimetua, Howard Tangimetua, Helen Maunga, Daniel Thompson, Edith Tangaroa, Grace Rea, Rufina Tutai, Teaukura Puna, and Tereapii Silika.

TMO extends *Meitaki Maata* to all other contributors whose efforts, though not explicitly mentioned, were instrumental in bringing together the comprehensive insights presented in this report. Your collective contributions have been invaluable in shaping the National Health Information Bulletin

Finally, special recognition and appreciation goes to the HIS team, Maina Tairi Mataio, Grace Matenga, Dennise Nanai, for their leadership, commitment and passion, which have been instrumental in the development of this bulletin.

Executive Summary

The 2024 health bulletin provides an overview of the health status in the Cook Islands, offering valuable insights into current health trends, disease prevalence, service delivery, and emerging challenges to inform future policies and interventions.

The average life expectancy at birth for Cook Islanders is 76 years, with women living longer (79 years) than men (72 years). The crude birth rate declined to 13.1 per 1,000, the lowest in a decade. The fertility rate remained steady at 2.0 births per woman, although the peak fertility age shifted from 20–24 to 25–29 years. Contraceptive prevalence rate decreased to 33.2%, from 37.5% in 2023.

Mortality rates for foetal, neonatal, infant, and under-five deaths decreased in 2024, reaching 5.1 per 1,000 live births. No maternal, malaria, dengue, or AIDS-related deaths were recorded. Circulatory diseases remained the leading cause of death, accounting for 48%—up from 37%. Acute respiratory infections continued to be the most reported notifiable disease but decreased by 51%, from 6,346 to 3,124 cases. STI remained low at under 1%, an improvement from under 2% in 2023. There have been no reported cases of malaria or other vector-borne diseases such as leprosy, filariasis, chikungunya, zika, yaws, and measles since 2016, indication successful disease elimination efforts over the past decade.

People diagnosed with non-communicable diseases (NCDs) slightly decreased from 5,800 to 5,663 in the previous report mainly due to continuous data clean-up. NCDs remain the leading underlying cause of death in the Cook Islands, with an annual average of 77% of all deaths over the past five years.

Overall health service utilisation remained stable. Immunization coverage for early childhood vaccines remained high, at nearly 100%. Outpatient services decreased by 15% in 2024 (<36,000), down from over 40,000 in 2023, partly due to a three-month closure of Te Puna Ora Tumanava asbestos roof removal project. Furthermore, oral health has seen a 70% increase in dental services. Mental health diagnoses also increased from 20 in 2023 to 265 in 2024, with all patients diagnosed and receiving treatment. Additionally, patient referrals increased by 66%, from 564 in 2023 to 936 in 2024. This rise is primarily due to a backlog of delayed cases caused by the COVID-19 pandemic, as the health specialists visits programme resumed. Further investigation is needed to conduct an in-depth review of the reported trends in service utilization.

This report highlights priority areas for targeted efforts, emphasizing short-term activities with immediate impact, as well as programmes and projects aimed at achieving long term health improvements for enhanced health outcomes.

OUR MINISTRY | To Tatou Akakoro'anga Ora

The Government of the Cook Islands, through Te Marae Ora Ministry of Health, serves as the nation's primary provider of healthcare service, is responsible for setting national health policies and managing the delivery of health services in the country. TMO operates through five key directorates: Public Health, Oral Health, Primary Health Care, Hospital Health Services, and Planning and Funding. Under the leadership of the Secretary of Health and the Executive team, TMO is committed to upholding its Vision, Mission, and Core Value, ensuring accessible, equitable, and quality healthcare for all.

Our Vision | To Tatou Orama

All people living in the Cook Islands, living healthier and achieving their aspirations.

Iti tangata Kuki Airani katoatoa, e ora'anga matutu, e te au orama ki mua.

Our Mission | To Tatou Akakoro'anga

To provide accessible, affordable health care and equitable health services of the highest quality, by and for all, to improve the health status of the people living in the Cook Islands.

Kia oronga i te tauturu note ora'anga kia tau, e note katoatoa, note akameitaki'anga i te tu ora'anga o te iti tangata e noo ki te Kuki Airani.

Our Values | To Tatou Turanga Tau

Introduction

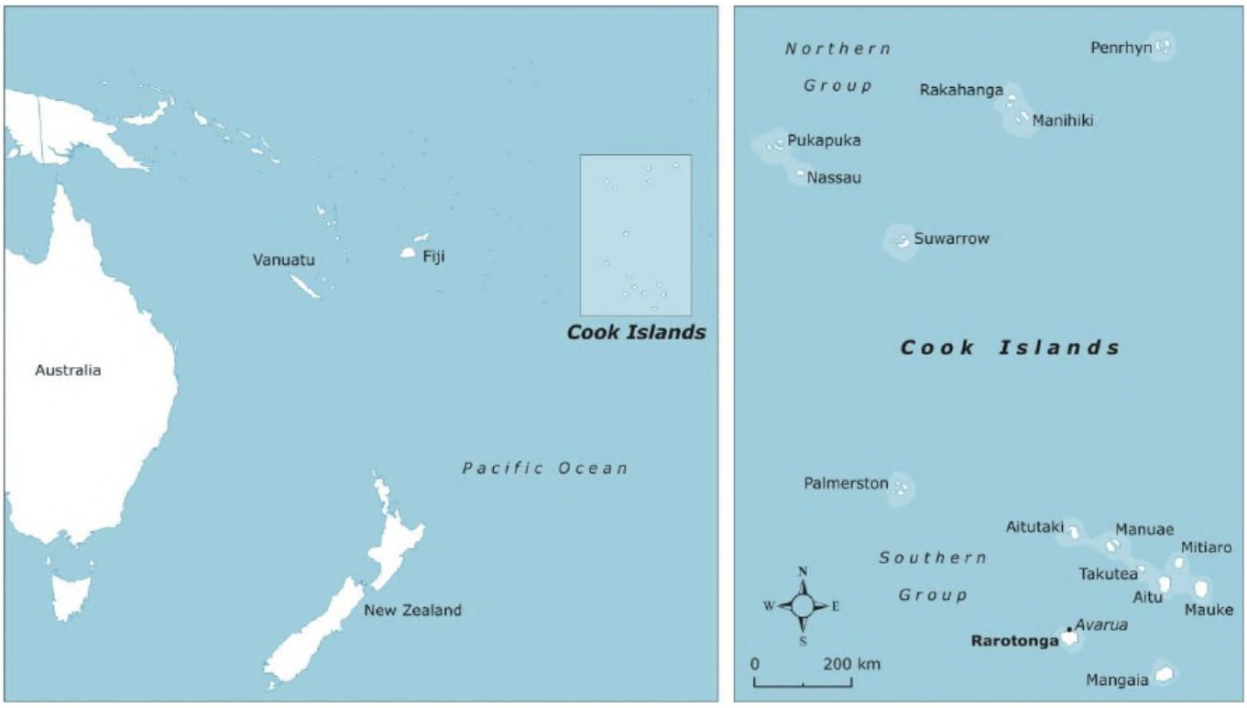
The Cook Islands is located in the South Pacific Ocean and is made up of 15 islands spread across approximately 2 million square kilometres of ocean territory. Thirteen of these islands are regularly inhabited. The islands are divided into two main geographic groupings: the Northern Group and the Southern Group, collectively referred to as the Pa Enua.

The Northern Group includes Manihiki, Rakahanga, Pukapuka, Nassau, Penrhyn, and Suwarrow. Of these Suwarrow is not permanently inhabited but is temporarily occupied by two park rangers from the National Environment Service.

The Southern Group includes Aitutaki, Atiu, Mangaia, Mauke, Mitiaro, Palmerston, Manuae, Takutea, and Rarotonga. Takutea and Manuae are uninhabited and remain conservation areas, with no permanent population.

Rarotonga is the mainland and largest most populous island and serves as the political, administrative, and economic centre of the country. It is also home to the national capital, Avarua.

Figure 1: Cook Islands Map



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[1] Blacka, M. J., et al. 2013. "Coastal Adaptation Needs for Extreme Events and Climate Change, Avarua, Rarotonga, Cook Islands - Project Stage 1: Scoping and Collation of Existing Data." Water Research Laboratory [WRL] Technical Report 2013/11. Sydney: University of New South Wales School of Civil and Environmental Engineering.

Health Systems Overview

TMO is the main provider of health care services in the Cook Islands. The government provides free healthcare to all students until the age of 18 years and for all pensioners aged 60 years and over. The national health system delivers a wide range of services, from public health and primary care to secondary care. These are further supported by visiting specialist teams who provide outreach services as scheduled intervals.

Access to tertiary care is coordinated through a referral pathway, beginning with Pa Enua through to Rarotonga health providers, and onward to New Zealand for advanced medical treatment when required.

In addition to public services, a small number of private health providers operate in the Cook Islands, contributing to the additional delivery of health services. Overall, the country's health system is relatively well-resourced to provide basic primary and secondary healthcare across its population.

Information Provision

TMO continues to strengthen its health information systems to support decision-making and service delivery. MedTech Evo is the primary patient management system used across the Cook Islands, enabling health workers to manage patient data from birth to death.

In addition to public health services, several private health clinics also utilize MedTech Evo under an Agreement of Operation (AOC) with TMO. These clinics contribute to a more complete national health dataset by entering patient information from their own services into the system. The participating clinics include: Cook Islands Family Welfare Association (CIFWA), Te Vaerua Community Rehabilitation Centre, Rarotonga Medical Centre, Holistic Medical care, Rarotonga Home Healthcare, and Te Kainga Mental Health & Wellbeing Centre.

Connectivity to MedTech Evo from the Pa Enua is facilitated through internet access, which ensures timely communication and data flow to TMO headquarters in Rarotonga. While most core services utilise MedTech Evo, some other data sources remain paper-based or other user-friendly digital platforms.

Other sources of information obtained from registers, CanReG, community clinic reports, and Msupply.

Data exclusions in this report:

1. Births and deaths of patients referred overseas.
2. Patients living overseas for chronic conditions

Bulletin Snapshot 2024

Based on key facts table.

Total Births

196

Crude Birth Rate (%)

13.1

Contraceptive Prevalence Rate (%)

33.2

NCD Mortality Rate (%)

12.9

Aged 15-64

87.1

Aged 65+

Adult Mortality (%)

7.7

Males

6.9

Females

Cook Islands Resident Population

14,987

Fetal/Infant/Neonatal/ Under-five Mortality Rate (%)

5.1

NCD Premature Deaths (%)

36.5

Probability of Premature Deaths (%)

12.2

5 year average

Life Expectancy at Birth

72.5

79.1

Total Deaths

132

Crude Death Rate (%)

9.0

Total Fertility Rate *per woman

2.0

Adolescent Birth Rate *per 1,000

34.4

Skilled Birth Attendance (%)

100.0

Maternal Mortality

0.0

No reported mortality

Bulletin Snapshot cont.

Bulletin Snapshot for the year 2024 only.

The **total fertility rate** for women is **2.0 births** per woman.

There are **17 suicides** per **100,000 population**

Acute respiratory infections (ARIs) accounted for **53%** of all **notifiable diseases** reported in **2024**

A total of **161 COVID-19** cases were **reported** in **2024**

3,216 STI lab tests conducted. **HepB** confirmed **11 cases**.

5,663 NCDs was reported (15yrs+)

170 new **cases** of **diabetes** reported in 2024

131 new **hypertension** cases reported in 2024

99% BCG and **HepB** immunisation **coverage rate**

3.0 cancer **incidence rate** with **50 confirmed** cases

Over **32,600 patients** seen by **outpatient** services

9.8% Cook Islands bed **occupancy rate**

Surgical volume of **4,000** surgeries per **100,000** population.

613 domestic and **323 international** patient referrals

8,800 dental services conducted.

Anxiety accounted for **30.6%** of all **mental health** diagnosis in 2024

91% safe water test results in **schools** and **86%** in **community**

16.7 doctors and **67.4** nurses & midwives personnel per **10,000 population**

Health care accounts for **9.7%** of total **government expenditure**

Over **200** road crashed were reported in **2024**, accounting for **57%** of all **injuries**

Violence accounted for 14% of all injuries reported

Medtech Evolution Screening Templates

SCREENING	MEDTECH CODE
NCD Register	NCDREG
Fish Poisoning	FISH
Dengue-Zika-Chickungunya	DENZIK
Syndrome- for acute fever & rash, diarrhea, prolonged fever and influenza like-illness	SYND, ILI
Admission	ADM
Discharged	DIS
Death	D
Cook Islands Injury Surveillance	CIIS
Road traffic accidents	MVA
Baby birth details	BIRTH
Mother details	BIRTH2
Antenatal clinic	ANC
Postnatal clinic	PNC
Primary health care (Outpatient)	OPD
Triage	TRIAGE
Patient referrals NZ	REFER
Patient referrals OI	REFOI
Specialist Visits	HSV
Maternal and child oral health	MCHOH
Operation Theatre	OT
Breastfeeding	BF
Pap smear	PAP

Key Facts Table

	2021	2022	2023	2024
Cook Islands census population resident numbers	**14,987**	**14,987**	**14,987**	**14,987**
Total number of births	**206**	**229**	**205**	**196**
Total number of deaths	**126**	**106**	**130**	**132**
Total Fertility Rate (TFR per woman)	**2.1**	**2.4**	**2.1**	**2.0**
Crude Birth Rate (CBR per 1,000)	**13.7**	**15.3**	**13.7**	**13.1**
Crude Death Rate (CDR per 1,000)	**7.3**	**6.8**	**8.8**	**9.0**
Adolescent (15-19 years) Birth Rate	**32.6**	**13.7**	**34.4**	**34.4**
Contraceptive Prevalence Rate	**17.8**	**26.2**	**37.5**	**33.2**
Maternal Mortality Ratio	**0**	**0**	**0**	**0**
Skilled Birth Attendance (%)	**100**	**100**	**100**	**100**
Life Expectancy at birth				
Both	76.5	76.1	75.8	75.8
Males	72.8	72.6	72.3	72.5
Females	80.2	79.5	79.3	79.1
Fetal Mortality Rate (per 1,000)	**4.8**	**4.3**	**14.4**	**5.1**
Neonatal Mortality Rate (per 1,000)	**0**	**21.8**	**14.6**	**5.1**
Infant Mortality Rate (IMR per 1,000)	**0**	**21.8**	**29.3**	**5.1**
Under 5 Mortality (U5M per 1,000)	**9.7**	**26.2**	**39.0**	**5.1**
Adult Mortality (%) (5 year avg.)				
Males	14.1	13.3	14.2	7.7
Females	9.0	8.8	7.9	6.9
NCD Mortality (%)				
Aged 15-64	12.7	12.5	12.2	12.9
Aged 65+	87.3	87.5	87.7	87.1
NCD Premature Deaths (%) 30-69years				
Both	41.7	34.1	28.5	36.5
Males	42.9	43.2	39.0	34.5
Females	40.4	25.0	17.9	38.5
Probability of Premature NCD Death (%)(5 year avg.)				
Both	19.7	20.3	19.7	12.2
Males	22.5	23.6	24.0	7.0
Females	16.9	17.0	15.4	17.4

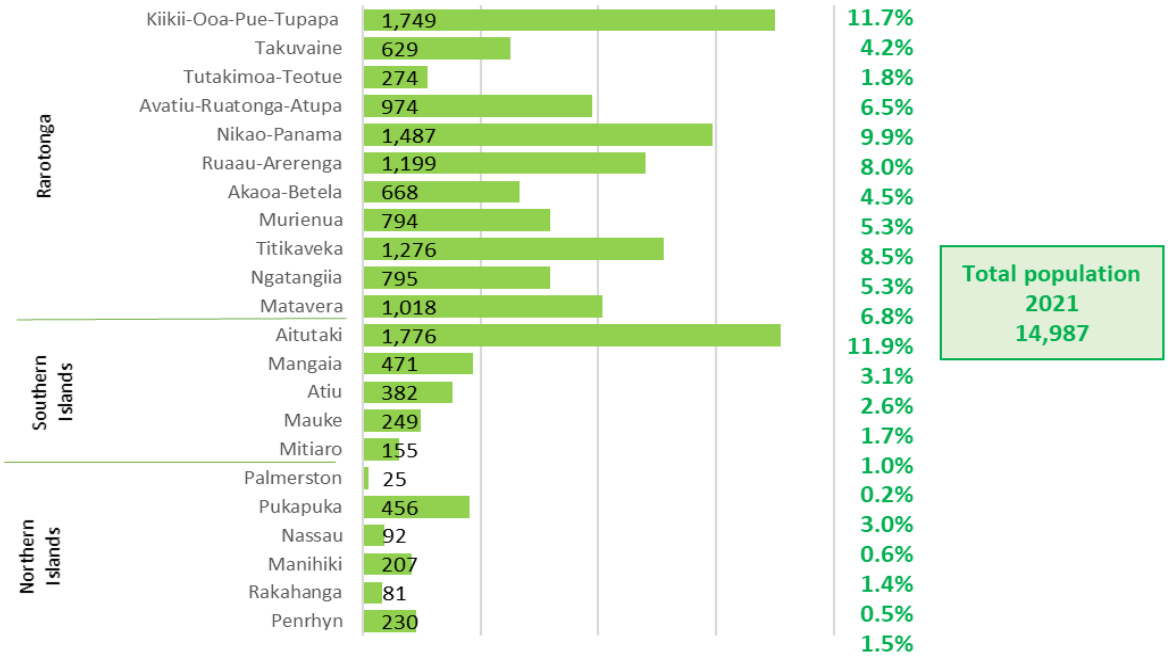
Cook Islands Population

According to the 2021 Census, the total population of the Cook Islands was 15,040. Compared to the 2016 Census, this reflects a modest increase of 1.2%. This figure includes both Cook Islands residents (those permanently living in the country) and visitors who were present at the time of the census. It does not include Cook Islands residents who were overseas during the census period.

Resident population by region

About 72% of all Cook Islands residents lived on the main island of Rarotonga, while 28% resided in the Pa Enua (outer islands). Of this, 20% lived on the southern group of islands: Aitutaki, Atiu, Mangaia, Mauke, and Mitiaro. The remaining 7% lived in the northern group: Palmerston, Manihiki, Rakahanga, Pukapuka, Nassau, and Penrhyn (see **Figure 2**).

Figure 2: Resident population by region 2021

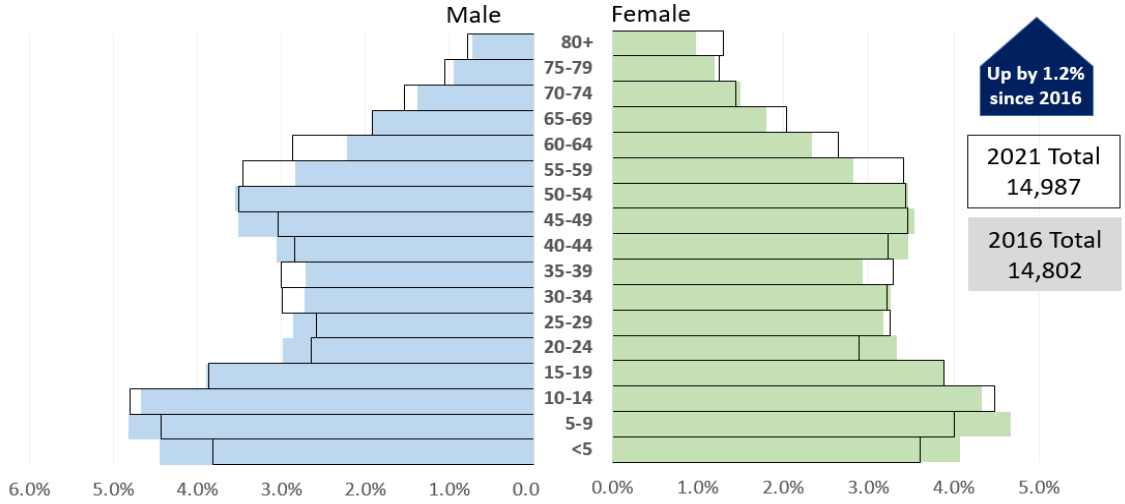


Age Distribution

Figure 3 presents the population pyramids for 2016 and 2021, consisting of 49% males and 51% females. The charts reveal noticeable shifts in age distribution. There is a clear increase in the older population (aged 50 and above), while the number of residents aged 45 and below has decreased. These changes reflect a gradual aging population. Conversely, the number of individuals aged 80 and above increased between 2016 and 2021, suggesting longer life expectancy and the emergence of a healthier aging population.

In contrast, there was a noticeable decline in the number of children (aged 5 and under) and youth (aged 20 to 29). This trend points more toward strong outward migration rather than natural decline due to mortality. The main drivers of migration are likely the pursuit of further education, better employment opportunities, and higher wages overseas.

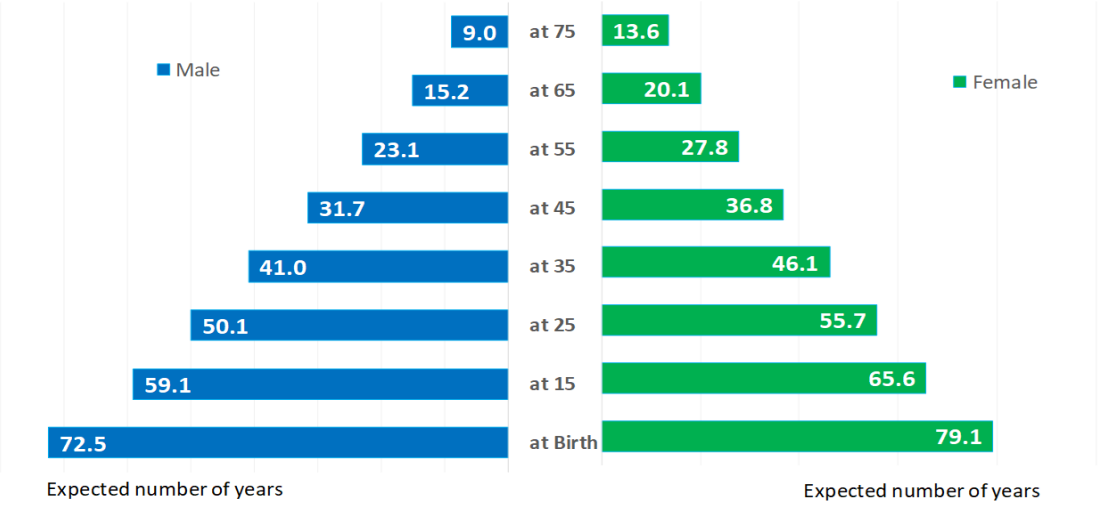
Figure 3: Age distribution of the resident population by sex 2016 (shaded) 2021 (outline)



Life expectancy

Life expectancy in **Figure 4** is an estimate of the average number of years a person is expected to live and is calculated using the number of deaths reported within each age group. In 2024, the average life expectancy at birth for Cook Islanders is 76 years. Based on mortality data for the year, females had a higher life expectancy of 79 years, while males were lower at 72 years. At age 45, males could expect to live an additional 32 years, and females an additional 37 years.

Figure 4: Life expectancy years of life remaining at different stages of life 2024



Health Status | Turanga Ora

TE MARAE ORA
COOK ISLANDS Ministry of Health

Maternal and child health

Antenatal and Postnatal Care Coverage

In 2024, most women aged 15 to 49 years in the Cook Islands received comprehensive care before and after giving birth. Almost all pregnancies (99%) had at least one check-up during pregnancy, and 93% of women completed four or more visits, aligning with the World Health Organization's (WHO) recommendations. 93% of mothers and newborns received postnatal follow-up care. The remaining 7% of mothers returned to their home islands (Pa Enua) or travelled overseas, where postnatal care was provided either on their respective island or in another country. These services were primarily delivered through the paediatric, gynaecology clinics, and public health nurses complemented by the Cook Islands Child Welfare Association (CICWA).

Exclusive breastfeeding rate 0-6 months of age

More than 90%[2] babies are exclusively breastfed after birth, showing that most mothers are committed to giving their babies a healthy start in life. However, by the age of three months, exclusive breastfeeding rates drop to below 20%. This decline is often due to factors such as mothers returning to work or school, limited enabling environments, and the early introduction of formula and/or supplementary foods.

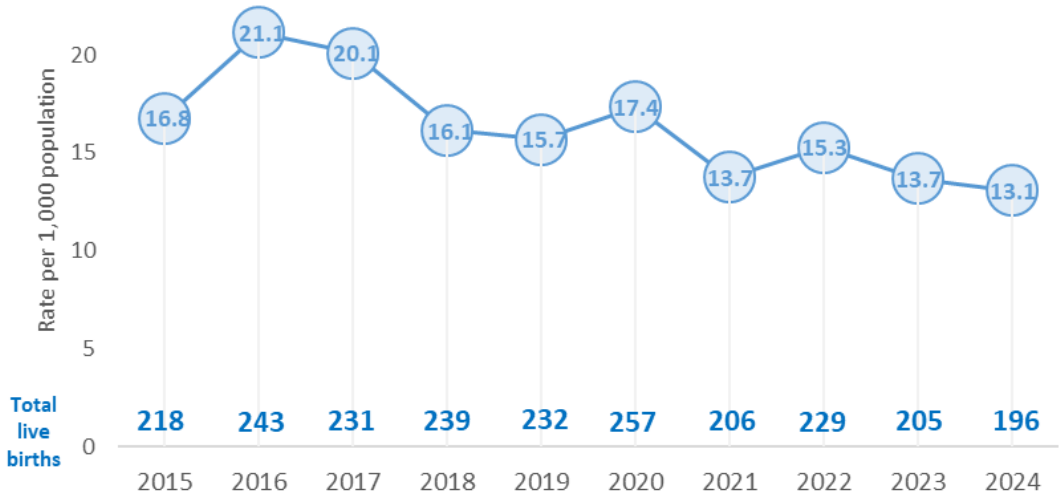
Live Births

The total number of live births delivered over the last ten years have shown a decline from a peak in 2016 with 243 live births to 196 in 2024; reflecting a 19% decline of live births in the Cook Islands. There was not much difference in the number of births between males and females, with a sex ratio of one male to one female (1,127 males and 1,129 females).

Crude birth rate (CBR) in **Figure 5** depicts the number of live births as a proportion of the total resident Cook Islands population each year. As shown below, the CBR has declined from 21 per 1,000 population each year in 2016 and has seen a significant drop to 13 per 1,000 population in 2024.

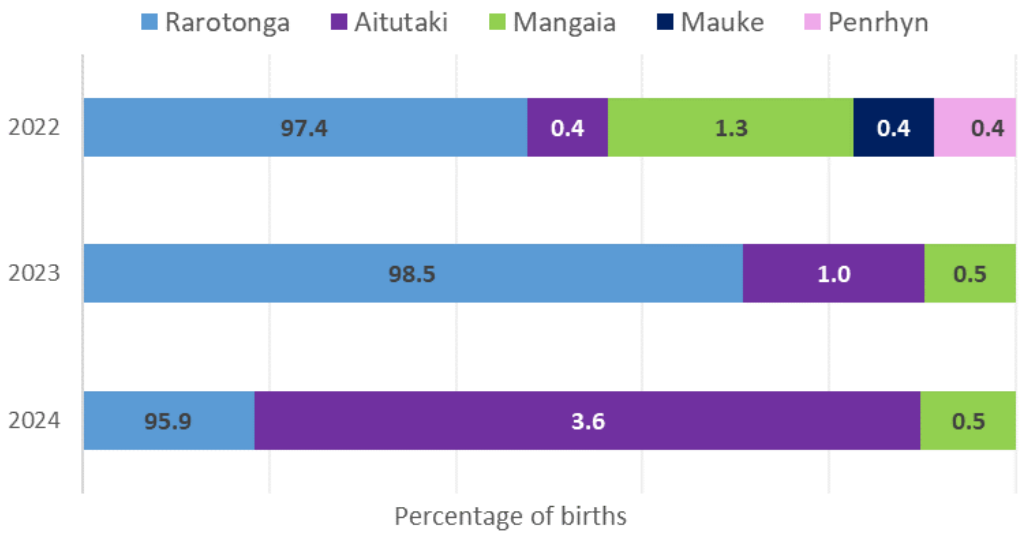
[2] The data reflects 0 to 5 months, sourced from Medtech Evo BF and BF1 screening templates

Figure 5: Crude live birth rate per 1,000 population 2015-2024



Over the past three years, Aitutaki has experienced a steady rise in the number of birth deliveries, increasing from just one birth (0.4%) in 2022 to seven births (3.6%) in 2024 (**Figure 6)**. Over 95% of births are delivered on the main island of Rarotonga.

Figure 6: Percentage distribution of births by island (%) 2022-2024



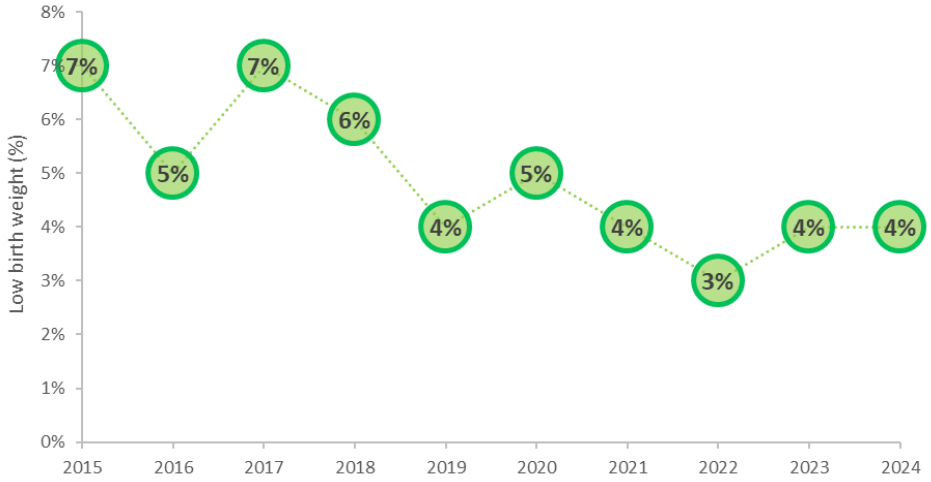
Births Attended by Skilled Health Personnel

The skilled birth attendance remained 100% over the past four years (2021-2024). In 2024, all births were attended by trained health personnel, with four births occurring at home.

Birth weight

A normal birth weight ranges from 2,500 to 4,200 grams, while babies born weighing less than 2,500 grams are classified as having low birth weight (LBW). **Figure 7** shows a steady decline in the percentage of LBW cases over the years—from 14 cases (7%) in 2015 to 7 cases (4%) in 2024, nearly a 50% reduction. On average, about 5% of all live births in the Cook Islands fall into the low birth weight category per year.

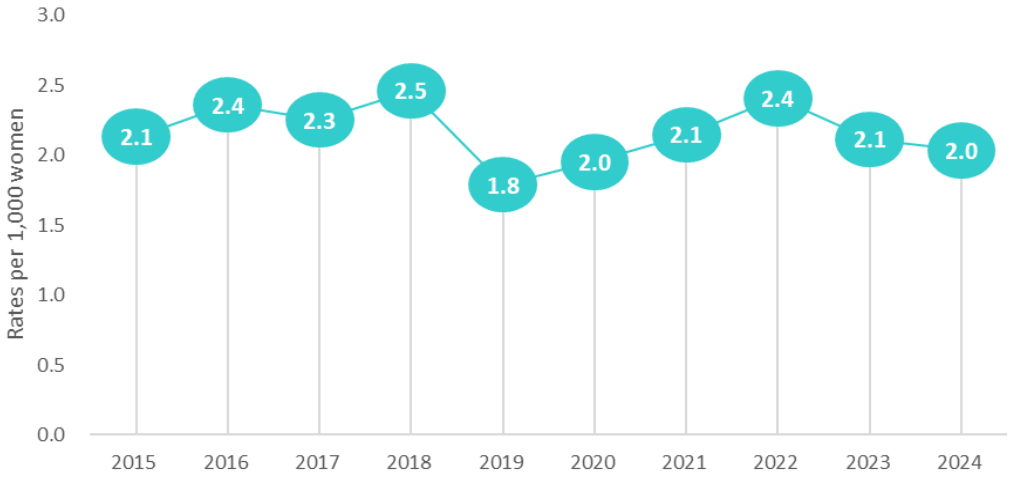
Figure 7: Percentage of low birth weight 2015-2024



Fertility

Total fertility rate (TFR) is a measure of the average number of children a woman would give birth to during her lifetime if she were to pass through her child-bearing years[3] based on current age-specific fertility rates. Figure below shows that over the last ten years, the TFR in the Cook Islands has fluctuated slightly but generally remained an average of 2.2.

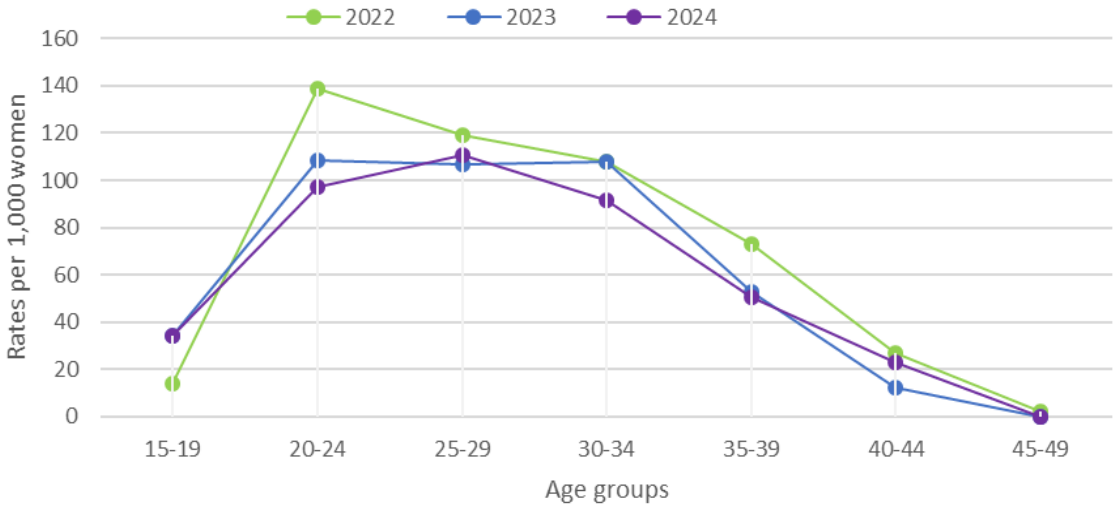
Figure 8: Total fertility rate per 1,000 women 2015-2024



[3] Defined as 15 to 49 years

Over the past three years, the highest number of births in the Cook Islands has consistently occurred among women aged 20 to 24 (**Figure 9**). However, in 2024, the age group shifted slightly to 25 to 29 years old. This suggests a possible trend toward delayed childbearing, which may reflect changing social dynamics, prioritisation of education or career, or access to family planning services.

Figure 9: Age-specific fertility rates 2022-2024

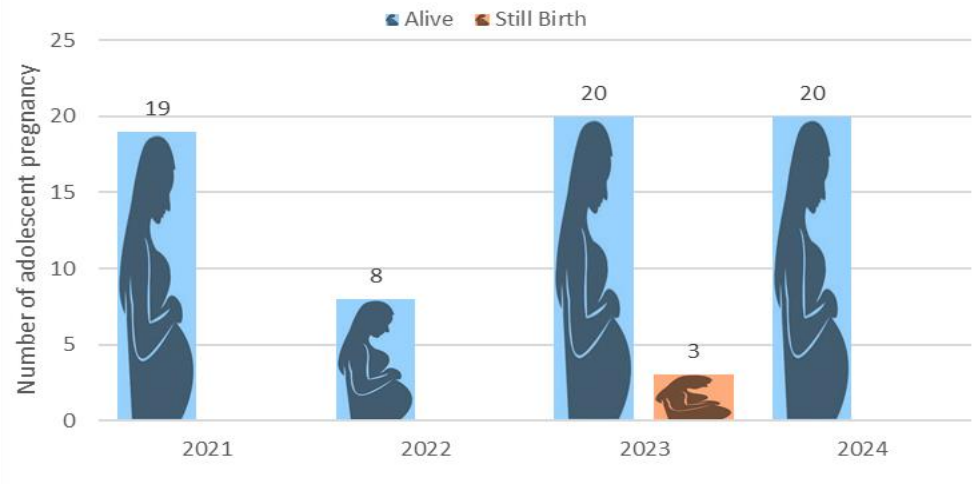


Adolescent Health

Adolescent pregnancy

From 2021 to 2024, a total of 70 adolescent mothers aged 15–19 years were recorded giving birth (**Figure 10)**. Of these, 95% had successful live births, while 5% experienced stillbirths, defined as babies born with no signs of life at or after 28 weeks of gestation.

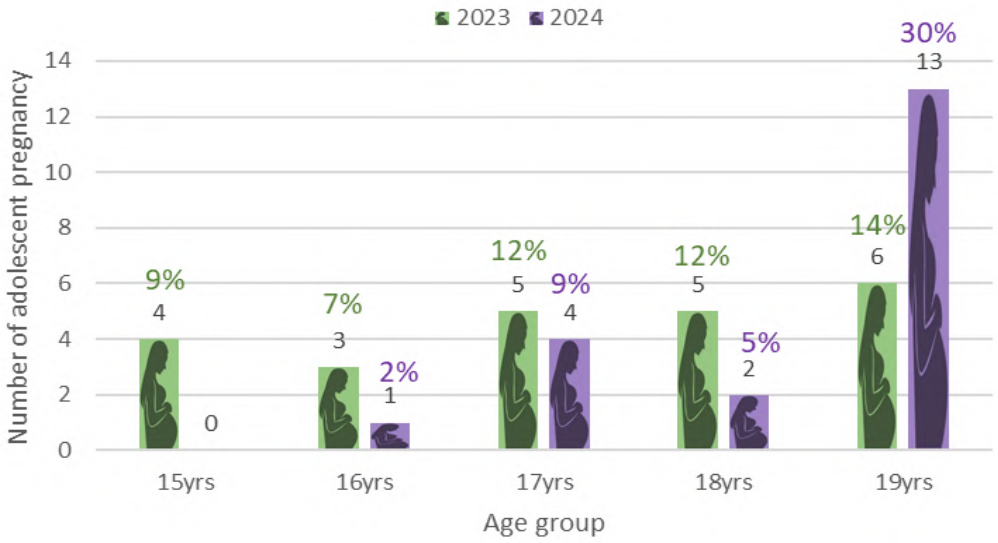
Figure 10: Total number of adolescent mothers to live births 2021-2024



In **Figure 11** below, adolescent pregnancies were most common among 19-year-olds in both 2023 and 2024, with a notable increase from 6 pregnancies in 2023 to 13 in 2024.

