Government of **Western Australia**
**WA Country Health Service**

**Our Vision**
**To be a global leader in rural and remote healthcare**

# Midwest

# Health Profile 2022


**Our Values: Community | Compassion | Quality | Integrity | Equity | Curiosity**

Midwest Health Profile – Preliminary Version endorsed October 2022

# Midwest Health Profile 2022

*To be used in combination with the local community directories, and WACHS place based care education documents.*

## Contents

## Acknowledgements

WA Country Health Service recognises and acknowledges the Aboriginal people of the many traditional lands and language groups across Western Australia. We also acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

## Using the term—Aboriginal

Within Western Australia (WA), the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. Aboriginal and Torres Strait Islander may be referred to in the national context and Indigenous may be referred to in the international context. No disrespect is intended to our Torres Strait Islander colleagues and community.

# WACHS Strategic Priorities

## Introduction


Delivering high quality care to our patients is at the center of everything we do at the WA Country Health Service (WACHS). From frontline staff in remote and regional WA to executive support staff working in the metropolitan area, our focus is always the same.

The mortality rate for people living in remote and very remote communities in Australia is 30 per cent higher than for those living in cities. Life expectancy is also much lower for WA's Aboriginal people and people suffering from chronic and persistent mental health conditions. To be a global leader in rural and remote healthcare, we must address this inequity.

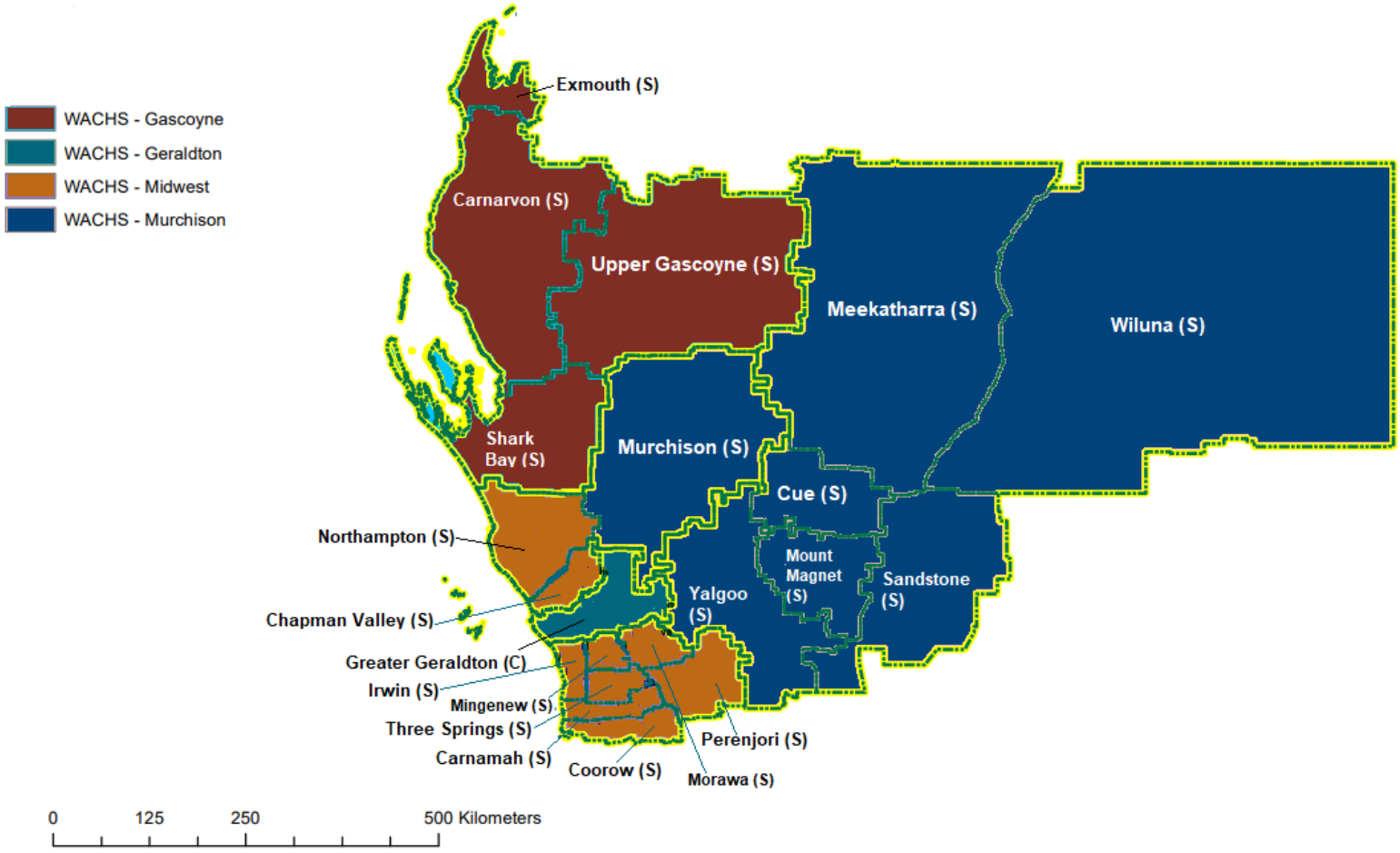
There are many factors that influence a person's health, including genetics, lifestyle and environmental, economic and social factors. The demographics of communities are very diverse and even the types of local industry can impact how communities' function. For example, a major industry centre, coastal tourism or viticulture community will differ from an inland farming or forest community. The level of remoteness, isolation and impact on health by environmental conditions is often more marked in rural than metropolitan communities.

The purpose of this document is to provide an overview of the population, geography, health risk factors and health activity of the Midwest region and its Health Districts and identify some of the key health issues and needs of its population. The profile aims to provide a guide to inform health service review, planning and evaluation and help address disadvantage and inequity in rural and remote healthcare.

# Geography and services

- Operationally the Midwest services are managed in four areas Geraldton, Gascoyne, Murchison and Midwest which are built from 21 Local Government Areas (LGAs).
- The Midwest contains a Regional Hospital in Geraldton and a District Hospital in Carnarvon , two Small Hospitals in Exmouth and Meekatharra and 11 Remote Area Nursing Posts/Health Centres.
- The Midwest covers a large geographic area, of more than 600,00 square kilometres. Nearly one quarter of the State, with population concentrated along the coast.
- The distance from Geraldton to Perth is 427 km, from Morawa to Perth is 373 km, Meekatharra to Perth is 765 km. Carnarvon to Perth is 904 km and from Exmouth to Perth is 1.263 km.

## Midwest Health Districts



| Health district | Local Government Area<br>(S) = Shire, (C) = City | Hospitals and Health Centres |
|---|---|---|
| **Gascoyne** | Carnarvon (S)<br>Exmouth (S)<br>Upper Gascoyne (S)<br>Shark Bay (S) | • Carnarvon District Hospital<br>• Exmouth Hospital<br>• Coral Bay Health Centre<br>• Burringurrah Health Centre<br>• Shark Bay Nursing Post (Silver Chain managed) |
| **Geraldton** | Greater Geraldton (C) | • Geraldton Regional Hospital<br>• Mullewa Community Hospital |
| **Midwest** | Northampton (S)<br>Chapman Valley (S)<br>Morawa (S)<br>Perenjori (S)<br>Coorow (S)<br>Carnamah (S)<br>Three Springs (S)<br>Mingenew (S)<br>Irwin (S) | • Northampton Hospital<br>• Kalbarri Hospital<br>• Morawa-Perenjori Hospital<br>• North Midlands (Three Springs) Hospital<br>• Dongara Hospital<br>• Leeman Health Centre (managed by Silver Chain)<br>• Eneabba Health Centre (managed by Silver Chain)<br>• Mingenew Health Centre (managed by Silver Chain)<br>• Abrolhos Island Health Centre (managed by Silver Chain) |
| **Murchison** | Murchison (S) *<br>Meekatharra (S)<br>Wiluna (S) **<br>Cue (S)<br>Sandstone (S)<br>Mount Magnet (S)<br>Yalgoo (S) | • Meekatharra Hospital<br>• Mount Magnet Health Centre<br>• Cue Health Centre<br>• Yalgoo Health Centre<br>• Sandstone Nursing Post |

* Murchison Shire LGA may at times be included within the Midwest Health District rather than the Murchison Health District due to inconsistent data boundaries within various data sets.

** Wiluna LGA is geographically within the Murchison Health District however health services are provided from the Midwest and Goldfields regions.

## Overview of regional service activity, by hospital, 2020-21

| Geographic District | Hospital | Emergency Department presentations | Inpatient separations | Outpatient service events |
|---|---|---|---|---|
| Gascoyne | Carnarvon Hospital | 8991 | 2987 | 7114 |
| | Coral Bay Nursing Post | 1997 | 0 | |
| | Exmouth Hospital | 7353 | 368 | 3878 |
| Geraldton | Geraldton Hospital | 36351 | 18381 | 73077 |
| | Mullewa Hospital* | 901 | 0 | 357 |
| Midwest | Burringurrah Nursing Post | 828 | 0 | |
| | Dongara Multi-Purpose Health Centre | 3045 | 16 | 2054 |
| | Kalbarri Health Centre | 3086 | 31 | 714 |
| | Morawa Hospital | 1045 | 75 | 555 |
| | North Midlands Hospital | 642 | 26 | 297 |
| | Northampton Hospital | 943 | 38 | 914 |
| Murchison | Cue Nursing Post | 346 | 0 | 263 |
| | Meekatharra Hospital | 2267 | 225 | 235 |
| | Mount Magnet Nursing Post | 754 | 0 | 113 |
| | Sandstone | 0 | 0 | 143 |
| | Yalgoo Nursing Post | 218 | 0 | 144 |
| **Midwest Total** | | **68767** | **22147** | **89858** |

* For some data sources Mullewa may be within the Geraldton health district. Where possible Mullewa data within this profile is directed to the Midwest district through which it is operationally managed.

Sources: WACHS Emergency Department Collection, WACHS Inpatient Collection (excludes boarders and unqualified newborns), WACHS Outpatient Appointment Collection (excludes Did Not Attends and Non-Client events). *Includes activity by both Midwest and non-Midwest residents.

## Midwest Hospital Bed Numbers

| District | Hospital | Bed Numbers |
|---|---|---|
| Gascoyne | Exmouth Hospital | 9 |
| | Carnarvon Hospital | 27 |
| Geraldton | Geraldton Hospital | 100 |
| | Mullewa Hospital | 0 |
| Midwest | Kalbarri Hospital | 4 |
| | Northampton Hospital | 6 |
| | Morawa-Perenjori Hospital | 5 |
| | Dongara Hospital | 3 |
| | North Midlands Hospital | 5 |
| Murchison | Meekatharra Hospital | 11 |
| **Midwest Total** | | **170** |

*Includes neonatal cots

**In response to the specific demands for services in rural and remote regions of WA, through Commonwealth Multi-Purpose Services (MPS) funding, WACHS is able to offer a range of flexible services that incorporate hospital, aged care and primary health care for small towns and isolated communities. On occasion, WACHS is able to offer additional beds in response to patient demand.

## Models of care provided by the region

WACHS delivers emergency, inpatient, outpatient and community-based health services to regional WA. Our network of hospitals and health services enable our country communities to receive integrated health care. A range of these services can be offered through Telehealth and other digitally enabled services to enable patients to receive some of their care at or closer to home.

## Population

- At 30 June 2020, the Estimated Resident Population of the Midwest was 62,031.
- Across the Midwest, 13% of the population identified as Aboriginal, significantly higher than the overall WACHS average of 11% and the WA State average of 3%.
- The percentage of Aboriginal people varied between the four Health Districts areas from 6% in Midwest through to 32% of the population in the Murchison.
- Updated populations from the 2021 Census, which will aid with rebasing population projections, are expected to be released between mid-2022 and early 2023.