In 2024, 30% of all pregnancies were accounted for by adolescent mothers aged 19, followed by 9% aged 17, 5% aged 18, 2% aged 16, and none in the age of 15 years old.

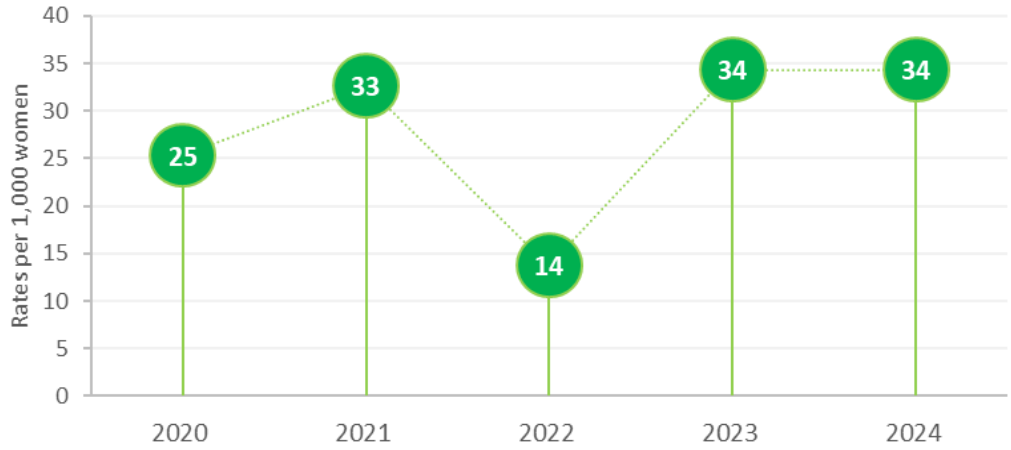
Figure 11: Age distribution of adolescent mothers (15-19 years) 2023-2024



Adolescent birth rate

Since 2020, an average of 28 live births to adolescent mothers[4] occur a year. About 10% of the total live births over the last year were to adolescent mothers. There was a large decrease in 2022 with only 14 per 1,000 adolescent women (**Figure 12**). Since then the number of births to an adolescent mother has remained at 34 per 1,000 for the last two years.

Figure 12: Adolescent birth rate 2020-2024

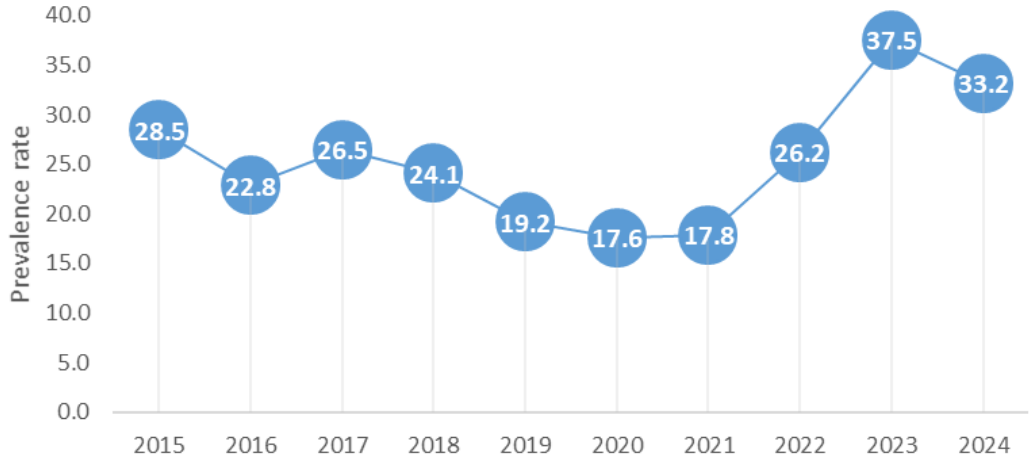


[4] Defined as 15 to 19 years old

Contraceptives

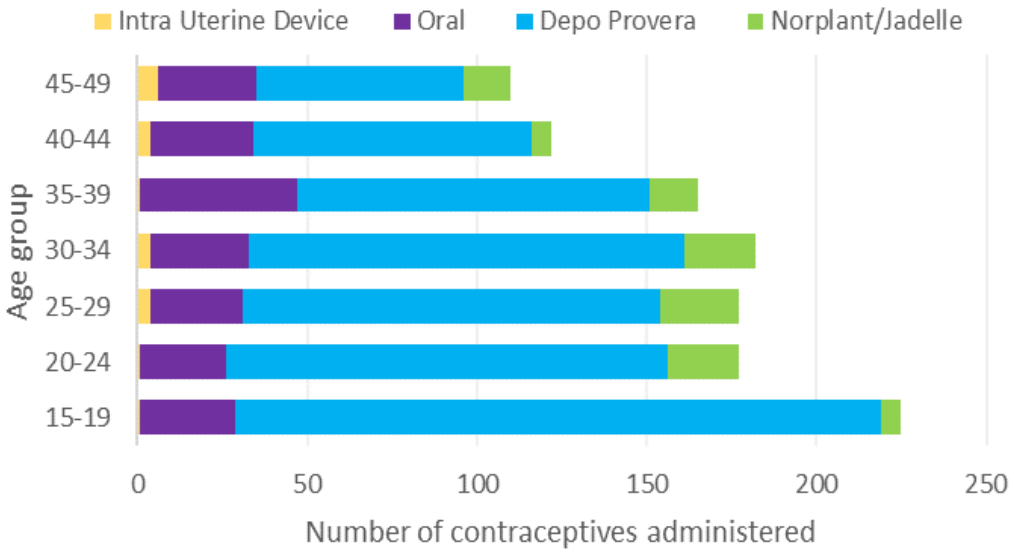
TMO provides a range of modern contraceptive methods to help individuals and couples plan their families by supporting informed choices around the number of children they have and the timing and spacing of their births. Over the past decade, there has been a gradual increase in the number and proportion of women aged 15 to 19 in the Cook Islands using contraceptive methods. As shown in **Figure 13**, the prevalence rate saw a significant rise from 2015, peaking at 37.5% in 2023, before a slight decrease to 33.2% in 2024.

Figure 13: Contraceptive prevalence rate 2015-2024



Depo-Provera is the most commonly used contraceptive method, accounting for approximately 70% of all contraceptive use in **Figure 14**. It is evident that females in the 15–19 years age group actively use contraceptives (n = 3,479). TMO also supports condom distribution through allocated community dispenser sites.

Figure 14: Females utilising contraceptive methods by age group 2024



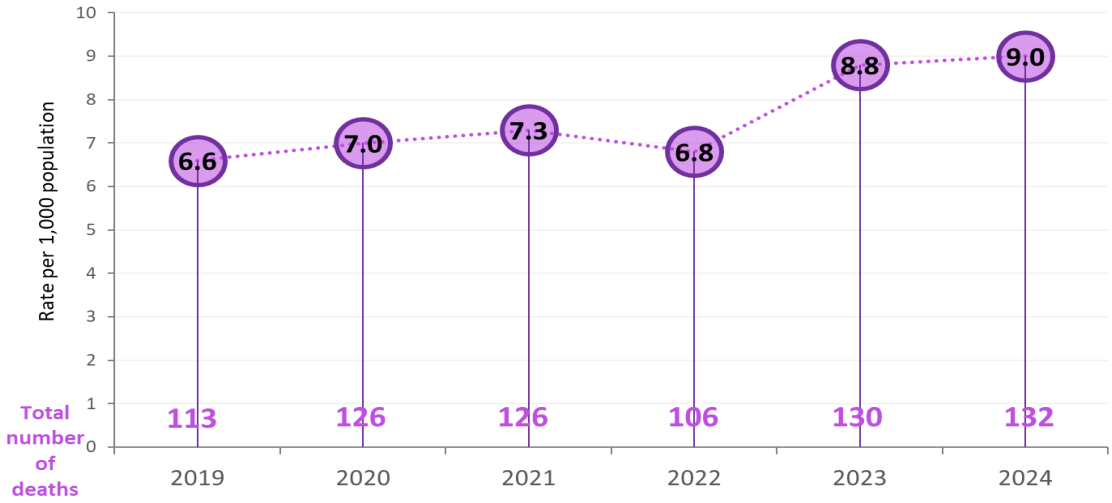
Mortality

All deaths that occur at a hospital or health centre are issued a death notice certificate by medical officers or nurse practitioners. If the cause of death is unknown or there is no past medical history, the Coroner's involvement is required for further investigation. The death certificate is then taken to the Ministry of Justice by the Funeral Director for registration purposes.

Crude death rate

Crude death rate (CDR) is the measure of how many people die per thousand population. In **Figure 15**, 2024 alone, there were a total of 132 deaths that were reported. Over the last six years, CDR in the Cook Islands has had a consistent increase in death rates. Since 2019 there has been an increase of the CDR from 6.6 per 1,000 to 9.0 per 1,000 in 2024.

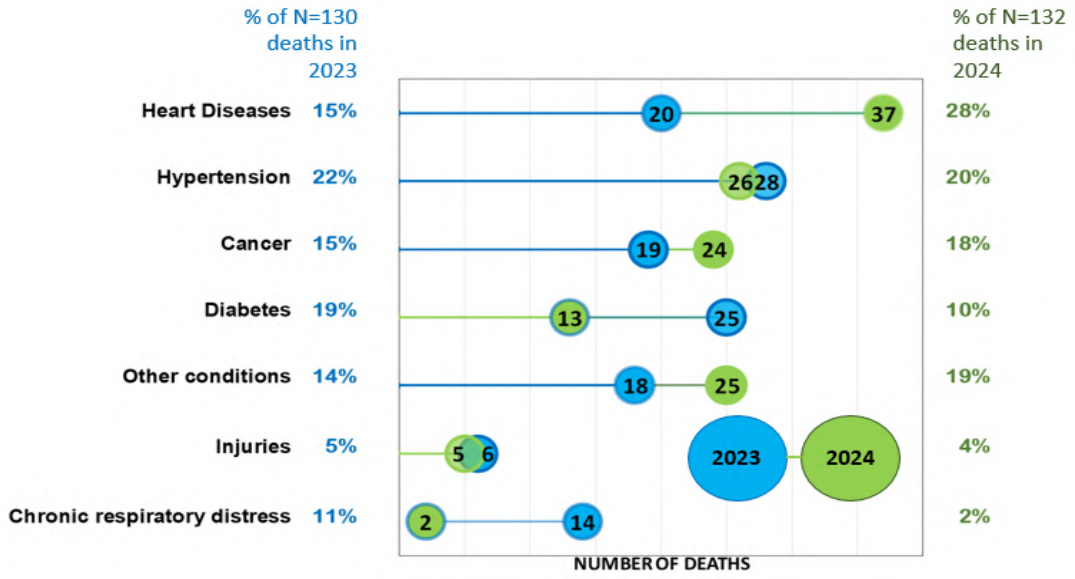
Figure 15: Crude death rate per 1,000 population 2019-2024



Cause of Death

As shown in **Figure 16**, heart disease was the top cause of death, with 37 recorded deaths in 2024. Hypertension was the second leading cause, with 26 deaths. “Other conditions” consisted of ill-defined, infectious diseases, digestive, skin disease, and genitourinary mortality.

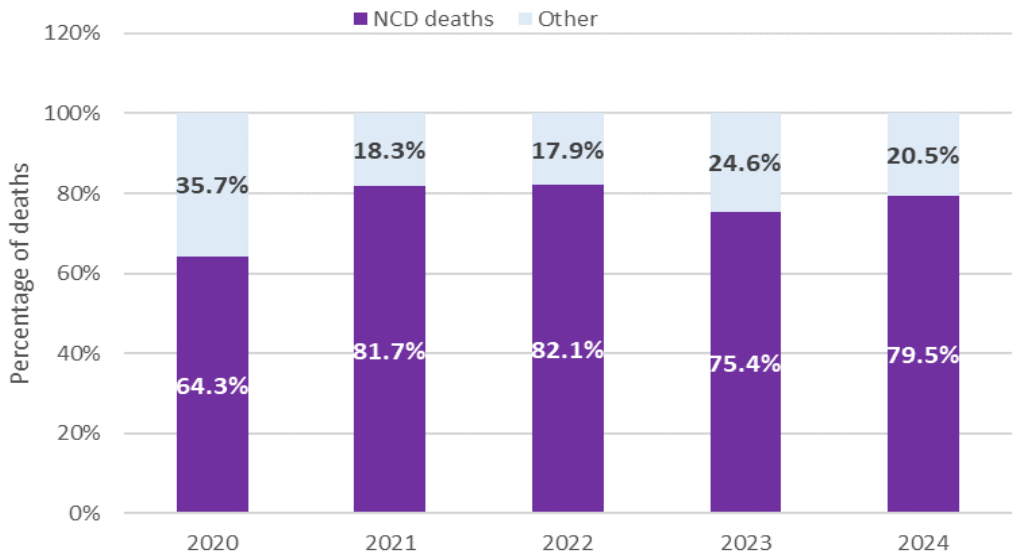
Figure 16: Causes of death by ICD-10 groups 2023 & 2024



NCD Mortality

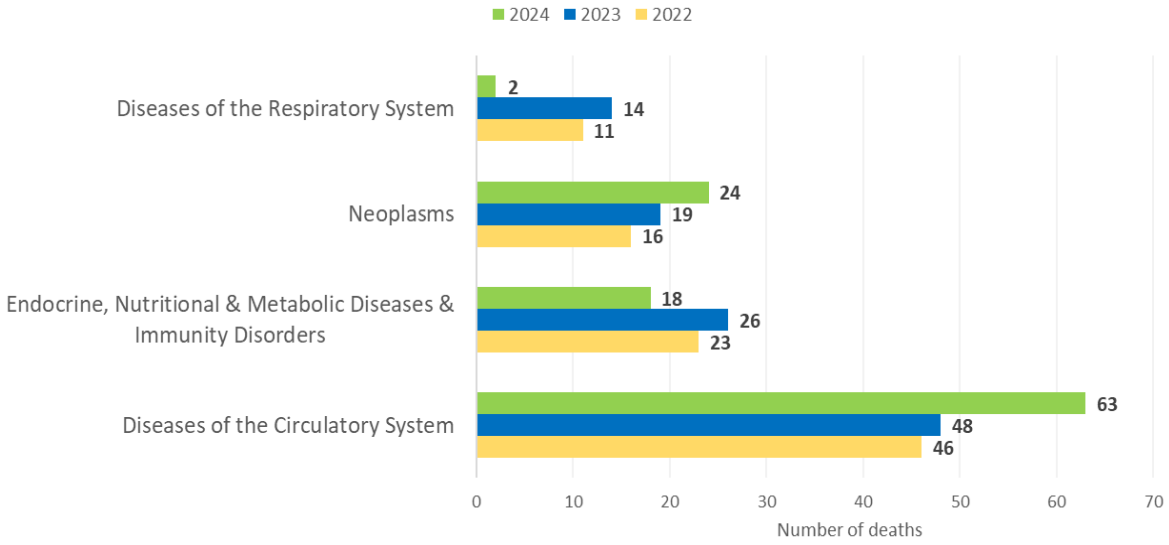
NCDs remain the leading cause of death in the Cook Islands, accounting for an annual average of 77% of all deaths over the past five years (**Figure 17**). Notably, the proportion of NCD-related deaths relative to other causes has modestly increased to 79.5% in 2024 from 75.4% in 2023. Premature NCD deaths accounted for 36.5% (2023: 28.5%) of all NCD deaths in the Cook Islands in 2024. This upward trend warrants further investigation to understand the underlying factors contributing to this change and to inform targeted interventions.

Figure 17: Percentage of NCD deaths to other deaths 2020-2024



The same pattern was observed in 2024 where the diseases of the circulatory system, such as hypertension, stroke, and heart-related conditions, were the leading underlying causes of death in the Cook Islands. It accounted for 48% of all deaths (132) in 2024.

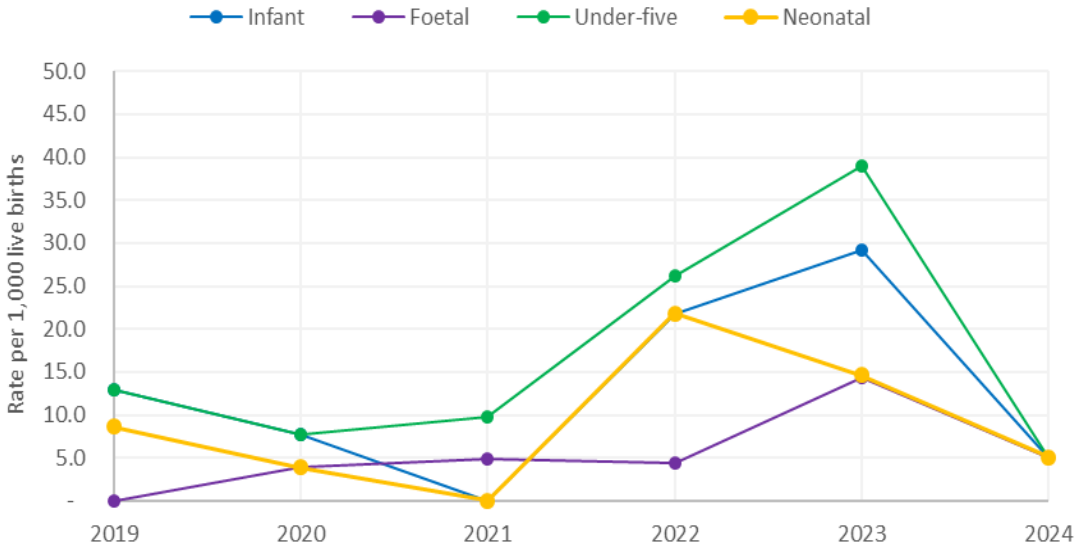
Figure 18: NCD deaths by ICD-10 groups 2022-2024



Fetal, neonatal, infant and under-five mortality rate

Figure 19 illustrates the trends in neonatal, infant, fetal, and under-five mortality rates from 2019 to 2024, measured per 1,000 live births. Overall, these rates declined significantly in 2024, reaching a total of 5.1 per 1,000 live births, primarily due to a decrease in the number of recorded deaths in this group (from 20 in 2023 to 2 in 2024), often associated with respiratory distress.

Figure 19: Fetal, neonatal, infant and under-five mortality rates 2019-2024



Maternal Mortality Ratio (MMR)

Maternal mortality reports the number of women who die during pregnancy, childbirth, or within a few weeks after giving birth. Since 1995, the Cook Islands has recorded zero maternal deaths.

Tuberculosis (TB) Mortality Rate

Tuberculosis (TB) remains a rare disease in the Cook Islands, with consistently low incidence reported over the past five years. Between 2019 and 2022, the country recorded an estimated two confirmed TB cases per year. Since 2023, a total of four (4) TB cases have been confirmed. There have been no reported fatalities attributed to TB during this period, including in 2024. These figures reflect strong surveillance and control measures in place. More detailed information on TB cases is provided in the appendix.

Malaria Mortality Rate

There have been zero confirmed cases of malaria deaths in the country over the past ten years (2015-2024).

Dengue Mortality Rate

There have been zero confirmed cases of dengue deaths in the country over the past ten years (2015-2024)

AIDS-related Mortality Rate

There have been zero confirmed cases of AIDS-related deaths in the country over the past ten years (2015-2024).

Death rate due to road traffic injuries

In 2024, only one road traffic death was reported in the Cook Islands. Between 2021 and 2024, a total of eight road traffic deaths were recorded, over 70% alcohol-related. Additionally, of the eight deaths, two were children under the age of 15.

Mortality from drowning

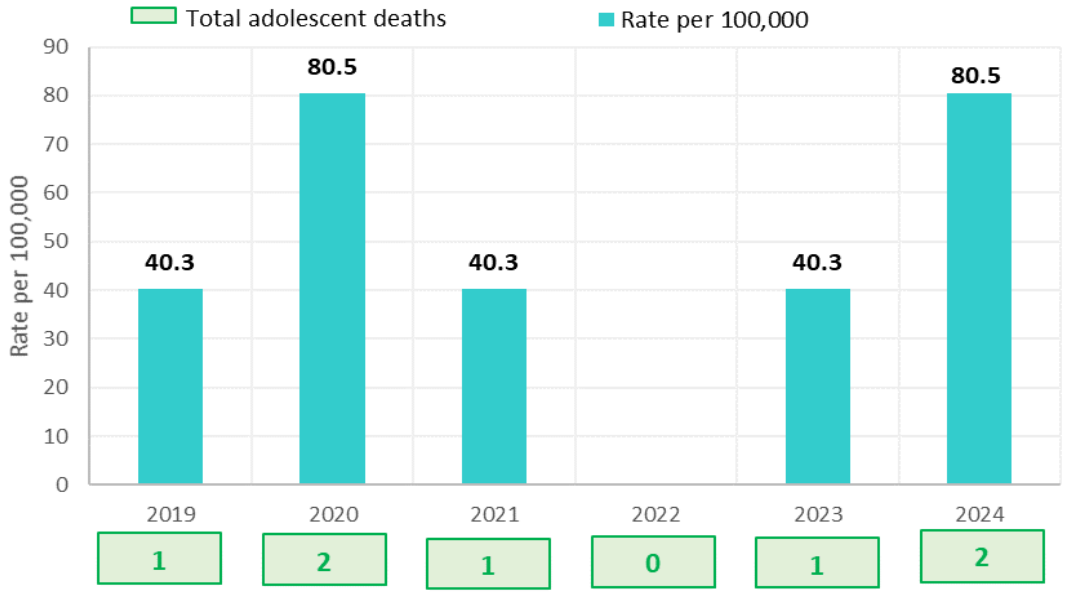
In 2024, no deaths related to drowning was reported in the age group 0 to 50 years old. During this period a total of three drowning deaths were reported (one female resident and two non-resident males all over the age of 50 years).

Adolescent mortality rate

Over the last five years, a total of seven adolescent deaths were recorded; where intentional self-harm (suicide) has been the leading cause of adolescent deaths, followed by road crashes. Annual number of deaths have generally stayed between one and two.

The adolescent mortality rate fluctuated between 2019 and 2024, peaking at 80.5 deaths per 100,000 adolescents in both 2020 and 2024. While this rate appears high, it represents less than 1% of the total adolescent population.

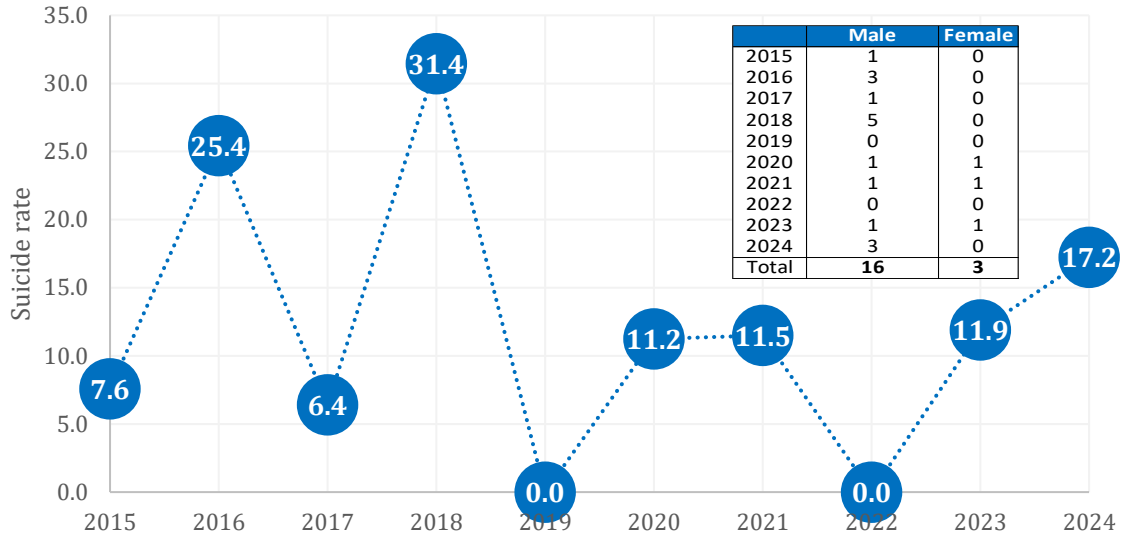
Figure 20: Adolescent mortality rate per 100,000 estimated resident population 2019-2024



Suicide Rate

Over the past decade (2015–2024), suicide rates in the Cook Islands have shown irregular trends in **Figure 21**. The rate peaked in 2018 at 31 per 100,000 population, before dropping to zero in 2019. From 2020 to 2023, the rate remained relatively stable at 11 per 100,000 population or below. However, in 2024, there was a slight increase, with the suicide rate rising to 17 per 100,000 population, the highest rate recorded in the past five years (2020-2024).

Figure 21: Suicide rate per 100,000 resident estimate population 2015-2024



	Male	Female
2015	1	0
2016	3	0
2017	1	0
2018	5	0
2019	0	0
2020	1	1
2021	1	1
2022	0	0
2023	1	1
2024	3	0
Total	**16**	**3**

Note that the resident population estimates were used for each year's computations.

Over the past five years (2020–2024), males accounted for 67% of all suicide deaths, while females made up the remaining 33%. In 2024 alone, three cases of male self-harm were reported—two involved individuals aged 15–24, and one aged 25–34. Throughout the decade, a consistent trend has emerged: suicides are most prevalent among youth aged 15–24, with young males being the most affected.

Communicable Diseases

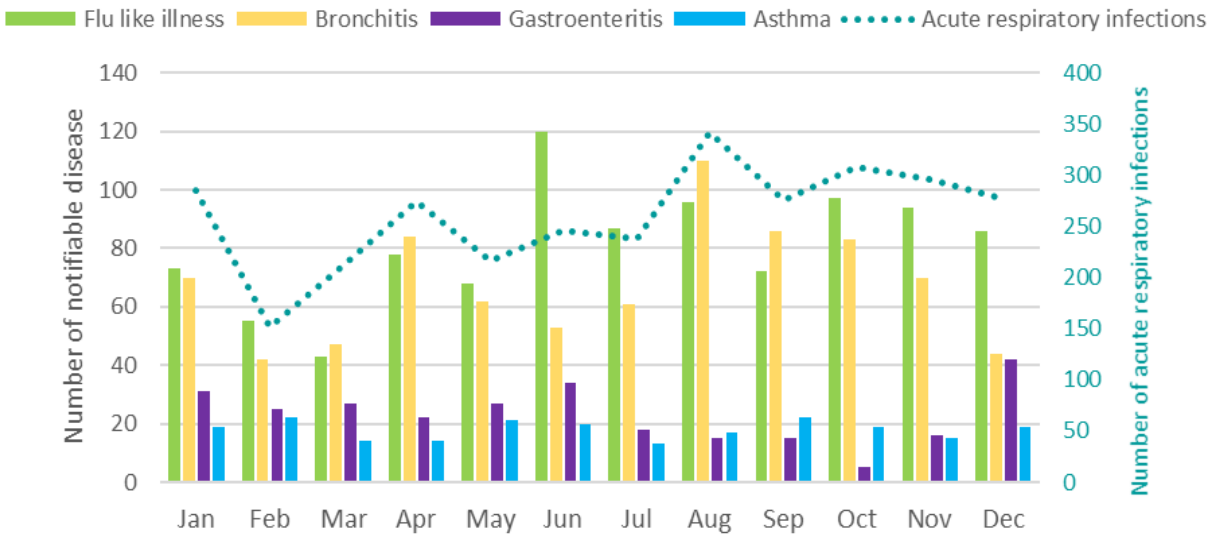
Notifiable Diseases

In 2024, approximately 5,868 of notifiable disease cases were reported. In **Figure 22,** the top five notifiable diseases reported in the Cook Islands were:

- Acute respiratory infections (3,124 cases)
- Flu-like illness (969 cases)
- Bronchitis (812 cases)
- Gastroenteritis/diarrhoea (277 cases)
- Asthma (215 cases)

Although acute respiratory infections (ARIs) remained the most common notifiable disease in 2024, representing 53% of all reported cases, there was a significant reduction of approximately 50.7% compared to 2023 (6,346). This substantial decline indicates a notable decrease in the burden of respiratory conditions over the period.

Figure 22: Top five notifiable diseases by month 2024

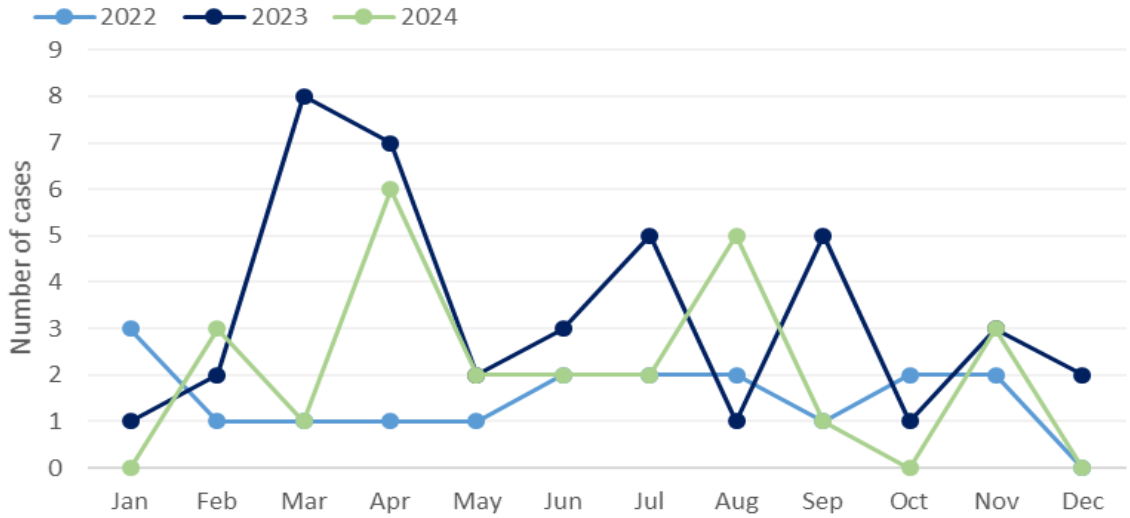


Ciguatera poisoning

Ciguatera (fish poisoning) is a food-borne illness caused by consuming reef fish contaminated with ciguatoxins, which are commonly found in large reef species.

Figure 23 shows an average of two reported cases per month in 2024. Over the past three years, the highest number of cases was recorded in March 2023. Trends have fluctuated during this period, with noticeable spikes typically occurring in the first quarter of the year. In contrast, case numbers tend to decline during the final quarter.

Figure 23: Fish poisoning cases by month and year 2022-2024

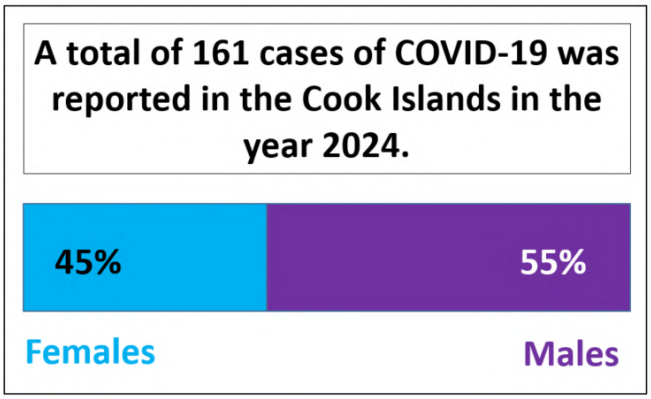


COVID-19

Since the first confirmed COVID-19 case in February 2022, the Cook Islands has recorded over 7,380 cases to date. In 2024, (as seen in **Figure 24)**, 161 new cases were reported, with cases distributed across Rarotonga (90) Aitutaki (40), Manihiki (26), Mitiaro (3), and Mangaia (2).

The majority of cases in 2024 were among individuals aged 40 and above, accounting for 71% of all po sitive cases.

Figure 24: COVID-19 cases by sex 2024



Vector Borne Disease

Dengue

As of 2024, there have been no reported cases of dengue in the Cook Islands. All suspected cases tested were confirmed negative by the TMO laboratory. The last dengue outbreak in the Cook Islands occurred in 2021 with a total of 193 confirmed cases.

Malaria

There has been no incidence of malaria over the past ten years.

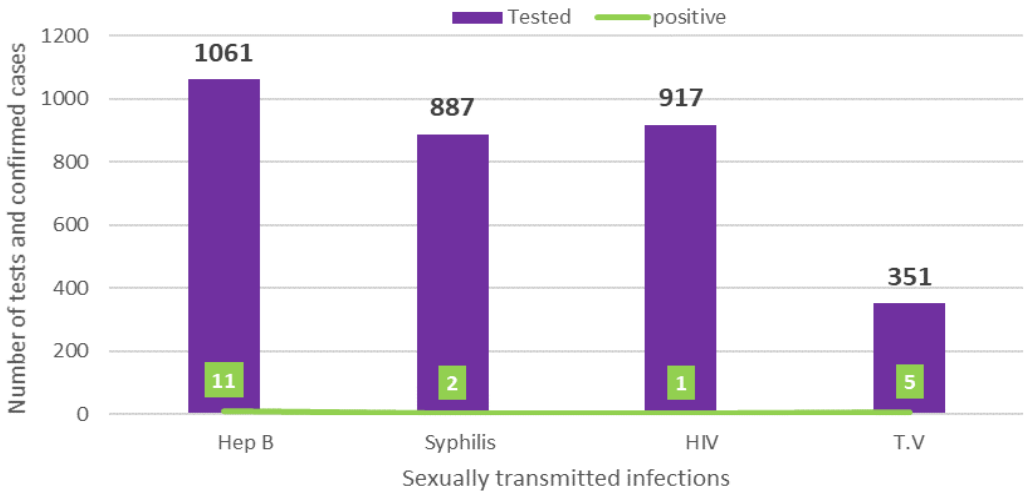
Other

Other vector-borne diseases such as leprosy, filariasis, chikungunya, Zika, yaws, and measles have reported zero cases since 2016.

Sexually transmitted infections (STIs)

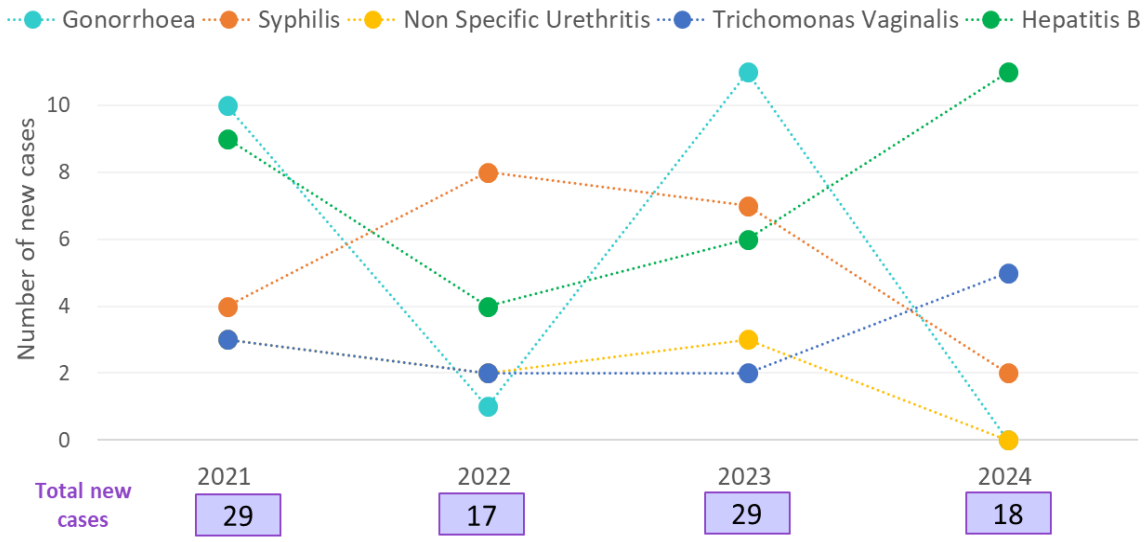
Figure 24 in 2024, a total of 3,216 STI laboratory tests were conducted for Hepatitis B (Hep B), Syphilis, Human Immunodeficiency Virus (HIV) and Trichomoniasis Vaginalis (T.V.). Out of these tests, only 19 cases or less than 1% (compared to <2% in 2023) tested positive. Hepatitis B had the highest number of tests (1,061), resulting in 11 positive cases. Although HIV testing was also high (917 tests), it yielded the lowest number of positive cases, with just 1.

Figure 25: Number of laboratory testing and confirmed positive new STI cases 2024



Over the past four years in **Figure 25,** Hepatitis B had the most reported STI cases (N=30) followed by Gonorrhoea (N=22), Syphilis (N=21) and T.V (N=12). Please note that Candidiasis was removed from this section as it is not officially classified as STI.[5]

Figure 26: Laboratory-confirmed new STI cases 2021-2024



[5] https://www.who.int/news-room/fact-sheets/detail/candidiasis-(yeast-infection)

Candidiasis

Between 2021 and 2024, the number of Candidiasis tests conducted increased substantially, reflecting intensified surveillance and possibly greater access to diagnostic services. Despite the increase in the screening volume, the number of positive cases declined sharply to 15 (3.9%) in 2024 from 35 (19.34%) in 2023, which may reflect successful treatment interventions, improved prevention strategies.

Table 1: ***Laboratory confirmed candidiasis testing and positive new cases 2021- 2024***

	2021	2022	2023	2024
Tested	87	77	181	376
Positive	17	14	35	15

Congenital syphilis

There have been no reported cases of congenital syphilis since the early 2000s till to date, reflecting the effectiveness of maternal screening and early intervention programs.

Human immunodeficiency virus (HIV)

Following the reporting of a single imported case of HIV in 2023, one additional case was documented in 2024[6]. The HIV incidence rate for 2024 remains at 0 per 1,000 uninfected population, based on the resident population.