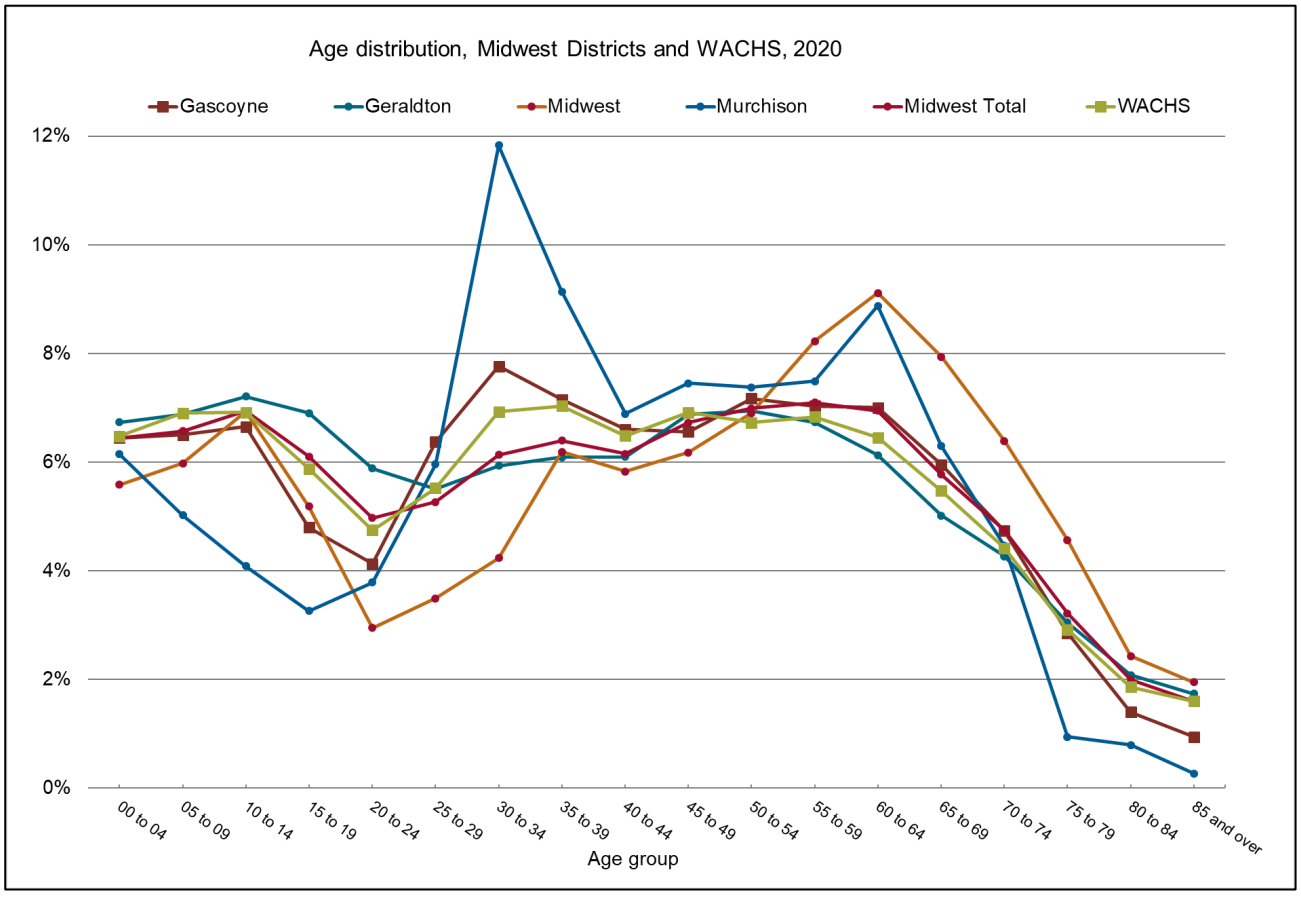
| Health district | LGA | Aboriginal | Non Aboriginal | Total | % Aboriginal |
|---|---|---|---|---|---|
| Gascoyne | Carnarvon (S) | 1198 | 3879 | 5077 | 24% |
| | Exmouth (S) | 83 | 2852 | 2935 | 3% |
| | Shark Bay (S) | 89 | 871 | 960 | 9% |
| | Upper Gascoyne (S) | 173 | 117 | 290 | 60% |
| | **District Total** | **1543** | **7719** | **9262** | **17%** |
| Geraldton | Greater Geraldton (C) | 4889 | 33342 | 38231 | 13% |
| | **District Total** | **4889** | **33342** | **38231** | **13%** |
| Midwest | Carnamah (S) | 20 | 507 | 527 | 4% |
| | Chapman Valley (S) | 83 | 1457 | 1540 | 5% |
| | Coorow (S) | 32 | 929 | 961 | 3% |
| | Irwin (S) | 104 | 3490 | 3594 | 3% |
| | Mingenew (S) | 12 | 406 | 418 | 3% |
| | Morawa (S) | 118 | 543 | 661 | 18% |
| | Murchison (S) | 79 | 83 | 162 | 49% |
| | Northampton (S) | 217 | 2659 | 2876 | 8% |
| | Perenjori (S) | 43 | 524 | 567 | 8% |
| | Three Springs (S) | 54 | 507 | 561 | 10% |
| | **District Total** | **762** | **11105** | **11867** | **6%** |
| Murchison | Cue (S) | 27 | 113 | 140 | 19% |
| | Meekatharra (S) | 384 | 585 | 969 | 40% |
| | Mount Magnet (S) | 129 | 320 | 449 | 29% |
| | Sandstone (S) | 0 | 78 | 78 | 0% |
| | Wiluna (S) | 225 | 459 | 684 | 33% |
| | Yalgoo (S) | 78 | 273 | 351 | 22% |
| | **District Total** | **843** | **1828** | **2671** | **32%** |
| **Midwest Region** | **Total** | **8036** | **53995** | **62031** | **13%** |

*Using operational boundaries.*

*Source: ABS Estimated Resident Population, 2020. Aboriginal proportions from 2016 Census data applied to 2020 populations. Census data will start becoming available July 2022*

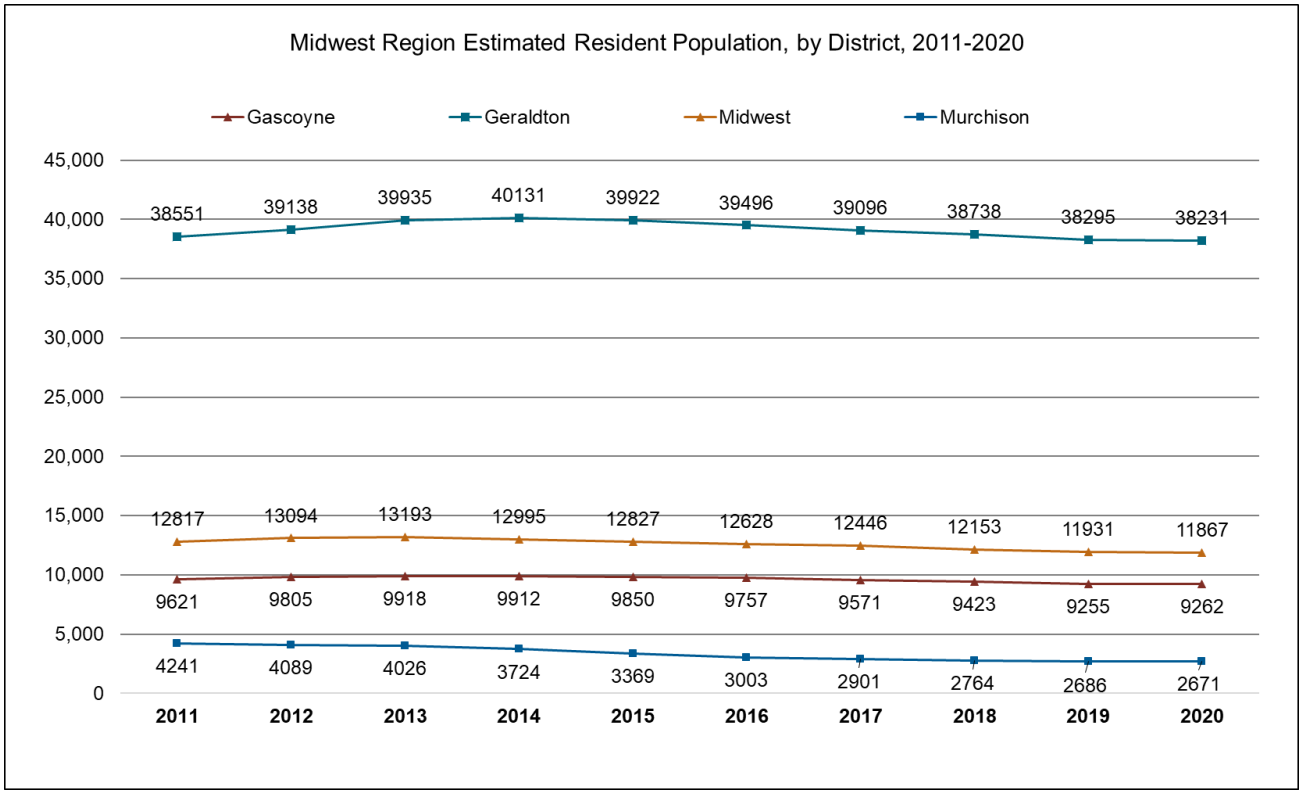
## Age distribution

- In 2020, the Midwest had 20% of the population aged under 15 years of age, which was the same as for WACHS overall.
- The region also had a similar percentage of people aged 65 years and older, 17% compared to 16% for WACHS overall
- Of all Midwest districts, the Murchison district population age profile showed greatest variation from the Midwest Region, however the small numbers in the district must be considered.



## Historical population growth

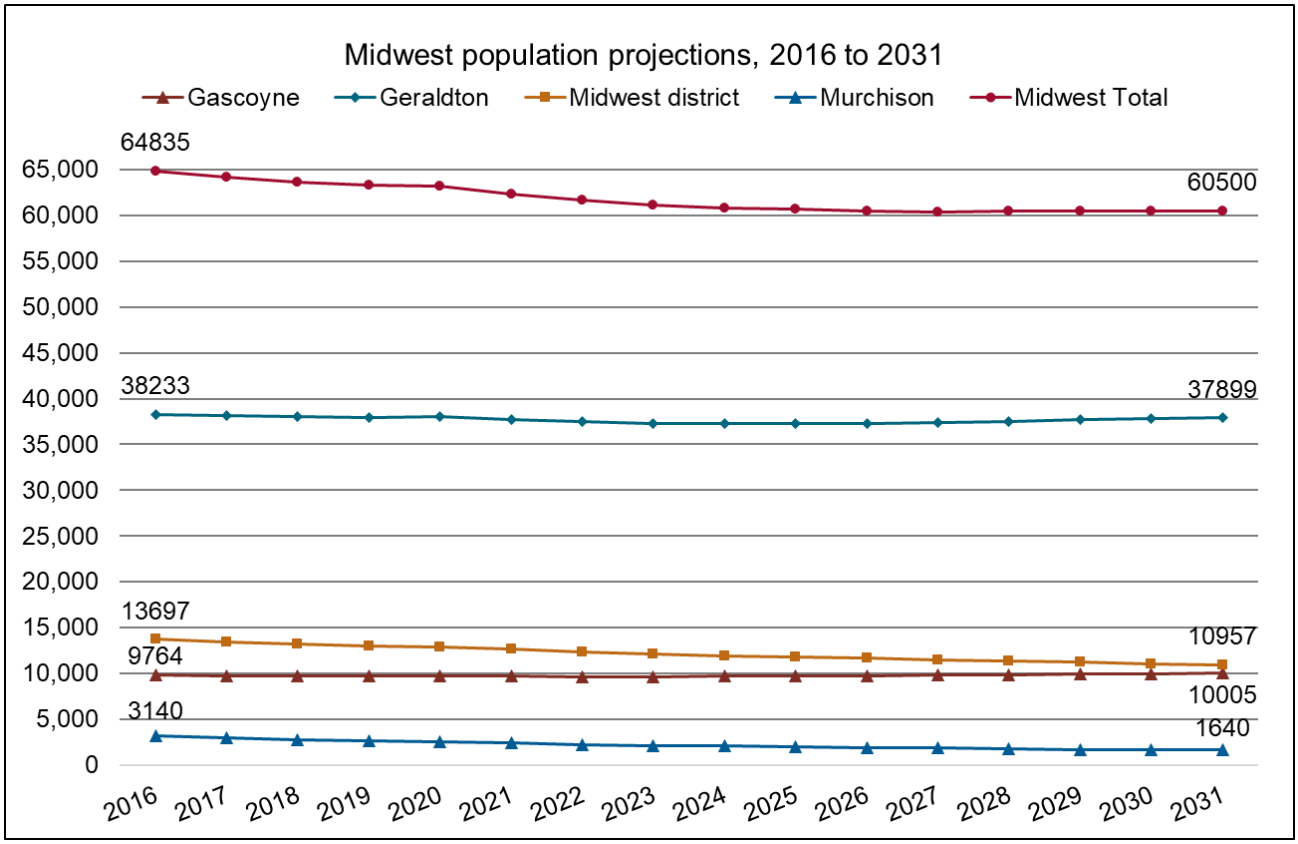
- Between 2011 and 2020, the Midwest region experienced a slight decline (-0.6% average annualised growth) in population (from 65,230 to 62,031).
- Midwest and Murchison districts have experienced the greatest decline.
- Population in the region peaked at 67,072 in 2013.




*Source: ABS Estimated Resident Population, 2020.*

## Projected population growth

- Between 2016 and 2031, the population of the Midwest region is estimated to decrease by 6.7%, to 60,478.
- The Murchison district is estimated to decrease by 48% and Midwest district by 20% between 2016 and 2031. As noted, these districts have experienced the greatest historical decline.
- Updated population projections rebased by 2021 Census are anticipated during 2023.




*Source: WA Tomorrow projections, Dec 2018 scaled to the Treasury Budget projection, 2021, by Department of Health.*

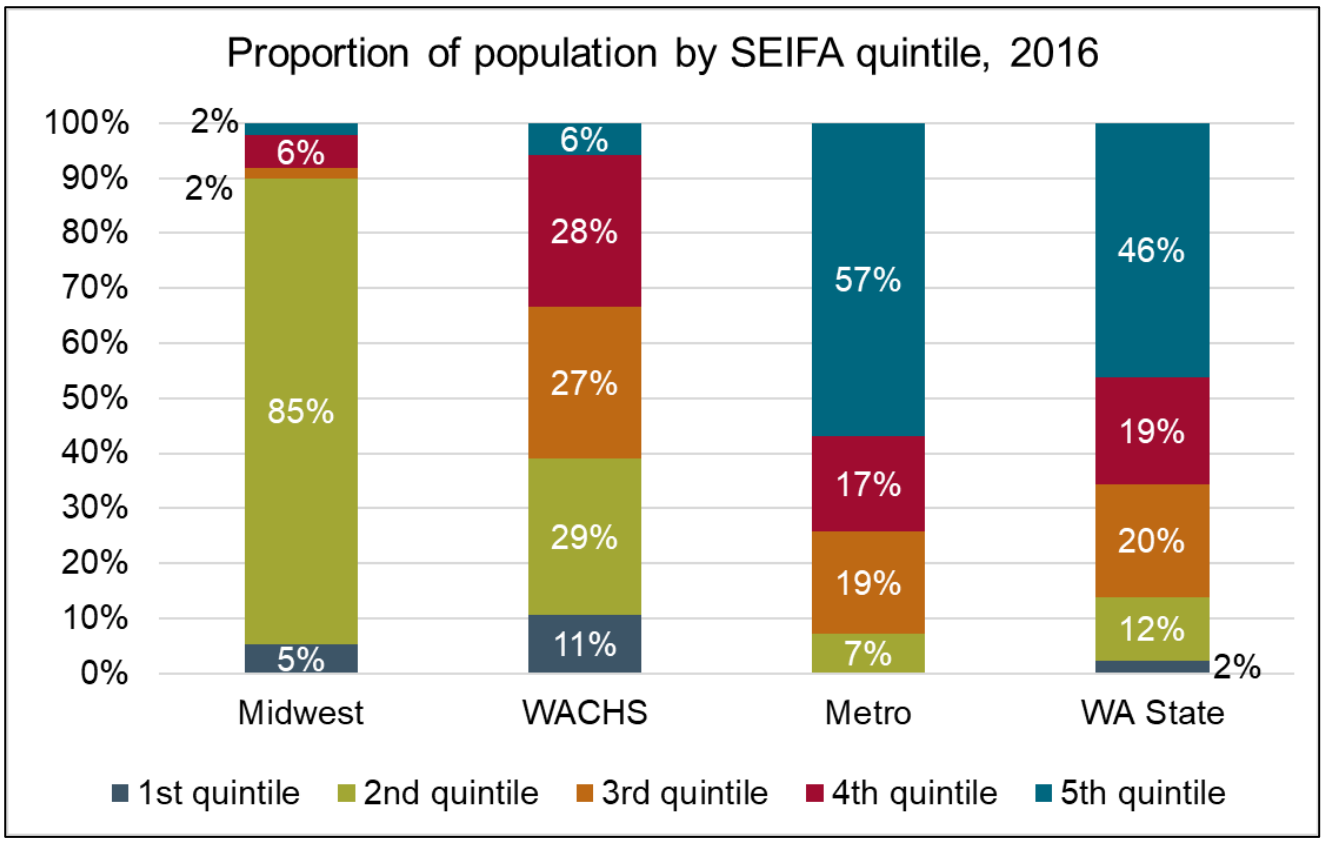
## Key Midwest demographic, social and economic facts

| Local Government | Born overseas | People who don't speak English at home | Left school aged less than 15 years old | Persons with tertiary qualification | Families with annual income less than $20,800 | Unemployment rate |
|---|---|---|---|---|---|---|
| **Gascoyne** | **16.7%** | **9.6%** | **10.5%** | **11.4%** | **3.8%** | **5.8%** |
| **Midwest** | 12.7% | 2.6% | 10.4% | 8.2% | 4.2% | 6.6% |
| **Geraldton** | 14.8% | 7.3% | 10% | 10.5% | 17.8% | 8.8% |
| **Murchison** | 16.4% | 12.1% | 11.2% | 5.5% | 4.3% | 5.5% |
| **Midwest** | 14.7% | 7% | 10.2% | 10.1% | 4% | 7.8% |
| **WACHS** | **17.9%** | **8.4%** | **8.9%** | **11.7%** | **3.6%** | **6.4%** |
| **WA State** | **32.3%** | **17.6%** | **7.2%** | **20.6%** | **3.5%** | **7.8%** |

*Source: Health Tracks, DoH. Data sourced from 2016 Census of Population and Housing*

- *Socio-Economic Indexes for Areas (SEIFA) is an ABS product that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census of Population and Housing.*
- *The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) summarises information about the economic and social conditions of people and households within an area, including both relative advantage and disadvantage measures. A low score indicates relatively greater disadvantage and a lack of advantage in general. A high score indicates a relative lack of disadvantage and greater advantage in general.*

In 2016, the Midwest had 90% of its population living in areas with SEIFA scores in the two quintiles with the highest relative disadvantage, compared with 40% for WACHS overall and 14% for the WA State average, and significantly no areas of relative advantage.




**the lower the quintile, the higher the relative disadvantage. Source: 2016 Census*

## Vulnerable children and families

While the indicators above provide an overview of the social and economic factors in the Midwest, there are many other interlinked factors that impact a community and its unique health care needs.

It is recognised that vulnerable children and their families may require more assistance, support and intervention than families with no identified vulnerabilities.

Recognised vulnerable groups in our communities include Aboriginal families, refugee families, 'at risk' families (those experiencing mental illness, affected by drugs and alcohol, those with disabilities, with low incomes and resourcing, and families with young parents), and children in care, who have a higher risk of health and developmental vulnerability.

More data focused on the social, economic, health and wellbeing of children and adolescents can be found in the Telethon Kids Institute's interactive Child Development Atlas (https://childatlas.telethonkids.org.au/).

## Burden of disease

The Western Australian Burden of Disease Study (WABODS) 2015 was conducted by the Epidemiology Branch, WA Department of Health in partnership with the Australian Institute of Health and Welfare. The study provides an assessment of the impact of 216 diseases and 29 risk factors on the WA population and allows for disease comparisons due to loss of life and disability in a consistent manner. Findings from this study are useful for policy formulation, research, practice and health service planning.

In the Midwest, cancer is the leading cause of burden of disease (18.6% of total burden) for the community followed by mental health issues (16.5%), injury (including suicide, self-inflicted and motor vehicle occupant injuries) (12.8%), cardiovascular (11.7%) and musculoskeletal diseases (9.2%).

Chronic obstructive pulmonary disease (COPD) (6.5% of disability adjusted life years), back pain/problems (5.3%) and coronary heart disease (5.2%) are the highest burdens for Midwest women, while coronary heart disease (6.9%), COPD (6.5%) and lung cancer (5.2%) are highest for Midwest men.

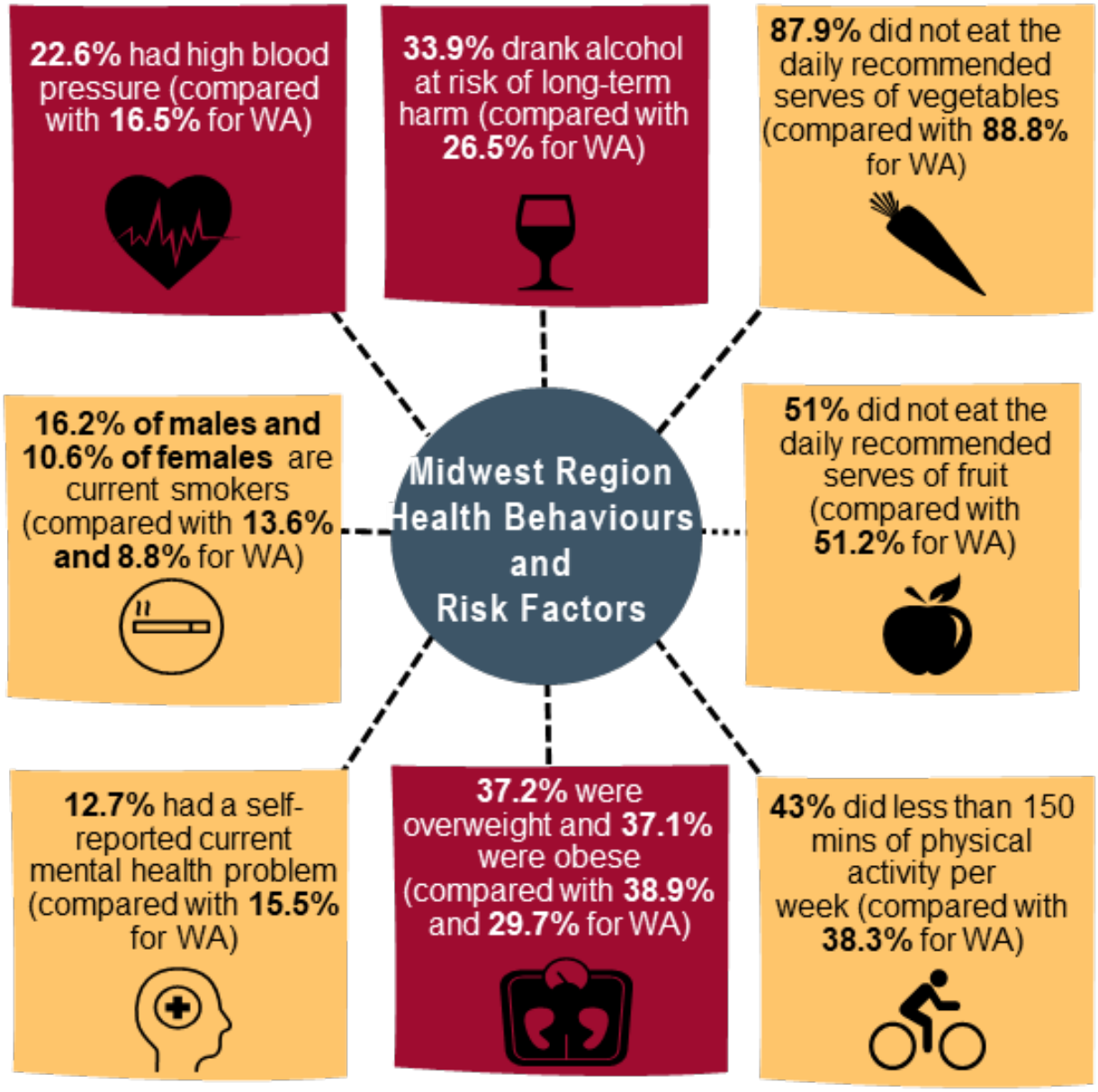
For Midwest residents aged 15-44, the largest burdens of disease were from road traffic injuries, suicide/self-inflicted injuries, alcohol use disorders and depressive disorders, while for those aged 45 years and over the largest burden was from coronary heart disease, COPD, lung cancer, back pain/problems and dementia.

The below report provides further details on breakdowns for the Midwest and provides comparative results against other WACHS and metropolitan regions.

https://ww2.health.wa.gov.au/~/media/Corp/Documents/Reports-and-publications/WA-Burden-of-Disease-Study-2015-Summary-report/WA-Burden-of-Disease-Health-Region-report.pdf

## Midwest health risk factors

The graphics below highlight the prevalence of key health risk factors in the Midwest Health District. These are self-reported measures collected through the Department of Health's Health and Wellbeing Surveillance System

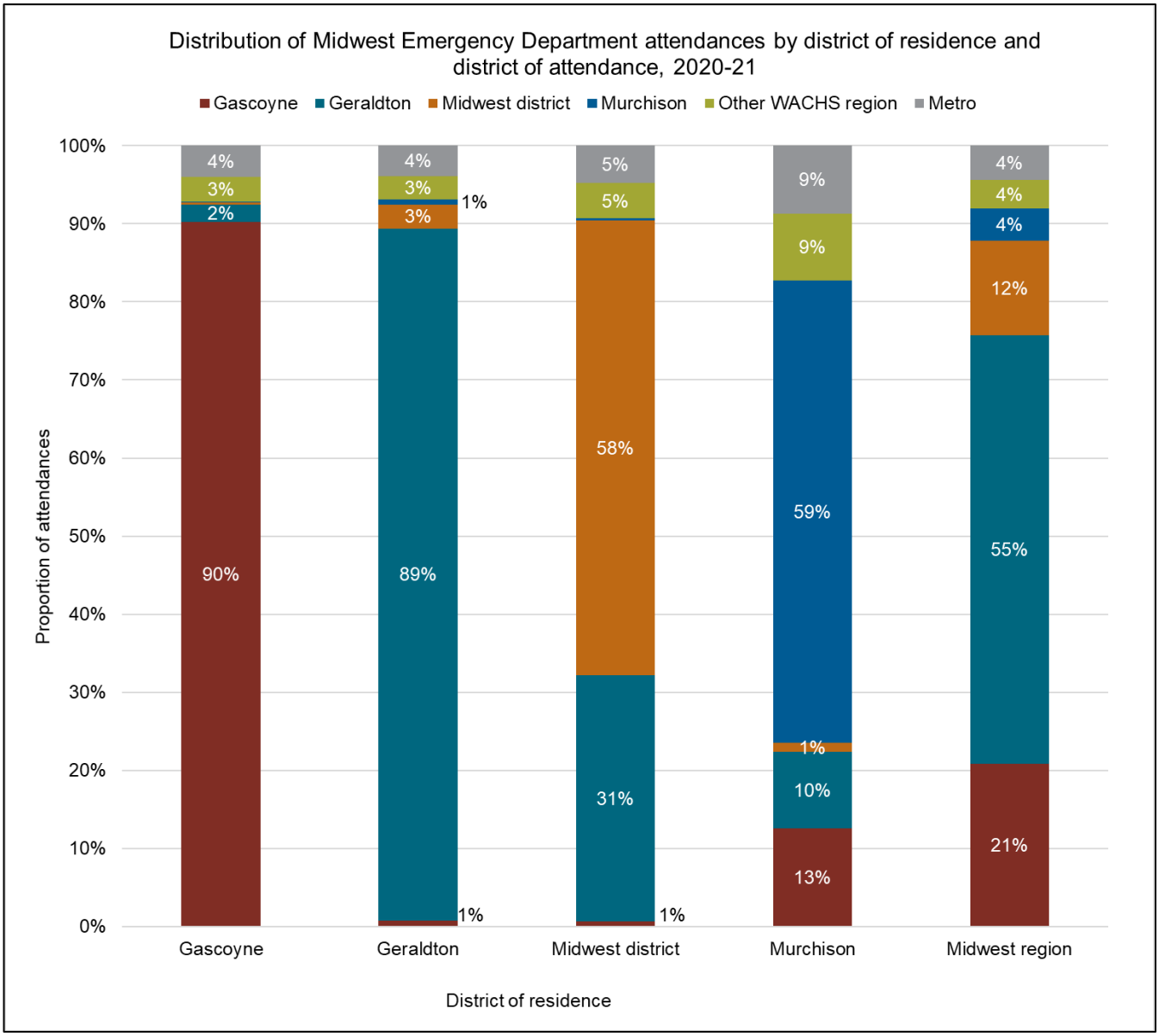



Adults aged 16+, 2015-2019.
Source: Health and Wellbeing Surveillance System, Epidemiology Branch, Department of Health.
Note: Colour coding reflects where a rate is significantly different than the State rate. The State rate may still be at a level of concern .