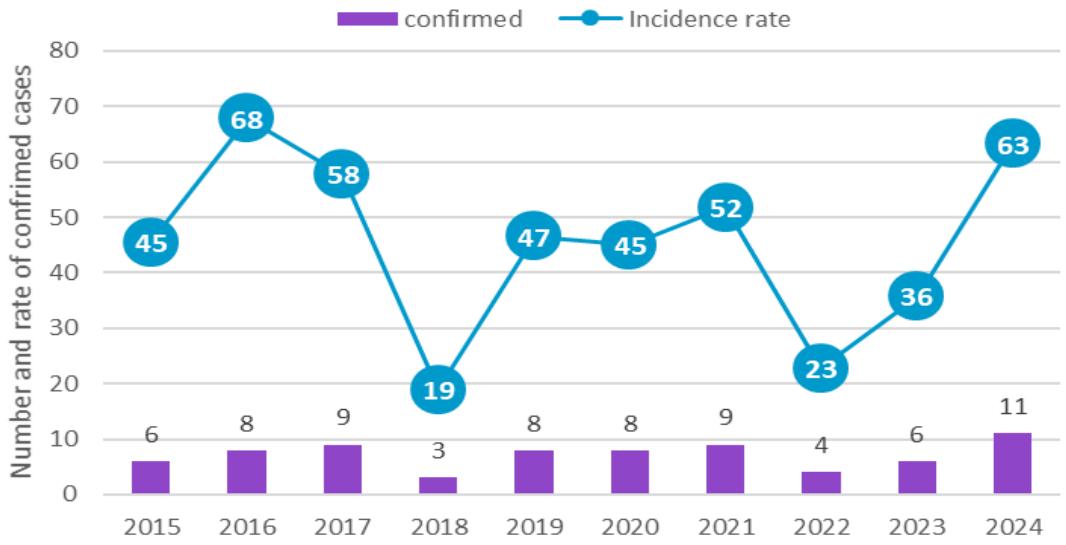
Antiretroviral therapy (ART) is essential for improving health outcomes for people living with HIV and reducing the risk of transmission. Through support from the United Nations Development Programme (UNDP), TMO provides ART to 100% of confirmed cases. Patient monitoring includes Clusters of Differentiation 4 (CD4) counts and viral load testing currently done in the country, with samples sent to New Zealand for analysis.

Hepatitis B

The number of confirmed cases fluctuated over the past ten years (seen in **Figure 27).** HepB incidence reached its lowest in the year 2018 with only 3 cases reported. In 2024, 11 new cases were reported, resulting in an incidence rate of 63 per 100,000 population. This brings the total number of confirmed cases over the past decade to 83.

[6] Both non-residents.

Figure 27: Laboratory confirmed hepatitis-B cases and incidence rate 2015-2024



Note that the resident population estimates were used for each year's computations

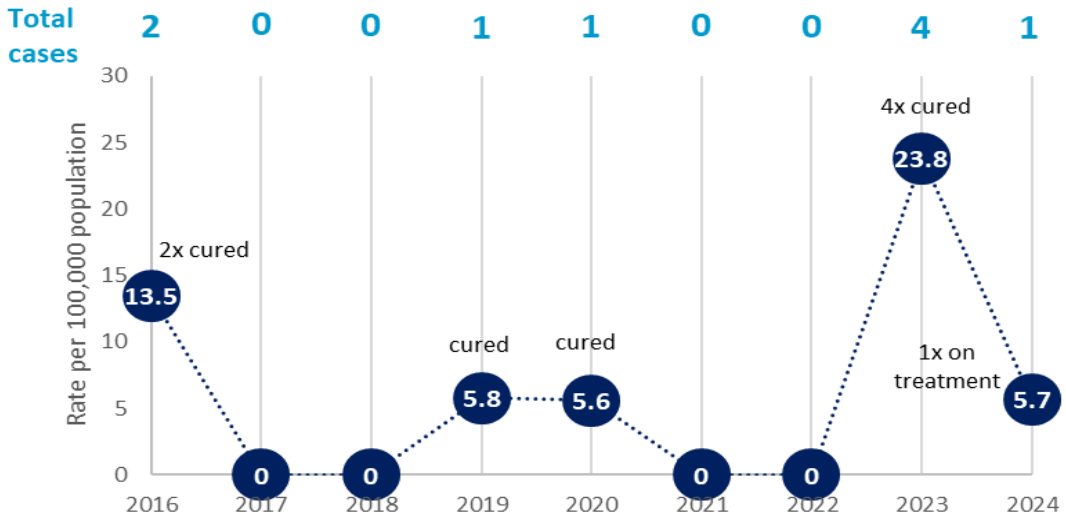
Tuberculosis

In the Cook Islands, tuberculosis (TB) notification rates have varied over the years, dropping to zero in some years (seen in **Figure 28**), peaking at 23.8 per 100,000 population in 2023, and decreasing to 5.7 per 100,000 in 2024.

On average, only one case of TB is reported each year in the Cook Islands. In 2024, 17 samples were tested, with just one confirmed positive case.

From 2016 to 2024, a total of nine TB cases were reported, with three cases detected among non-permanent residents (one each in 2016, 2023, and 2024). The overall treatment success rate was 89%, with only one currently on treatment.

Figure 28: Tuberculosis incidence rate per 100,000 population 2016-2024



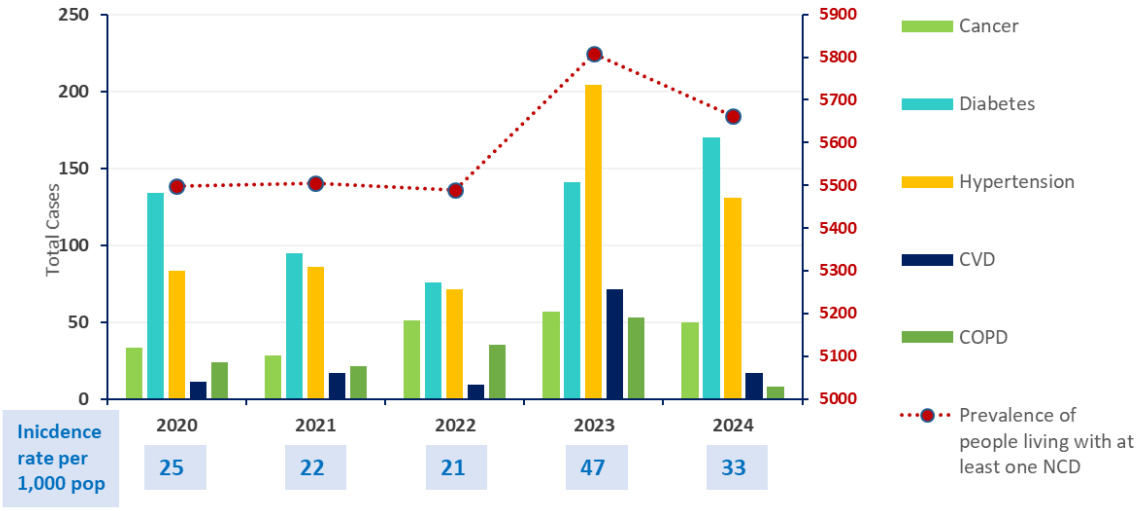
Note that the population estimates were used for each year's computations.

Non-Communicable Disease

As of December 2024, people diagnosed with NCDs slightly decreased from 5,800 in 2023 to 5,663 patients, where women represent 52%, and men 48%. Note that these figures are based on 15 years and above only.

Incidence rate reduced to 33 cases per 1,000 population from 47 cases per 1,000 population. The prevalence of NCDs, representing the total number of individuals living with at least one NCDs, where a decline was observed from 2024 to 2023.

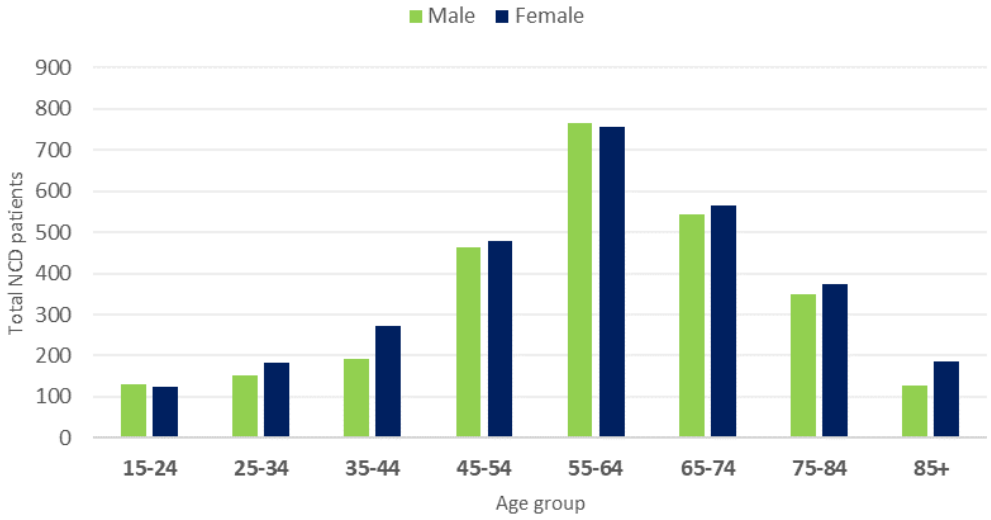
Figure 29: New non-communicable disease cases[7] by year 2020-2024



Similar patterns have been observed in the past, with NCDs consistently being most prevalent amongst the adult population. The age group most affected is 55 to 64 years, accounting for 27% of all reported NCD cases. The prevalence of hypertension among adults aged 30 to 79 is estimated at 31%, while diabetes affects approximately 23% of this age group.

[7] A patient can have more than one case of NCDs

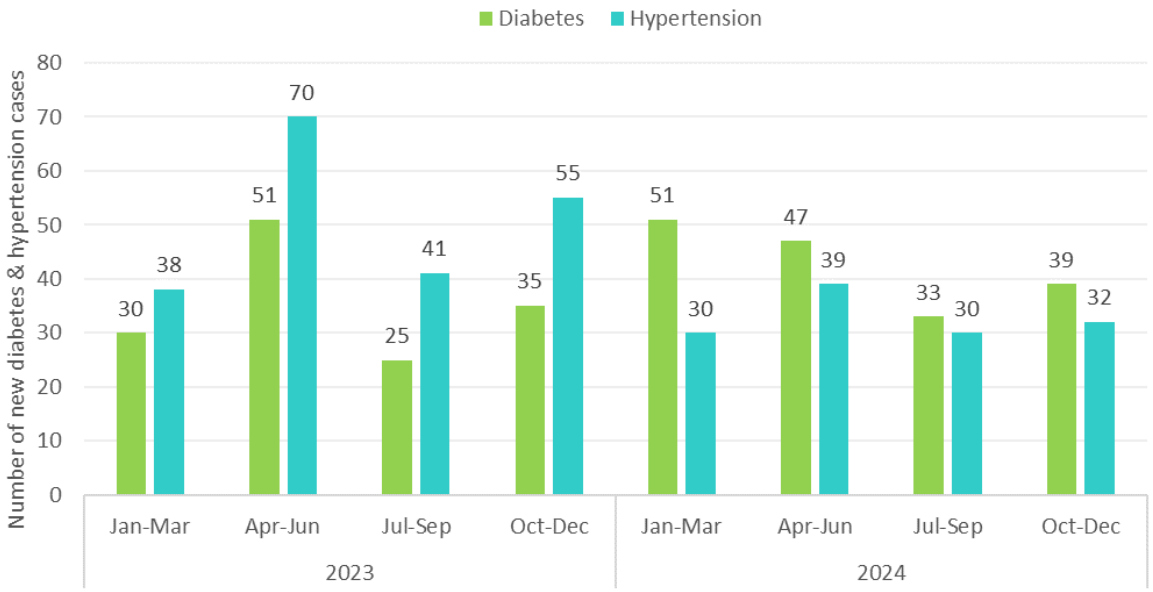
Figure 30: NCD by age group and sex as of December 2024



Diabetes and Hypertension

Diabetes and hypertension have consistently made up the majority of NCD cases in the Cook Islands **(Figure 31)**. Between 2023 and 2024, diabetes cases increased slightly from 141 to 170, while hypertension cases declined from 204 to 131.

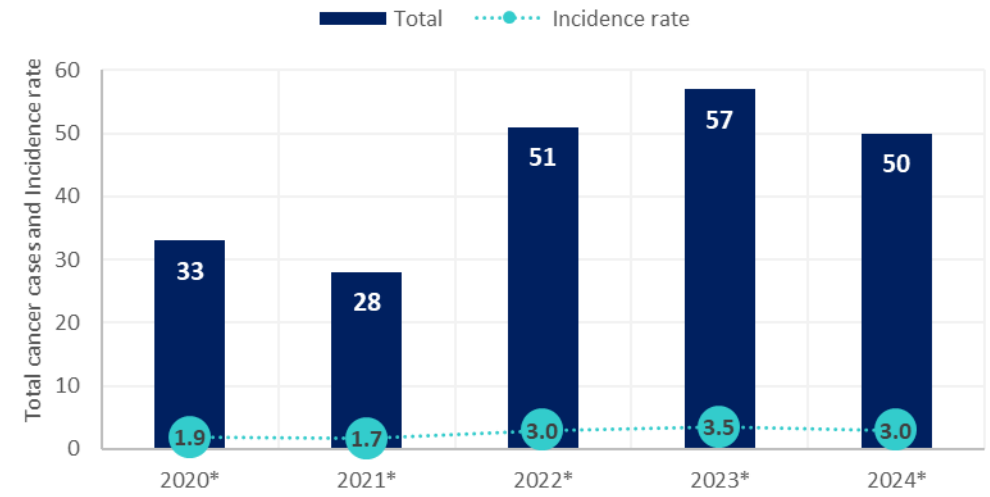
Figure 31: New cases of diabetes and hypertension 2023-2024



Cancer

The Cook Islands Cancer Registry has recorded 600 (2023:550) cancer cases as of December 2024. Over the last five years**,** cancer diagnoses have increased by 51%, rising from 33 cases in 2020 to 50 cases in 2024, an annual average of 43 cases. In the most recent three years (2022-2024), the average cancer incidence rate has remained steady at 3.2 cases per 1,000 population (**Figure 32**).

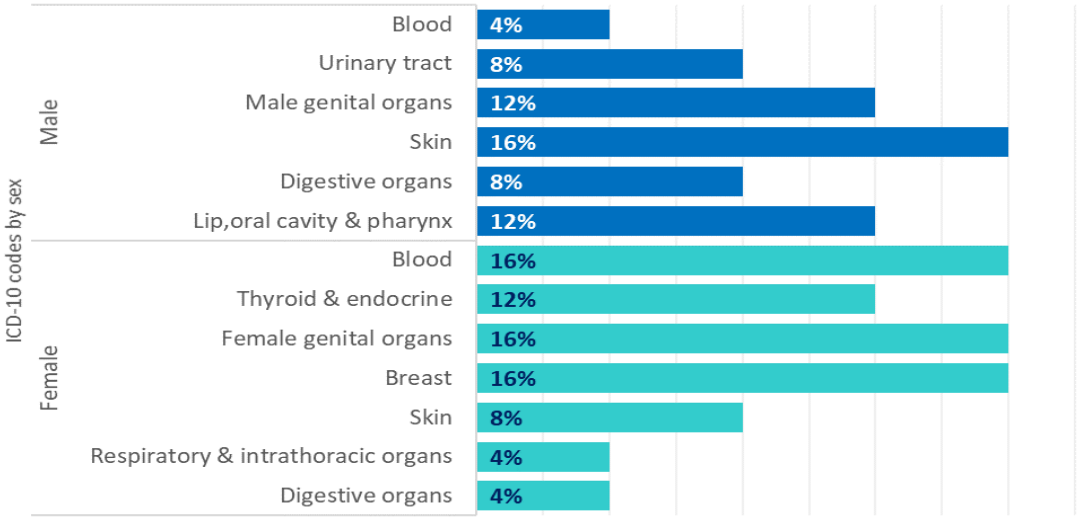
Figure 32: Cancer by year and incidence rate 2020-2024



Note: population denominator adjusted for these years

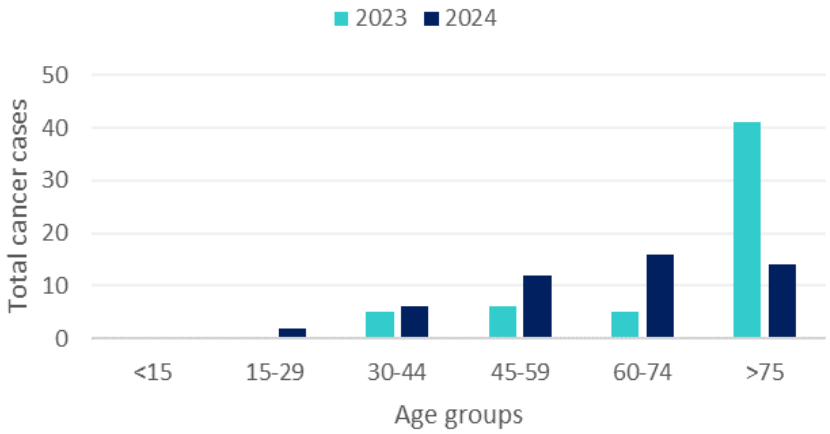
In 2024, skin cancer was the most common cancer type amongst males and females, affecting approximately 0.3 people per 1,000 population. In terms of incidence, males had a higher rate of skin cancer, accounting for 16% of all male cancer cases (**Figure 33)**. Among females, the most common cancers were breast, genital, and blood cancers, each making up 16% of all female cancer cases.

Figure 33: Cancer by type and sex 2024



In the past two years, just over 100 cancer cases were diagnosed, with a majority (51%) of cancer diagnoses being among individuals aged 75 and older **(Figure 34)**. In comparison, only 4% of cases were reported in the younger age group of 15 to 29.

Figure 34: Cancer case by year and age group 2023-2024



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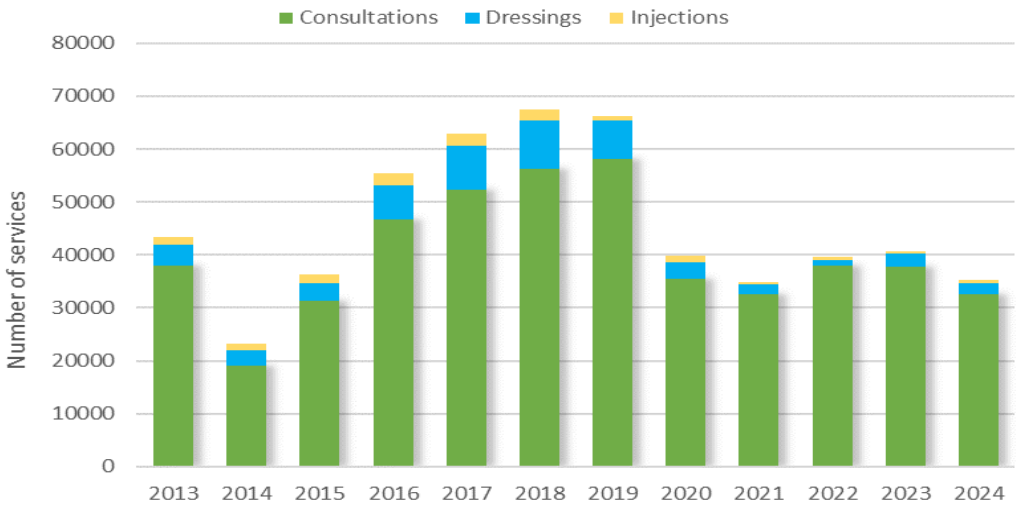
Outpatient

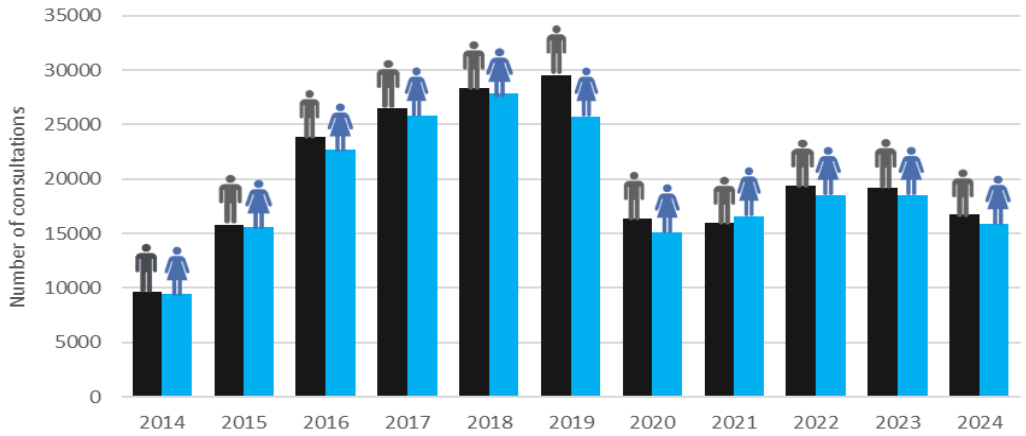
Outpatient services in the Cook Islands, are delivered in community health clinics on Rarotonga and in the Pa Enua, Tupapa primary health centre and with minimal services offered after hours and public holidays at the Rarotonga hospital. These sites offer a range of services, consultation (patient/phone), wound dressings, and injections including minor operations, and specialised preventative clinics (e.g. NCD and sleep apnea clinics). Between 2013 and 2024, TMO recorded over 39,500 consultations per annum **(Figure 35)**. During the same period, 4,349 dressings for open wounds and 1,250 injections were administered.

Figure 35: Outpatient services utilisation 2013-2024



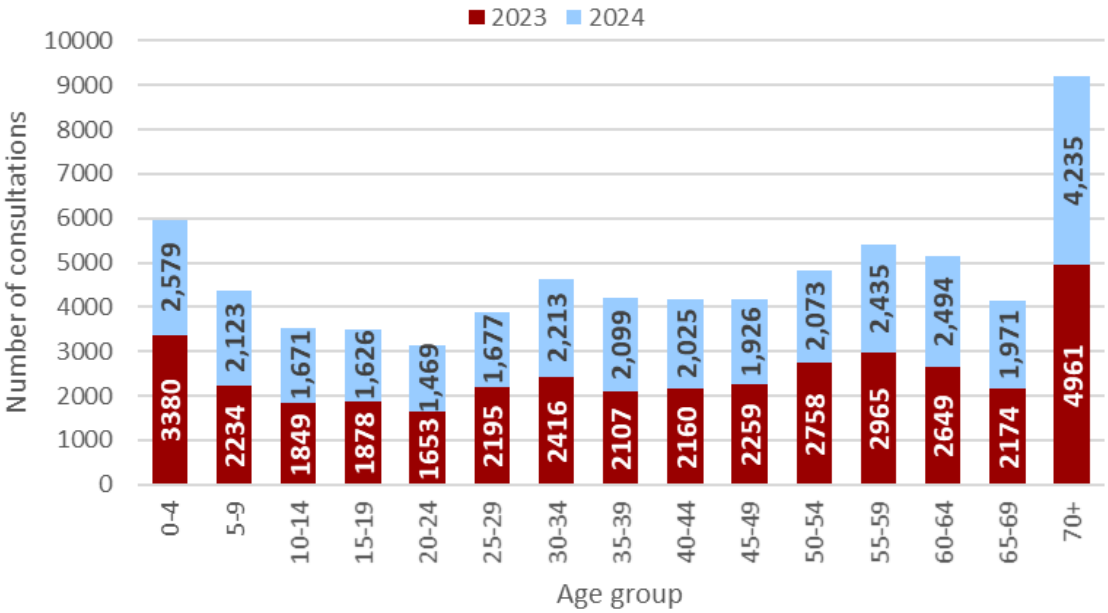
Consultation trends from 2014 to 2024, showing a significant increase from 2014 to a peak around 2018-2019, followed by a noticeable decline in 2020 **(Figure 36)**. In almost all years, males appear to be slightly higher than females.

Figure 36: Outpatient consultations by sex 2013-2024



In **Figure 37**, the 70+ age group had the highest number of consultations in both 2023 (4,961) and 2024 (4,235), totaling 9,196. This is followed by the 0–4 age group with 3,380 consultations in 2023 and 2,579 in 2024, totaling 5,959, indicating high health service use among the youngest and oldest populations.

Figure 37: Outpatient consultations by age 2023-2024



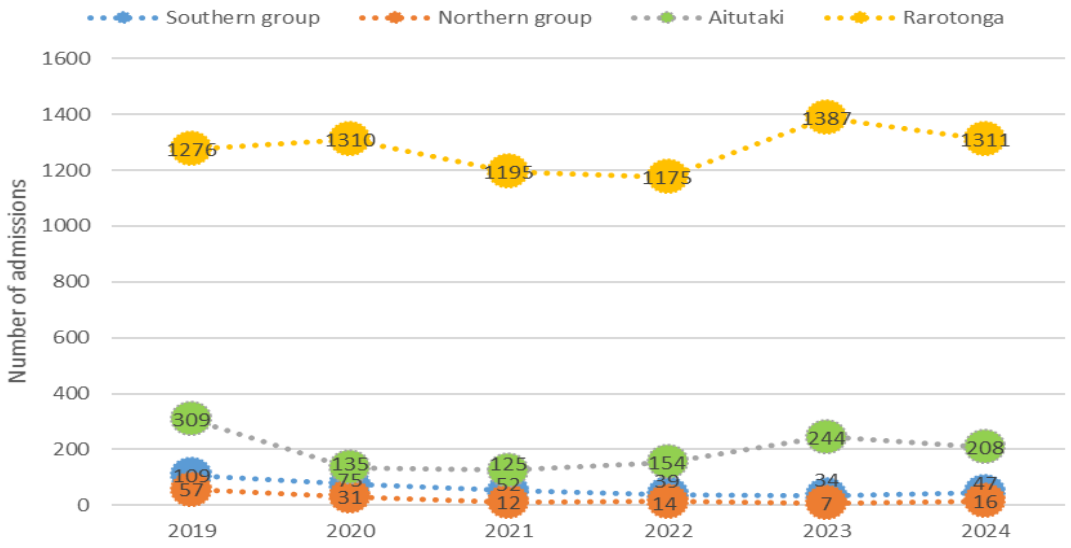
Inpatient

Admissions

In 2024, a total of 1,574 (2023: 1,672) hospital admissions were recorded, with Rarotonga accounting for 83% of all admission cases across the Cook Islands.

Figure 38 below shows the number of admissions from the Southern Group, Northern Group, Aitutaki and the main island of Rarotonga for the years 2019 to 2024. Admissions data over this period indicate that Aitutaki experienced a notable drop in 2020, followed by a steady increase through to 2024. Rarotonga consistently reported high admission numbers, peaking in 2023. In contrast, the Northern and Southern groups showed a gradual decline in admissions from 2019 to 2023, with a slight increase observed in 2024.

Figure 38: Number of admissions by island 2019-2024



Morbidity

In 2024, diseases of the digestive system accounted for the highest proportion of morbidity in the Cook Islands at 12%, followed by diseases of the genitourinary system and cases of injury & poisoning, each accounting for 10% of the total morbidity **(Figure 39)**. This is contrary to the previous report where heart disease (11%) was the leading cause of morbidity. Further investigation is required to provide in-depth review of the trends.

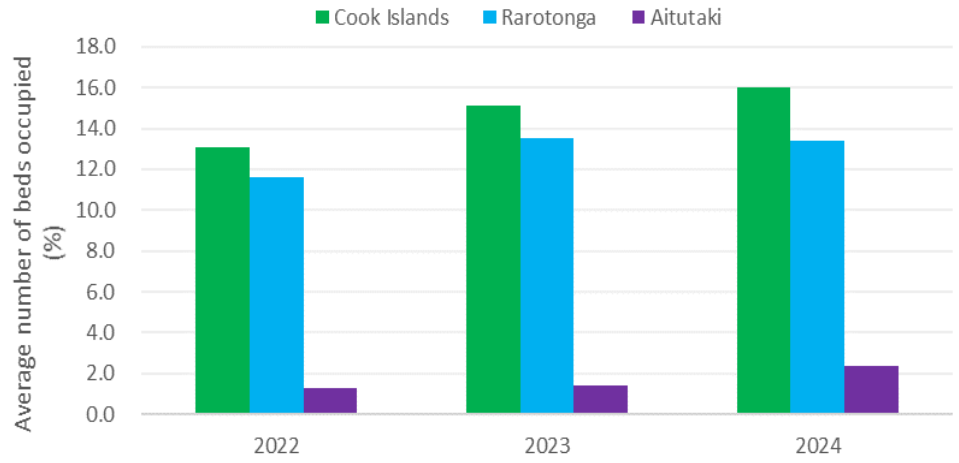
Figure 39: Ten leading causes of inpatient morbidity (%) 2021-2024

TMO recorded just over 1,700 hospital discharges for the year 2024. This translates to a discharge rate of approximately 100 discharges per 1,000 population.

Hospital bed density & occupancy

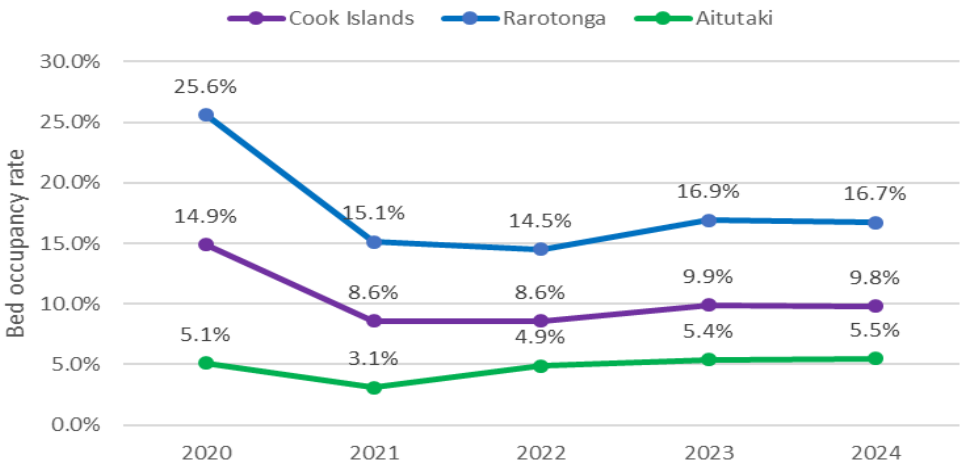
Over the period 2022–2024, the Cook Islands maintained a total of 152 hospital beds, with a bed density of 9 beds per 1,000 population **(Figure 40)**. Only 14 beds were occupied on average each day, indicating low bed utilization. In Rarotonga, 13 out of 80 beds were used daily, while in Aitutaki, just 1 out of 26 beds was occupied.

Figure 40: Average occupied beds per day 2022-2024



In **Figure 41** below, Rarotonga consistently had the highest hospital bed occupancy rate in the Cook Islands, from 25.6% in 2020 to 16.7% in 2024. This is mainly due to Rarotonga having the highest population among the islands. The overall Cook Islands bed occupancy also declined initially in 2021 but showed a gradual recovery, reaching 9.8% in 2024. Aitutaki maintained the lowest rates throughout, with minimal fluctuations and a slight increase to 5.5% in 2024.

Figure 41: Bed occupancy rate (%) 2020-2024



Hospital Surgery

Hospital surgery involves diverse procedures, from minor (e.g. circumcisions, excisions, stitching of wounds, draining of abscess etc.) to major operations (e.g. Appendectomy, cataracts etc.) conducted with specialized clinical teams and equipment to treat various conditions.

In the past five years**,** surgeries have increased from over 300 in 2020 to more than 600 in 2024 **(Figure 42)**. In 2024, the total number of surgeries at the Rarotonga hospital was 650, with an estimated surgical volume of over 4,000 surgeries per 100,000 population.

Figure 42: Number of surgeries per year 2020-2024

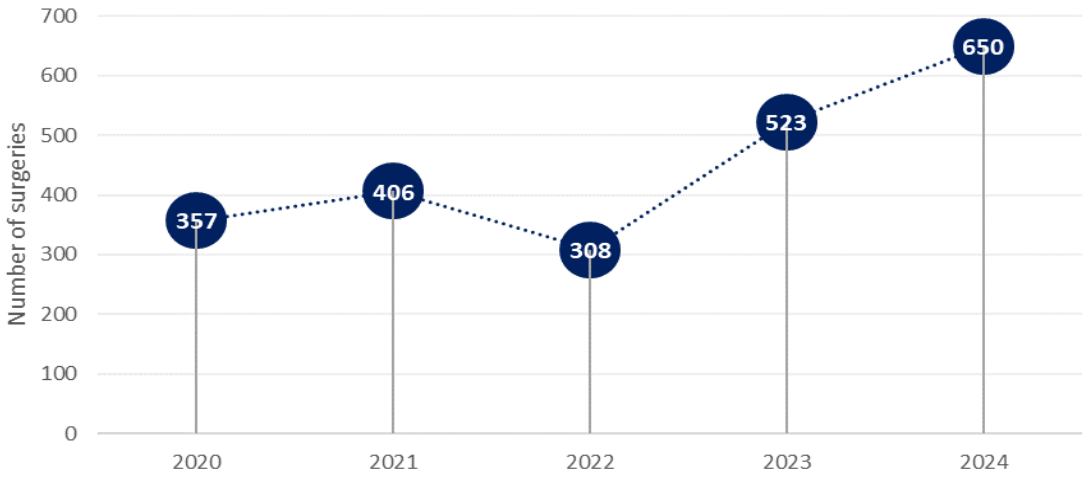
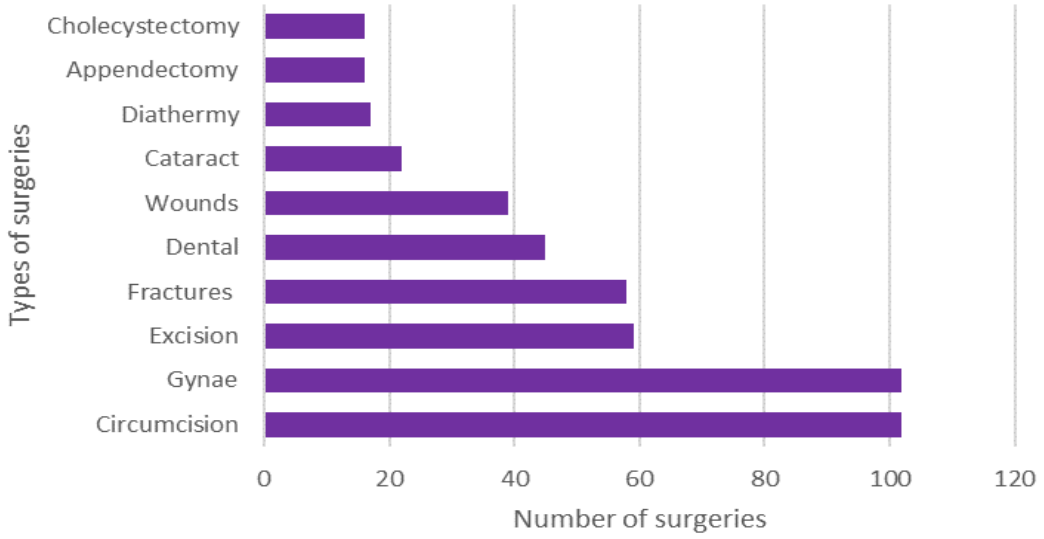


Figure 43 shows the top ten types of surgeries performed, with circumcision and gynaecological (e.g. cesarean section, ectopic pregnancies, Abnormal Uterine Bleeding (AUB), hysteroscopy etc.) procedures being the most common, each with over 100 cases. In contrast, surgeries such as cholecystectomy, appendectomy, and diathermy were the least performed due lower cases recorded, with less than 20 cases each.

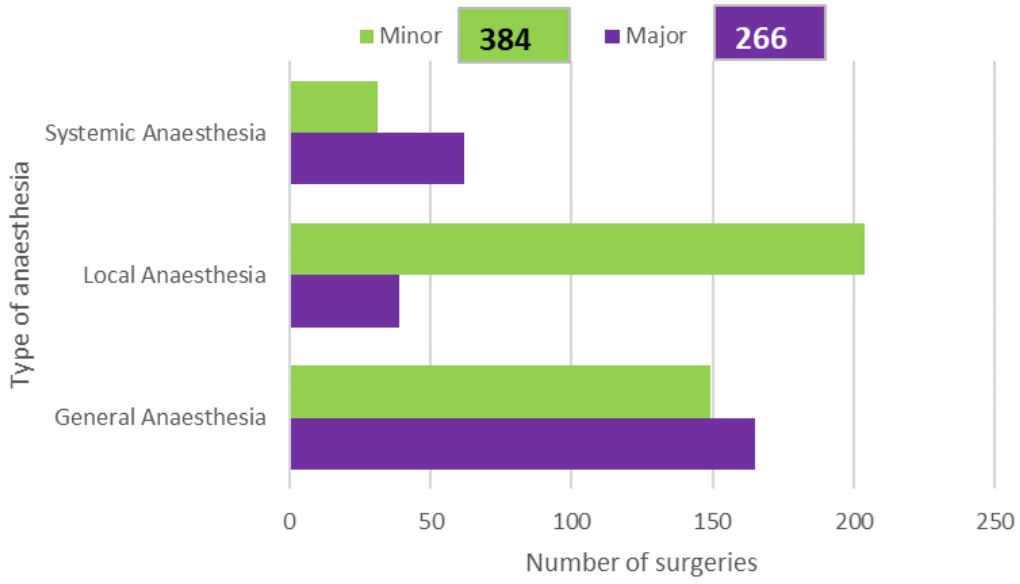
Figure 43: Top 10 hospital surgeries by type 2024



Anaesthesia

In 2024, a total of 650 anaesthesia were administered during the surgeries, with 59% (384) were for minor procedures, and 41%(266) were for major procedures (**Figure 44**). Local and general anaesthesia were the frequently used methods for both types of procedures. Systemic anaesthesia includes sedation, spinal and ketafol.