# Emergency Department

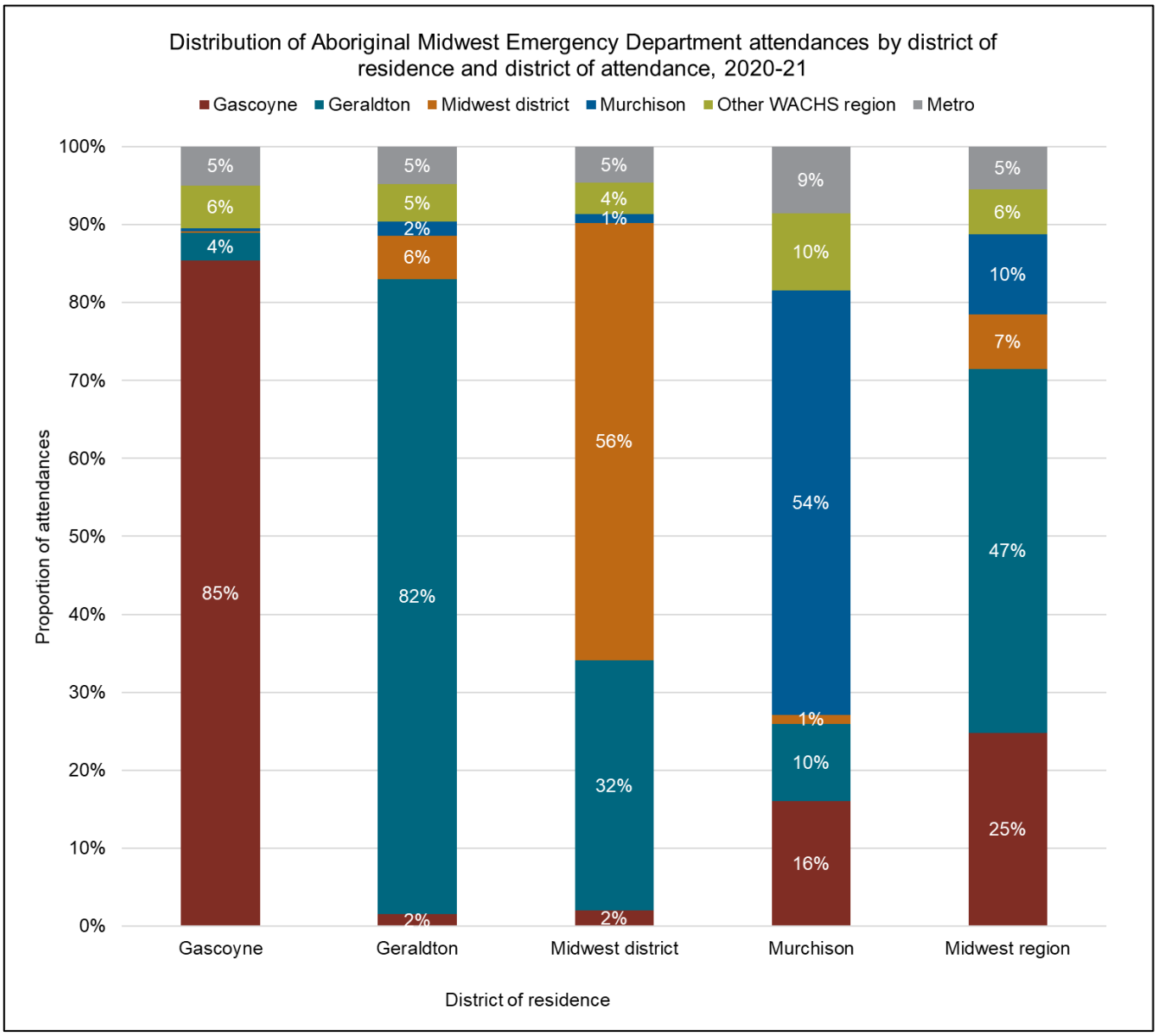
## Midwest summary

- Of the 60,371 emergency department (ED) attendances by Midwest residents in 2020-21, 92% occurred at Midwest hospitals, 4% in other WACHS regions and 4% at Perth metropolitan hospitals.
- Gascoyne district residents had the highest proportion of ED attendances at a hospital in their own district (11,796 attendances or 90%%), followed by Geraldton District (29,048 attendances or 89%). Murchison district residents had the highest proportion of ED attendances at hospitals in another WACHS region (9%) and in at Perth metropolitan hospitals (9%).




*Source: Emergency Department Data Collection, DoH*

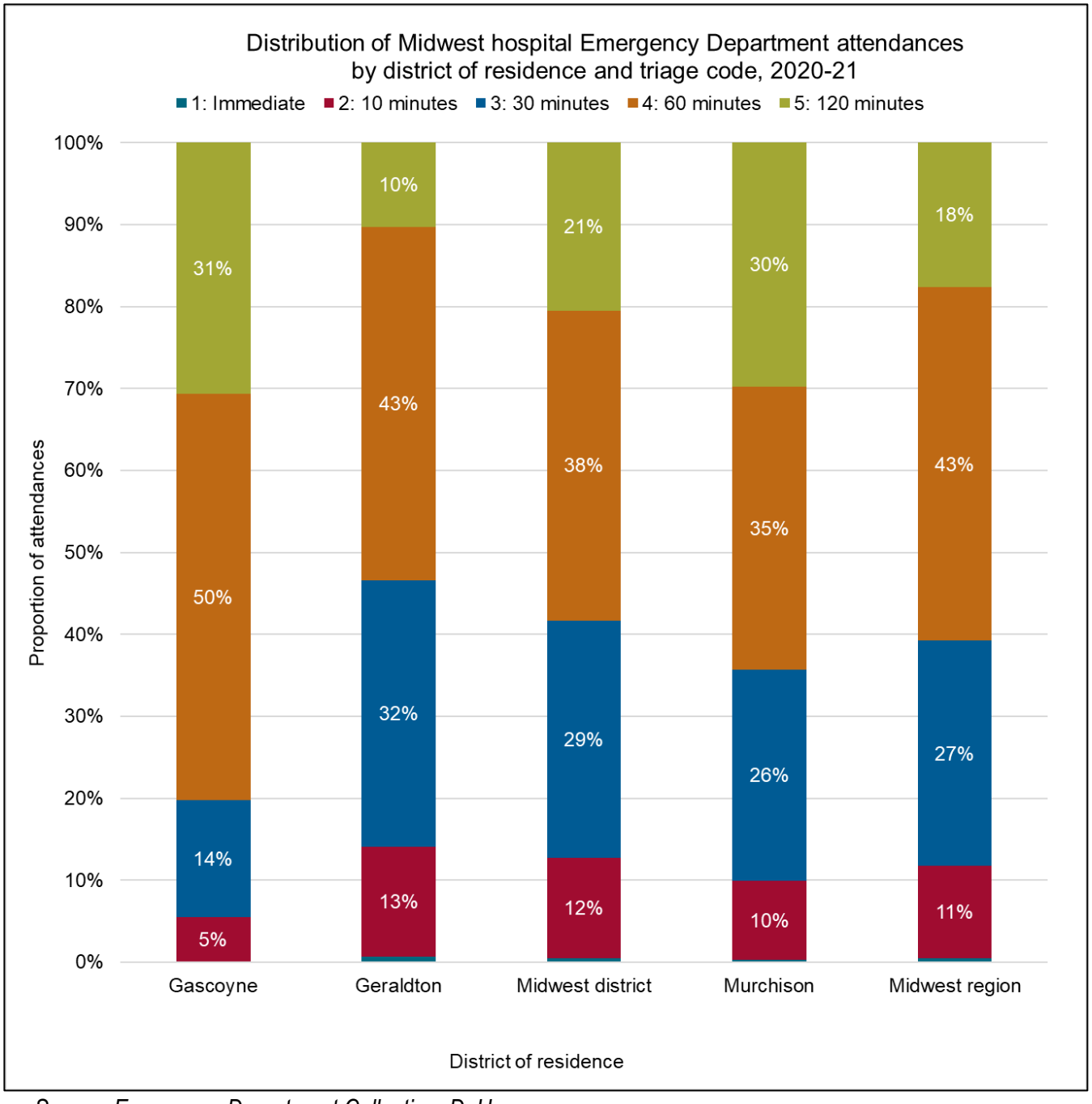
- For Aboriginal Midwest residents, of their 16,688 attendances in 2020-21, 89% attended a Midwest hospital, 6% in other WACHS regions and 5% at Perth metropolitan hospitals.
- Similar to the overall Midwest population, the Aboriginal population in the Gascoyne had the highest proportion of ED attendances at a hospital in their own district (3,533 attendances or 85%), followed by Geraldton District (6,993 attendances or 82%).




*Source: Emergency Department Collection, DoH*

## Emergency attendances for Midwest residents, by triage, 2020-21

- The triage profile of Midwest hospital emergency department attendances by Midwest residents in 2020-21 differed by district of residence, with 80% of Gascoyne resident ED attendances at Midwest hospitals of a triage 4 or 5 (lowest urgency) compared 53% for Geraldton district residents and 61% for the overall Midwest region average.
- Geraldton district residents had the highest proportion of Midwest hospital ED attendances with a triage code of 1 or 2 (14%) compared with 5% for Gascoyne residents and the Midwest region average of 11%.




*Source: Emergency Department Collection, DoH*

## Emergency department attendances for Midwest residents attending Midwest hospitals, key characteristics, 2020-21

- For Midwest residents who attended a hospital emergency department in their region in 2020-21 (55,986 attendances), 7% were provided by the Emergency Telehealth Service (ETS).
- Of all Midwest emergency department attendances by Midwest residents in 2020-21, 66% occurred between the hours of 8am and 5pm, 16% were between 5pm and 9pm, and 17% were between 9pm and 8am.
- Of the Midwest residents who attended a Midwest emergency department in 2020-21, 80% were discharged home, 12% were admitted to that hospital, 4% did not wait or left at their own risk and 4% were transferred to another hospital.
- The Major Diagnostic Categories (MDCs) that made up the largest proportion of Midwest emergency department attendances by Midwest residents in 2020-21 were Factors influencing health status and other contacts with health services (14%) and Diseases and disorders of the musculoskeletal system and connective tissue (12%).
- The most common MDCs that led to a transfer to a metropolitan hospital were Diseases and Disorder of the circulatory system (23% of metro transfers) and Diseases and Disorders of the digestive system (10% of metro transfers).

### Top 5 Major Diagnostic Categories for Midwest residents attending Midwest hospital EDs, 2020-21

| Major Diagnostic Category | Attendances | % of total |
|---|---|---|
| Factors influencing health status and other contacts with health services* | 7599 | 14% |
| Diseases and Disorders of the musculoskeletal system and connective tissue | 6910 | 12% |
| Diseases and Disorders of the Ear, Nose, Mouth and Throat | 6174 | 11% |
| Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast | 5834 | 10% |
| Injuries, Poisonings and Toxic Effects of Drugs | 4984 | 9% |

### Top 5 Major Diagnostic Categories for Midwest residents transferred from Midwest EDs to metropolitan hospitals, 2020-21

| Major Diagnostic Category | Attendances | % of metro transfers |
|---|---|---|
| Diseases and Disorders of the Circulatory System | 130 | 23% |
| Diseases and disorders of the digestive system | 59 | 10% |
| Diseases and Disorders of the Nervous System | 52 | 9% |
| Diseases and disorders of the respiratory system | 40 | 7% |
| Diseases and disorders of the musculoskeletal system and connective tissue | 39 | 7% |

*'Factors influencing health status and other contacts with health services included diagnoses such as attention to surgical dressings, follow up examinations after other treatment, issue of repeat prescriptions, laboratory examination. Using operational boundaries. Source: Emergency Department Collection, WACHS Business Intelligence*

## Emergency department attendances for Midwest residents attending Midwest hospitals, key characteristics by Aboriginality, 2020-21

- The Major Diagnostic Categories (MDCs) that made up the largest proportion of Aboriginal emergency department attendances by Aboriginal Midwest residents in 2020-21 the most common MDCs were Factors influencing health status and other contacts with health services (15%) and Diseases and disorders of the skin, subcutaneous tissue and breast (13%).
- For non-Aboriginal residents, were Factors influencing health status and other contacts with health services (13%) and Diseases and disorders of the musculoskeletal system and connective tissue (13%).

### Top 5 Major Diagnostic Categories for Aboriginal Midwest residents attending Midwest hospital EDs, 2020-21

| Major Diagnostic Category | Attendances | % of total |
|---|---|---|
| Factors influencing health status and other contacts with health services | 2161 | 15% |
| Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast | 1840 | 13% |
| Diseases and Disorders of the Ear, Nose, Mouth and Throat | 1800 | 12% |
| Diseases and disorders of the musculoskeletal system and connective tissue | 1390 | 9% |
| Injuries, Poisonings and Toxic Effects of Drugs | 1302 | 9% |

### Top 5 Major Diagnostic Categories for Non-Aboriginal Midwest residents attending Midwest hospital EDs, 2020-21

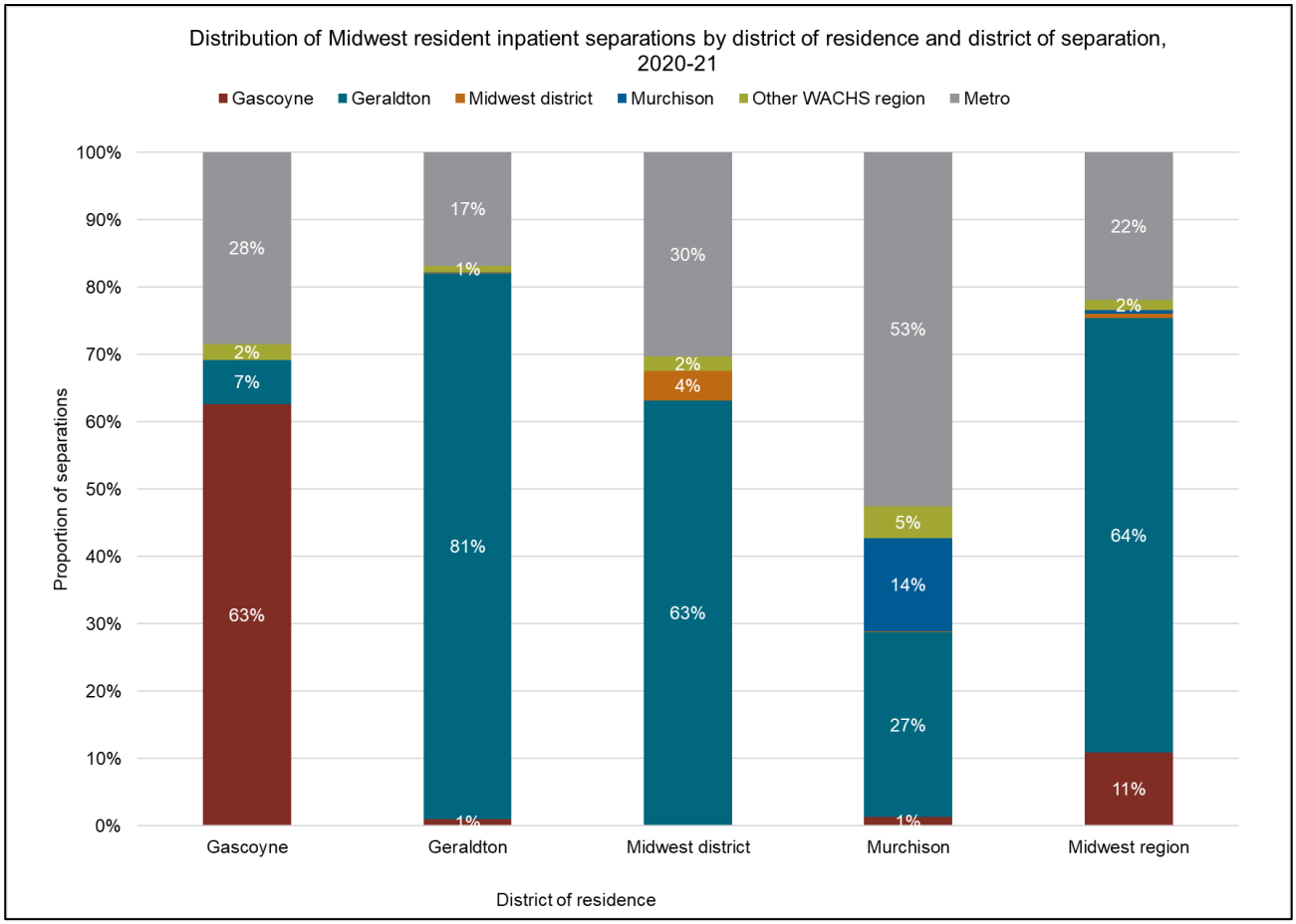
| Major Diagnostic Category | Attendances | % of total |
|---|---|---|
| Diseases and disorders of the musculoskeletal system and connective tissue | 5494 | 13% |
| Factors influencing health status and other contacts with health services | 5370 | 13% |
| Diseases and Disorders of the Ear, Nose, Mouth and Throat | 4349 | 11% |
| Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast | 3968 | 10% |
| Injuries, Poisonings and Toxic Effects of Drugs | 3656 | 9% |

*Excludes attendances where Aboriginality status was unknown or not stated. Source: Emergency Department Collection, WACHS Business Intelligence*

# Hospitalisations

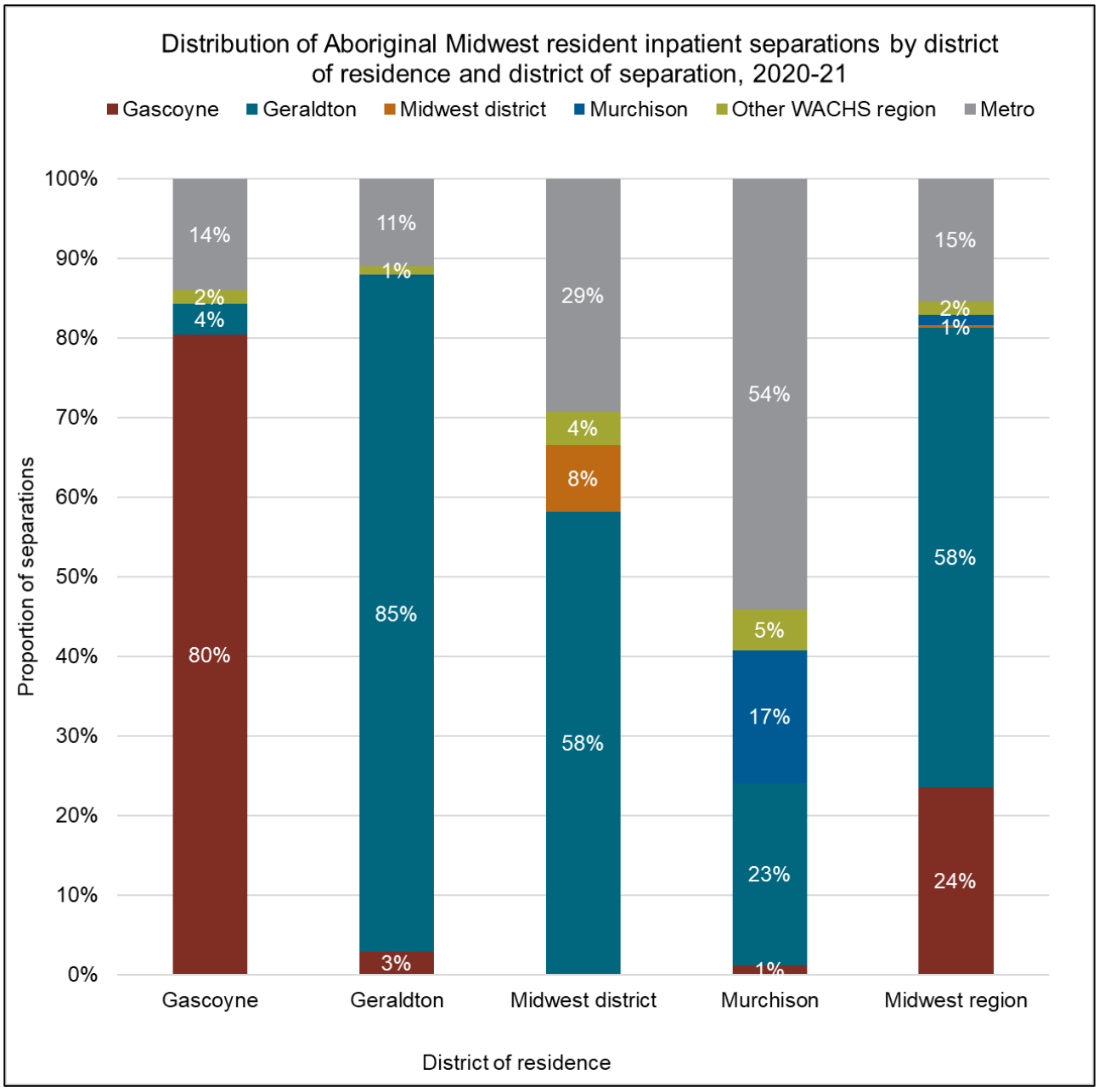
## Midwest summary

- Of the 27,283 inpatient separations by Midwest residents across WA in 2020-21, 78% occurred in Midwest hospitals (including 64% at Geraldton Hospital), while 22% occurred in a Perth metropolitan hospital.
- Residents of Geraldton had the highest proportion of separations occurring at a hospital in their own district (81%) followed by Gascoyne and Midwest district residents (both 63%). Murchison district had the highest proportion of residents who had an inpatient separation from a metropolitan hospital (53%).




*Source: Hospital Morbidity Data Collection, DoH. Excludes boarders and unqualified newborns.*

- For Aboriginal residents, of their 9,518 inpatient separations in 2020-21, 90% attended a Midwest hospital while 15% occurred in a Perth metropolitan hospital.




*Source: Hospital Morbidity Data Collection, DoH. Excludes boarders and unqualified newborns.*

- The most common Enhanced Service Related Group (ESRG) for the 27,283 hospital separations (across all hospitals) by Midwest residents in 2020-21 was Renal Dialysis (23,004, 58% of separations)
- For Aboriginal residents, renal dialysis made up 58% of their 5,566 inpatient separations in 2020-21.

## Inpatient separations for Midwest residents, key characteristics, 2020-21

| Midwest | Separations | % of all separations |
|---|---|---|
| 042, Renal Dialysis | 7453 | 27% |
| 031, Chemotherapy | 1654 | 6% |
| 117, Qualified Neonate | 664 | 2% |
| 022, Colonoscopy | 641 | 2% |
| 001, Chest Pain | 540 | 2% |
| 101, Digestive System Diagnoses incl GI Obstruction | 463 | 2% |
| 114, Vaginal Delivery | 434 | 2% |
| 019, Complex Gastroscopy | 420 | 2% |
| 028, Cellulitis | 410 | 2% |
| 039, Other Neurology | 397 | 1% |
| 081, Other Orthopaedics - Non-Surgical | 344 | 1% |
| 082, Cataract Procedures | 344 | 1% |
| 049, Other Respiratory Medicine | 327 | 1% |
| 086, Skin, Subcutaneous Tissue and Breast Procedures | 308 | 1% |

## Inpatient separations, Aboriginal Midwest residents, by top ESRGs, 2020-21

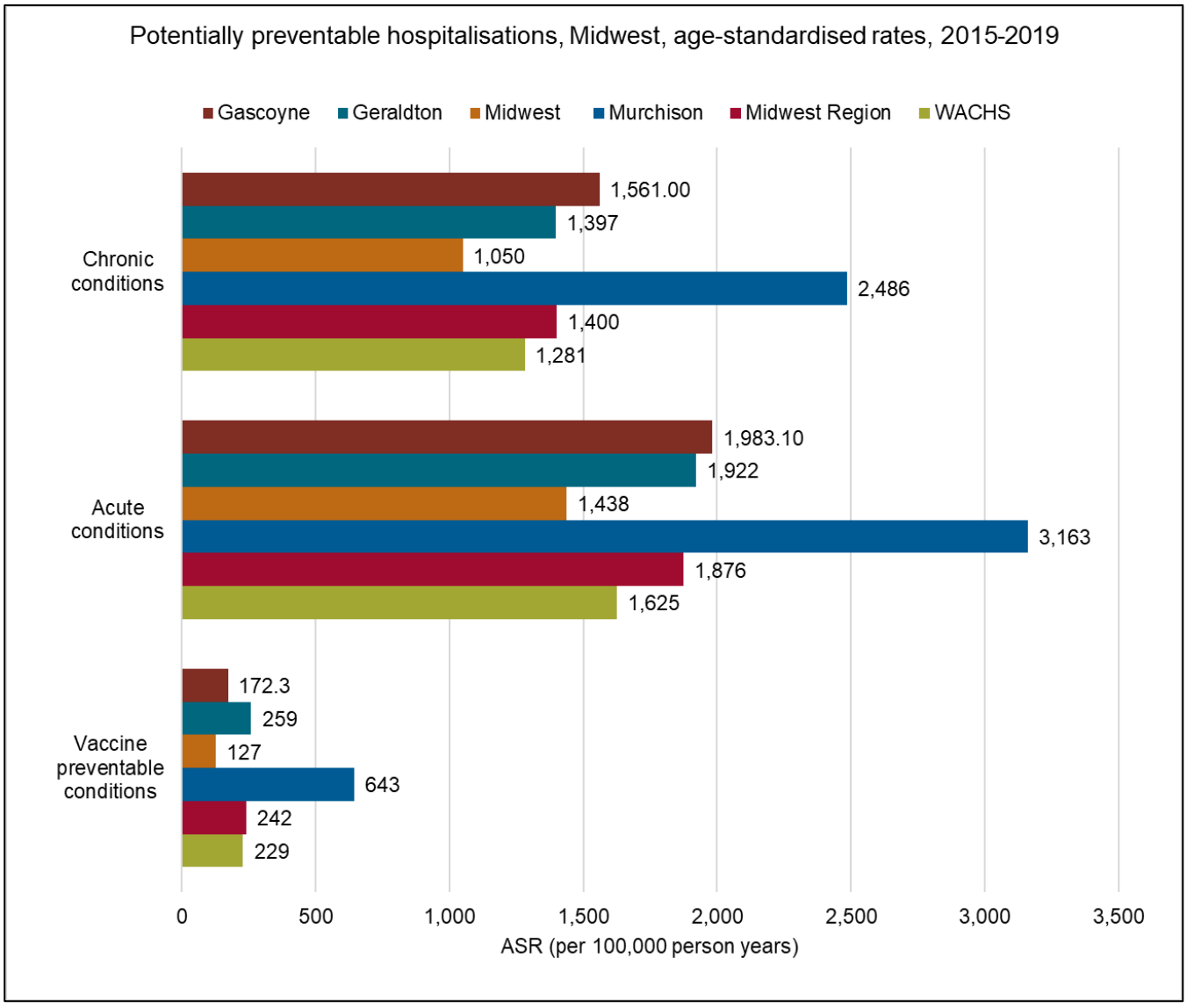
| Midwest | Separations | % of all separations |
|---|---|---|
| 042, Renal Dialysis | 5566 | 58% |
| 031, Chemotherapy | 201 | 2% |
| 117, Qualified Neonate | 187 | 2% |
| 028, Cellulitis | 163 | 2% |
| 114, Vaginal Delivery | 131 | 1% |
| 001, Chest Pain | 125 | 1% |
| 113, Ante-natal Admission | 120 | 1% |
| 053, Other Non Subspecialty Medicine | 104 | 1% |
| 045, Respiratory Infections/Inflammations | 100 | 1% |
| 098, Injuries - Non-surgical | 100 | 1% |

*Source: Hospital Morbidity Data Collection, Department of Health.*

**Separations are a count of activity, not of unique client counts. Some ESRGs such as chemotherapy and renal dialysis are more likely than others to include clients who have had multiple separations over the reference period.*