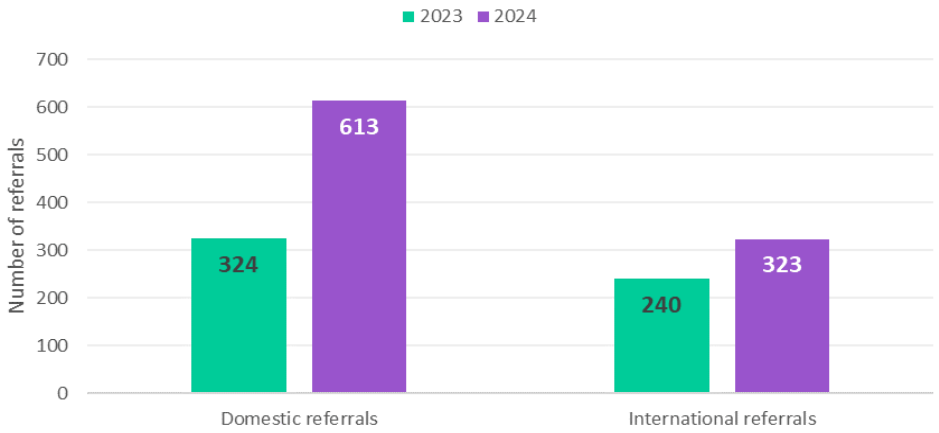
Figure 44: Types of anaesthesia 2024



Patient Referrals

Between 2023 and 2024, 1,500 patients were referred for further care and management, either domestically to Rarotonga or internationally to New Zealand **(Figure 45**). In 2024 alone, 936 patients were referred, a 66% increase compared to 564 referrals recorded in 2023[8]. The rise is largely attributed to a backlog of cases delayed during the COVID-19 pandemic, with referral activity increasing as visiting health specialists have resumed with more regular visits.

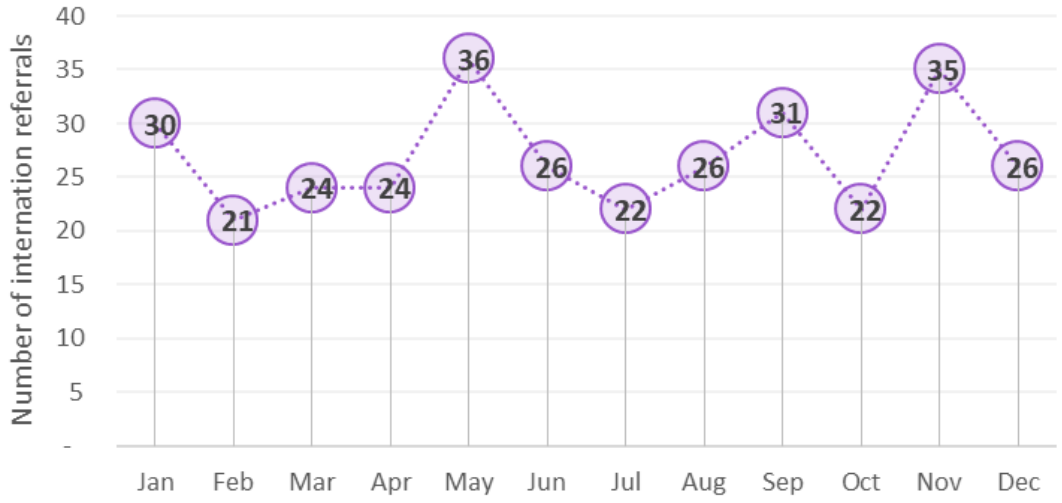
Figure 45: International vs domestic referrals 2023-2024



International Referrals

In 2024, international referrals accounted for 35% (2023:43%) of all patient referrals in the Cook Islands **(Figure 46)**. On average, 27 patients per month were referred to New Zealand for further management and care.

Figure 46: International referrals by month 2024

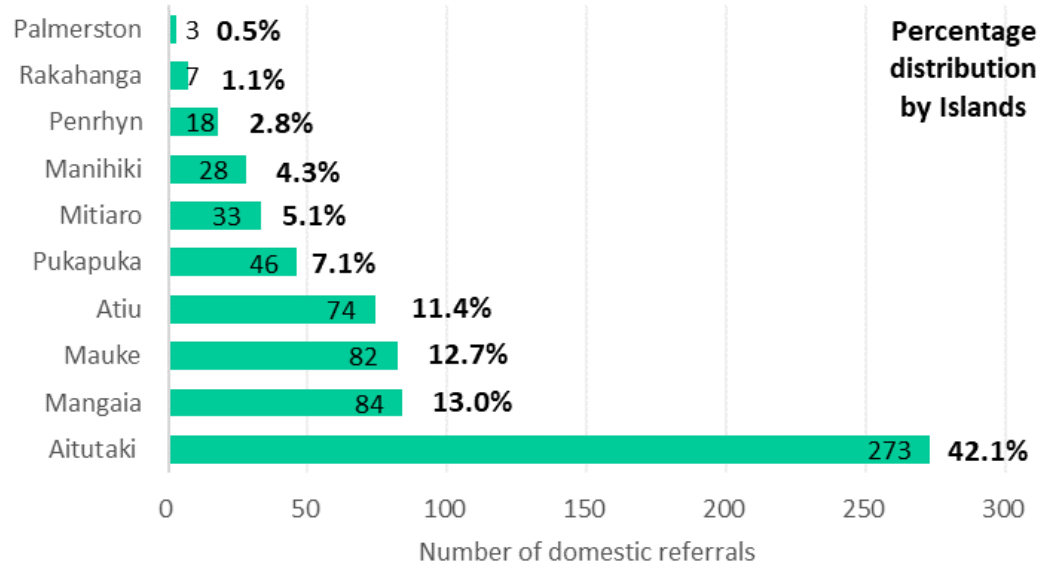


[8] Statistics for 2023 have been reinstated to reflect a backlog of data cleanup.

Domestic Referrals

A total of 613 domestic referrals occurred in 2024, accounting for 65% (2023:57%) of all referrals in the Cook Islands. **Figure 47** shows that Aitutaki (42.1%) had the highest referrals to Rarotonga, followed by Mangaia (13%) and Mauke (12.7%).

Figure 47: Domestic referrals by Island 2024



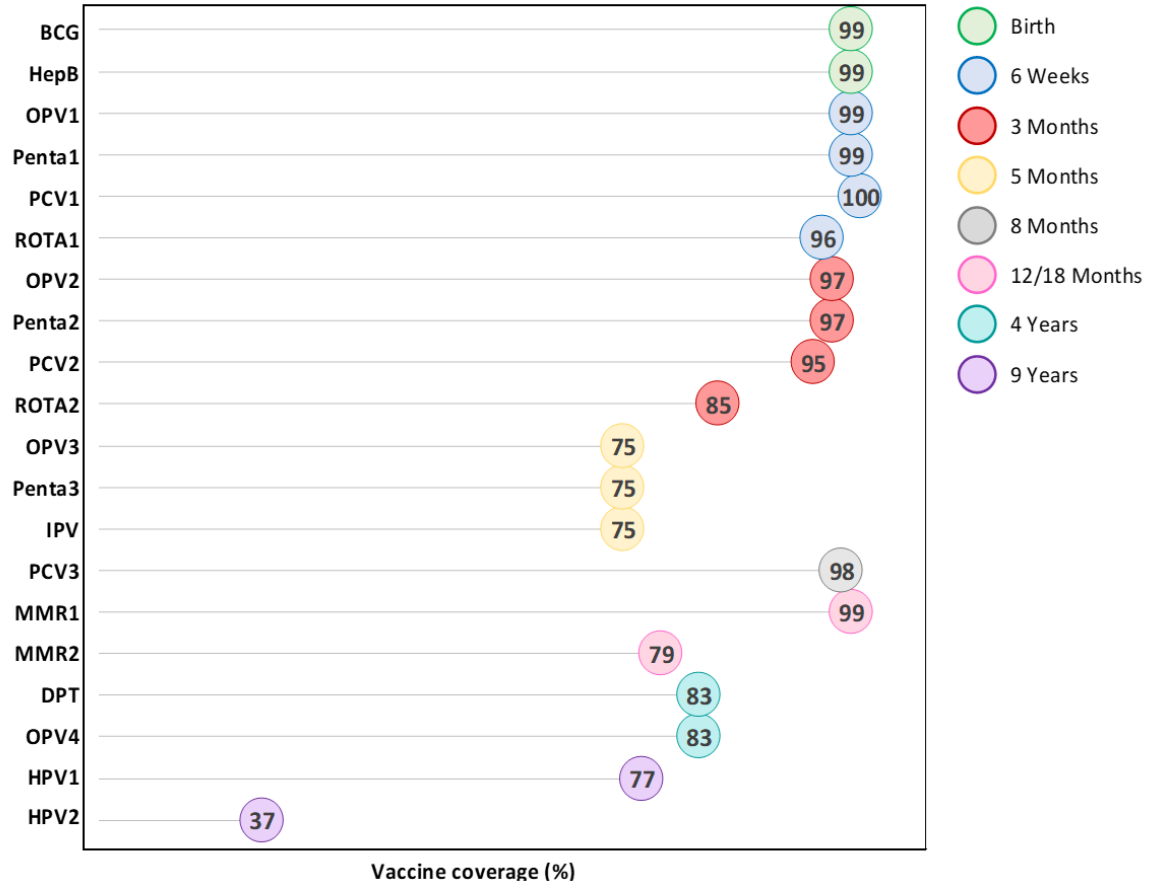
Immunisation

The Cook Islands National Immunisation Register (NIR) plays a vital role in recording and monitoring child vaccinations, ensuring adherence to the national routine immunisation schedule.

Figure 48 shows that in 2024, overall immunisation coverage continued to improve compared to 2023. Vaccinations from birth up to 6 weeks remained high, with BCG, HepB, and the first doses of OPV, Penta, and PCV all achieving 99–100% coverage. This indicates continued improvement compared to 2023. While MMR1 maintained high coverage at 99%, MMR2 coverage declined to 79%. HPV2 coverage was significantly low at 37%, primarily due to the discontinuation of administering the second dose, following WHO advice that it is no longer required.

Overall decline could be due to various factors such as challenges with reaching older children, school absences, parental consent or overseas migration.

Figure 48: Immunisation coverage rate by vaccine 2024

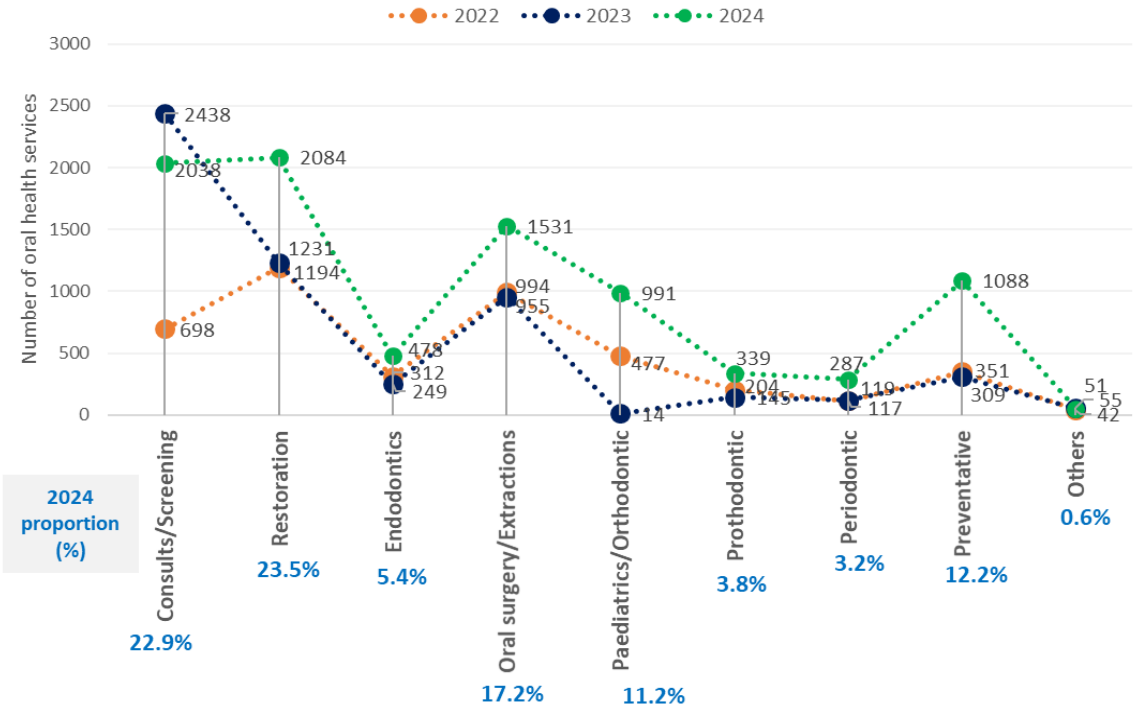


Public health nurses continue to play a key role in raising immunisation awareness and addressing coverage gaps through community outreach and school-based initiatives, with a strong focus on improving follow-up and ensuring equitable vaccine access for all age groups.

Oral Health

The oral health services delivered over 8,800 dental procedures in 2024, up by approximately 70% from 2023 (**Figure 49**). Of these, 23.5% were tooth restorations (N=2,084), 22.9% consultations and/or screenings (N=2,038) while 17.2% were extractions or surgical procedures (N=1,531). There was a noticeable focus on providing restorations, oral surgery/extractions, preventive care, and pediatric/orthodontic services in 2024 compared to the past years.

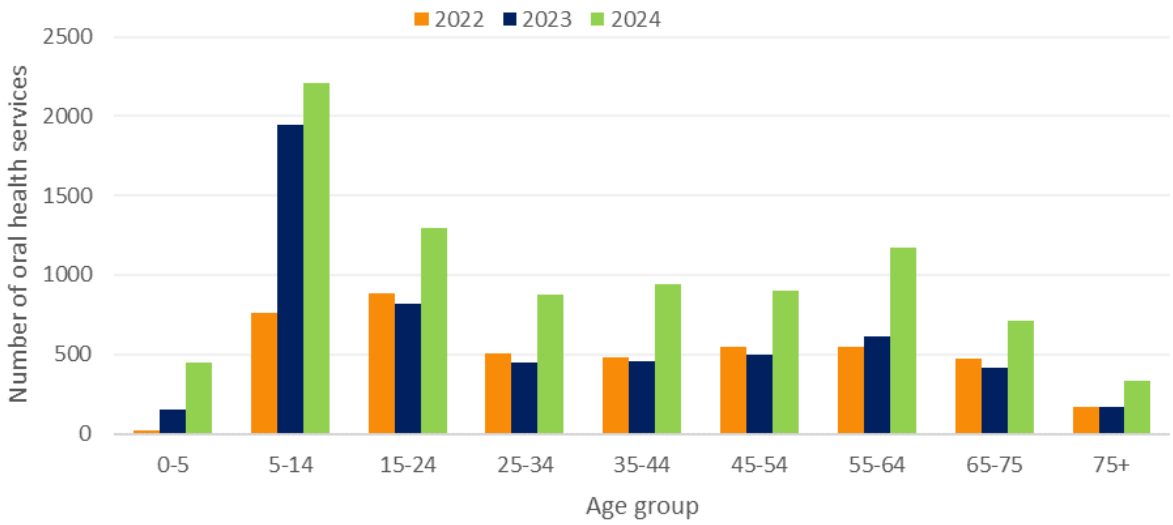
Figure 49: Number and proportion of oral health services 2022- 2024



Note: A patient can have more than one oral health procedure.

Figure 50 below showed that children aged 5 to 14 years made up the largest group of patients, accounting for 25% (N=2,210) of dental visits in 2024, highlighting the presence of dental therapists in Rarotonga based schools. This reinforces the importance of early oral health education and preventive care in this age group.

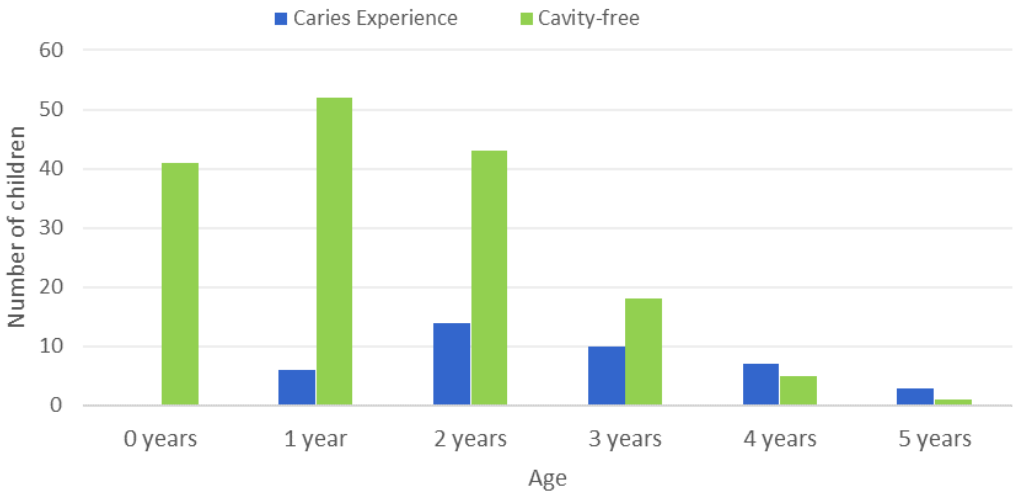
Figure 50: Number of oral health services by age group 2022-2024



Early Childhood Caries (ECC)

In 2024, a total of 200 children, aged 0-5 years were screened during the Maternal and Child Oral Health (MCOH) programme at the community child welfare health (*paunu*) clinics in Rarotonga. Notably from the screening program, 80% of the children had a cavity free status. 20% of the children had dental caries, with the highest prevalence observed among children aged 2 years.

Figure 51: Caries status among children (0-5 years) in Rarotonga 2024



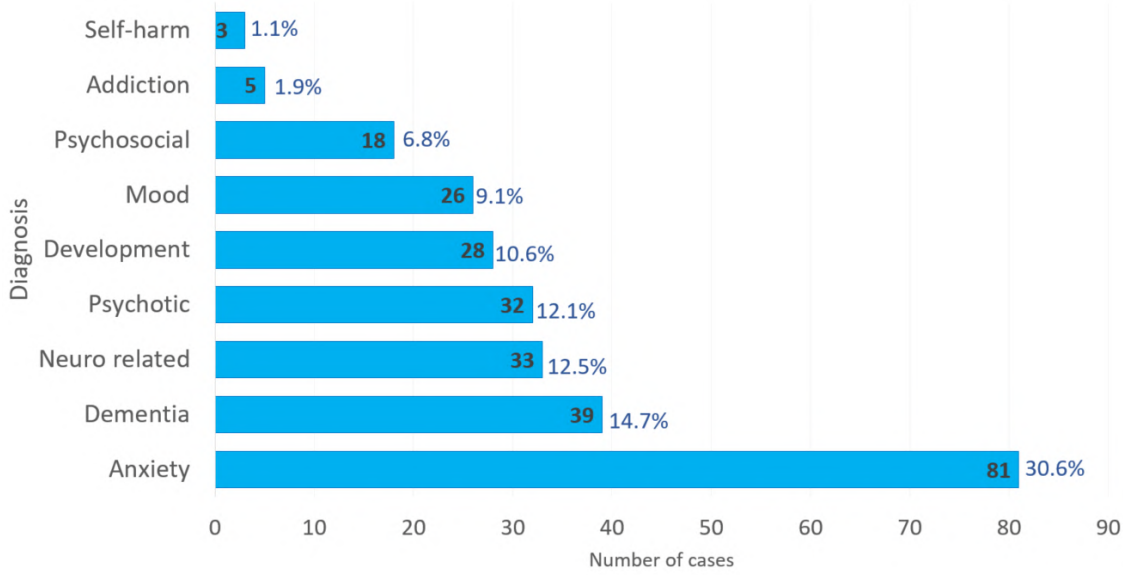
Furthermore, 40% of the children during the screening were exclusively breastfeeding and 60% were bottle fed, where sugar sweetened beverages (SSB) were part of the feeding practices.
This highlights the importance of awareness and adherence to infant feeding guidelines to address ECC risk during the first 1,000 days of life.

Mental health

In 2024, approximately 3% of the resident population accessed mental health services. The majority of these individuals were managing chronic mental health conditions, which required frequent, often daily or weekly consultations with mental health professionals. All (100%) patients diagnosed and accessing mental health services have received treatment.

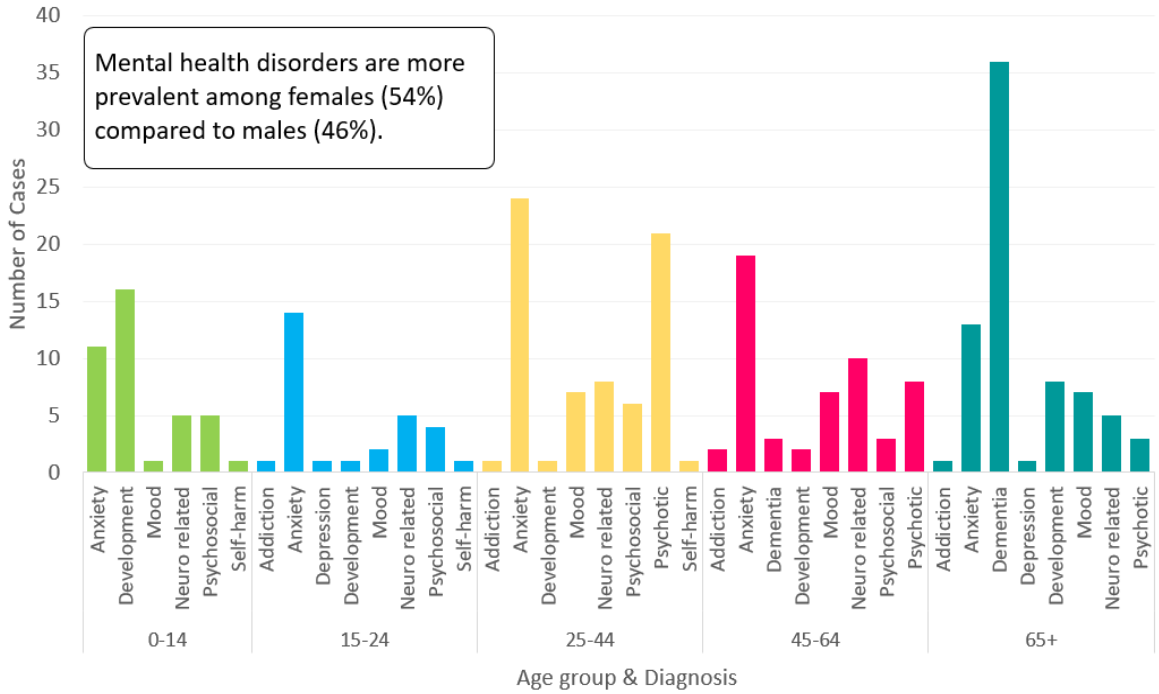
As shown in **Figure 52**, the three most commonly reported mental health disorders were anxiety, dementia, and other neurological conditions. Anxiety was the most prevalent, making up 30.6% of all reported cases. Mental health diagnoses increased significantly from 21 in 2023 to 265 in 2024, likely due to intensified surveillance and possibly greater access to diagnostic services.

Figure 52: Number and proportion of mental health diagnoses 2024



Anxiety and developmental issues were most common among children aged 0 to 14 years. In the 15 to 24 age group, anxiety was the most prevalent condition. Among those aged 25 to 44 years, both anxiety and psychotic behaviors were notable. Anxiety remained high in the 45 to 64 age group, while dementia was most prevalent among individuals aged 65 and over.

Figure 53: Mental health disorders by age group 2024



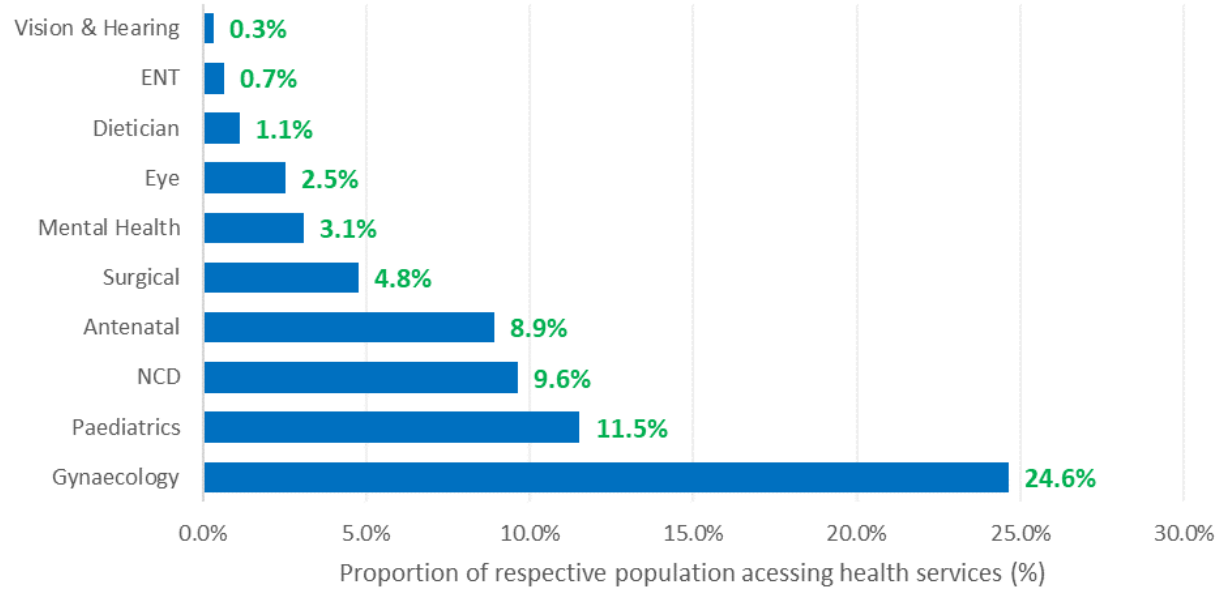
Specialist Health Services

Local health specialist services

Cook Islands is served by a comprehensive network of health clinics that provide access to a range of primary and specialised care services, including obstetrics & gynaecology, paediatrics, NCD and surgical. These services are delivered through both the Rarotonga hospital and Tupapa Primary Health Centre. These services are provided by TMO specialists.

Figure 54 shows that almost 24.6% of the female population was accessing gynaecology services, followed by 11.5% of children accessing paediatric services and 9.6% were accessing the NCD clinics (Tupapa and Rarotonga hospital NCD clinics).

Figure 54: Proportion of population accessing health services by area of specialty 2024



Note: The percentage computation depends on the respective population to the area of specialty. This section excludes services provided by overseas health specialists.

Overseas health specialist

The Health Specialist Visits (HSV) programme strengthens healthcare delivery in the Cook Islands by supporting the diagnosis and management of complex conditions through overseas visiting consultants.

In 2024, 52 specialists conducted 18 HSV activities and 18 Continuous Professional Development (CPD) sessions delivered for TMO staff to improve health capacity and capability. A total of 1,866 individuals were screened and treated (90% in Rarotonga and 10% in the Pa Enua). Of the HSV referrals 79% were to Rarotonga, while 21% required overseas care, in New Zealand.

Table 2: Health specialists visits 2024

PROGRAM	JANUARY - JUNE 2024	JULY - DECEMBER 2024
Health specialist programs implemented in the Cook Islands	Audiology Ear Nose & throat (ENT) Mental Health Women's Health Diabetes Management Optometry Opthalmology Neurology Urology Adult Cardiology	Audiology Ear Nose & throat (ENT) Paediatric Cardiology Orthopaedic Uro-Gynaecology Endoscopy General Paediatric General Medicine
Number of consultants	23	29
Total number of CPD	9 CPD Programs Audiology, ENT, Mental Health, Womens Health, Diabetes Management, Optometry, Urology, Opthalmology, Adult Cardiology	9 CPD programs. Audiology, ENT surgery, Paediatric Cardiology, Orthopedic, Uro-Gynaecology, South Pacific Resuscitation Certificate, Endoscopy, General Paediatric, General Medicine.
Total number of health staff trained	127	133
Total number of health specialist to Pa Enua	5	6
Total number of people screened in the Pa Enua*	154	37
Total number of people screened in Rarotonga*	1,172	503
Number of referrals from Pa Enua**	61	53
Number of referrals completed and referred to New Zealand**	11	19
Number of patients fitted with hearing aids		Audiology 1- 45, Audiology 2 - 9, Audiology 3 - 64
Total surgical procedures		ENT – 69 Operation Theatre (OT) cases. Main types of surgical procedure performed: - Myringoplastry - Myringotomy - Examination under anaesthetic (EUA) of the ears - Insertion of Grommets - Tonsillectomy - Adenoidectomy - Paratidectomy ENDOSCOPY – 14 OT cases

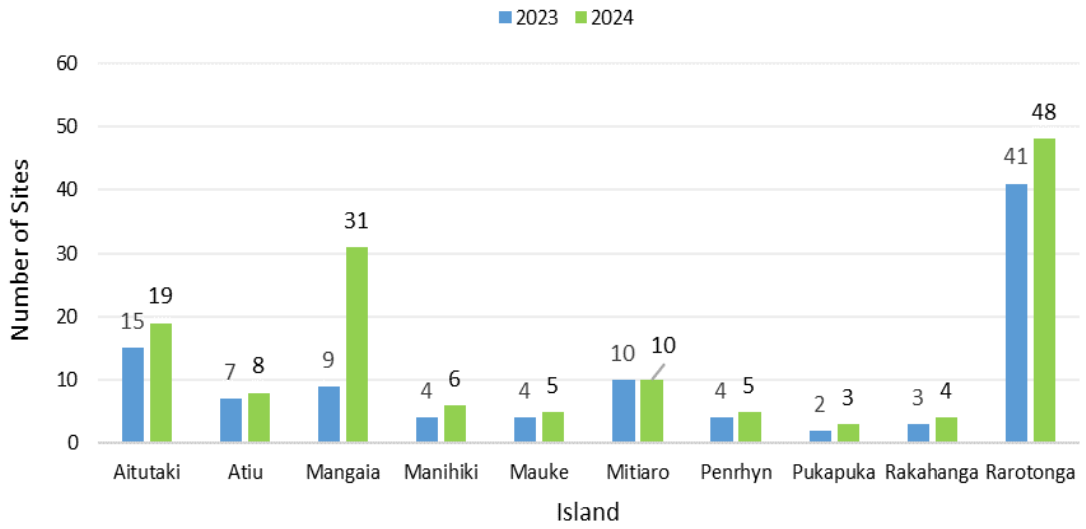
Data source:
*Medtech HSV appointmnet books
**Patient referral forms

Water Quality [9]

Access

The number of water sites or stations increased from 99 in 2023 to 139 in 2024, reflecting a 40% increase. Majority of these sites are located in Rarotonga (89), Mangaia (40), Aitutaki (34), and Mitiaro (20). All residents of each island (100%) have access to these sites for managed drinking water services. These sites are strategically located within the communities and schools, including health and private facilities.

Figure 55: Number of Water Sites or Stations by Islands, 2024



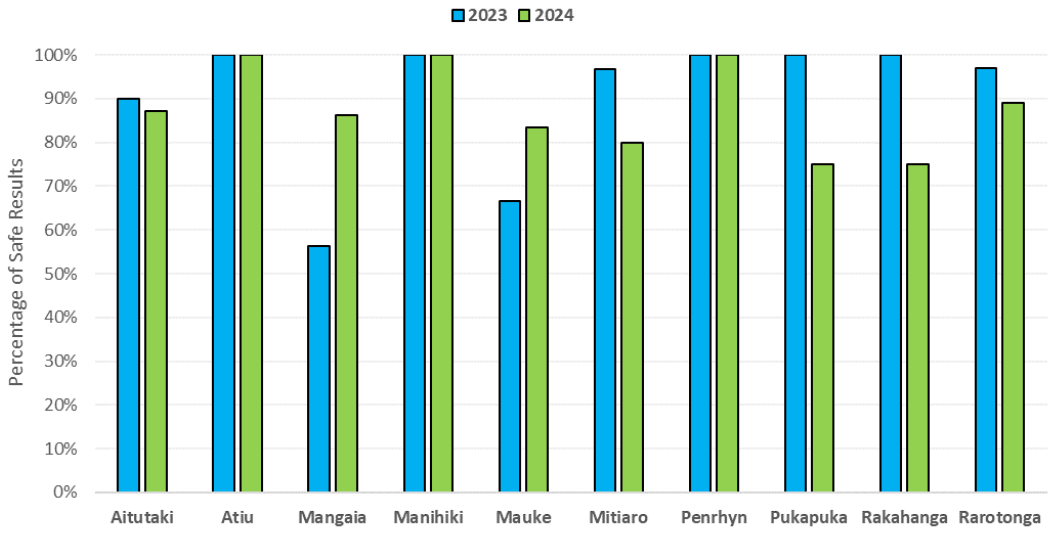
Note: No data has been recorded for Palmerston and Nassau.

Testing

A hydrogen sulfide (H2S) field-test has been used over the past two years to monitor the quality of drinking water in Rarotonga and the Pa Enua. The annual percentage average of safe results were 91% and 88% for 2023 and 2024, respectively. The slight decrease in percentage is likely due to the increased number of sites and conducted tests.

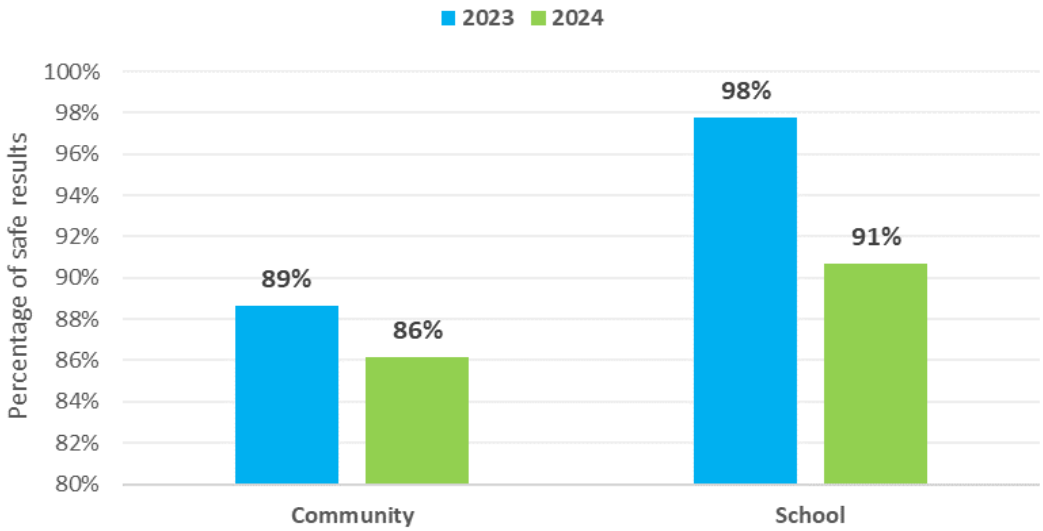
[9] This excludes To Tatou Vai Ltd (TTV) data.

Figure 56: Percentage of Safe Results from H2S Tests, 2023-2024



The graph below illustrates the percentage of safe water test results in the community and school settings. While water safety remained relatively high, there was a noticeable decline in both settings in 2024. Further investigation is required to determine the variations.

Figure 57: Percentage of safe water test results in the community and school, 2023-2024

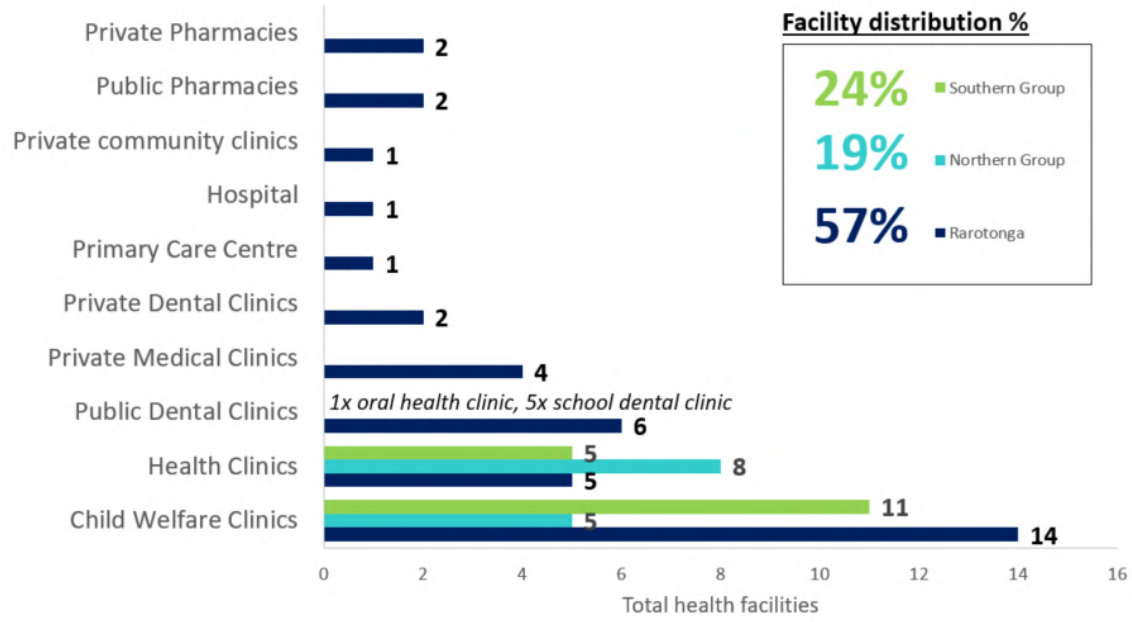


Health Facilities

TMO, as the main healthcare provider in the Cook Islands, delivers a wide range of health services including public health, primary and limited secondary care, and tertiary care through hospital services and visiting health specialists. General clinical services include surgery, internal medicine, anaesthesia, obstetrics and gynaecology, ophthalmology, and pediatrics. These services are offered at minimum cost, with free care provided to residents over the age of 60, children aged 16 and under, and students over 16 who are still attending school.

The Cook Islands has a total of 4.5 health facilities per 1,000 population.

Figure 58: Health facilities and distribution by island groups 2024



Note: Southern group excluding Rarotonga

Health Workforce

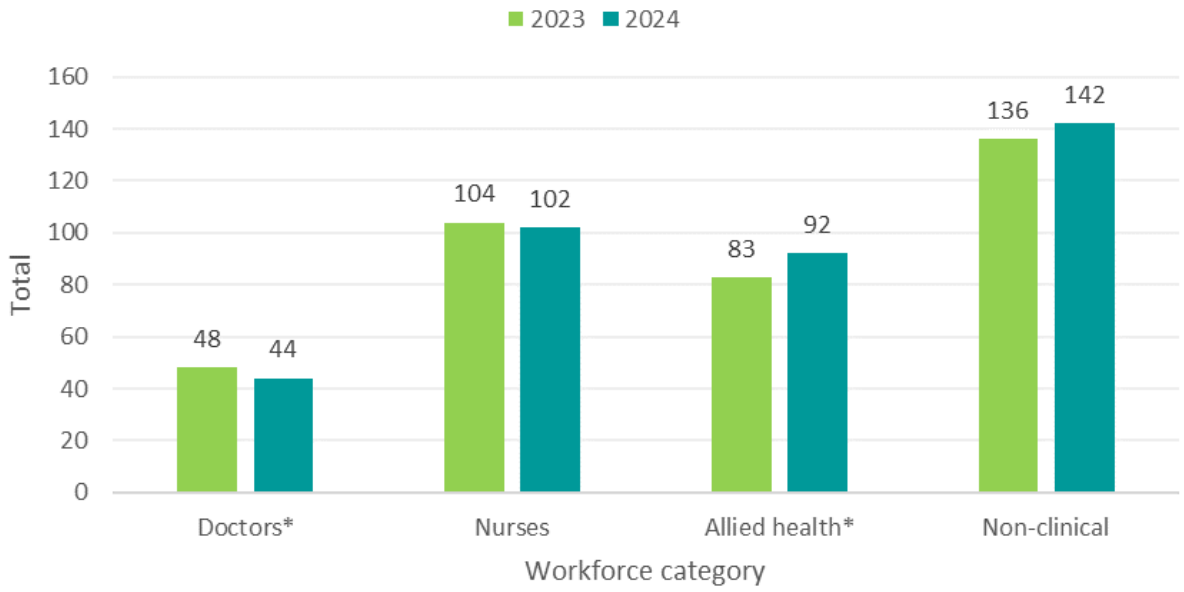
The Cook Islands health workforce, primarily employed by TMO, consists of over 300 health professionals across various clinical and non-clinical roles, delivering a range of services, from primary care to specialized areas like anaesthetics, surgery and maternal health.

The majority of TMO workforce were trained in New Zealand, Australia or Fiji, along with smaller proportions who received training in the Philippines and Myanmar. With the launch of the Bachelor of Nursing Pacific Programme (delivered in the Cook Islands in cooperation with Whitireia Polytechnic

in New Zealand) in 2022, the Nursing workforce was able to train school leavers and young Cook Islanders.

Figure 59 highlights the changes in the TMO health workforce between 2023 and 2024. While the numbers of doctors and nurses slightly declined, the workforce in allied and non-clinical roles increased due to recruitment of locums, health care assistants to fill specific gaps, including resourcing of the Human Resources Department to intensify recruitment of long standing vacant positions.

Figure 59: TMO health workforce by category 2023-2024



*inclusive of locums, volunteers and contract for service (CFS)

In 2024, TMO recorded a total of 296 full-time and 84 part-time, casual employees, contractors and locum covers staff. Note that the total workforce in the previous bulletin was not inclusive of locums, volunteers and Contract of Services, hence, the difference in reporting this year.

Workforce Category

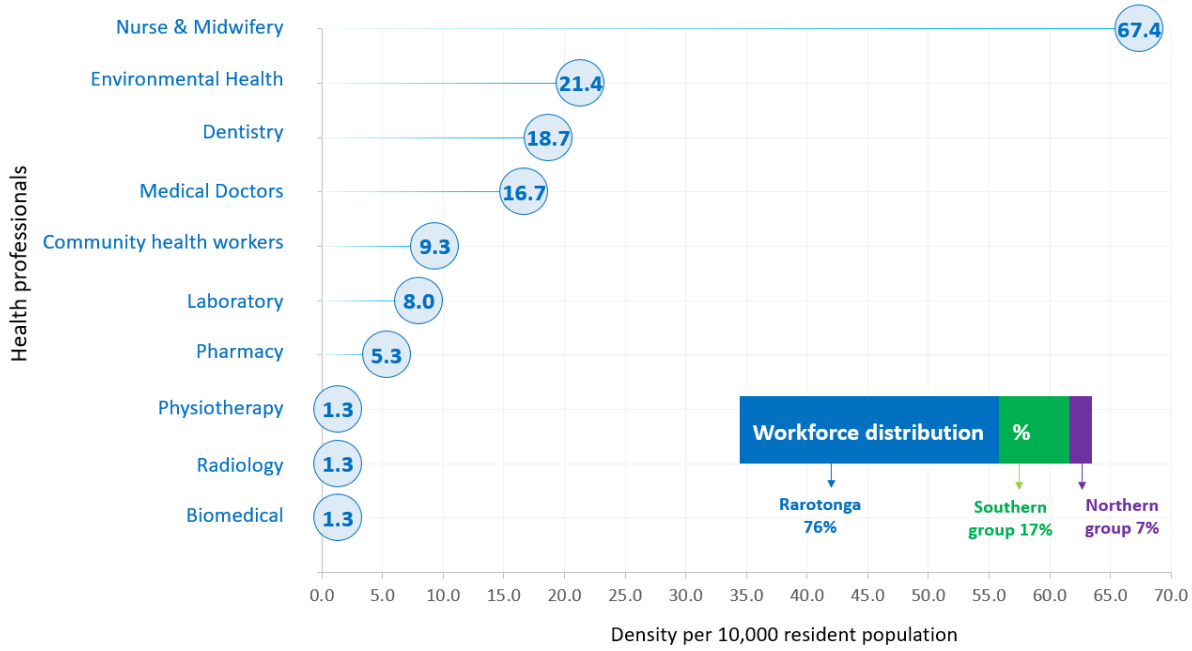
TMO health workforce is primarily concentrated in Rarotonga, where 23 of the 25 permanent doctors and 67 of 102 nurses are based. Aitutaki follows, with 8 nurses and 2 resident doctors. Nurse practitioners and registered nurses mostly support the remaining Pa Enua. The majority of the workforce was nurses & midwives.

Workforce Density

In 2024, TMO recorded a health workforce density of 67.4 nurses & midwives per 10,000 population, followed by environmental health workers (21.4 per 10,000) and dental professionals (18.7 per 10,000). The density of medical doctors stood at 16.7 per 10,000 population.

In contrast, other allied health professionals such as physiotherapy, radiology and biomedical only registered 1.3 workers per 10,000 population.

Figure 60: Health personnel density and distribution per 10,000 population 2024



Health Financing

Health care expenditure (HCE) as a share of the national economy has fluctuated over the past five years, reflecting changing national priorities and economic shifts influenced by external factors such as COVID-19 pandemic.

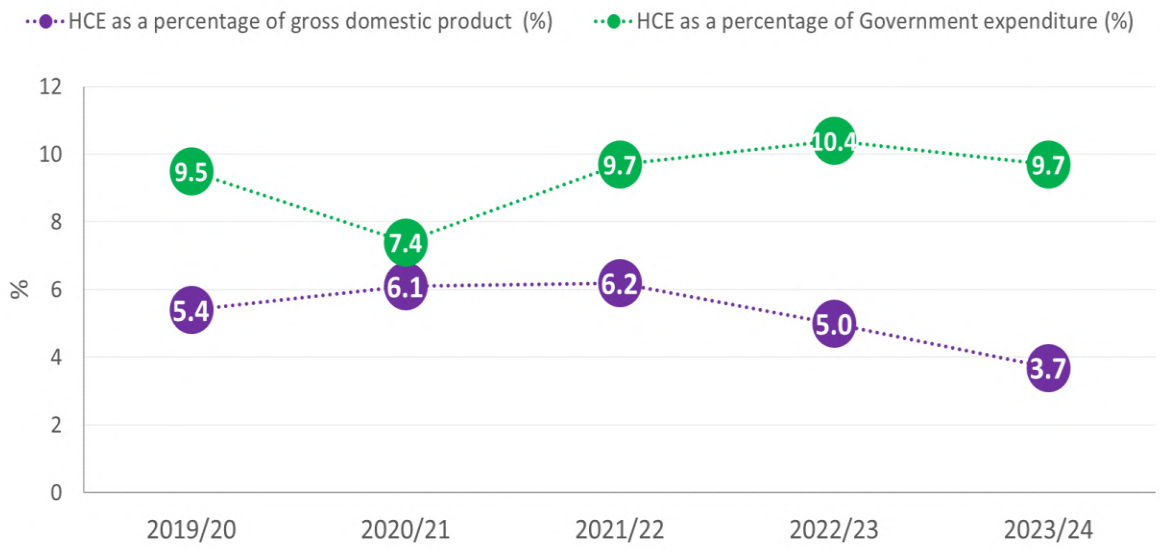
Health Care Expenditure (HCE) as a Percentage of Gross Domestic Product (GDP)

HCE as a proportion of GDP ranged from the lowest of 3.7% (FY 2023/2024) to 6.2% (FY 2021/2022). The highest share recorded in 2021/22 at 6.2% is likely influenced by heightened health demands during the COVID-19 pandemic.

Health Care Expenditure (HCE) as a Percentage of Government Expenditure

HCE as a percentage of Government Expenditure ranged from the lowest of 7.4% (FY 2020/2021) to 10.4% (FY 2022/2023). In FY 2023/2024, the percentage recorded was 9.7%, slightly lower than the previous year.

Figure 61: Health care expenditure as a percentage of gross domestic product and total government expenditure FY 2019/20 - 2023/24[10]



These trends reflect the Cook Islands' ongoing efforts to balance health system investment with national economic sustainability, while ensuring essential services remain adequately funded.

[10] Source: MFEM Budget Estimates Book 1

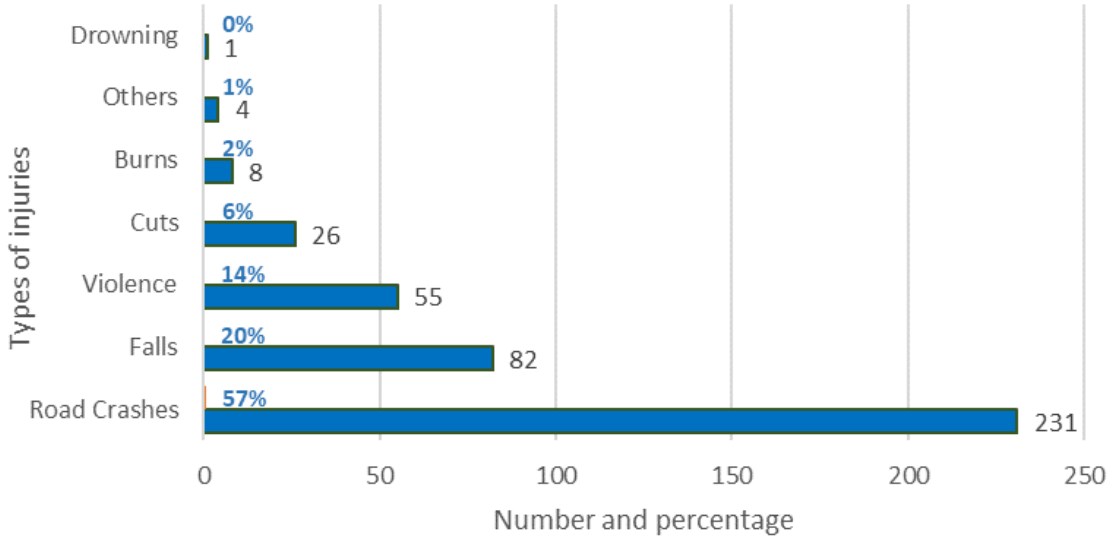
Other

TE MARAE ORA
COOK ISLANDS Ministry of Health

Cook Islands Injury Surveillance (CIIS)[11]

In 2024, a total of 407 (2023:413) injuries were reported through the Ministry of Health. About 57% (231) of these injuries were caused by road crashes. Falls accounted for 21% (82), violence accounted for 14% (55), and cuts accounted for only 6% (26) while all other causes made up the remaining 3%.

Figure 62: Number and percentages of injuries 2024



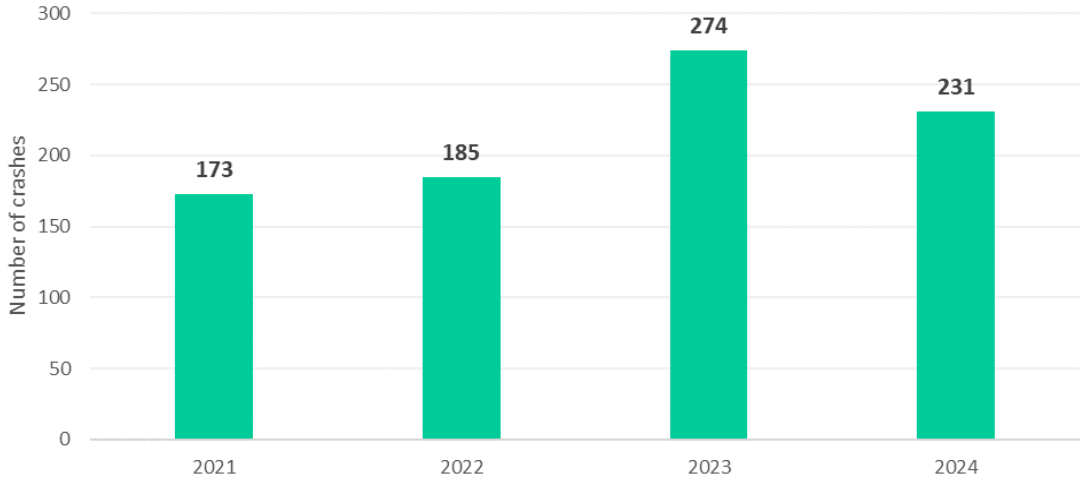
Road Crashes

Road crashes referenced below include a wide range of scenarios, such as and not limited to collisions between vehicles, vehicles and pedestrians, vehicles and fixed objects and/or animals, or even a single vehicle overturning.

Figure 63 below illustrates the number of crashes recorded each year from 2021-202. Notably, there was a significant spike in 2023 (274) which may indicate contributing factors such as increased traffic volume, road conditions, and driver behavior or weather events. In 2024, the number decreased to 231.

[11] The national data for road crashes and violence, are maintained by the Cook Islands Police.

Figure 63: Number of road crashes 2021-2024

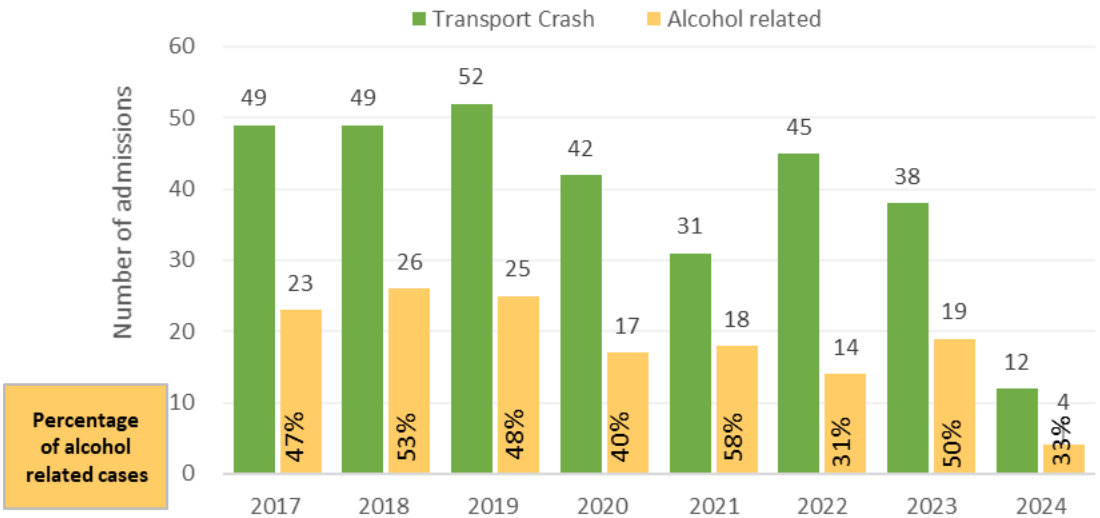


Admissions

The number of admissions due to road crashes has shown a significant decline between 2017 and 2024, the highest recorded in 2019 of 52 admissions, and the lowest of 12 in 2024.

Alcohol-related crashes recorded the highest admission of 26 in 2018 and the lowest of 4 in 2024. The proportion of alcohol-related admissions fluctuated throughout the years, peaking at 58% in 2021 and falling to 33% in 2024.

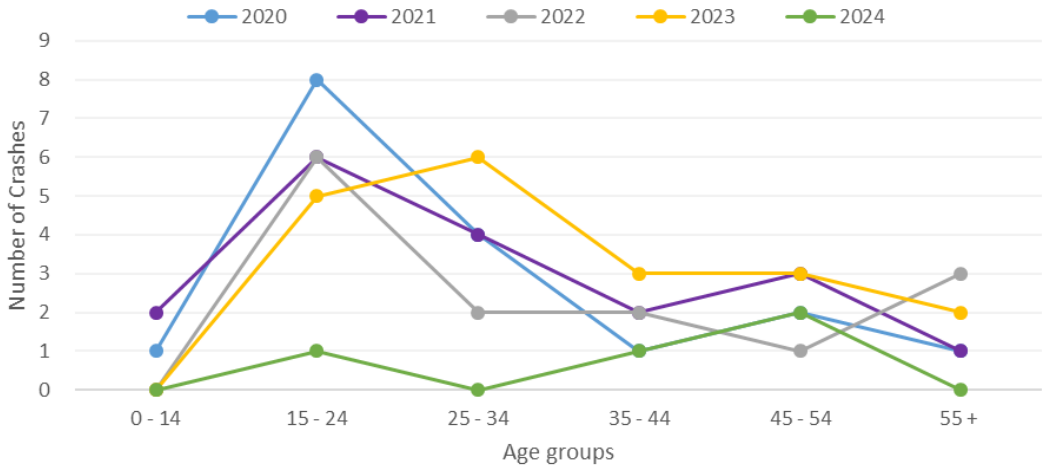
Figure 64: Admissions due to road crashes 2017-2024



Admissions by age group

The 15–24 years age group consistently shows the highest number of alcohol-related admission across the past five years, peaking at 8 in 2020. The second highest occurred in the 25-34 age group.

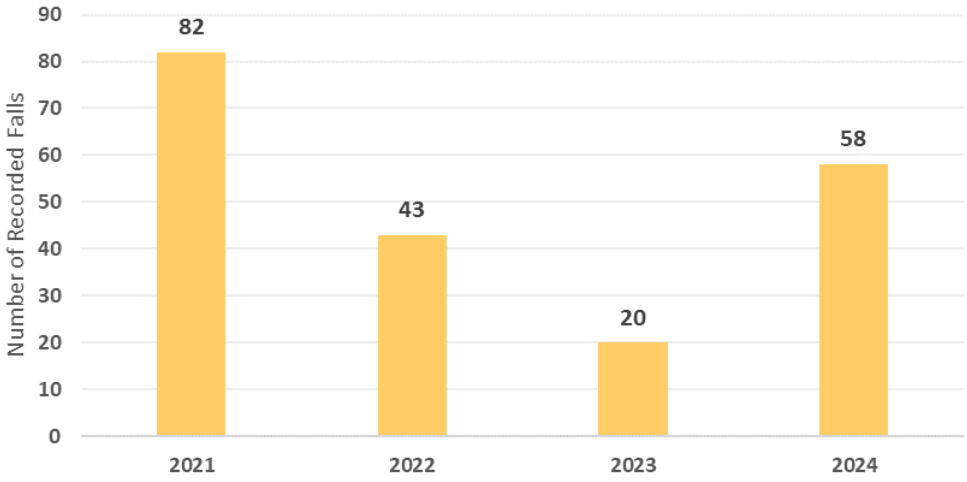
Figure 65: Alcohol-related road crashes admissions by age group 2020-2024



Falls

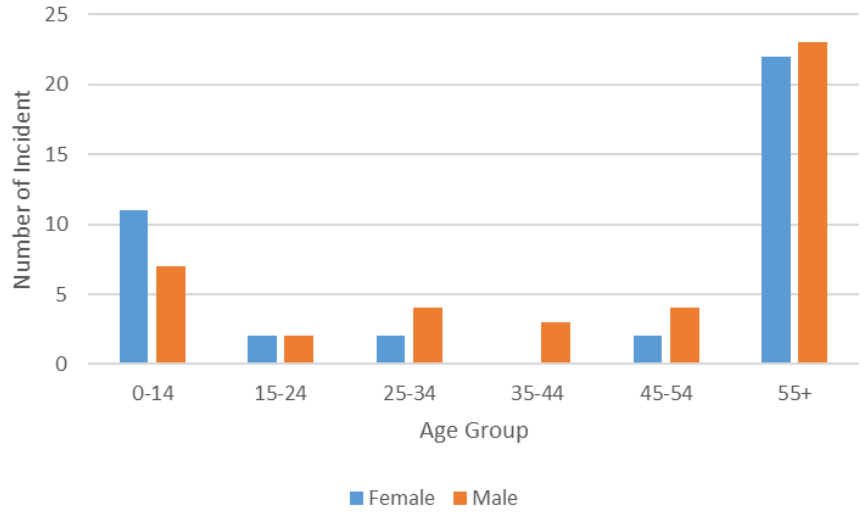
The falls listed below include accidental falls such as those occurring at home, from ladders, against glass, at the workplace and sports contacts. As seen in the graph below, there was a sharp drop of falls from 2021 to 2023. In 2024 the number increased, this highlights the importance of sustained safety efforts across homes, workplaces and public environments.

Figure 66: Number of incident of falls by year 2021-2024



In 2024, the age group of 55 and over demonstrated the highest vulnerability for both sexes. Conversely, middle-age groups (15-54) reported relatively low numbers (**Figure 67**). These highlights the need for targeted safety interventions for the elderly.

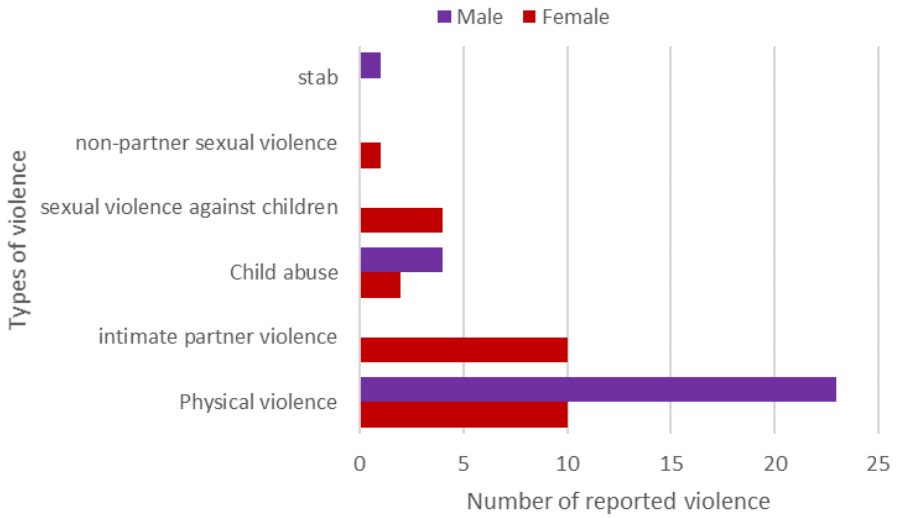
Figure 67: Incident of falls by age and sex in 2024



Violence

Figure 68 below shows that in 2024, 23 males and 10 females reported experiencing physical violence, making it the most common type of violence. Intimate partner violence was reported exclusively by females (10 cases). Child abuse affected 4 males and 2 females, while sexual violence against children was reported by 4 females. Non-partner sexual violence involved 1 female and stabbing incident was reported by 1 male.

Figure 68: Number of incident violence by type 2024



APPENDIX

1. Population

Definitions:

Population size: *The total number of individuals residing in a specific geographic area at a specific point in time.*

Age Distribution: *The proportion or percentage of individuals in different age groups within the population.*

Methodology/system issues/sources:

- Data is sourced from *2021 Census Report, Population and Demographic Characteristics*
- All denominator calculations related to population used the resident and mid-year estimates.

Table 1.1: Cook Islands population, size, change, distribution and density

Island/ Region	Area (km²)	Total population			Population change (2016-2021)		Population distribution 2021	Density
		2011	2016	2021	Total	%	%	pp per km²
Rarotonga	**67.1**	**13,095**	**13,007**	**10,898**	**-2,109**	**-16**	**72**	**162**
Southern Islands	**145.2**	**3,586**	**3,326**	**3,040**	**-286**	**-9**	**20**	**21**
Aitutaki	18.3	2,038	1,941	1,782	**-159**	**-8**	12	97
Mangaia	51.8	572	499	471	**-28**	**-6**	3	9
Atiu	26.9	480	434	383	**-51**	**-12**	3	14
Mauke	18.4	307	297	249	**-48**	**-16**	2	14
Mitiaro	22.3	189	155	155	**0**	**0**	1	7
Manuae	6.2	-	-	-	-	-	-	-
Takutea	1.3	-	-	-	-	-	-	-
Northern Islands	**24.4**	**1,113**	**1,101**	**1,102**	**1**	0	**7**	**45**
Palmerston	2.1	60	58	25	**-33**	-57	0	12
Pukapuka	1.3	451	444	456	**12**	3	3	351
Nassau	1.3	73	78	92	**14**	18	1	71
Manihiki	5.4	239	212	215	**3**	1	1	40
Rakahanga	4.1	77	83	81	**-2**	-2	1	20
Penrhyn	9.8	213	226	233	**7**	3	2	24
Suwarrow	0.4	-	-	-	-	-	-	-
Cook Islands	**236.7**	**17,794**	**17,434**	**15,040**	**-2,394**	**-14**	**100**	**64**

Figure 2: Resident population by region 2021

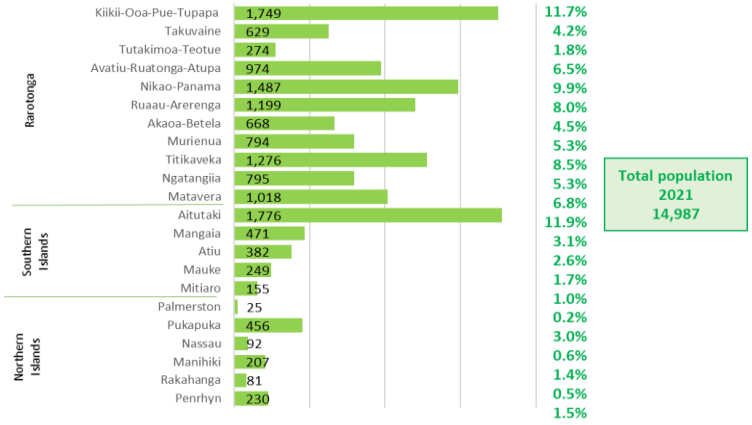
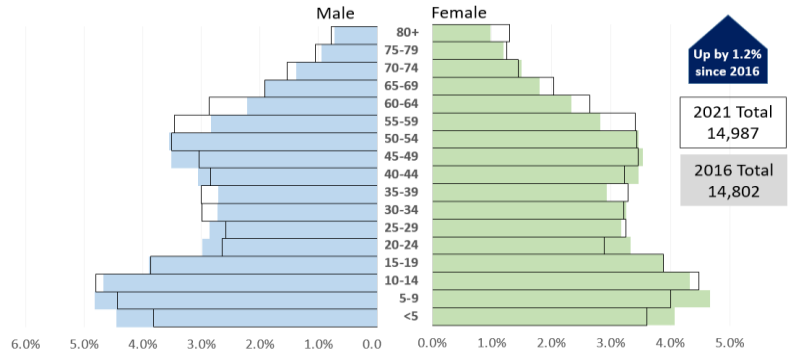


Figure 3: Age distribution of the resident population by sex 2016 (shaded) 2021 (outline)



2. Life expectancy

Definitions:

Life expectancy: is an estimate of the average number of years a person can expect to live, based on age-specific death rates in a given year.

Life expectancy at birth: is an estimated measure for the average number of years a newborn may live up to, if the current mortality rates remain constant throughout their lifetime.

Life tables: A tabular display of life expectancy and the probability of dying at each age for a given population, according to the age-specific death rates prevailing at that time. The life table gives an organized, complete picture of a population's mortality.

Abridged life table: is used for our Cook Islands calculation of the life table due to insufficient data to do an analysis by single year age groups that are based on assumptions that death rates are similar at neighboring ages.

Methodology/system issues/sources:

- The population size for the Cook Islands was too small to allow the calculation of complete life tables with accuracy. Instead an abridged life table is used with ages grouped into 5 year age categories.
- The Chiang method was used to measure the confidence intervals for our life expectancy, which is the most appropriate for small populations, which may have some missing information in the life table.
- 5 years mortality data were used for the calculation of these life tables to avoid year to year stochastic variation that is common in small populations.
- Aggregation of data from individual years makes comparison between periods statistically meaningful.
- Resident population from the Census of Population and Dwellings 2021 was used for population data
- Standard methods of calculation were used for indicators reported.
- One major factor contributing to an accuracy gap in life expectancy calculations is deaths occurring overseas that are not reported back into the system.

Figure 4: Life expectancy years of life remaining at different stages of life 2024

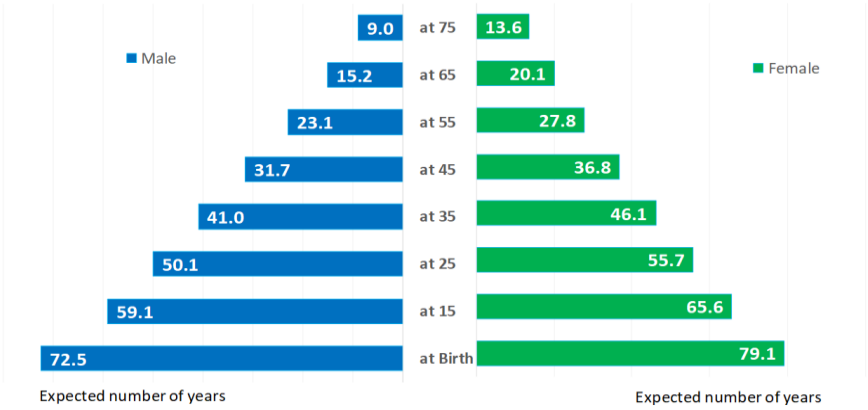


Table 2.1: Life Tables for males 2024 (refer below)

Table 2.2: Life Tables for females 2024 (refer below)

Life table for Males: 2024

				Reported resident population	Deaths	Mortality rate	Probability of dying	surviving	Life table parameters Radix	deaths	Years lived		Life expectancy	Confidence interval	
Age	*x*	*nx*	*ax*	*pop (Nx)*	*Dx*	*mx*	*qx*	*px*	*lx*	*dx*	*Lx*	*Tx*	*ex*	*L 95% CI*	*U 95% CI*
<5	0	5	0.2	572	2.2	0.003846	0.018939394	0.981061	100000	1893.9394	492424.2	7254880	72.548803	69.00976	76.08784
5-9	5	5	0.5	664	0.2	0.000301	0.001504891	0.998495	98106.06	147.63892	490161.2	6762456	68.930054	65.82888	72.03123
10-14	10	5	0.5	719	0.2	0.000278	0.001389854	0.99861	97958.42	136.14791	489451.7	6272295	64.030175	60.95553	67.10482
15-19	15	5	0.5	579	0.6	0.001036	0.005167959	0.994832	97822.27	505.54147	487847.5	5782843	59.115812	56.05988	62.17175
20-24	20	5	0.5	397	1	0.002519	0.012515645	0.987484	97316.73	1217.9816	483538.7	5294996	54.40992	51.4301	57.38974
25-29	25	5	0.5	388	1.4	0.003608	0.017879949	0.98212	96098.75	1718.2408	476198.2	4811457	50.06784	47.34353	52.79215
30-34	30	5	0.5	449	0.2	0.000445	0.002224694	0.997775	94380.51	209.96776	471377.6	4335259	45.933835	43.56756	48.30011
35-39	35	5	0.5	451	0.4	0.000887	0.004424779	0.995575	94170.54	416.68381	469811	3863881	41.030677	38.6975	43.36385
40-44	40	5	0.5	427	1.2	0.00281	0.013953488	0.986047	93753.86	1308.1934	465498.8	3394070	36.201925	33.91953	38.48431
45-49	45	5	0.5	455	2	0.004396	0.02173913	0.978261	92445.66	2009.6884	457204.1	2928571	31.678839	29.52957	33.8281
50-54	50	5	0.5	525	3.4	0.006476	0.031865042	0.968135	90435.98	2881.7462	444975.5	2471367	27.327257	25.32691	29.3276
55-59	55	5	0.5	518	3.8	0.007336	0.036018957	0.963981	87554.23	3153.6121	429887.1	2026392	23.144418	21.27631	25.01252
60-64	60	5	0.5	430	6.4	0.014884	0.071748879	0.928251	84400.62	6055.6497	406864	1596505	18.915792	17.1462	20.68539
65-69	65	5	0.5	287	8	0.027875	0.13029316	0.869707	78344.97	10207.813	366205.3	1189641	15.184646	13.57431	16.79498
70-74	70	5	0.5	231	8.6	0.037229	0.17029703	0.829703	68137.16	11603.555	311676.9	823435.3	12.084967	10.88728	13.28265
75+	75	18	0.5	277	30.6	0.110469	1	0	56533.6	56533.6	511758.4	511758.4	9.0522876		

Life table for Females: 2024

				Reported resident population	Deaths	Mortality rate	Probability of dying	surviving	Life table parameters Radix	deaths	Years lived		Life expectancy	Confidence interval	
Age	*x*	*nx*	*ax*	*pop (Nx)*	*Dx*	*mx*	*qx*	*px*	*lx*	*dx*	*Lx*	*Tx*	*ex*	*L 95% CI*	*U 95% CI*
<5	0	5	0.2	541	2	0.00370	0.01821	0.98179	100000	1821	492714	7913879	79.14	75.77	82.51
5-9	5	5	0.5	600	0	0.00000	0.00000	1.00000	98179	0	490893	7421165	75.59	72.81	78.36
10-14	10	5	0.5	672	0	0.00000	0.00000	1.00000	98179	0	490893	6930272	70.59	67.81	73.36
15-19	15	5	0.5	582	0.2	0.00034	0.00172	0.99828	98179	169	490471	6439380	65.59	62.81	68.36
20-24	20	5	0.5	433	0	0.00000	0.00000	1.00000	98010	0	490050	5948909	60.70	57.96	63.43
25-29	25	5	0.5	487	0.4	0.00082	0.00410	0.99590	98010	402	489046	5458859	55.70	52.96	58.43
30-34	30	5	0.5	482	0.4	0.00083	0.00414	0.99586	97608	404	487031	4969813	50.92	48.25	53.58
35-39	35	5	0.5	493	0.4	0.00081	0.00405	0.99595	97204	394	485037	4482782	46.12	43.52	48.72
40-44	40	5	0.5	484	1.2	0.00248	0.01232	0.98768	96811	1193	481071	3997746	41.29	38.74	43.85
45-49	45	5	0.5	518	1.2	0.00232	0.01152	0.98848	95618	1101	475336	3516675	36.78	34.35	39.21
50-54	50	5	0.5	514	2.2	0.00428	0.02117	0.97883	94517	2001	467580	3041339	32.18	29.82	34.53
55-59	55	5	0.5	511	3.4	0.00665	0.03272	0.96728	92515	3027	455008	2573758	27.82	25.57	30.07
60-64	60	5	0.5	396	5	0.01263	0.06120	0.93880	89488	5477	433748	2118750	23.68	21.55	25.81
65-69	65	5	0.5	305	4.2	0.01377	0.06656	0.93344	84011	5592	406077	1685002	20.06	18.16	21.95
70-74	70	5	0.5	217	6.6	0.03041	0.14133	0.85867	78419	11083	364390	1278926	16.31	14.70	17.92
75+	75	27	0.5	383	28.2	0.07363	1.00000	0.00000	67337	67337	914536	914536	13.58		

3. Live Births

Definitions:

Live births: The total number of births in a given year where the baby shows any sign of life (such as breathing, heartbeat, or voluntary muscle movement) regardless of gestational age.

Crude birth Rate (CBR): The number of live births per 1,000 people in a given population per year

Low Birth Weight (LBW): Infants born weighing less than 2,500 grams (5.5 pounds) regardless of gestational age.

Formulas:

$$CBR = \frac{Number\ of\ live\ births\ in\ a\ year}{Total\ \ population}\ x\ 1{,}000$$

$$LBW = \frac{Number\ of\ live\ births\ < 2{,}500\ grams}{Total\ number\ of\ live\ births}\ x\ 1{,}000$$

Methodology/system issues/sources:

- Data is sourced from Medtech and Ministry of Justice birth registers.
- Total live births does not include fetal deaths.