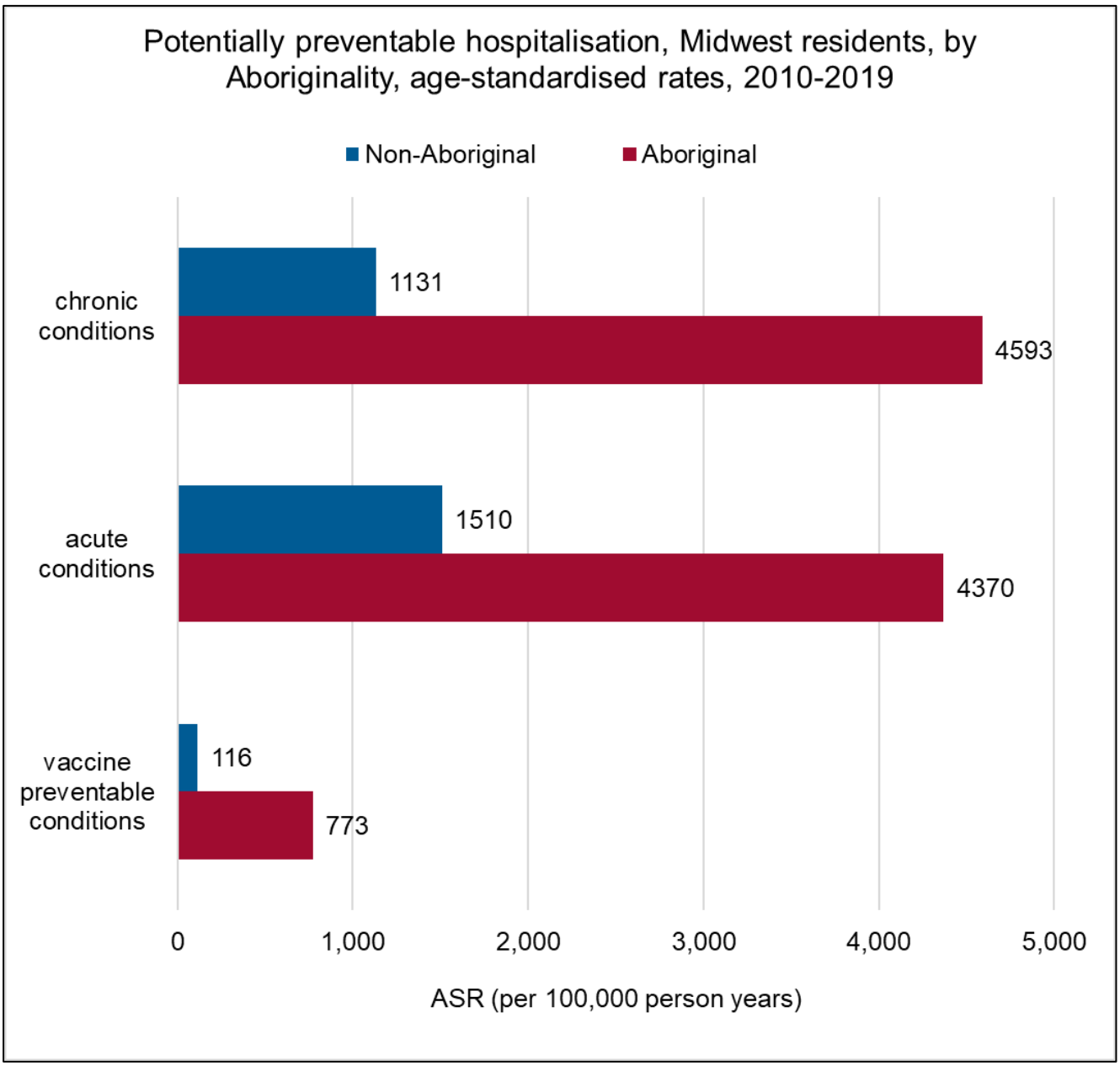
## Potentially Preventable Hospitalisations

- A potentially preventable hospitalisation (PPH) is an admission to hospital which could have been prevented through the provision of appropriate preventative health interventions and early disease management[1].
- For the period 2015-2019, the rate of PPHs for Midwest residents were generally higher than the WACHS average across all three conditions (vaccine-preventable, acute and chronic), and particularly high for the Murchison residents.




*Source: Health Tracks, DoH*

- For the period 2010-2019, the rate of PPHs for Midwest Aboriginal people was significantly higher than the non-Aboriginal rate across the three condition types. For chronic conditions, the rate was 4.1 times higher, for acute conditions the rate was 2.9 times higher and for vaccine-preventable conditions the rate 6.6 times higher.




Source: HealthTracks, DoH

## Midwest leading conditions for potentially preventable hospitalisations, 2015-2019

- The leading cause of PPHs for Midwest residents for 2015-2019 was chronic obstructive pulmonary disease (COPD0 (12.9% of cases), cellulitis (12.8%), dental conditions (12.5%) and urinary tract infections (10.5%).
- Most PPH rates for Midwest residents occurred at above the State average, with rates of cellulitis occurring at twice the State average (SRR = 2.05), followed by COPD (SRR = 1.87).

| Condition | Type | Number | % of all cases | SRR (comparison with State average) |
|---|---|---|---|---|
| Chronic obstructive pulmonary disease | chronic | 1,550 | 12.9% | 1.87 |
| Cellulitis | acute | 1,531 | 12.8% | 2.05 |
| Dental conditions | acute | 1,499 | 12.5% | 1.22 |
| Urinary tract infections | acute | 1,252 | 10.5% | 1.32 |
| Congestive cardiac failure | chronic | 953 | 8.0% | 1.24 |
| Diabetes complications | chronic | 952 | 8.0% | 1.45 |
| ENT infections | acute | 727 | 6.1% | 1.49 |
| Angina | chronic | 597 | 5.0% | 1.27 |
| Pneumonia and influenza (vaccine-preventable) | Vaccine-preventable | 523 | 4.4% | 1.71 |
| Convulsions and epilepsy | acute | 521 | 4.4% | 1.26 |

*Source: HealthTracks, DoH.*

***Top 5 PPHs by Midwest district, 2015-2019***

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Gascoyne | *Condition* | Chronic obstructive pulmonary disease | Cellulitis | Dental conditions | Urinary tract infections | Congestive cardiac failure | |
| | *No.* | 291 | 282 | 171 | 156 | 125 | **1,782** |
| | *SRR* | 2.7 | 2.68 | 0.93 | 1.22 | 1.36 | 1.47 |
| Geraldton | *Condition* | Dental conditions | Cellulitis | Chronic obstructive pulmonary disease | Urinary tract infections | Congestive cardiac failure | |
| | *No.* | 951 | 909 | 878 | 848 | 607 | **7,396** |
| | *SRR* | 1.27 | 2.01 | 1.8 | 1.46 | 1.28 | 1.4 |
| Midwest | *Condition* | Dental conditions | Chronic obstructive pulmonary disease | Cellulitis | Diabetes complications | Congestive cardiac failure | |
| | *No.* | 322 | 302 | 214 | 189 | 179 | 1,954 |
| | *SRR* | 1.32 | 1.46 | 1.34 | 1.25 | 0.97 | 1.02 |
| Murchison | *Condition* | Cellulitis | Diabetes complications | Chronic obstructive pulmonary disease | Urinary tract infections | ENT infections | |
| | *No.* | 126 | 90 | 79 | 76 | 71 | **842** |
| | *SRR* | 4.18 | 3.53 | 3.15 | 2.23 | 3.43 | 2.59 |

*Source: HealthTracks, DoH*

## Top 5 PPHs for non-Aboriginal Midwest residents, 2015-2019

- For non-Aboriginal Midwest residents, the highest occurring PPHs were dental conditions (1,224 PPHs, 14% of total PPHs for non-Aboriginal people) followed by COPD (1,202 PPHs, 14%).
- Most of the top PPHs for non-Aboriginal residents occurred at slightly higher rates than the State non-Aboriginal rate, with the highest being for Cellulitis (SRR = 1.77)

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Non-Aboriginal | *Condition* | Dental conditions | Chronic obstructive pulmonary disease | Cellulitis | Urinary tract infections | Congestive cardiac failure | |
| | *No.* | 1,224 | 1,202 | 1,032 | 942 | 720 | **8,514** |
| | *SRR* | 1.2 | 1.69 | 1.77 | 1.16 | 1.05 | **1.18** |

*Source: HealthTracks, DoH. SRR relates to state rate for respective Aboriginal or non-Aboriginal populations.*

## Top 5 PPHs for Aboriginal Midwest residents, 2010-2019

- For the period 2010-2019, the highest occurring PPH condition for Aboriginal Midwest residents was Cellulitis (975 PPHs, 15% of total PPHs for Aboriginal people) followed by diabetes complications (645 PPHs, 10%).
- Most of the top PPHs for Aboriginal residents occurred at similar rates to the State Aboriginal rates.

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Aboriginal | *Condition* | Cellulitis | Diabetes complications | Urinary tract infections | Convulsions and epilepsy | Chronic obstructive pulmonary disease | |
| | *No.* | 975 | 645 | 563 | 541 | 534 | **6,429** |
| | *SRR* | 1.17 | 1.21 | 0.99 | 0.97 | 0.93 | **1** |

*Source: HealthTracks, DoH. SRR relates to state rate for respective Aboriginal or non-Aboriginal populations.*

## Communicable disease notifications

***Please note COVID-19 data and information is in development and will be included in the later version of this profile available in early 2023.***

- For the period 2014-2018, there were 5,360 communicable disease notifications for Midwest residents. The rates of communicable disease notifications for Midwest residents were slightly higher than the State rate (SRR = 1.23).
- The rates for most categories were comparable or slightly higher than the State rate (zoonotic diseases occurred at 3 times the state rate however were impact by small numbers).

| Condition | Notifications | SRR |
|---|---|---|
| Blood-borne diseases | 274 | 1.34 |
| Enteric infections | 796 | 1.05 |
| Sexually transmitted infections | 2,155 | 1.32 |
| Vector-borne diseases | 315 | 1.74 |
| Vaccine-preventable diseases | 1,778 | 1.15 |
| Zoonotic diseases | 6 | 2.97 |
| Other notifiable diseases | 36 | 1.12 |
| **All notifications** | 5,360 | 1.23 |

SRR = The standardised rate ratio is the ratio between a health region (or district) and the State. A ration of 1 means the regional rate is the same as the State, a value of 2 indicates that the rate is twice that of the State, and an 0.5 indicates the rate in a region is half that of the State population.
*Source: HealthTracks, DoH*

## Midwest leading communicable disease notifications, 2014-2018

- The leading cause of communicable disease notifications for 2014-2018 for Midwest residents was chlamydia (genital) (30% of cases), Influenza (20%) and Gonorrhea (10% of cases). Chlamydia was the leading cause across all districts except for Midwest district (influenza).
- Notifications of Ross River virus for Midwest residents occurred at more than twice the state rate (SRR = 2.18) between 2015-2019.

| Condition | Type | Notifications | SRR |
|---|---|---|---|
| Chlamydia (genital) | Sexually transmitted infections | 1,599 | 1.27 |
| Influenza | Vaccine-preventable diseases | 1,094 | 1.37 |
| Gonorrhea | Sexually transmitted infections | 527 | 1.61 |
| Campylobacteriosis | Enteric | 362 | 0.89 |
| Varicella (shingles) | Vaccine-preventable diseases | 288 | 1.25 |
| Salmonellosis | Vector-borne diseases | 279 | 1.17 |
| Ross River virus | Vector-borne diseases | 257 | 2.18 |
| Hepatitis C | Blood-borne diseases | 234 | 1.73 |
| Pertussis/whooping cough | Vaccine-preventable diseases | 148 | 0.71 |
| Mumps | Vaccine-preventable diseases | 1,599 | 1.27 |

*Source: HealthTracks, DoH*

## Top 5 communicable disease notifications by Midwest district, 2014-2018

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Gascoyne | *Condition* | Chlamydia | Influenza | Ross River virus | Gonorrhoea | Campylo-bacteriosis | |
| | *No.* | 239 | 120 | 81 | 56 | 52 | **794** |
| | *SRR* | 1.3 | 1.03 | 4.52 | 1.13 | 0.86 | 1.23 |
| Geraldton | *Condition* | Chlamydia | Influenza | Gonorrhoea | Campylo-bacteriosis | Varicella (shingles) | |
| | *No.* | 1,038 | 806 | 288 | 241 | 173 | **3,383** |
| | *SRR* | 1.27 | 1.67 | 1.39 | 0.98 | 1.27 | 1.25 |
| Midwest | *Condition* | Influenza | Chlamydia | Campylo-bacteriosis | Varicella (shingles) | Ross River virus | |
| | *No.* | 136 | 133 | 68 | 67 | 53 | 626 |
| | *SRR* | 0.85 | 0.71 | 0.85 | 1.36 | 2.2 | 0.8 |
| Murchison | *Condition* | Chlamydia | Gonorrhoea | Mumps | Influenza | Ross River virus | |
| | *No.* | 189 | 154 | 36 | 32 | 31 | **557** |
| | *SRR* | 2.68 | 8.06 | 30.68 | 0.89 | 4.9 | 2.5 |

*Source: HealthTracks, DoH.*

## Top 5 Communicable disease notifications for non-Aboriginal Midwest residents, 2014-2018

- For the period 2014-2018, Influenza and Chlamydia (genital) were the top 2 conditions for communicable disease notifications for non-Aboriginal residents (810, 25% and 797, 24% respectively).
- Most of the top disease notifications for non-Aboriginal residents occurred at similar rates to the State non-Aboriginal population.

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Non-Aboriginal | Condition | Influenza | Chlamydia (genital) | Campylo-bacteriosis | Varicella (shingles) | Salmonellosis | |
| | No. | 810 | 797 | 321 | 234 | 217 | **3,303** |
| | *SRR* | 1.28 | 0.91 | 0.97 | 1.16 | 1.14 | **1.02** |

*Source: HealthTracks, DoH. SRR relates to state rate for respective Aboriginal or non-Aboriginal populations.*

## Top 5 Communicable disease notifications for Aboriginal Midwest residents, 2009-2018

- For the period 2009-2018, the highest number of communicable disease notifications for Aboriginal Midwest residents was for Chlamydia (genital) (1,596 notifications, 47% of total notifications for Aboriginal people) followed by Gonorrhoea (753 notifications, 22%).
- Most of the top disease notifications for Aboriginal residents occurred at slightly lower rates than the State Aboriginal population (with the exception of Chlamydia (genital) which occurred at 1.3 times the State Aboriginal rate).