Table 3.1: Live births by sex and year, Cook Islands 2015-2024

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Male	107	125	117	121	104	124	111	115	98	105
Female	111	118	114	118	128	133	95	114	107	91
Total	218	243	231	239	232	257	206	229	205	196

Table 3.2: Live births to low birth weight cases, Cook Islands 2015-2024

Year	Births	Number of cases	% to live births
2015	218	14	7%
2016	243	12	5%
2017	231	15	7%
2018	239	14	6%
2019	232	8	4%
2020	257	12	5%
2021	206	9	4%
2022	229	6	3%
2023	205	8	4%
2024	196	7	4%

Table 3.3: Crude birth rates, Cook Islands 2015-2024

YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Crude rate	16.8	21.1	20.1	16.1	15.7	17.4	13.7	15.3	13.7	13.1

Table 3.4: Distribution of live births by island, Cook Islands 2022-2024

REGION & ISLAND	2022			2023			2024		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
COOK ISLANDS	229	115	114	205	98	107	196	105	91
RAROTONGA	223	112	111	202	97	105	188	100	88
SOUTHERN GROUP excluding Rarotonga	5	3	2	3	1	2	8	5	3
Aitutaki	1	1	0	2	0	2	7	5	2
Mangaia	3	1	2	1	1	0	1	0	1
Atiu	0	0	0	0	0		0	0	0
Mauke	1	1	0	0	0	0	0	0	0
Mitiaro	0	0	0	0	0	0	0	0	0
NORTHERN GROUP	1	0	1	0	0	0	0	0	0
Palmerston	0	0	0	0	0	0	0	0	0
Pukapuka/Nassau	0	0	0	0	0	0	0	0	0
Manihiki	0	0	0	0	0	0	0	0	0
Rakahanga	0	0	0	0	0	0	0	0	0
Penrhyn	1	0	1	0	0	0	0	0	0

Figure 5: Crude birth rate per 1,000 population 2015-2024

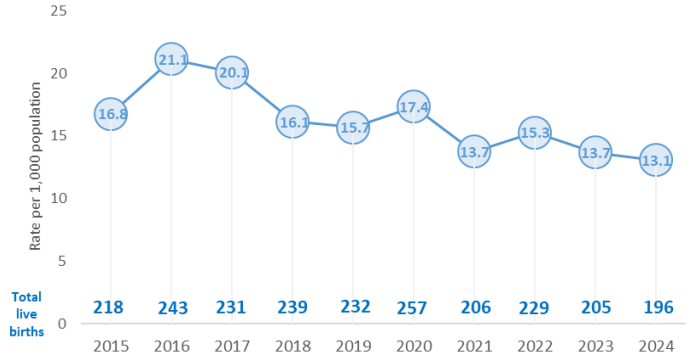


Figure 6: Percentage distribution of births by island (%) 2022-2024

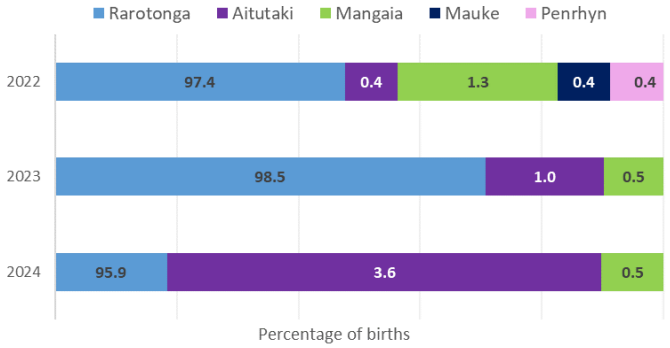
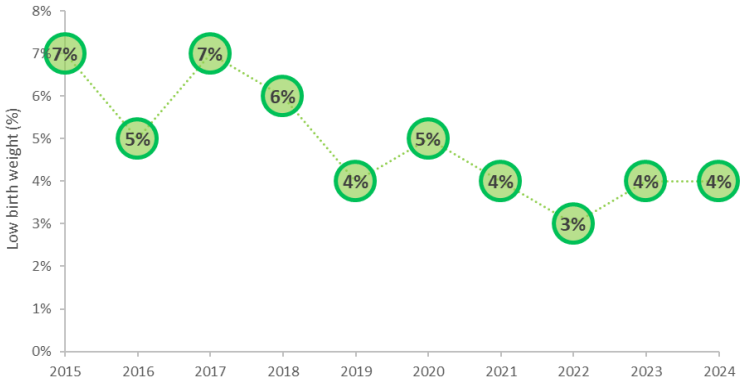


Figure 7: Percentage of low birth weight 2015-2024



4. Fertility Rate

Definitions:

Total Fertility Rate (TFR): The average number of children a woman could give birth to during her reproductive years (15-49 years), assuming current age-specific birth rates remain constant throughout her reproductive lifespan.

Age-specific Fertility Rate (ASFR): The number of live births per 1,000 women in a specific age group in a given year.

Formulas:

$$TFR = \frac{Total\ number\ of\ mothers\ given\ birth}{Total\ number\ of\ female\ resident\ population\ in\ a\ year}\ x1{,}000$$

$$ASFR = \frac{Age-specific\ number\ of\ mothers\ given\ birth}{Age-specific\ female\ population}\ x\ 1{,}000$$

Methodology/system issues/sources:

- Data is sourced from Medtech and Ministry of Justice birth register.

Table 4.1: Mothers given birth and fertility rates by age groupings, Cook Islands 2015-2024

Age Group	Female Resident Population					Number of Mothers									
	2001	2006	2011	2016	2021	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
15-19	656	630	597	711	582	24	24	25	22	9	18	19	8	23	20
20-24	491	545	512	656	433	59	63	56	74	60	73	57	61	47	42
25-29	524	473	493	612	487	53	56	76	63	61	60	62	58	52	55
30-34	541	554	462	595	482	45	59	42	43	52	44	40	52	52	44
35-39	524	551	521	533	493	21	29	20	26	26	33	17	36	26	25
40-44	449	540	542	601	484	13	9	12	11	10	11	8	13	6	11
45-49	353	457	528	625	518	1	1	0	0	1	1	2	1	0	0
Total	3,538	3,750	3,655	4333	3479	216	241	231	239	219	240	205	229	206	197
Age-Specific Fertility Rate (per 1'000 Women)															
15-19						40	34	35	31	13	25	33	14	40	34
20-24						115	123	109	149	91	111	132	141	109	97
25-29						108	114	154	134	100	98	127	119	107	113
30-34						97	128	91	89	87	74	83	108	108	91
35-39						40	56	38	60	49	62	34	73	53	51
40-44						24	17	22	21	17	18	17	27	12	23
45-49						2	2	0	0	2	2	4	2	0	0
General Fertility Rate (per 1'000 Women)						59	66	63	68	51	55	59	66	48	57
Total Fertility Rate						2.1	2.4	2.3	2.5	1.8	2.0	2.1	2.4	2.1	2.0

Figure 8: Total fertility rate per 1,000 women 2015-2024

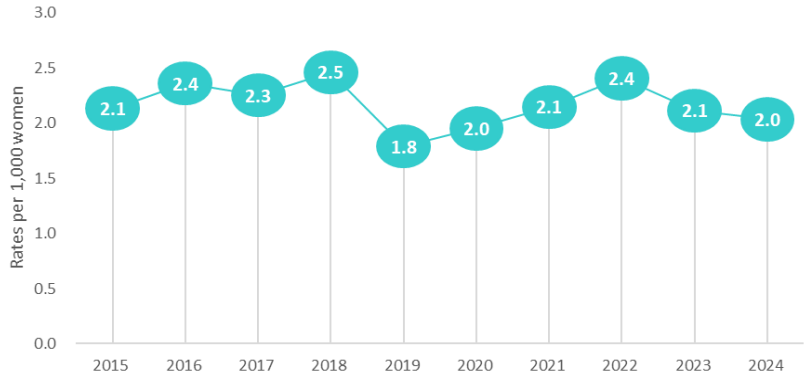
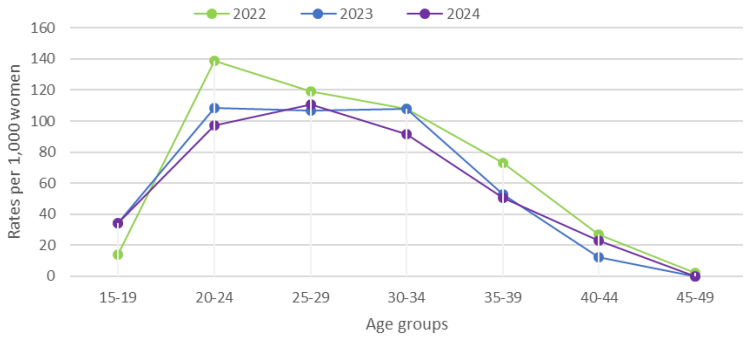


Figure 9: Age-specific fertility rates 2022-2024



5. Adolescent Health

Definitions:

Adolescent/Teenage Pregnancy: Pregnancy occurring in individuals between the ages of 15 and 19 years.

Adolescent Birth: The occurrence of a live birth to a mother aged 15 and 19 years.

Adolescent birth rate - The annual number of births to females aged 10-14 or 15-19 years per 1,000 females in the respective age group.

Methodology/system issues/sources:

- Data is sourced from Medtech and Ministry of Justice birth register.
- The count of adolescent pregnancies includes women who have experienced miscarriages or given birth.

Table 5.1: Number of adolescent births, Cook Islands 2021-2024

Year	Alive	Still Birth	Total	%
2021	19	0	19	27%
2022	8	0	8	11%
2023	20	3	23	33%
2024	20	0	20	29%

Table 5.2: Age distribution of adolescent mothers, Cook Islands 2023-2024

Age	2023	2024	Total
15yrs	4	0	4
16yrs	3	1	4
17yrs	5	4	9
18yrs	5	2	7
19yrs	6	13	19

Figure 10: Total number of adolescent mothers to live births 2021-2024

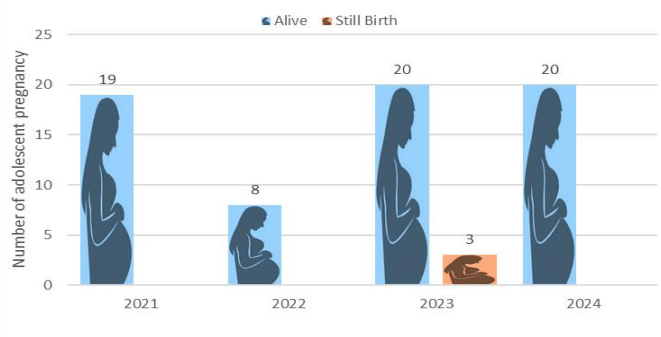


Figure 11: Age distribution of adolescent mothers (15-19 years) 2023-2024

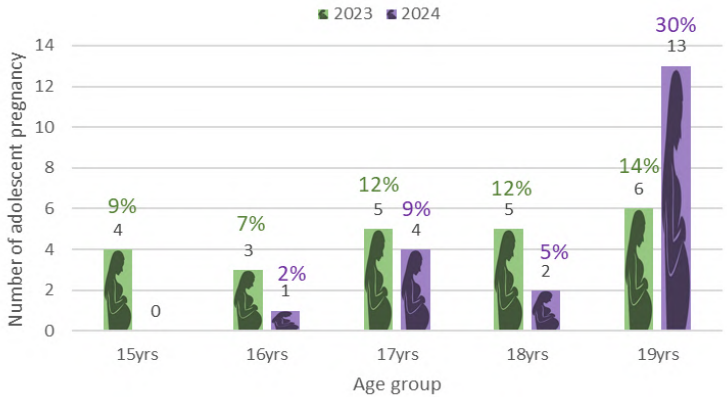
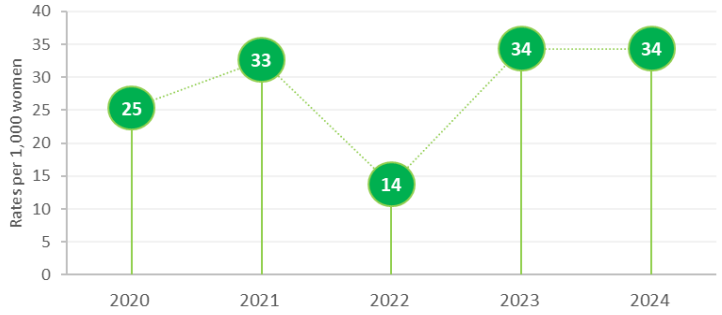


Figure 12: Adolescent birth rate 2020-2024



6. Contraceptives

Definitions:

<u>Contraceptive:</u> The deliberate use of artificial methods or techniques to prevent pregnancy.

<u>Contraceptive Prevalence Rate (CPR)</u>: The percentage of women aged 15-49 years, married or in-union, who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used.

Formula:

$$CPR = \frac{Number\ of\ women\ (15-49\ years)\ using\ contraceptives\ in\ a\ year}{Total\ number\ of\ women\ (15-49\ years)\ population}\ x\ 100$$

Methodology/system issues/sources:

- Data is sourced from Medtech contraceptive classifications

Table 6.1: Current users: Women on family planning contraceptives by year, Cook Islands 2015-2024

Contraceptive Type	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
All Methods	1,040	990	963	1,044	830	762	623	916	1310	1158
Prevalence Rate (%)	28.5	22.8	26.5	24.1	19.2	17.6	17.8	26.2	37.5	33.2
Oral Contraceptive (Pills)	428	393	380	130	65	49	9	29	225	214
Intra Uterine Device	2	7	2	13	6	6	6	9	12	21
Depo Provera (Injections)	515	482	472	772	651	613	508	865	862	818
Norplant/Jadelle	58	81	98	125	100	94	100	6	123	105
Condom	31	22	2	0	0	0	0	0	0	0
Others	6	5	9	4	0	0	0	7	26	0

Table 6.2: Contraceptives by age groups, Cook Islands 2024

Age group	Types: Depo Provera	Intra Uterine Device	Oral	Norplant/ Jadelle	Total Users	Percent
15-19	190	1	28	6	225	19%
20-24	130	1	25	21	177	15%
25-29	123	4	27	23	177	15%
30-34	128	4	29	21	182	16%
35-39	104	1	46	14	165	14%
40-44	82	4	30	6	122	11%
45-49	61	6	29	14	110	9%

Figure 13: Contraceptive prevalence rate 2015-2024

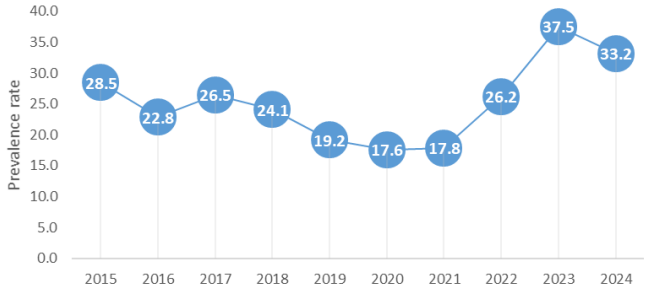
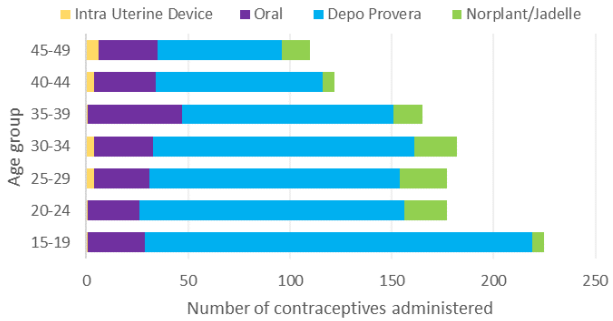


Figure 14: Females utilising contraceptive methods by age group 2024



7. Mortality

Definitions:

Mortality: The state of being subject to death; the number of deaths in a population during a specific period, typically expressed as a rate per 1,000 or 100,000 individuals per year.

Crude Death Rate: The total number of deaths in a population during a specified period per 1,000 individuals in that population

Under-5 mortality (U5M): The number of deaths of children under five years of age.

Infant mortality: The number of deaths of infants under one year of age per 1,000 live births.

Foetal Mortality: the number of deaths of a fetus during pregnancy, including miscarriages and stillbirths (after 28 weeks of gestation or ≥500g birth weight). The fetus shows no signs of life such as heartbeat, pulsation of the umbilical cord, or movement of voluntary muscles.

Neonatal Mortality: the death of a live-born baby within the first 28 days of life per 1,000 live births.

Cause of Death: The disease, condition, or injury that directly leads to a person's death. This can include underlying conditions and contributing factors that result in mortality. This is based on the international rules and sequential procedure set forth for manual classification of the underlying causes of death (International Classification of Diseases and Related Health Problems).

Underlying Cause of Death: The disease or condition that initiated the chain of events leading directly to death. It is the primary condition that started the decline in health resulting in death.

ICD-10: The International Classification of Diseases, 10th Revision (ICD-10) is a medical classification list by the World Health Organization (WHO). It

contains codes for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases.

<u>NCD Death:</u> A death caused by an NCD, such as cardiovascular disease, cancer, diabetes, or chronic respiratory disease, regardless of age.

<u>Premature NCD Death:</u> A death caused by an NCD occurring between the ages of 30 and 69 years.

<u>Probability of Premature NCD Death:</u> The likelihood (expressed as a percentage) that a person aged 30 will die from one of the four main NCDs before reaching age 69.

<u>Suicide Rate:</u> the number of deaths caused by suicide per 100,000 population in a given year.

<u>Adolescent Mortality Rate</u> (AMR): Number of deaths among adolescents (15-19 years old) per 100,000 adolescent population.

Formulas:

$$CDR = \frac{Total\ number\ of\ deaths\ in\ a\ year}{Total\ population}\ x\ 1{,}000$$

$$U5MR = \frac{Number\ of\ deaths\ of\ children\ under\ 5}{Number\ of\ live\ births}\ x\ 1{,}000$$

$$IMR = \frac{Number\ of\ deaths\ of\ infants\ under\ 1\ year}{Number\ of\ live\ births}\ x\ 1{,}000$$

$$FMR = \frac{Number\ of\ foetal\ deaths}{Number\ of\ live\ births}\ x\ 1{,}000$$

$$NMR = \frac{Number\ of\ neonatal\ deaths}{Number\ of\ live\ births}\ x\ 1{,}000$$

$$Suicide\ Rate = \frac{Number\ of\ suicide\ deaths\ in\ a\ year}{Total\ estimated\ resident\ population}\ x\ 100{,}000$$

$$AMR = \frac{Number\ of\ adolescent\ \ deaths\ in\ a\ year}{Total\ adolescent\ population\ in\ a\ year}\ x\ 100{,}000$$

$$Percentage\ of\ Premature\ NCD\ deaths = \frac{NCD\ deaths\ in\ 30-69\ age\ group\ in\ a\ year}{Total\ NCD\ deaths\ (all\ ages)\ in\ a\ year}\ x\ 100$$

Methodology/system issues/sources:

- Data is sourced from Medtech and Ministry of Justice death register.
- Source for population data is Statistics Cook Islands Quarterly Vital Statistics and Population Estimates
- Deaths occurring overseas are not captured/reported back into the system
- Excludes all visitors dying in the Cook Islands
- Probability of premature NCD mortality rates are computed based on the NCD lifetables

Table 7.1: Mortality by the underlying case, age grouping and sex, Cook Islands 2024

ICD 10		All Age		<1		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
Tab Code	Underlying Cause of Death	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	ALL CAUSES	**70**	**62**	**0**	**1**	**3**	**0**	**2**	**0**	**1**	**3**	**5**	**3**	**9**	**12**	**16**	**13**	**22**	**15**	**12**	**15**
	A00-B99 Certain infectious and parasitic diseases	**4**	**2**							**1**						**1**		**1**	**1**	**1**	**1**
	A40-A41 Septicaemia	3	2													1		1	1	1	1
	B15-B19 Viral hepatitis	1	0							1											
	C00-D48 Neoplasms	**11**	**13**			**1**					**2**			**2**	**4**	**4**	**3**	**3**	**2**	**1**	**2**
	C15-C26 Malignant neoplasms of digestive organs	1	3								1			1					1		1
	C22 Malignant neoplasm of liver and intrahepatic bile ducts	1	2								1				1	1					
	C25 Malignant neoplasm of pancreas	0	1												1						
	C31 Malignant neoplasm of accessory sinuses	1	0													1					
	C34 Malignant neoplasm of bronchus and lung	0	1																1		
	C50 Malignant neoplasm of breast	0	4												1		2				1
	C54 Malignant neoplasms of female genital organs	0	2												1				1		
	C61 Malignant neoplasm of prostate	4	0													1		2		1	
	C62 Malignant neoplasm of testis	1	0			1															
	C64-C68 Malignant neoplasms of urinary tract	1	0															1			
	C73 Malignant neoplasm of thyroid gland	0	1														1				
	C81-C96 Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue	2	0												1	1					
	E00-E88 Endocrine, nutritional and metabolic diseases	**8**	**10**		**1**					**1**		**2**	**1**	**1**	**2**	**1**	**2**	**2**	**1**	**2**	**2**
	E10-E14 Diabetes mellitus	5	8							1			1	1	1	1	2	2	1	1	2
	E15-E16 Other disorders of glucose regulation and pancreatic internal secretion	1	0																	1	
	E70-E90 Metabolic disorders	2	2		1							2			1						
	J00-J98 Diseases of the respiratory system	**1**	**1**													**1**	**1**				
	J40-J47 Chronic lower respiratory diseases	1	1													1	1				
	I00-I99 Diseases of the circulatory system	**36**	**27**					**1**				**2**	**2**	**5**	**5**	**9**	**7**	**13**	**8**	**6**	**5**
	I10-I15 Hypertensive diseases	14	12										1	2	1	6	4	3	4	3	2
	I20-I25 Ischaemic heart diseases	7	3					1				1		2	1	1	1	1	1	1	
	I30-I52 Other forms of heart disease	12	9									1	1	1	2	2	1	7	2	1	3
	I60-I69 Cerebrovascular diseases	3	3												1		1	2	1	1	
	K00-K93 Disease of the digestive system	**0**	**1**																**1**		
	L00-L98 Diseases of the skin and subcutaneous tissue	**0**	**1**																		**1**
	N00-N98 Disease of the genitourinary system	**1**	**0**											**1**							
	R00-R99 Symptoms, signs & abnormal clinical & laboratory findings, n.e.c.	**6**	**5**															**4**	**1**	**2**	**4**
	R95-R99 Ill-defined and unknown causes of mortality	6	5															4	1	2	4
	V01-Y98 External causes of mortality	**4**	**1**			**2**		**1**				**1**		**1**							
	V20-V29 Motorcycle rider injured in transport accident	1	0									1									
	W65-W74 Drowning	0	1											1							
	X60-X84 Intentional self-harm	3	0			2		1													

Table 7.2: Deaths by Island and month, Cook Islands 2024

ISLAND	Month												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
COOK ISLANDS	17	12	12	11	5	8	14	7	16	13	6	11	132
RAROTONGA	13	7	8	8	5	6	9	5	9	8	4	3	85
SOUTHERN GROUP excluding Rarotonga	2	4	4	2	0	2	4	2	5	5	1	7	38
Aitutaki	1	2	1	1		1	2		3	4		6	21
Mangaia	1	1				1	2		1			1	7
Atiu		1	2	1				1			1		6
Mauke									1	1			2
Mitiaro			1					1					2
NORTHERN GROUP	2	1	0	1	0	0	1	0	2	0	1	1	9
Palmerston													0
Pukapuka/Nassau	2								1				3
Manihiki							1		1		1		3
Rakahanga		1		1									2
Penrhyn												1	1

Table 7.3: Deaths by Island and sex, Cook Islands 2024

REGION & ISLAND	2021			2022			2023			2024		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
COOK ISLANDS	126	70	56	106	53	53	130	77	53	132	70	62
RAROTONGA	90	49	41	80	39	41	87	51	36	85	48	37
SOUTHERN GROUP excluding Rarotonga	31	17	14	21	11	10	32	18	14	38	19	19
Aitutaki	17	7	10	12	5	7	16	7	9	21	12	9
Mangaia	2	2	0	3	1	2	7	5	2	7	3	4
Atiu	5	4	1	4	4	0	5	3	2	6	2	4
Mauke	6	4	2	2	1	1	4	3	1	2	1	1
Mitiaro	1	0	1	0	0	0	0	0	0	2	1	1
NORTHERN GROUP	5	4	1	5	3	2	11	8	3	9	3	6
Palmerston	0	0	0	0	0	0	0	0	0	0	0	0
Pukapuka/Nassau	1	1	0	3	2	1	5	4	1	3	0	3
Manihiki	4	3	1	1	0	1	2	1	1	3	1	2
Rakahanga	0	0	0	1	1	0	1	0	1	2	2	0
Penrhyn	0	0	0	0	0	0	3	3	0	1	0	1

Figure 15: Crude death rate per 1,000 population 2019-2024

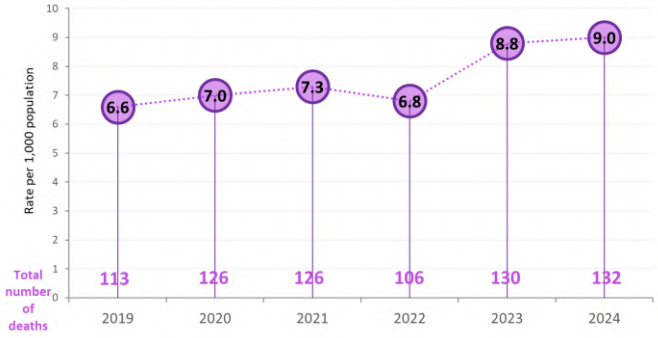


Figure 16: Causes of death by ICD-10 groups 2023 & 2024

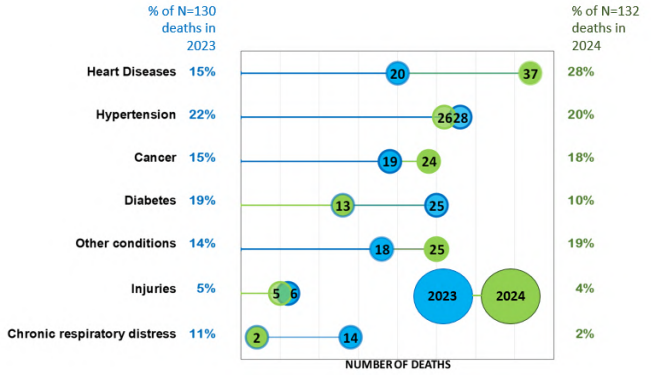


Figure 17: Percentage of NCD deaths to other deaths 2020-2024

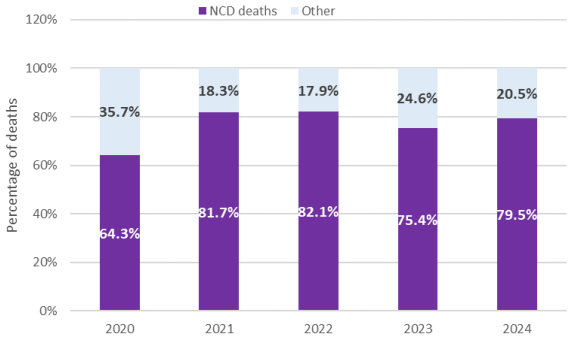


Figure 18: NCD deaths by ICD-10 groups 2022-2023

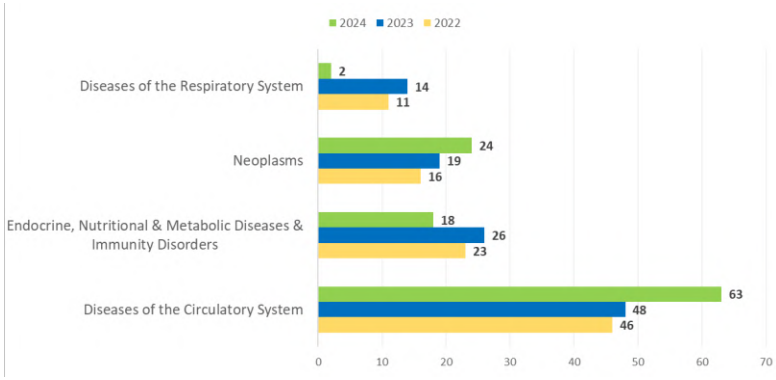


Figure 19: Fetal, neonatal, infant and under-five mortality rates 2019-2024

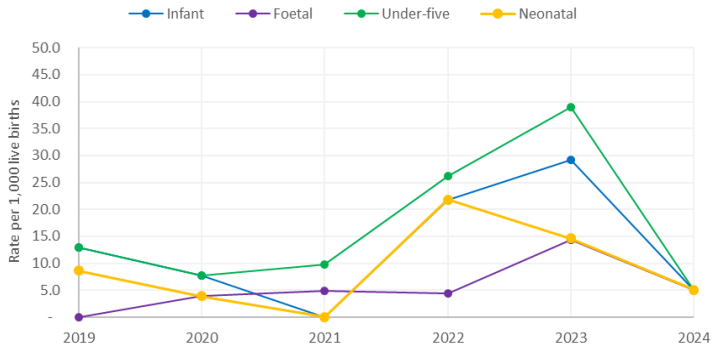


Figure 20: Adolescent mortality rate per 100,000 estimated resident population 2019-2024

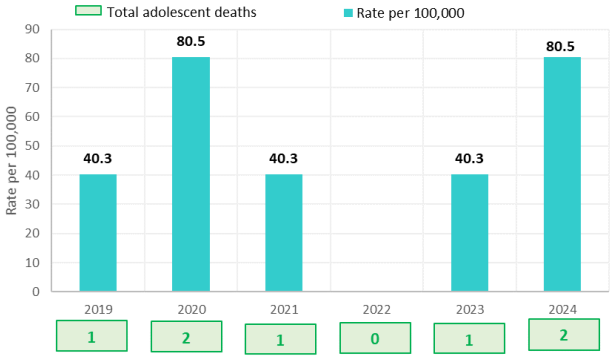
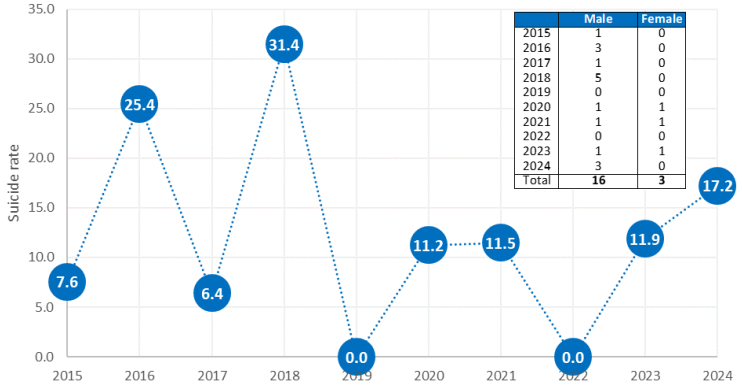


Figure 21: Suicide rate per 100,000 resident estimate population 2015-2024



8. NCD Lifetables

Definitions:

NCD Lifetables: are statistical models used to summarize the mortality patterns of populations by age and sex. These tables provide age-specific death rates and estimate the probability of death between different age intervals. They help in understanding the overall mortality rate of NCDs such as heart disease, cancer, and diabetes within a population.

Table 8.1: NCD Lifetables for males 2024 (refer below)

Table 8.2: NCD Lifetables for females 2024 (refer below)

NCD lifetable for males 2024

						Death rate	Probability dying	of surviving	Life table parameters Radix	deaths			Life expectancy		
Age	*x*	*nx*	*ax*	*pop (Nx)*	*death*	*mx*	*qx*	*px*	*lx*	*dx*	*Lx*	*Tx*	*ex*	*L 95% CI*	*U 95% CI*
<5	0	5	0.2	572	0	0	0	1	100000	0	500000	7787949.4	77.88	75.43	80.32
5-9	5	5	0.5	664	0	0	0	1	100000	0	500000	7287949.4	72.88	70.43	75.32
10-14	10	5	0.5	719	0	0	0	1	100000	0	500000	6787949.4	67.88	65.43	70.32
15-19	15	5	0.5	579	0	0	0	1	100000	0	500000	6287949.4	62.88	60.43	65.32
20-24	20	5	0.5	397	0.2	0.000504	0.002516	0.997484	100000	251.5723	499371.1	5787949.4	57.88	55.43	60.32
25-29	25	5	0.5	388	0.4	0.001031	0.005141	0.994859	99748.43	512.8454	497460	5288578.3	53.02	50.65	55.39
30-34	30	5	0.5	449	0	0	0	1	99235.58	0	496177.9	4791118.3	48.28	46.04	50.52
35-39	35	5	0.5	451	0	0	0	1	99235.58	0	496177.9	4294940.4	43.28	41.04	45.52
40-44	40	5	0.5	427	0.8	0.001874	0.009324	0.990676	99235.58	925.2735	493864.7	3798762.4	38.28	36.04	40.52
45-49	45	5	0.5	455	1.2	0.002637	0.0131	0.9869	98310.31	1287.908	488331.8	3304897.7	33.62	31.48	35.76
50-54	50	5	0.5	525	2.4	0.004571	0.022599	0.977401	97022.4	2192.597	479630.5	2816565.9	29.03	26.99	31.07
55-59	55	5	0.5	518	2.8	0.005405	0.026667	0.973333	94829.8	2528.795	467827	2336935.4	24.64	22.71	26.57
60-64	60	5	0.5	430	5.6	0.013023	0.063063	0.936937	92301.01	5820.784	446953.1	1869108.4	20.25	18.40	22.10
65-69	65	5	0.5	287	7	0.02439	0.114943	0.885057	86480.23	9940.256	407550.5	1422155.3	16.44	14.76	18.13
70-74	70	5	0.5	231	7.6	0.0329	0.152	0.848	76539.97	11634.08	353614.7	1014604.8	13.26	11.99	14.52
75+	75	20.37	0.5	277	27.2	0.098195	1	0	64905.89	64905.89	660990.2	660990.17	10.18		

NCD lifetable for females 2024

						Death rate	Probability dying	of surviving	Life table parameters Radix	deaths			Life expectancy		
Age	*x*	*nx*	*ax*	*pop (Nx)*	*death*	*mx*	*qx*	*px*	*lx*	*dx*	*Lx*	*Tx*	*ex*	*L 95% CI*	*U 95% CI*
<5	0	5	0.2	541	0	0	0	1	100000	0	500000	8357414	83.57	80.79	86.35
5-9	5	5	0.5	600	0	0	0	1	100000	0	500000	7857414	78.57	75.79	81.35
10-14	10	5	0.5	672	0	0	0	1	100000	0	500000	7357414	73.57	70.79	76.35
15-19	15	5	0.5	582	0	0	0	1	100000	0	500000	6857414	68.57	65.79	71.35
20-24	20	5	0.5	433	0	0	0	1	100000	0	500000	6357414	63.57	60.79	66.35
25-29	25	5	0.5	487	0	0	0	1	100000	0	500000	5857414	58.57	55.79	61.35
30-34	30	5	0.5	482	0.2	0.000415	0.002073	0.997927	100000	207.2539	499481.9	5357414	53.57	50.79	56.35
35-39	35	5	0.5	493	0.2	0.000406	0.002026	0.997974	99792.75	202.2143	498458.2	4857932.2	48.68	45.93	51.43
40-44	40	5	0.5	484	1	0.002066	0.010277	0.989723	99590.53	1023.541	495393.8	4359474	43.77	41.05	46.49
45-49	45	5	0.5	518	0.8	0.001544	0.007692	0.992308	98566.99	758.2076	490939.4	3864080.2	39.20	36.59	41.82
50-54	50	5	0.5	514	2	0.003891	0.019268	0.980732	97808.78	1884.562	484332.5	3373140.7	34.49	31.93	37.05
55-59	55	5	0.5	511	3	0.005871	0.02893	0.97107	95924.22	2775.05	472683.5	2888808.2	30.12	27.66	32.57
60-64	60	5	0.5	396	4.8	0.012121	0.058824	0.941176	93149.17	5479.363	452047.4	2416124.7	25.94	23.59	28.29
65-69	65	5	0.5	305	3.6	0.011803	0.057325	0.942675	87669.81	5025.658	425784.9	1964077.3	22.40	20.30	24.50
70-74	70	5	0.5	217	6.2	0.028571	0.133333	0.866667	82644.15	11019.22	385672.7	1538292.4	18.61	16.80	20.43
75+	75	32.2	0.5	383	23.8	0.062141	1	0	71624.93	71624.93	1152620	1152619.7	16.09		

9. Notifiable Diseases

Definitions:

Notifiable diseases: Are infectious diseases that healthcare providers and laboratories are required by law to report to public health authorities. These diseases are typically of public health concern due to their potential for rapid spread, severity, or impact on the community.

Ciguatera Poisoning: Foodborne illness caused by eating fish contaminated with ciguatoxins, leading to symptoms like nausea, vomiting, diarrhea, abdominal pain, and neurological issues such as tingling or temperature reversal.

Dengue: Dengue is a viral infection spread by Aedes mosquitoes, causing sudden fever, headache, muscle and joint pain, rash, and sometimes bleeding.

COVID-19: a contagious disease caused by the coronavirus SARS-CoV-2. It spreads mainly through respiratory droplets and can cause symptoms like fever, cough, tiredness, and breathing difficulties.

Methodology/system issues/sources:

- Data is sourced from Medtech COVID-19, ciguatera screening templates and notifiable disease classifications

Table 9.1: Suspected cases of notifiable diseases by months, Cook Islands 2024

Notifiable diseases	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Acute respiratory infections	285	152	213	275	216	246	238	342	276	308	296	277	3124
Asthma	19	22	14	14	21	20	13	17	22	19	15	19	215
Bronchitis	70	42	47	84	62	53	61	110	86	83	70	44	812
Chickenpox	2				2	1	1		1	3	2	3	15
Conjunctivitis	3	3	7	10	5	4	4	5	6	7	3	3	60
COVID-19	40	36	9	2		20	2	29	1	1		21	161
Dengue													0
Diptheria													0
Fish poisoning		3	1	6	2	1	2	4	1		3		23
Filariasis													0
Flu like illness	73	55	43	78	68	120	87	96	72	97	94	86	969
Food poisoning	2	4	4	9	5	4	6	7	2	3	9	3	58
Gastroenteritis	31	25	27	22	27	34	18	15	15	5	16	42	277
Gonorrhoea										1			1
Hepititis	2						1	1	1			1	6
Leprosy													0
Malaria													0
Measles													
Meningitis	1												1
Mumps			1				1						2
Pneumonia or influenza NOS	3	2	2	3	3	3	5	2		2	1	4	30
Rheumatic Fever		1	2		1	2		4			2		12
Scabies	7	9	15	10	12	12	4	7	3	19	8	7	113
Sepsis	5		3	3	2	3	4	4	1		1	1	27
Suppurative otitis media	17	9	10	11	5	13	11	5	9	11	3	16	120
Tuberculosis					1								1
Whooping cough						1	1						2
Yaws													0
Grand Total	520	327	389	525	432	517	457	619	495	558	523	506	5868

Note: Diptheria, Filariasis, Leprosy, Malaria and Yaws reported no cases since 2010.