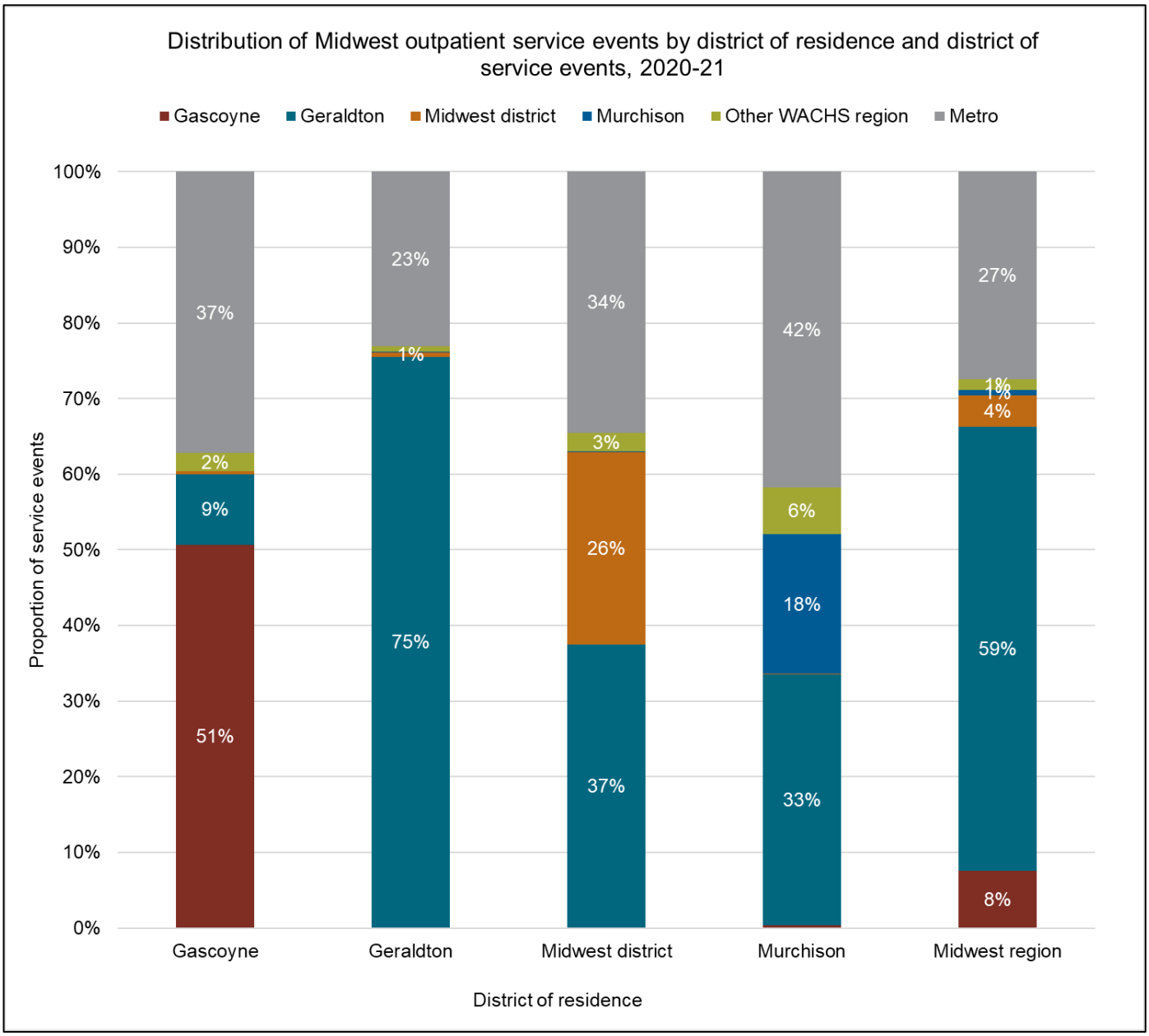
| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| Aboriginal | Condition | Chlamydia (genital) | Gonorrhoea | Influenza | Hepatitis C | Salmonellosis | |
| | No. | 1,596 | 753 | 255 | 142 | 79 | **3,395** |
| | SRR | 1.3 | 0.92 | 0.85 | 0.81 | 0.93 | **1.07** |

*Source: HealthTracks, DoH. SRR relates to state rate for respective Aboriginal or non-Aboriginal populations.*

# Outpatient

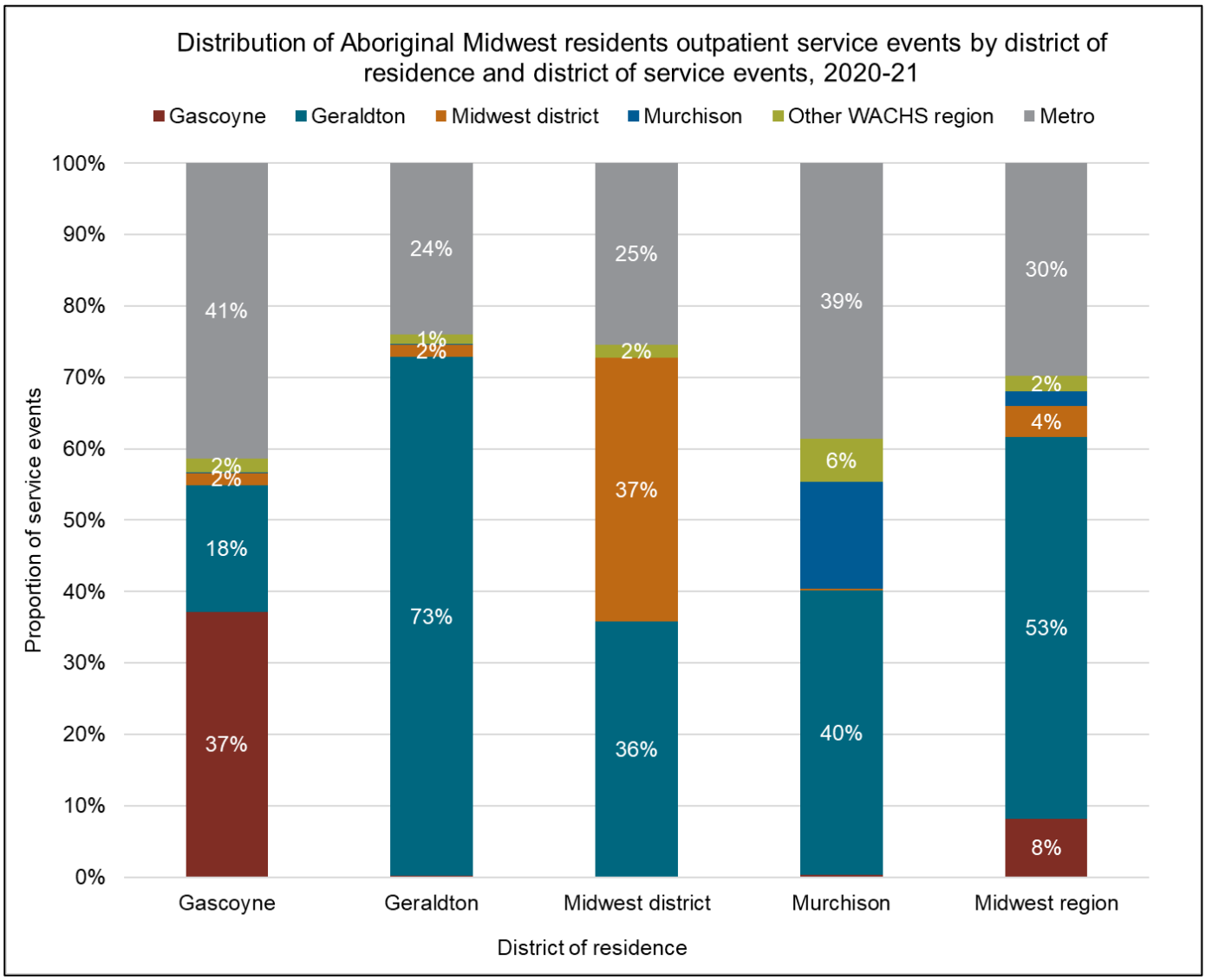
## Midwest summary

- Of the 108,711 outpatient service events for Midwest residents across WA in 2020-21, 71% (77,303) occurred at Midwest hospitals, while 27% (29,826) occurred at Perth metropolitan hospitals.
- Geraldton district residents had the highest proportion of outpatient activity at a hospital in their own district (75%) followed by Gascoyne district residents (51%). Murchison district residents had the highest proportion of activity at a Perth hospital (42%).
- In 2020-21 the overall proportion of appointments for Midwest residents that were delivered by telephone/telehealth was 23% (25,095) (20% for Midwest hospitals and 36% for metro hospitals).




*Source: Non-admitted Data Collection, DoH*

- For Aboriginal Midwest residents, of their 16,841 outpatient service events in 2020-21, 68% attended a Midwest hospital while 30% occurred in a Perth metropolitan hospital.
- Geraldton district residents had the highest proportion of outpatient activity at a hospital in their own district (73%) followed by Gascoyne district residents (51%). Gascoyne district residents had the highest proportion of activity at a Perth hospital (41%).




*Source: Non-admitted Data Collection, DoH*

## Outpatient activity for Midwest residents, key characteristics

- For Midwest residents in 2020-21, the most common Tier 2 Medical codes were 20.29 Orthopaedics (5% of total service events) and 20.42 Medical Oncology (Consultation) (2%), while the top Nursing codes (including allied health) were 40.53 General Medicine (8% of total service events) followed by 40.35 Palliative Care (7%).

## Outpatient activity, Midwest residents, by top Tier 2 codes, 2020-21

| Top 10 Medical (20) codes | Service events | % of total | Top 10 Nursing (40) codes | Service events | % of total |
|---|---|---|---|---|---|
| 20.29 Orthopaedics | 5030 | 5% | 40.53 General Medicine | 8297 | 8% |
| 20.42 Medical Oncology (Consultation) | 2454 | 2% | 40.35 Palliative Care | 7859 | 7% |
| 20.02 Anaesthetics | 2047 | 2% | 40.28 Midwifery | 7048 | 6% |
| 20.43 Radiation Oncology (Consultation) | 1297 | 1% | 40.13 Wound Management | 6905 | 6% |
| 20.11 Paediatric Medicine | 1284 | 1% | 40.09 Physiotherapy | 4787 | 4% |
| 20.10 Haematology | 1119 | 1% | 40.52 Oncology | 4497 | 4% |
| 20.17 Ophthalmology | 1021 | 1% | 40.07 Pre-Admission and Pre-Anaesthesia | 3143 | 3% |
| 20.07 General Surgery | 996 | 1% | 40.12 Rehabilitation | 3038 | 3% |
| 20.35 Nephrology | 845 | 1% | 40.06 Occupational Therapy | 2823 | 3% |
| 20.46 Plastic and Reconstructive Surgery | 768 | 1% | 40.08 Primary Health Care | 2662 | 2% |

*Source: Non-admitted Data Collection, DoH*

# Mental health

## Psychological distress

Psychological distress is commonly measured using the Kessler Psychological Distress Scale—10 items (K10). The K10 questionnaire was developed to yield a global measure of psychosocial distress, based on questions about people's level of nervousness, agitation, psychological fatigue and depression in the past four weeks. There is a correlation between high levels of psychological distress and common mental health disorders and therefore can be used as a proxy estimate of the mental wellbeing of a population or community.

### Prevalence of high or very high psychological distress, 2015-2019

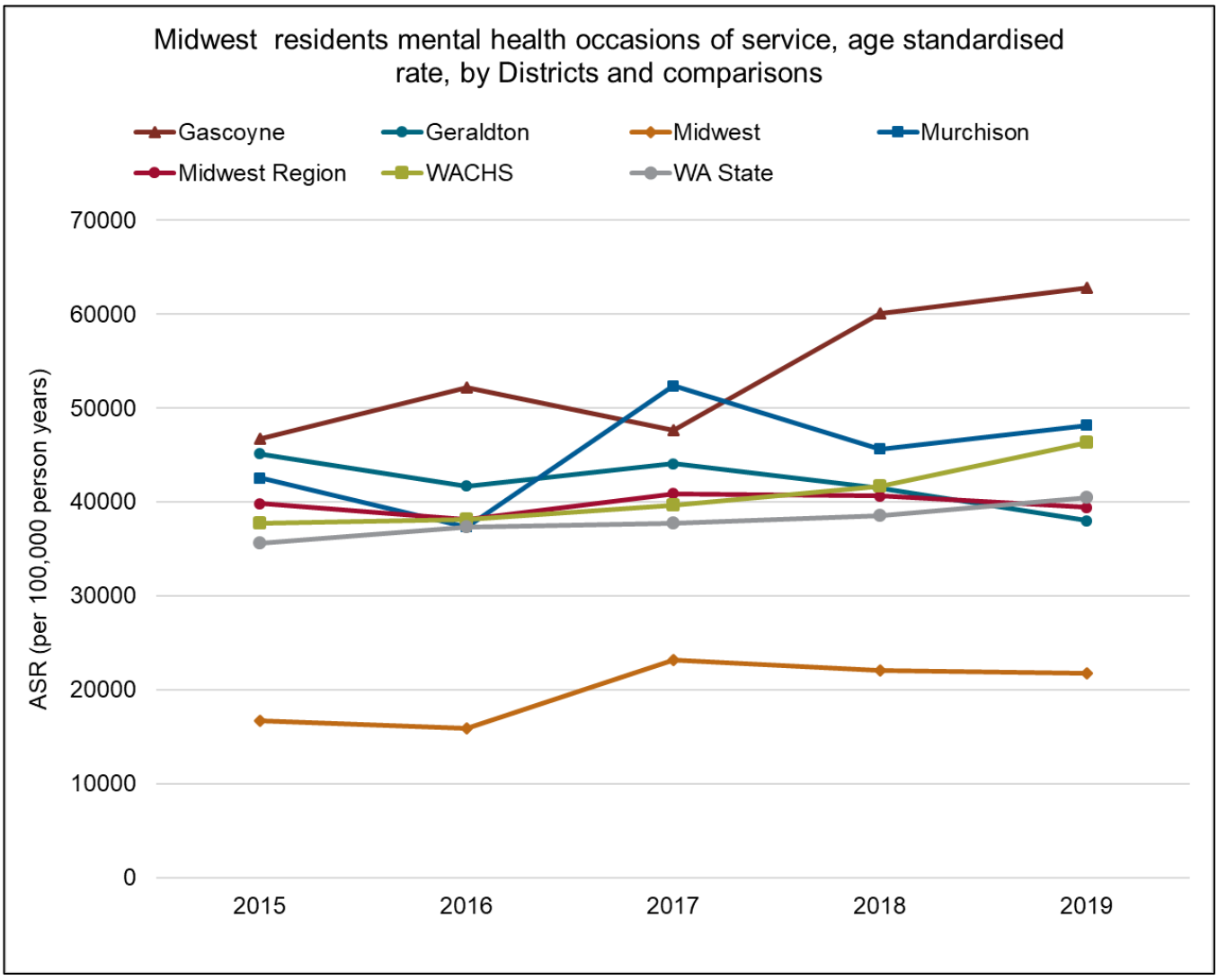
| Area | Females | Males | Persons |
|---|---|---|---|
| Gascoyne | 9.6 | 1.6 | 5.7 |
| Geraldton | 8.2 | 8.9 | 8.6 |
| Midwest | 8 | 12 | 10 |
| Murchison* | Not available | | |
| Midwest Region | 8.3 | 8.8 | 8.6 |
| WACHS average | 8.1 | 7.5 | 7.8 |
| WA State | 9.8 | 7.8 | 8.8 |