Table 9.2: Suspected cases of fish poisoning by months, Cook Islands 2022-2024

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2022	3	1	1	1	1	2	2	2	1	2	2	0	18
2023	1	2	8	7	2	3	5	1	5	1	3	2	40
2024	0	3	1	6	2	2	2	5	1	0	3	0	25

Figure 22: Top five notifiable diseases by month 2024

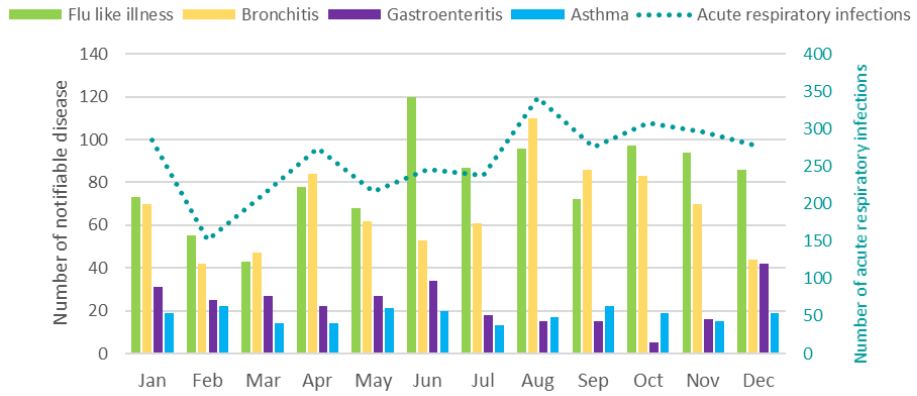


Figure 23: Fish poisoning cases by month and year 2022-2024

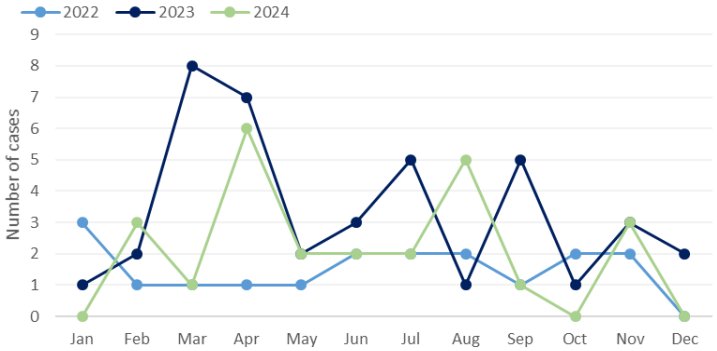
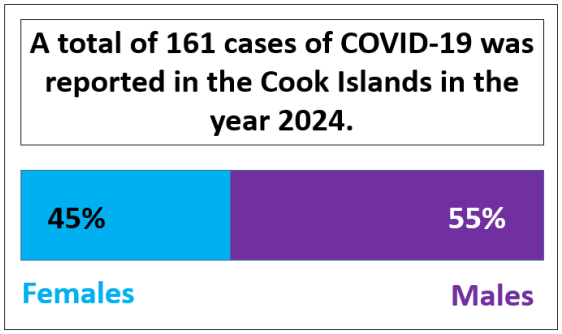


Figure 24: COVID-19 cases by sex 2024



10. Sexually Transmitted Infections (STIs)

Definitions:

STIs: are infections transmitted through sexual contact, including vaginal, anal, or oral intercourse. They can be caused by bacteria, viruses, or parasites and may present with symptoms such as genital sores, discharge, or pain, though many infections can be asymptomatic.

Syphilis: Bacterial infection transmitted sexually or from mother to child; progresses through stages, causing serious complications.

NSU (Non-Specific Urethritis): Urethral inflammation not caused by gonorrhoea or chlamydia, often due to other bacteria or irritants.

Trichomoniasis (TV): STI caused by Trichomonas vaginalis, infecting genital tract; symptoms include discharge and itching.

Chlamydia: Common STI often asymptomatic; affects genitals, rectum, and throat.

Hepatitis B (Hep B): Viral infection (HBV) affecting liver, transmitted through blood or body fluids.

HIV: a virus that attacks the body's immune system, weakening its ability to fight infections and diseases. If left untreated, HIV can lead to AIDS (Acquired Immunodeficiency Syndrome). It spreads through contact with certain body fluids like blood, semen, or breast milk.

Methodology/system issues/sources:

- Data is sourced from records maintained by TMO laboratory
- The data reflects what is currently accessible and traceable.

Table 10.1: Laboratory positive new cases by disease and year, Cook Islands 2015-2024

	YEAR									
STI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Gonorrhoea	1	2	11	42	38	4	10	1	11	0
HIV	0	0	0	0	0	0	0	0	1	1
Syphilis	1	1	1	5	4	4	4	8	7	2
Non Specific Urethritis	0	0	0	3	3	3	3	2	3	0
Trichomonas Vaginalis	0	0	0	6	2	3	3	2	2	5
Chlamydia	30	37	108	108	100	0	0	0	0	0
Hepatitis B	6	8	9	3	8	8	9	4	6	11
Total	38	48	129	167	155	22	29	17	30	19
OTHERS										
Tuberculosis	0	0	0	0	0	0	0	0	4	1
Dengue Fever	0	2	0	0	0	0	193	7	0	0
Chikungunya	11	0	0	0	0	0	0	0	0	0
Candidiasis	0	0	20	67	60	14	17	14	35	15

Table 10.2: Laboratory confirmed new cases by age and sex, Cook Islands 2024

	Hep B		Syphilis		HIV		Trichomonas vaginalis	Candidiasis
POSITIVE NEW CASES	**11**		**2**		**1**		5	15
Gender	**M**	**F**	**M**	**F**	**M**	**F**	**F**	**F**
Total Positive	**7**	**17**	**4**	**2**	**1**	**0**	**5**	**15**
Age:								
10 - 14 yrs	0	0	0	0	0	0	0	0
15-19 yrs	0	0	0	0	0	0	0	1
20-24 yrs	0	0	0	0	0	0	1	1
25-29 yrs	0	1	0	2	0	0	1	5
30-34 yrs	0	3	0	0	1	0	2	3
35+ yrs	7	13	4	0	0	0	1	5
Note: Some Hep B positive new cases are foreigners who have been tested for the first time here								

Table (1): Laboratory confirmed candidiasis testing and positive new cases 2021- 2024

	2021	2022	2023	2024
Tested	87	77	181	376
Positive	17	14	35	15

<u>Candidiasis:</u> a type of yeast (fungus) that naturally lives on the skin and inside the body. It can cause infections when it grows out of balance. Please note that Candidiasis was removed from this section as it is not officially classified as STI.

Figure 25: Number of laboratory testing and confirmed positive new STI cases 2024

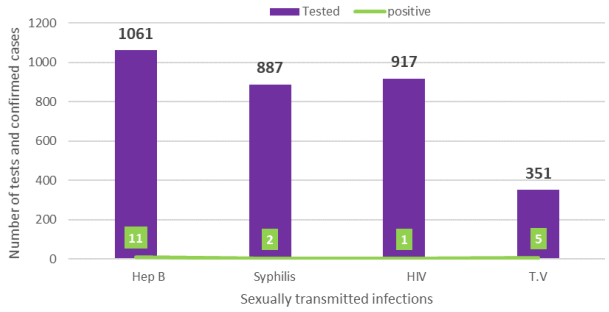


Figure 26: Laboratory-confirmed new STI cases 2021-2024

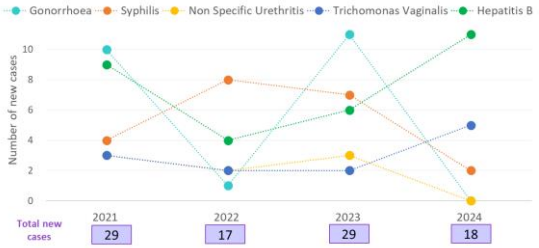


Figure 27: Laboratory confirmed hepatitis-B cases and incidence rate 2015-2024

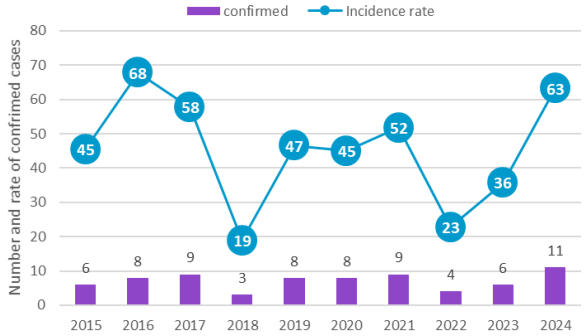
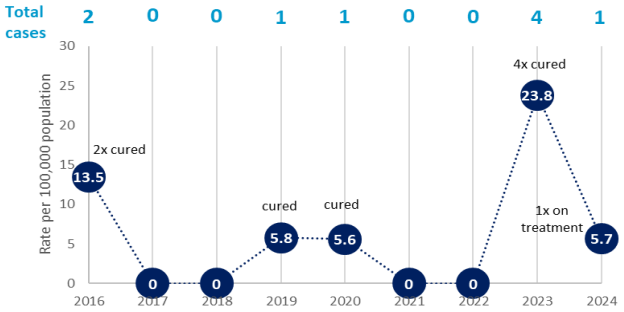


Figure 28: Tuberculosis incidence rate per 100,000 estimate population 2016-2024



11. Non-Communicable Diseases (NCDs)

Definitions:

<u>NCD (Non-Communicable Disease):</u> Diseases that are not transmissible directly from one person to another, often chronic in nature and influenced by lifestyle factors, such as cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases.

<u>Prevalence:</u> The proportion of individuals in a population who have a specific disease or condition at a particular point in time.

<u>Incidence:</u> The number of new cases of a disease or condition that develop in a population over a specified period.

<u>Cancer:</u> Cancer refers to a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. These cells can invade and destroy normal tissues and organs, potentially spreading to other parts of the body (metastasis).

Formulas:

$$Incidence\ rate\ (\%) = \frac{Number\ of\ new\ cases}{Population\ at\ risk} x\ 1{,}000$$

Methodology/system issues/sources:

- Data is sourced from Medtech NCD Register and Cook Islands Cancer Register (CanReg5)
- Source of population data is the Statistics Office (MFEM)
- Cardiovascular diseases includes hypertension, stroke, renal failure, heart failure, heart diseases, myocardial infarction
- Chronic respiratory diseases includes chronic bronchitis, asthma, emphysema, bronchiectasis
- Cancer sites and tumours are also referred as cases for this section

Table 11.1: NCD by year and disease, Cook Islands 2020-2023

Year	Resident Population Estimate	Total Number withNCD	Incidence	Incidence rate (%)	Prevalence	Cardiovascular diseases(CVD)	Incidence	Incidence rate (%)	Prevalence
before 2009						1,543			
2009	13,300	2,634				1,402			
2010	11,900	2,923	289	24	246	1,571	169	14	132
2011	14,700	3,226	303	21	219	1,730	159	11	118
2012	14,300	3,578	352	25	250	1,944	214	15	136
2013	14,100	3,895	317	22	276	2,140	196	14	152
2014	13,600	4,032	137	10	296	2,310	170	13	170
2015	13,000	4,312	280	22	332	2,475	165	13	190
2016	11,500	4,600	288	25	400	2,646	171	15	230
2017	11,500	4,879	279	24	424	2,743	97	8	239
2018	10,649	5,000	121	11	470	2,953	210	20	277
2019	10,649	5,216	216	20	490	3,305	352	33	310
2020	10,649	5,498	282	26	516	3,803	498	47	357
2021	17,200	5,504	225	13	529	3,897	94	5	362
2022	17,600	5,488	315	18	547	3,965	68	4	366
2023	16,800	5,809	532	32	579	4,036	71	4	371
2024	17,400	5,663	372	21	600	4,052	16	0.9	371.5

Note:

1- Source of population data is the Statistics Office (MFEM)

2- Incidence rate calsulated per 1,000 population

3- Cardiovascular diseases includes hypertension, stroke, renal failure, heart failure, heart diseases, myocardial infarction

4- Chronic respiratory diseases includes chronic bronchitis, asthma, emphysema, bronchiectasis

Diabetes	Incidence	Incidence rate (%)	Prevalence	Cancer	Incidence	Incidence rate (%)	Prevalence	Chronic respiratory diseases(COPD)	Incidence	Incidence rate (%)	Prevalence
681				148				600			
658				145				590			
740	82	7	62	171	26	2	14	640	50	4	54
831	91	6	57	200	29	2	14	709	69	5	48
927	96	7	65	228	28	2	16	767	58	4	54
1,030	103	7	73	245	17	1	17	815	48	3	58
1,140	110	8	84	264	19	1	19	879	64	5	65
1,267	127	10	97	282	18	1	22	925	46	4	71
1,413	146	13	123	313	31	3	27	981	56	5	85
1,473	60	5	128	338	25	2	29	1,000	19	2	87
1,596	123	12	150	361	23	2	34	1,050	50	5	99
1,679	83	8	158	396	35	3	37	1,075	25	2	101
1,711	32	3	161	407	11	1	38	1,091	16	2	102
1,799	88	5	166	434	27	2	40	1,113	22	1	103
1,866	67	4	170	485	51	3	42	1,141	28	2	105
2,004	138	8	178	539	54	3	46	1,194	53	3	108
2,174	170	10	188	589	50	3	49	1,244	50	3	111

Table 11.2: Incidence of cancer cases by site, sex and age groupings, Cook Islands 2024

ICD 10 CODE	SITE	0-14	15-29	30-44	45-59	60-75	75+	Total	% Distribution
					MALE				
C00-C80	ALL SITES	0	1	1	3	10	10	25	100.0%
C00-C14	Malignant neoplasms of lip, oral cavity, and oharynx	0	0	1	0	1	1	3	12.0%
C15-C26	Malignant neoplasms of digestive organs	0	0	0	1	1	0	2	8.0%
C44	Other malignant neoplasms of skin	0	0	0	1	2	1	4	16.0%
C60-C63	Male genital organs	0	1	0	0	1	1	3	12.0%
C64-C68	Urinary tract	0	0	0	0	1	1	2	8.0%
C81-C96	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue	0	0	0	1	0	0	1	4.0%
D00-D09	In situ neoplasm	0	0	0	0	4	6	10	40.0%
					FEMALE				
C00-C80	ALL SITES	0	1	5	9	6	4	25	100.0%
C15-C26	Malignant neoplasms of digestive organs	0	0	0	1	0	0	1	4.0%
C30-C39	Malignant neoplasms of respiratory and intrathoracic organs	0	0	0	0	1	0	1	4.0%
C44	Other malignant neoplasms of skin	0	0	0	0	1	1	2	8.0%
C50	Breast	0	0	0	2	1	1	4	16.0%
C51-C58	Female genital organs	0	0	1	2	1	0	4	16.0%
C73-C75	Malignant neoplasms of thyroid and other endocrine glands	0	0	3	0	0	0	3	12.0%
C81-C96	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue	0	1	0	3	0	0	4	16.0%
D00-D09	In situ neoplasm	0	0	1	1	2	2	6	24.0%

Figure 29: *New non-communicable disease cases by year 2020-2024*

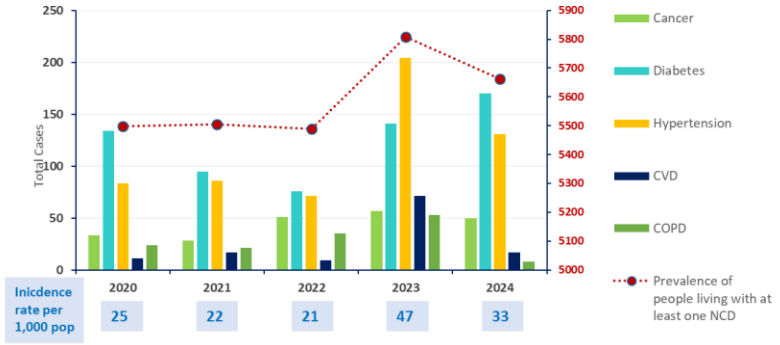


Figure 30: NCD by age group and sex as of December 2024

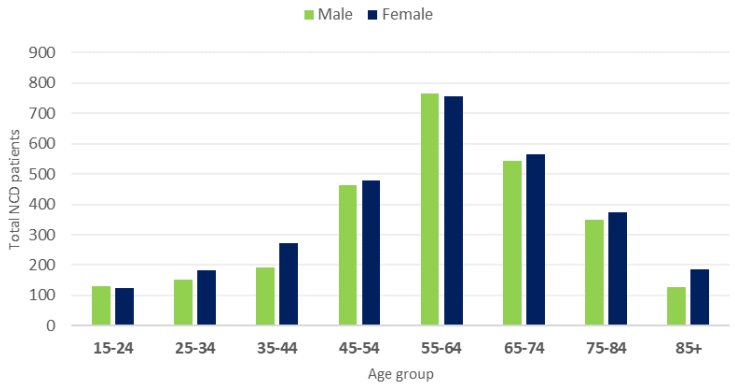


Figure 31: New cases of diabetes and hypertension 2023-2024

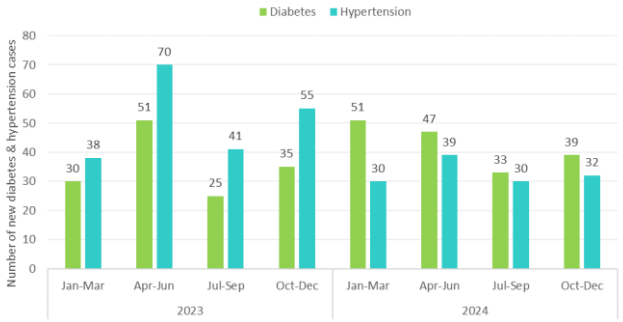
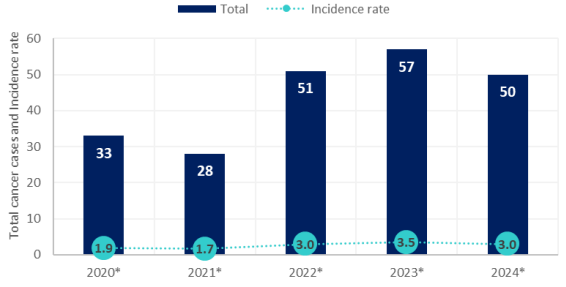


Figure 32: Cancer by year and incidence rate 2020-2024



Note: population denominator adjusted for these years

Figure 33: Cancer by type and sex 2024

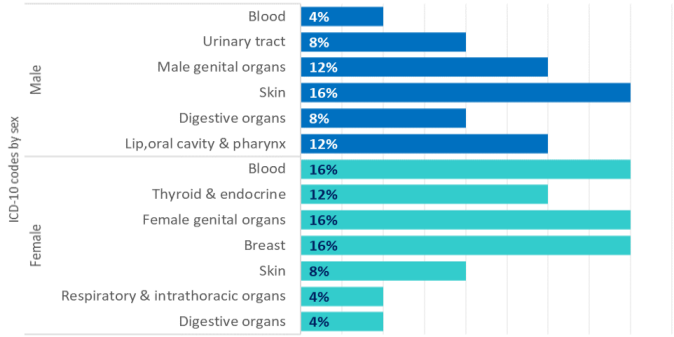
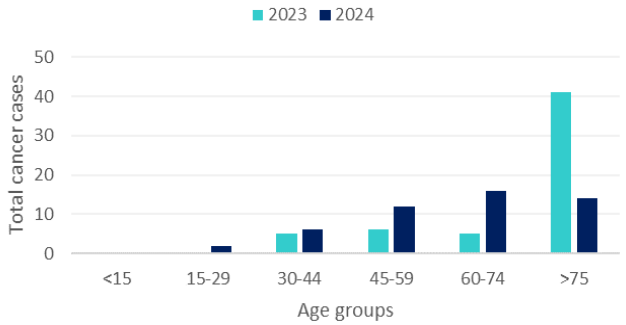


Figure 34: Cancer case by year and age group 2023-2024



12. Outpatient

Definitions:

Outpatient: A patient who receives care without being admitted to the hospital, usually for a consultation, procedure, or follow-up.

Consultation: A meeting between a patient and a healthcare provider for advice, diagnosis, or treatment.

Methodology/system issues/sources:

- Data is sourced from Medtech (Outpatient) consultations template
- Medtech experienced issues from the second half of 2014 through May 2015, resulting in the loss of all data from that period.

Table 12: Primary Care consultations by year, sex and age groups, Cook Islands 2013-2024

Year	Total	Age Groups															
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Unknown
	Sex: Both																
2013	37,906	5,033	3,573	2,323	2,455	2,202	1,905	1,918	1,675	2,206	2,399	2,658	1,993	1,930	1,806	3,815	15
2014	19,087	1,597	1,942	1,247	1,160	1,180	1,100	1,063	926	1,118	1,299	1,413	1,210	1,033	842	1,949	8
2015	31,401	3,571	2,834	1,757	1,790	1,708	1,619	1,599	1,513	1,704	2,161	2,375	2,007	1,815	1,510	3,433	5
2016	46,601	5,736	3,134	2,666	2,771	2,695	2,475	2,117	2,188	2,585	3,187	3,599	3,344	2,642	2,406	5,044	12
2017	52,316	5,239	4,200	2,755	2,975	3,129	3,430	3,068	3,017	3,128	3,704	3,845	3,619	2,725	2,386	5,086	10
2018	56,218	5,196	4,054	2,964	3,210	3,154	3,511	3,211	3,368	3,481	3,717	4,236	4,436	3,240	2,708	5,732	0
2019	58,148	5,388	4,035	2,836	3,112	3,556	4,044	3,441	3,626	3,651	3,912	4,411	4,555	3,292	2,557	5,732	0
2020	35,535	2,995	2,154	1,756	1,674	1,856	2,081	2,074	2,174	2,017	2,591	2,883	2,950	2,247	1,968	4,115	0
2021	32,474	3,029	1,794	1,460	1,577	1,430	1,752	1,841	1,965	1,723	2,183	2,533	2,510	2,207	2,072	4,394	4
2022	37,903	3,301	2,007	1,695	1,647	1,712	2,025	2,335	2,073	2,043	2,449	3,045	3,359	2,751	2,339	5,113	9
2023	37,667	3,380	2,234	1,849	1,878	1,653	2,195	2,416	2,107	2,160	2,259	2,758	2,965	2,649	2,174	4,961	29
2024	32,633	2,579	2,123	1,671	1,626	1,469	1,677	2,213	2,099	2,025	1,926	2,073	2,435	2,494	1,971	4,235	17
	Sex: Male																
2013	19,320	2640	1834	1218	1221	1002	829	840	718	1107	1228	1473	1020	1083	982	2116	9
2014	9,673	891	990	651	592	557	544	449	479	480	709	737	622	517	439	1,012	4
2015	15,770	2,001	1,442	912	882	777	773	603	678	789	1,126	1,254	982	945	812	1,793	1
2016	23,897	3,067	1,579	1,411	1,320	1,187	1,166	940	1,087	1,221	1,827	1,857	1,810	1,435	1,332	2,653	5
2017	26,491	2,720	2,195	1,400	1,340	1,478	1,576	1,442	1,442	1,558	2,003	1,935	1,898	1,482	1,294	2,724	4
2018	28,316	2,732	2,137	1,476	1,440	1,409	1,617	1,513	1,665	1,830	1,958	2,124	2,268	1,657	1,548	2,942	0
2019	29,544	2,965	2,093	1,485	1,443	1,574	1,866	1,655	1,689	1,894	2,165	2,221	2,436	1,714	1,427	2,917	0
2020	16,325	1,479	1,180	967	780	855	1,011	1,036	1,124	972	1,366	1,561	1,700	1,218	1,076	2,104	0
2021	15,937	1,434	809	674	891	869	963	925	971	896	1,094	1,180	1,134	987	996	2,112	2
2022	19,411	1,556	974	727	970	1,100	1,200	1,285	1,106	1,158	1,282	1,516	1,627	1,279	1,205	2,422	4
2023	19,204	1,587	1,063	819	1,083	1,061	1,296	1,351	1,154	1,149	1,206	1,282	1,520	1,223	1,050	2,349	11
2024	16,721	1,449	1,071	885	788	675	827	1,096	993	990	920	1,047	1,231	1,341	1,099	2,302	7
	Sex: Female																
2013	18,586	2393	1739	1105	1234	1200	1076	1078	957	1099	1171	1185	973	847	824	1699	6
2014	9,414	706	952	596	568	623	556	614	447	638	590	676	588	516	403	937	4
2015	15,631	1,570	1,392	845	908	931	846	996	835	915	1,035	1,121	1,025	870	698	1,640	4
2016	22,704	2,669	1,555	1,255	1,451	1,508	1,309	1,177	1,101	1,364	1,360	1,742	1,534	1,207	1,074	2,391	7
2017	25,825	2,519	2,005	1,355	1,635	1,651	1,854	1,626	1,575	1,570	1,701	1,910	1,721	1,243	1,092	2,362	6
2018	27,902	2,464	1,917	1,488	1,770	1,745	1,894	1,698	1,703	1,651	1,759	2,112	2,168	1,583	1,160	2,790	0
2019	25,756	2,411	1,936	1,350	1,669	1,978	2,178	1,785	1,933	1,757	1,744	2,189	2,118	1,578	1,130	2,803	0
2020	15,082	1,515	969	788	892	998	1,070	1,038	1,050	1,045	1,225	1,321	1,250	1,029	892	2,023	0
2021	16,537	1,595	985	786	686	561	789	916	994	827	1,089	1,353	1,376	1,220	1,076	2,282	2
2022	18,492	1,745	1,033	968	677	612	825	1,050	967	885	1,167	1,529	1,732	1,472	1,134	2,691	5
2023	18,463	1,793	1,171	1,030	795	592	899	1,065	953	1,011	1,053	1,476	1,445	1,426	1,124	2,612	18
2024	15,912	1130	1052	786	838	794	850	1117	1106	1035	1006	1026	1204	1153	872	1933	10

Note: Medtech problem in second half 2014 up to May 2015, losing all data in that period

Figure 35: Outpatient services utilisation 2013-2024

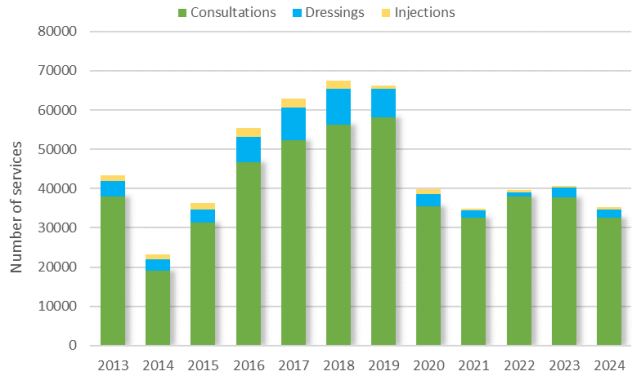


Figure 36: Outpatient consultations by sex 2013-2024

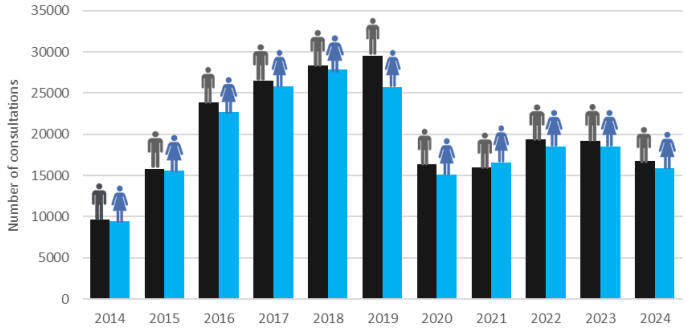
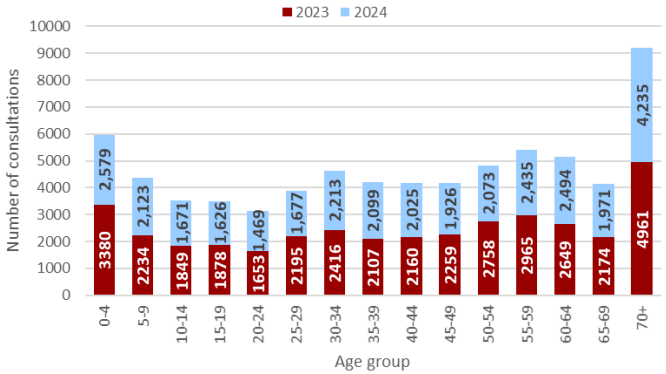


Figure 37: Outpatient consultations by age 2023-2024



13. Inpatient

Definitions:

Inpatient: Medical treatment or care provided to a patient who has been admitted to a hospital or healthcare facility and stays overnight or for an extended period.

Morbidity: Morbidity data is the information registered on the state of being symptomatic or unhealthy due to a disease or health-related condition.

Bed occupancy: refers to the percentage of available beds that are currently occupied by patients.

Surgical volume: total number of surgical procedures performed at a hospital.

Formula:

$$Bed\ occupancy\ (\%) = \frac{Inpatient\ days\ of\ care}{Bed\ days\ available}\ x\ 100$$

Methodology/system issues/sources:

- Data is sourced from Medtech Outpatient, Admissions and Discharge register
- Medtech experienced issues from the second half of 2014 through May 2015, resulting in the loss of all data from that period.

Table 13.1: Patients admitted and discharged from Hospital by Region and Island and Bed Occupancy, Cook Islands 2024

REGION & ISLAND	Number of				Average Occupied Bed	% Bed Occupancy
	Admissions	Discharges	Bed Days Used	Bed Days Available		
COOK ISLANDS	1,574	1,435	5,460	55,480	15.0	9.8
RAROTONGA	1,311	1,248	4,875	29,200	13.4	16.7
SOUTHERN GROUP excluding Rarotonga	255	185	565	16,425	1.5	3.4
Aitutaki	208	162	520	9,490	1.4	5.5
Mangaia	35	17	38	1,825	0.1	2.1
Atiu	0	1	2	2,190	0.0	0.1
Mauke	6	0	0	2,190	0.0	0.0
Mitiaro	6	5	5	730	0.0	0.7
NORTHERN GROUP	8	2	20	9,855	0.1	0.2
Palmerston	0	0	0	0	0.0	0.0
Pukapuka/Nassau	2	0	0	4,015	0.0	0.0
Manihiki	4	2	20	2,920	0.1	0.7
Rakahanga	0	0	0	730	0.0	0.0
Penrhyn	2	0	0	2,190	0.0	0.0

Table 13.2: Surgeries by age and sex, Cook Islands 2024

	Major		Minor	
Age group	Female	Male	Female	Male
0-9	11	8	22	28
10-19	11	13	11	88
20-29	21	12	15	8
30-39	42	10	24	10
40-49	21	4	36	7
50-59	14	11	37	14
60-69	24	17	19	19
70-79	9	16	13	18
80+	9	13	6	9

Table 13.3: Surgeries by year, Cook Islands 2020- 2024

Year	Number of surgeries
2020	357
2021	406
2022	308
2023	523
2024	650

Figure 38: Number of admissions by island 2019-2024

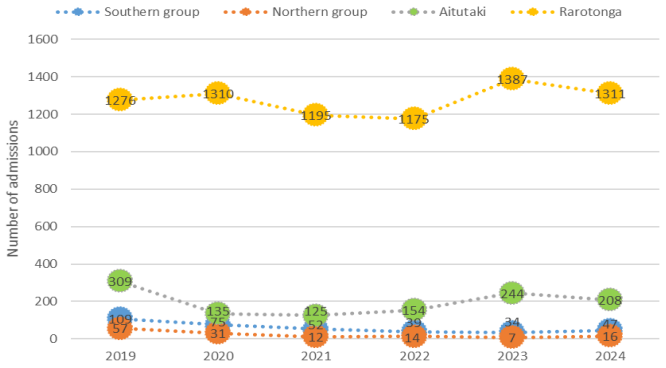


Figure 39: Ten leading causes of inpatient morbidity (%) 2021-2024

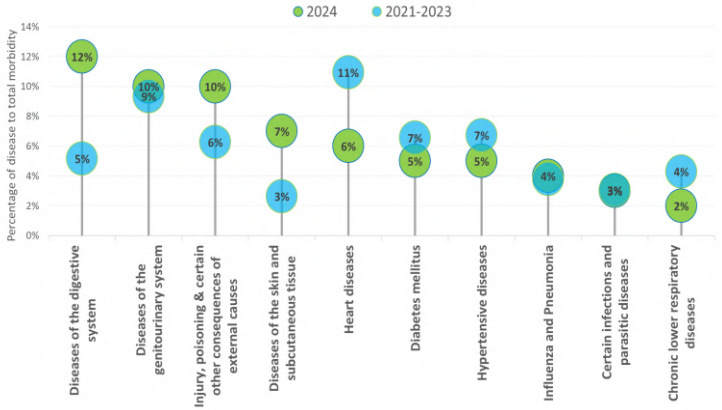


Figure 40: Average occupied beds per day 2022-2024

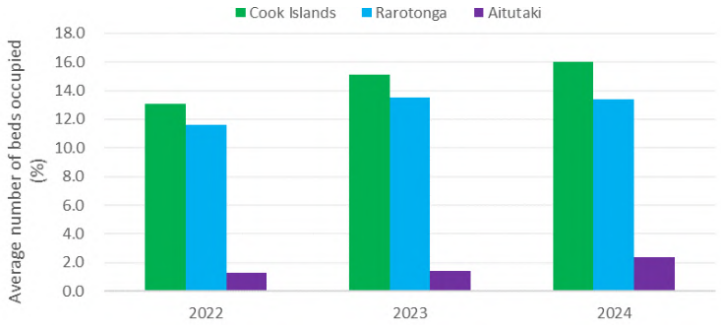


Figure 41: Bed occupancy rate (%) 2020-202

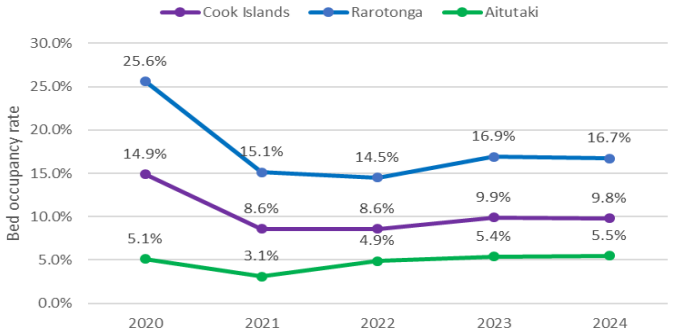


Figure 42: Number of surgeries per year 2020-2024

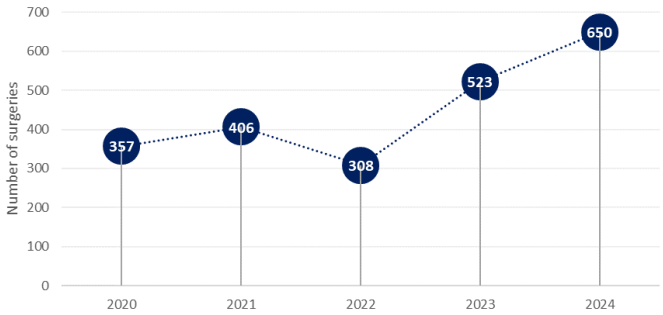


Figure 43: Top 10 hospital surgeries by type 024

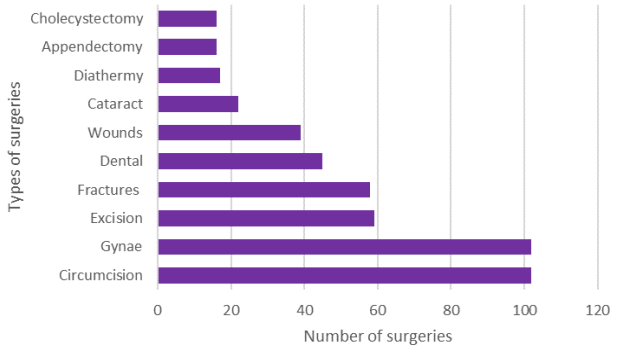
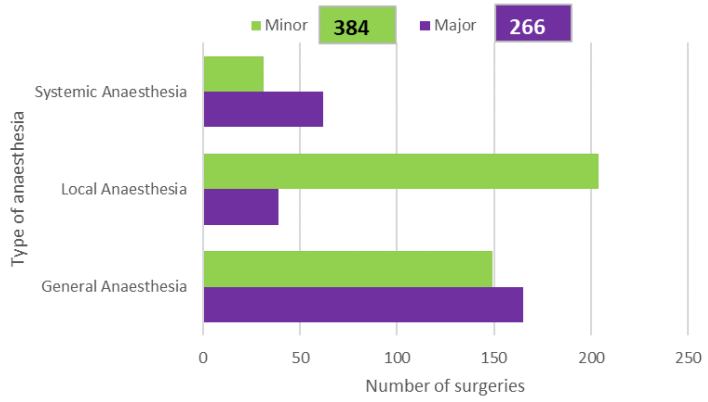


Figure 44: Types of anaesthesia 2024



14. Patient Referrals

Definitions:

Patient Referral: The process where a healthcare provider directs a patient to another provider or specialist for further assessment, treatment, or consultation.

Domestic referrals: Referring patients from the Pa Enua islands to Rarotonga for advanced care.

International referrals: Referring patients overseas, typically to New Zealand, for specialized treatment not available locally.

Methodology/system issues/sources:

- Data is sourced from TMO finance records.

Table 14.1: Number of patients referred from the Pa Enua, Cook Islands 2024

Island	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aitutaki	28	18	21	23	31	47	20	26	26	18	11	4
Atiu	4	0	7	2	17	15	2	7	8	8	1	3
Mangaia	14	2	5	8	3	12	8	12	7	8	5	0
Manihiki	5	0	2	7	1	7	3	2	0	0	1	0
Mauke	4	0	8	3	14	23	4	9	5	3	7	2
Mitiaro	2	2	5	6	3	8	1	3	1	0	1	1
Palmerston	2	0	0	0	0	0	0	0	0	1	0	0
Penrhyn	2	0	5	2	0	2	0	1	2	3	1	0
Pukapuka	11	1	2	2	11	2	6	6	0	1	0	4
Rakahanga	2	0	0	0	0	1	2	1	0	0	0	1

Table 14.2: Number of domestic and international referrals, Cook Islands 2024

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Domestic	69	23	54	54	74	113	43	63	45	37	24	14
International	30	21	24	24	36	26	22	26	31	22	35	26

Figure 45: International vs domestic referrals 2023-2024

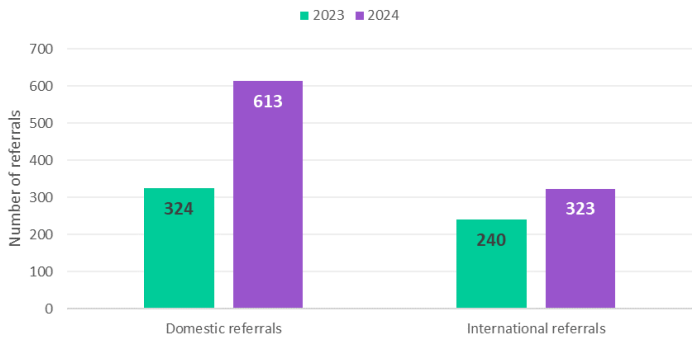


Figure 46: International referrals by month 2024

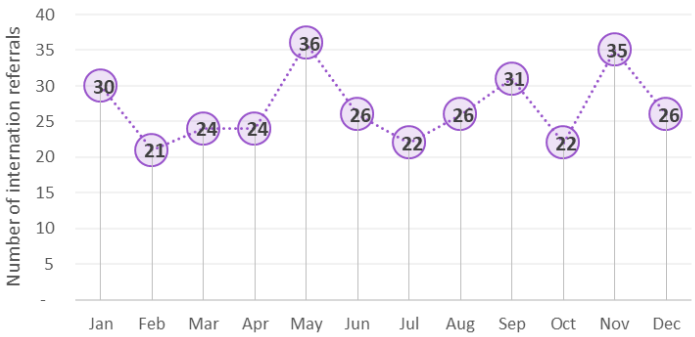
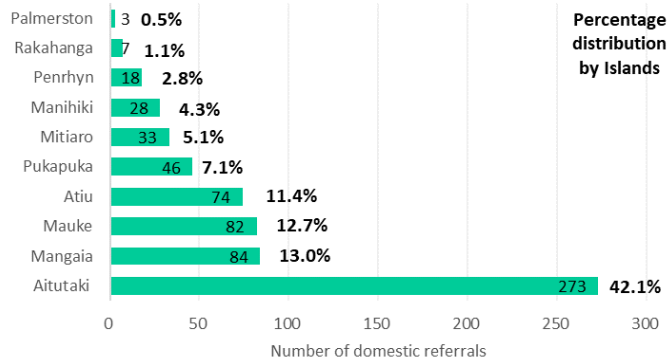


Figure 47: Domestic referrals by Island 2024

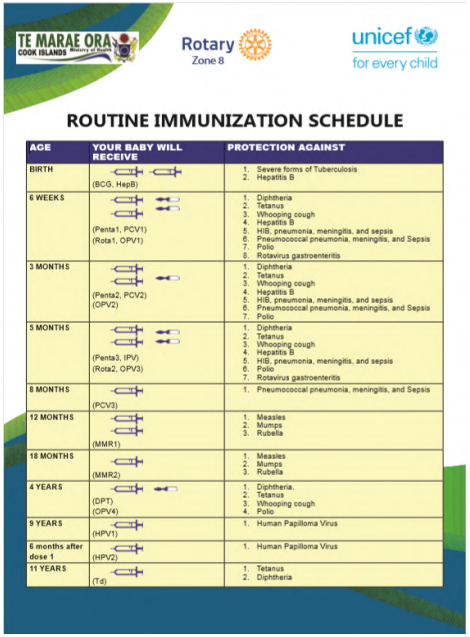


15. Immunisation

Definitions:

Immunisation: a process by which a person becomes protected against a disease through vaccination. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease.

Child Immunisation Schedule:



Formula:

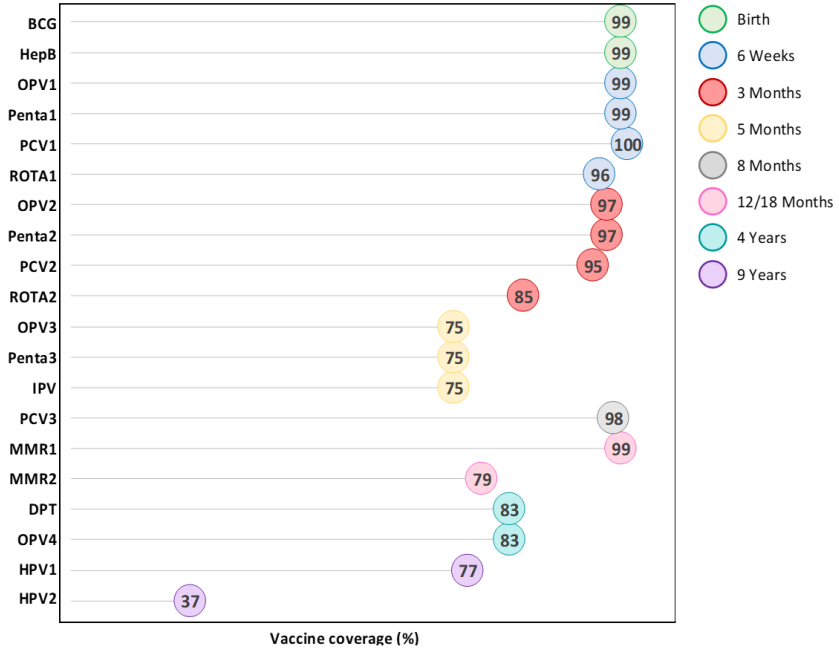
$$Immunisation\ coverage\ rate = \frac{Number\ of\ doses\ administered\ through\ routine\ services}{Number\ in\ targeted\ eligible\ population} x\ 100$$

Methodology/system issues/sources:

- Data is sourced from Medtech - National Immunisation Register (NIR)

- The reported percentages include instances of refusals, migrations, and catch-up cases.
- PCV and Rotavirus was introduced in April 2022

Figure 48: Immunisation coverage rate by vaccine 2024



16. Oral Health

Definitions:

<u>Restoration:</u> Repairing or replacing damaged teeth using materials like amalgam, composite, or crowns to restore function and appearance.

<u>Endodontics:</u> Focuses on treating the inside of the tooth, including root canal therapy for infected or damaged dental pulp.

<u>Extractions:</u> Removing a tooth from the jaw, often due to decay, trauma, or for orthodontic reasons.

<u>Orthodontics:</u> Corrects misaligned teeth and jaws using braces, aligners, or other devices.

<u>Prosthodontics</u>: Replaces missing teeth and oral structures with dentures, bridges, or implants.

<u>Periodontics:</u> Treats gum disease and conditions affecting the gums and supporting tissues of the teeth.

<u>Preventative:</u> Dental care aimed at preventing disease, such as checkups, cleanings, fluoride, and sealants.

Methodology/system issues/sources:

- Data is sourced from Medtech Oral Health classifications

Table 16.1: Oral Health services by year, Cook Islands 2021-2024

Oral Services	2021	2022	2023	2024
Consults/Screening	797	698	2438	2038
Restoration	1372	1194	1231	2084
Endodontics	320	312	249	478
Oral surgery/Extractions	1241	994	955	1531
Paediatrics/Orthodontic	279	477	14	991
Prothodontic	252	204	145	339
Periodontic	371	117	119	287
Preventative	708	351	309	1088
Others	75	42	55	51
Total	5415	4389	5515	8887

Table 16.2: Oral Health services by age and sex, Cook Islands 2022- 2024

Age group	2022		2023		2024	
	Female	Male	Female	Male	Female	Male
0-4	13	9	86	67	248	198
5-14	395	365	996	952	1133	1077
15-24	536	346	441	380	817	477
25-34	330	173	291	154	586	288
35-44	302	183	272	182	546	392
45-54	317	233	302	194	471	433
55-64	276	272	308	302	637	538
65-75	239	230	217	202	362	353
75+	72	98	90	79	147	184
Total	2480	1909	3003	2512	4947	3940

Figure 49: Number and proportion of oral health services 2022- 2024

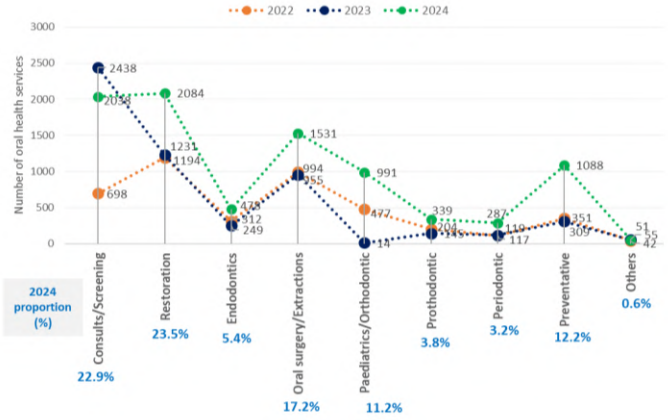


Figure 50: Number of oral health services by age group 2022-2024

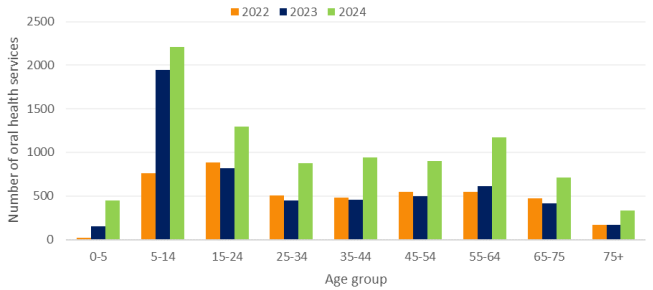
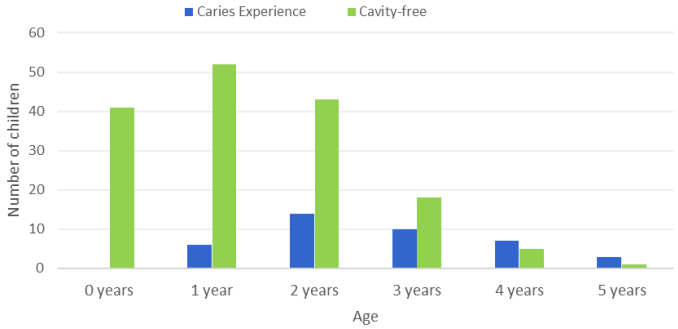


Figure 51: Caries status among children (0-5 years) in Rarotonga 2024



17. Mental Health

Definitions:

Mental Disorders: Conditions involving disruptions in thinking, emotions, or behavior, often causing distress or difficulty in daily life. They include depression, anxiety, schizophrenia, bipolar disorder, and more.

Developmental: Includes conditions like autism, ADHD, and mild cognitive impairments.

Mood: Primarily includes cases of depression.

Psychosocial: Covers eating disorders, trauma, violence, and family-related issues.

Methodology/system issues/sources:

- Data is sourced primarily from Medtech Evolution Mental Health classifications to identify the number of disorders.
- There is an existing screening template for Mental Health but underutilised on Medtech which proves a challenge when collating data for each classification.

Table 17.1: Mental health diagnosis by age groups and sex, Cook Islands 2024

	Female					Male				
DISORDERS	0-14	15-24	25-44	45-64	65+	0-14	15-24	25-44	45-64	65+
Addiction			1				1		2	1
Anxiety	2	10	15	15	11	9	4	9	4	2
Dementia				1	18				2	18
Depression							1			1
Development	3			1	1	13	1	1	1	7
Mood	1	1	6	6	2		2	1	1	6
Neuro related	4	2	5	5	2	1	3	3	5	3
Psychosocial	1	2	2	2		4	2	4	1	
Psychotic			5	4	1			16	4	2
Self-harm	1						1	1		

Table 17.2: Mental health diagnosis by islands and month, Cook Islands 2024

ISLAND	MONTH											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
COOK ISLANDS	17	24	19	14	11	10	18	14	15	8	67	48
RAROTONGA	11	22	16	12	9	10	16	12	14	2	61	41
SOUTHERN GROUP												
excluding Rarotonga												
Aitutaki	4	1	2	2			1	2	1	4	2	2
Mangaia		1								1		2
Atiu			1								4	1
Mauke					1							1
Mitiaro	1						1					
NORTHERN GROUP												
Palmerston												
Pukapuka/Nassau												1
Manihiki					1					1		
Rakahanga												
Penrhyn	1											

Figure 52: Number and proportion of mental health diagnosis 2024

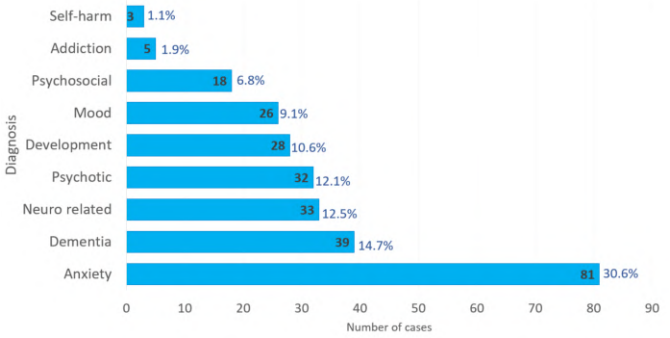
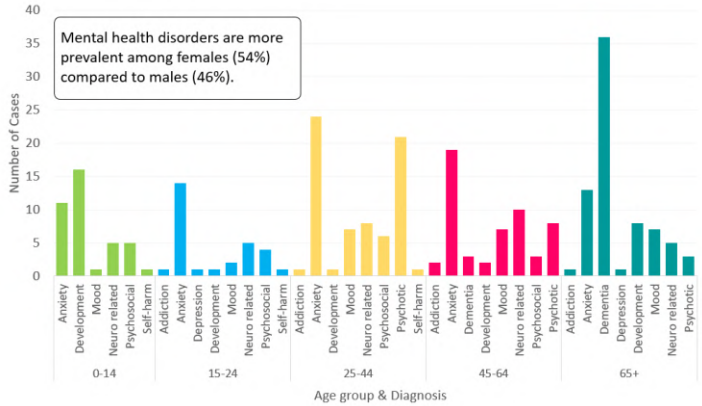


Figure 53: Mental health disorders by age group 2024



18. Health Specialist Visits

Definitions:

<u>Health Specialist Visits (HSV):</u> Consultations with medical specialists (e.g., cardiologists, ophthalmologists etc.) for specific health concerns or chronic disease management.

Methodology/system issues/sources:

- Data is sourced from Medtech HSV screening templates, appointment books, patient referral forms and HSV reports.

Figure 54: Proportion of population accessing health services by area of specialty 2024

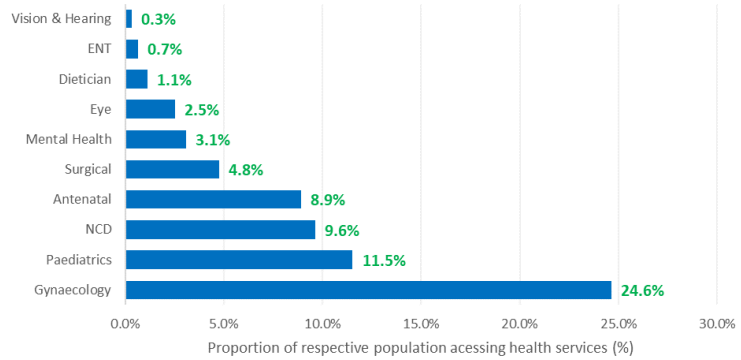


Table (2): Health specialists visits 2024

PROGRAM	JANUARY - JUNE 2024	JULY - DECEMBER 2024
Health specialist programs implemented in the Cook Islands	Audiology Ear Nose & throat (ENT) Mental Health Women's Health Diabetes Management Optometry Opthalmology Neurology Urology Adult Cardiology	Audiology Ear Nose & throat (ENT) Paediatric Cardiology Orthopaedic Uro-Gynaecology Endoscopy General Paediatric General Medicine
Number of consultants	23	29
Total number of CPD	9 CPD Programs Audiology, ENT, Mental Health, Womens Health, Diabetes Management, Optometry, Urology, Opthalmology, Adult Cardiology	9 CPD programs. Audiology, ENT surgery, Paediatric Cardiology, Orthopedic, Uro-Gynaecology, South Pacific Resuscitation Certificate, Endoscopy, General Paediatric, General Medicine.
Total number of health staff trained	127	133
Total number of health specialist to Pa Enua	5	6
Total number of people screened in the Pa Enua*	154	37
Total number of people screened in Rarotonga*	1,172	503
Number of referrals from Pa Enua**	61	53
Number of referrals completed and referred to New Zealand**	11	19
Number of patients fitted with hearing aids		Audiology 1- 45, Audiology 2 - 9, Audiology 3 - 64
Total surgical procedures		ENT – 69 Operation Theatre (OT) cases. Main types of surgical procedure performed: - Myringoplastry - Myringotomy - Examination under anaesthetic (EUA) of the ears - Insertion of Grommets - Tonsillectomy - Adenoidectomy - Paratidectomy ENDOSCOPY – 14 OT cases

Data source:
*Medtech HSV appointmnet books
**Patient referral forms

19. Water Quality

Definitions:

Water Quality: Measures the safety and cleanliness of water for human use, including testing for contaminants and harmful substances.

HS2 Testing: A specific test used to detect hydrogen sulfide (H_2S) in water, indicating possible bacterial contamination.

Methodology/system issues/sources:

- Data is sourced from public health records.

Table 19: Water testings results by sites, Cook Islands 2024

Islands	Sites/Stations	Total sites	H2S test results		Total H2S tests performed	
			Safe	Fail		
Rarotonga	Community	13	65	10	75	247
	Schools	23	144	13	157	
	Health facilities	8	9	2	11	
	Private	4	2	2	4	
Aitutaki	Community	10	25	7	32	62
	Schools	5	19	1	20	
	Health facilities	1	0	0	0	
	Private	3	10	0	10	
Mangaia	Community	6	16	3	19	51
	Schools	2	4	3	7	
	Health facility	1	2	1	3	
	Private	22	22	0	22	
Atiu	Community	6	26	0	26	30
	Schools	1	4	0	4	
	Health facility	1	0	0	0	
	Private	0	0	0	0	
Mauke	Community	1	1	0	1	5
	Schools	1	2	0	2	
	Health facility	1	0	0	0	
	Service pumps	2	2	1	3	
Mitiaro	Community	8	24	8	32	40
	Schools	1	4	0	4	
	Health facility	1	4	0	4	
	Private	0	0	0	0	
Pukapuka	Community	1	1	0	1	4
	Schools	1	2	1	3	
	Health facility	1	0	0	0	
	Private		0	0	0	
Penryhn	Community	2	4	0	4	12
	Schools	2	8	0	8	
	Health facility	1	0	0	0	
	Private		0	0	0	
Manihiki	Community	2	9	0	9	14
	Schools	2	5	0	5	
	Health facility	2	0	0	0	
	Private		0	0	0	
Rakahanga	Community	1	3	0	3	8
	Schools	1	2	2	4	
	Health facility	1	0	0	0	
	Private	1	1	0	1	
(Total H2S used)						473

Figure 55: Number of Water Sites or Stations by Islands, 2024

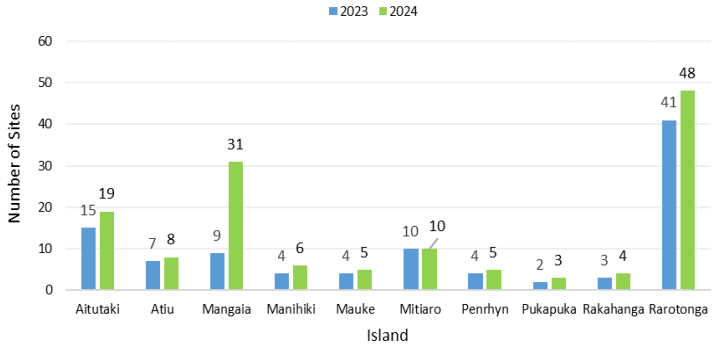


Figure 56: Percentage of Safe Results from H2S Tests, 2023-2024

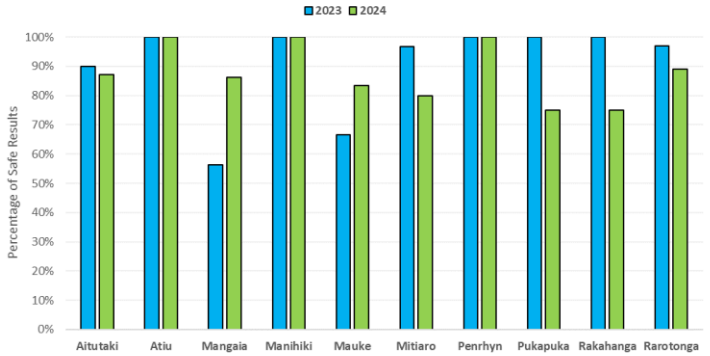
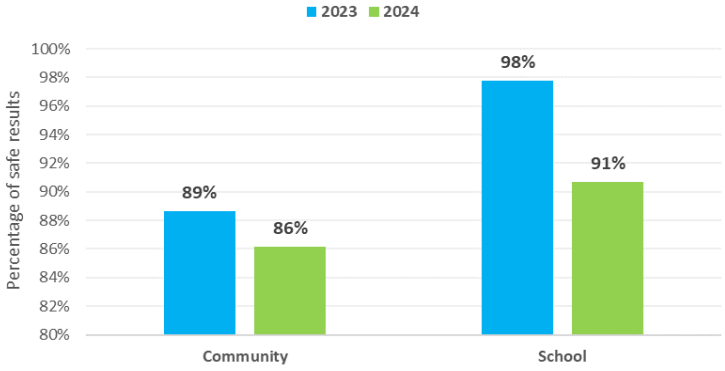


Figure 57: Percentage of safe water test results in the community and school, 2023-2024



20. Healthcare Facilities

Definitions:

Healthcare Facility: A place that provides healthcare services. These facilities range from small clinics and doctor's offices to large hospitals and specialized institutions, offering various levels of care to patients.

Hospital: A large healthcare facility providing comprehensive medical services, including emergency care, inpatient care, surgeries, and specialized treatments. Hospitals often have on-site specialists (anesthesia, O&G, internal medicine, pediatrics, accidents and emergency, surgery and ophthalmology) at scheduled times, and on call at all times.

Clinic: A healthcare facility typically focused on outpatient care. Provides basic health services including nursing care, antenatal care, baby checks, child immunization, family planning, wound dressings, medicine refills, home visits, post-natal check-ups for mother and baby, counselling and cervical cancer screening.

Primary Care Center: A healthcare facility that provides primary healthcare services, including routine check-ups, preventive care, treatment of common illnesses, delivery by nurses and doctors and management of chronic conditions. Primary care centers often serve as the foundation of the healthcare system.

Child Welfare Clinics: A community-based facility that provides healthcare services to the mothers and babies in collaboration with a Non-organization called Cook Islands Child Welfare Association (CICWA). For some Pa Enua, TMO health care centers are utilized for the program with Public health nurses on the island.

Hospital Beds: defined here as beds available for patient admissions only.

Private Community Clinic: a non-government-run health facility that provides general health services (such as triage, palliative care, home visits etc) to a local area.

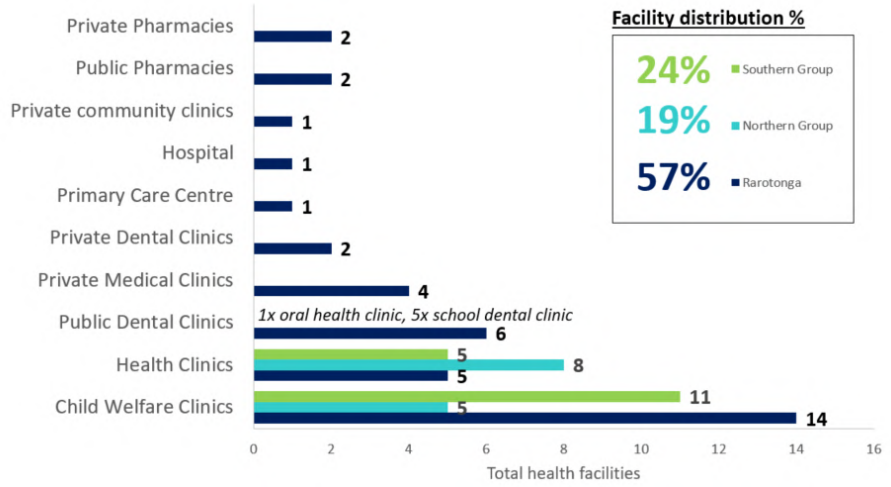
Methodology/system issues/sources:

- The number of facilities are confirmed by health officers and health partners.

Table 20: Health facilities, Cook Islands 2024

REGION & ISLAND	Hospital Beds	Hospital	Primary Care Centre	Public Dental Clinics	Health Clinics	Child Welfare Clinics	Private Medical Clinics	Private Dental Clinics	Private Community Clinics	Public Pharmacies	Private Pharmacies
COOK ISLANDS	152	1	1	13	18	30	4	2	1	2	1
RAROTONGA	80	1	1	8	5	14	4	2	1	2	1
SOUTHERN GROUP excl. Rarotonga	45	0	0	3	5	11	0	0	0	0	0
Aitutaki	26	0	0	0	1	6	0	0	0	0	0
Mangaia	5	0	0	1	1	4	0	0	0	0	0
Atiu	6	0	0	1	1	0	0	0	0	0	0
Mauke	6	0	0	1	1	0	0	0	0	0	0
Mitiaro	2	0	0	0	1	1	0	0	0	0	0
NORTHERN GROUP	27	0	0	2	8	5	0	0	0	0	0
Palmerston	0	0	0	0	1	0	0	0	0	0	0
Pukapuka	9	0	0	1	1	3	0	0	0	0	0
Nassau	2	0	0	0	1	0	0	0	0	0	0
Manihiki	8	0	0	1	2	1	0	0	0	0	0
Rakahanga	2	0	0	0	1	0	0	0	0	0	0
Penrhyn	6	0	0	0	2	1	0	0	0	0	0

Figure 58: Health facilities and distribution by island groups 2024



21. Health Workforce

Definitions:

Health Workforce: The total number of individuals engaged in the delivery of healthcare services. This includes a wide range of professionals such as doctors, nurses, dentists, allied health professionals, support staff, and administrators.

Workforce density: The number of health workers per a specified population size, per 10,000 people

Formulas:

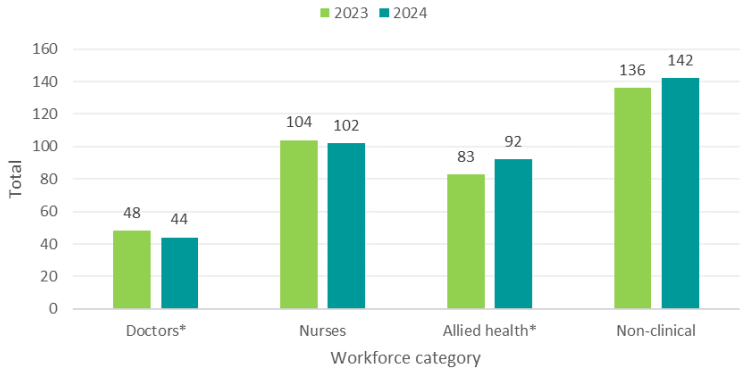
$$Workforce\ Density = \frac{Number\ of\ health\ workers\ *}{Total\ Population} x\ 10{,}000$$

*Number of health workers in each respective area such as doctors, nurses, dentistry etc.

Methodology/system issues/sources:

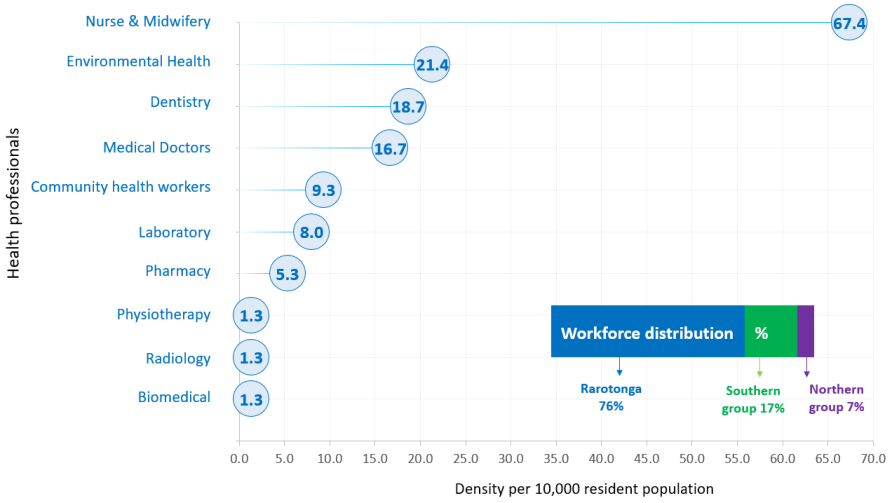
- Data is sourced from TMO Human Resources (HR) and Public Service Commission (PSC) employee listing
- Figure 59 includes non-permanent staff such as volunteers, locums, and contracts for service providers.
- Figure 60 includes permanent staff only and is used to calculate accurate workforce density.

Figure 59: TMO health workforce by category 2023-2024



*inclusive of locums, volunteers and contract for service (CFS)

Figure 60: Health personnel density and distribution per 10,000 population 2024



22. Health Financing

Definitions:

Health Care Expenditure as a Percentage of GDP: The proportion of a country's total economic output (GDP) spent on health care services, including public and private spending.

Health Care Expenditure as a Percentage of Government Expenditure: The share of total government spending allocated to health services, including funding for hospitals, public health programs, and medical supplies.

Formulas:

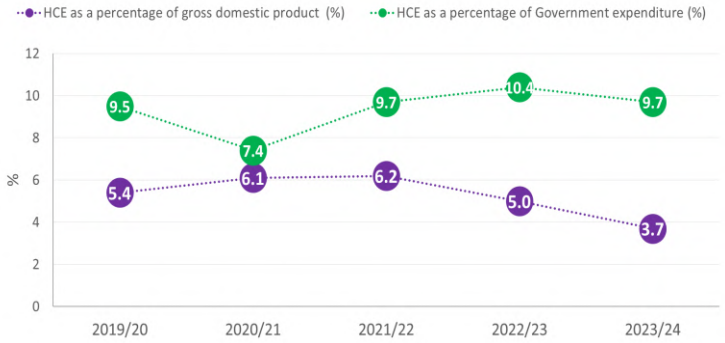
$$HCE\ as\ a\ \%\ of\ GDP = \frac{Total\ health\ expenditure}{Gross\ Domestic\ Product\ (GDP)}\ x\ 100$$

$$HCE\ as\ a\ \%\ of\ Government\ expenditure = \frac{Government\ health\ expenditure}{Total\ Government\ expenditure}\ x\ 100$$

Methodology/system issues/sources:

- Data is sourced from TMO finance record through MFEM Budget Estimates Book
- Data is reported by financial year not calendar year.

Figure 61: Health care expenditure as a percentage of gross domestic product and total government expenditure FY 2019/20 - 2023/24



23. Cook Islands Injury Surveillance (CIIS)

Definitions:

Injury surveillance: is the systematic collection, analysis, and interpretation of data related to injuries, including their causes, severity, and outcomes.

Road crashes: also known as motor vehicle or transport accidents, involve collisions between vehicles or vehicles and pedestrians, resulting in property damage, injuries, or fatalities.

Methodology/system issues/sources:

- Data is sourced from Medtech CIIS, MVA screening templates, and related classifications.
- Multiple templates are used for injury surveillance, but the standard template remains underutilized, leading to inconsistencies in data collection.

Table 23.1: Admissions due to road traffic crashes, Rarotonga 2017-2024

Type of Accident	2017	2018	2019	2020	2021	2022	2023	2024
Transport Crashes	49	49	52	42	31	45	38	12
Male	31	33	29	27	19	31	22	8
Female	18	16	23	15	12	14	16	4
Alcohol Related	23	26	25	17	18	14	19	4
Percentage Alcohol Related	47%	53%	48%	40%	58%	31%	50%	33%
Alcohol Related Deaths	3	3	4	5	0	0	2	0
Non Alcohol Related Deaths	0	0	0	0	2	0	1	0
Transport Crashes - Outer Islands	3	0	0	0	4	18	14	9
Number of Deaths	3	4	6	7	4	0	3	1
Resident population	11,500	14,802	14,802	14,802	14,987	14,987	14,987	14,987
Rate /100 000 pop	26.1	27.0	40.5	47.3	26.7	0.0	20.0	6.7

Table 23.2: Admissions due to alcohol related transport crashes by age groupings year, Rarotonga 2015-2024

Age Group	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
0 - 14	0	0	0	0	0	1	2	0	0	0
15 - 24	8	6	13	11	12	8	6	6	5	1
25 - 34	7	8	3	9	9	4	4	2	6	0
35 - 44	2	2	4	3	3	1	2	2	3	1
45 - 54	1	1	3	2	1	2	3	1	3	2
55 +	0	2	0	1	1	1	1	3	2	0
Total	18	19	23	26	26	17	18	14	19	4

Table 23.3: Reported falls by age and sex 2024

Age Group	Female	Male
0-14	11	7
15-24	2	2
25-34	2	4
35-44	0	3
45-54	2	4
55+	22	23
Total	39	43

Table 23.4: Reported violence by type, sex and age 2024

	Sex		Age group						
Type of violence	Female	Male	0-14	15-24	25-34	35-44	45-54	55+	Total
Physical violence	10	23	3	6	6	4	5	9	33
intimate partner violence	10	0	0	0	5	3	2	0	10
Child abuse	2	4	4	2	0	0	0	0	6
sexual violence against children	4	0	3	1	0	0	0	0	4
non-partner sexual violence	1	0	0	1	0	0	0	0	1
stab	0	1	0	0	1	0	0	0	1

Figure 62: Number and percentages of injuries 2024

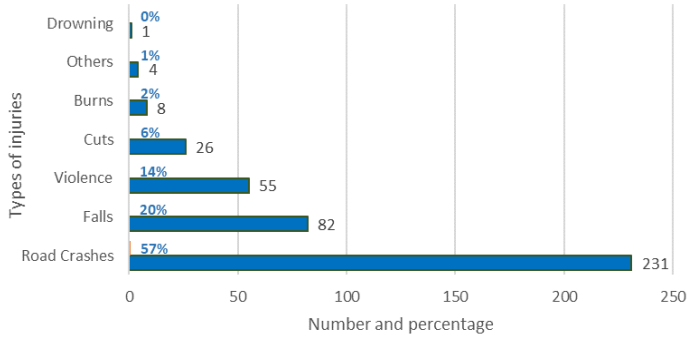


Figure 63: Number of road crashes 2021-2024

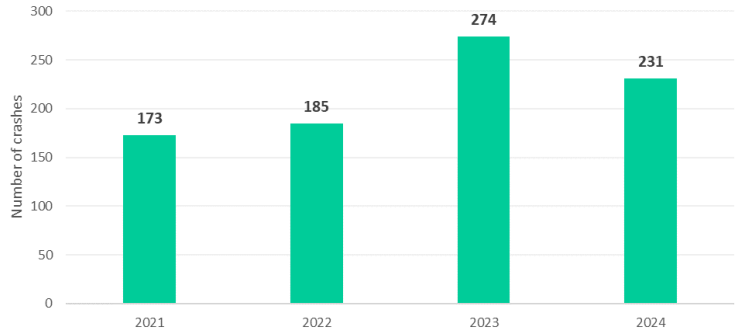


Figure 64: Admissions due to road crashes 2017-2024

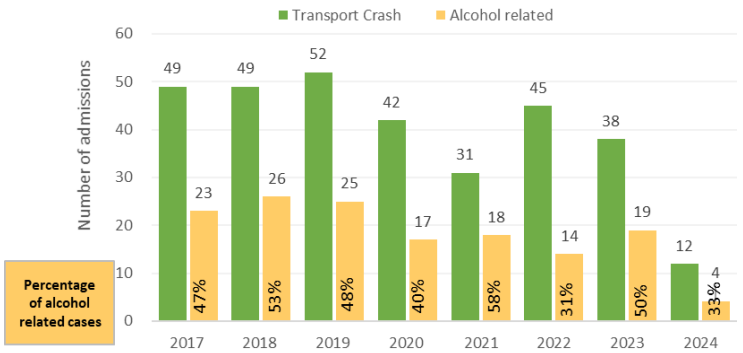


Figure 65: Alcohol-related road crashes admissions by age group 2020-2024

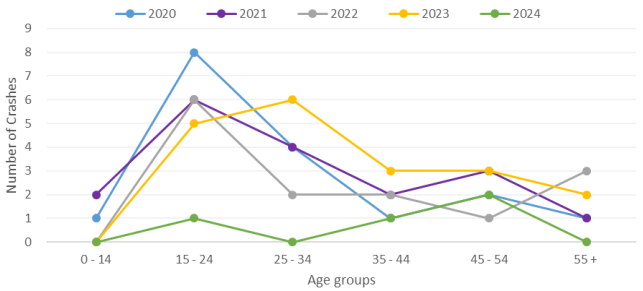


Figure 66: Number of incident of falls by year 2021-2024

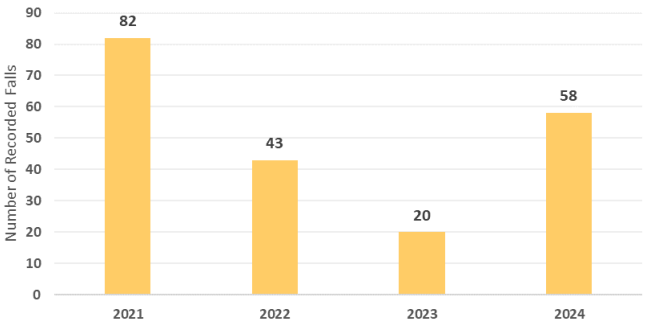


Figure 67: Incident of falls by age and sex in 2024

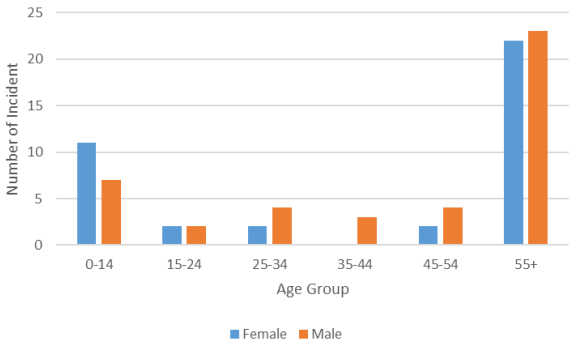
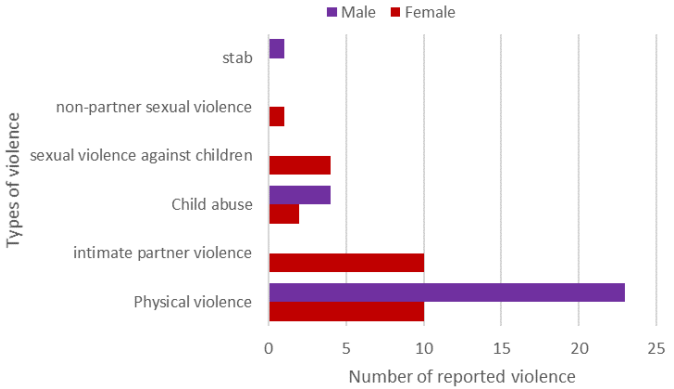


Figure 68: Number of incident violence by type 2024



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