**Rates for Murchison are not available at either LGA or SA2 level reporting on HealthTracks*

*Source: HealthTracks, DoH*

## Mental health community hospital activity of Midwest residents

- Between 2015 and 2019, the rate of community mental health occasions of service fluctuated across the Midwest districts but was generally highest for residents of Gascoyne district.
- The age standardise rate between 2015 and 2019 across the region remained relatively static, however this was due to a decreased of 4.2% in the most populous Geraldton district, while smaller population centres experienced increases in rates of 7.7% for Gascoyne, 6.8% in Midwest and 3.3% in Murchison.
- The rates were generally significantly higher than the WACHS and WA state rate.
- For the period 2010-2019, the rate of Mental health mental health service contacts for Aboriginal people was 3.5 times higher than the non-Aboriginal rate.




*Source: Department of Health, Health Tracks*

## Number of community mental health occasions of service by gender, Midwest residents 2015–2019

| District | Gender | 2015 | 2016 | 2017 | 2018 | 2019 | Annual average change in rate |
|---|---|---|---|---|---|---|---|
| Gascoyne | Males | 1,984 | 2,234 | 2,100 | 2,335 | 2,410 | 5% |
| | Females | 2,228 | 2,479 | 2,074 | 2,724 | 2,788 | 6% |
| | Persons | 4,215 | 4,713 | 4,174 | 5,059 | 5,198 | 5% |
| Geraldton | Males | 10,213 | 8,740 | 9,427 | 8,320 | 7,248 | -8% |
| | Females | 7,061 | 7,075 | 6,684 | 6,857 | 6,494 | -2% |
| | **Persons** | 17,274 | 15,815 | 16,111 | 15,177 | 13,742 | -6% |
| Midwest | Males | 919 | 1,070 | 1,417 | 1,377 | 1,553 | 14% |
| | Females | 894 | 676 | 820 | 848 | 853 | -1% |
| | **Persons** | 1,813 | 1,746 | 2,237 | 2,225 | 2,406 | 7% |
| Murchison | Males | 616 | 460 | 625 | 456 | 522 | -4% |
| | Females | 835 | 667 | 791 | 659 | 620 | -7% |
| | **Persons** | 1,451 | 1,127 | 1,416 | 1,115 | 1,142 | -6% |
| Midwest Region | Males | 13,732 | 12,504 | 13,569 | 12,488 | 11,733 | -4% |
| | Females | 11,018 | 10,897 | 10,369 | 11,088 | 10,755 | -1% |
| | **Persons** | 24,753 | 23,401 | 23,938 | 23,576 | 22,488 | -2% |

- In 2020-21, there were 336 mental-health related inpatient separations for Midwest residents (across designated mental health wards and general wards), with an average length of stay of 5.8 days. Almost three-quarters (76%) of these separations occurred in a Midwest hospital, including 66% at Geraldton Hospital.

## Number of mental health inpatient separations (designated Mental health and general wards), Midwest residents, 2020-21

| | Within Midwest | | To Metro | | Other WACHS region | | Total | |
|---|---|---|---|---|---|---|---|---|
| | separations | ALOS | separations | ALOS | separations | ALOS | separations | ALOS |
| **Gascoyne** | 28 | 2.1 | 7 | 5.7 | 8 | 6.6 | 43 | 3.6 |
| **Geraldton** | 192 | 4.3 | 30 | 15.1 | 13 | 10.6 | 235 | 6.0 |
| **Midwest** | 28 | 5.8 | 2 | 9.5 | 12 | 7.6 | 42 | 6.5 |
| **Murchison** | 8 | 1.6 | 7 | 13.6 | 1 | 7.0 | 16 | 7.2 |
| **Midwest Region** | 256 | 4.1 | 46 | 13.2 | 34 | 8.5 | 336 | 5.8 |

*Source: Hospital Morbidity Data Collection, DoH. Includes activity under the ESRGs 123, Schizophrenia, 124, Major Affective Disorders, 125 – Other Psychiatry, 142 – Drug & Alcohol in Mental Health Ward.*

## Causes of death

- Between 2014-2018 there were2,213 deaths of Midwest residents, with 33% of these deaths being due to Neoplasms (Cancer tumours) and 23% due to Circulatory diseases. These were the leading two causes of death across all Districts.
- Across the Murchison district the most common causes of death occurred at higher rates to the State rate, with the highest being deaths due to endocrine and nutritional diseases, which occurred at almost 4 times the State rate, respiratory disease was 3 times the State rate, and circulatory and external causes both twice the State rate.

### Top five causes of death, Midwest residents, 2014–2018

| | | 1st | 2nd | 3rd | 4th | 5th | Total |
|---|---|---|---|---|---|---|---|
| **Gascoyne** | *Condition* | Neoplasms | Circulatory diseases | External causes of mortality | Respiratory diseases | Endocrine and nutritional diseases | |
| | *No.* | 73 | 57 | 27 | 22 | 15 | **862** |
| | *SRR* | 1.01 | 1.12 | 1.32 | 1.12 | 1.65 | **1.91** |
| **Geraldton** | *Condition* | Neoplasms | Circulatory diseases | Respiratory diseases | External causes of mortality | Nervous system diseases | |
| | *No.* | 456 | 328 | 163 | 138 | 134 | **1,460** |
| | *SRR* | 1.36 | 1.15 | 1.48 | 1.49 | 1.19 | **1.3** |
| **Midwest** | *Condition* | Neoplasms | Circulatory diseases | External causes of mortality | Respiratory diseases | Nervous system diseases | |
| | *No.* | 164 | 88 | 41 | 38 | 18 | **404** |
| | *SRR* | 1.18 | 0.82 | 1.31 | 0.9 | 0.43 | **0.93** |
| **Murchison** | *Condition* | Neoplasms | Circulatory diseases | External causes of mortality | Respiratory diseases | Endocrine and nutritional diseases | |
| | *No.* | 32 | 27 | 13 | 12 | 8 | **105** |
| | *SRR* | 1.81 | 2.61 | 2.05 | 3.16 | 3.97 | **2.11** |
| **Midwest Region** | *Condition* | Neoplasms | Circulatory diseases | External causes of mortality | Respiratory diseases | Nervous system diseases | |
| | ***No.*** | **725** | **500** | **219** | **235** | **164** | **2,213** |
| | ***SRR*** | **1.28** | **1.1** | **1.45** | **1.33** | **0.93** | **1.21** |

SRR = Standardised rate ratio between a health region (or district) and the state. A ratio of 1 means that the regional rate is the same as the state, and a value of 2 indicates the regional rate is twice that of the state. A ratio of 0.5 indicates that the number of cases in a region is half that of the State population.

*Source: Department of Health, Health Tracks*

# Maternal and child health status

## Births

- For 2019, residents from the Geraldton and Murchison LGA had the highest age-specific birth rate ( respectively 78.1 and 72 births per 1,000 women aged 15–44 years). Overall the Midwest age-specific birth rate (74.8) was higher than the WACHS average (72.2) and WA State average (62.4).
- Overall the Midwest average proportion of teenage births (4.6%) was relatively similar to the WACHS average (5.1%) and double the WA State average (2.1%). Residents of the Murchison had the highest teenage birth rate (6.5%).
- The Murchison LGA had the highest proportion of births to women aged 35 years and over (19.4%), while the Gascoyne LGA had the lowest (13.6%). Overall the Midwest average of births to women aged 35 years and over (16.6%) was higher than the WACHS average (15.2%) but lower than the WA State average (24.3%).

## Maternity key indicators, Midwest, 2019

| LGA | Age-specific birth rate | Teenage births (%) | Births in women aged 35 years+ (%) |
|---|---|---|---|
| **Gascoyne** | 67.6 | 4.2 | 13.6 |
| **Geraldton** | **78.1** | **5.1** | **16.9** |
| **Midwest** | 68.7 | 1.9 | 17.6 |
| **Murchison** | 72 | 6.5 | 19.4 |
| **Midwest Region** | 74.8 | 4.6 | 16.6 |
| **WACHS** | **72.2** | **5.1** | **15.2** |
| **Metro** | 60.9 | 1.5 | 25.7 |
| **WA Average** | **62.4** | **2.1** | **24.3** |

**per 1,000 women aged 15-44 years.*

*Source: Department of Health, Health Tracks*

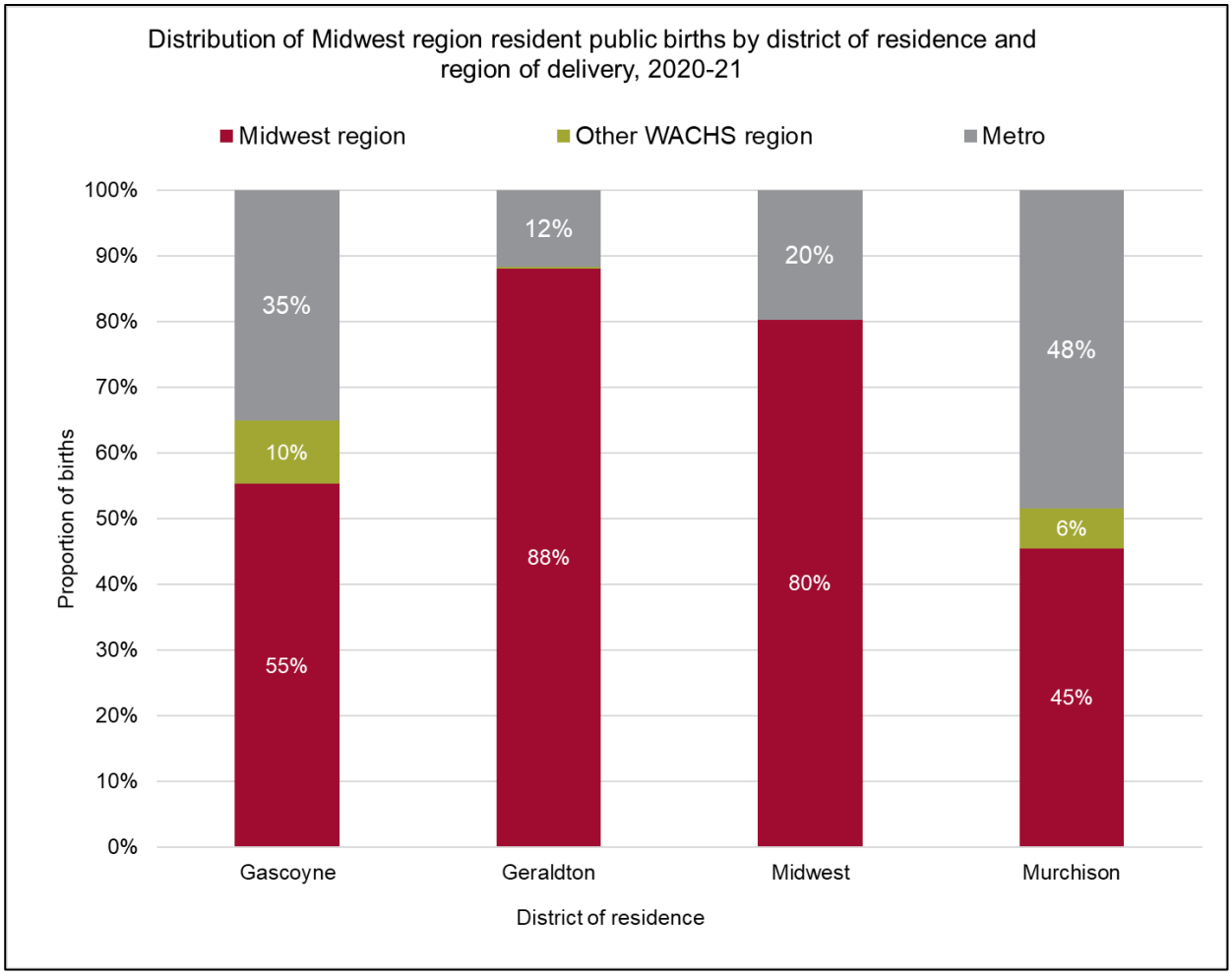
## Numbers of births in Midwest hospitals

| Numbers of Births in Midwest by Hospital, 2020-21. | |
|---|---|
| **Hospital** | **Number** |
| Carnarvon | 62 |
| Geraldton | 457 |
| **Midwest** | **519** |

*Includes births by non-residents*

## Births by Midwest residents by area of delivery

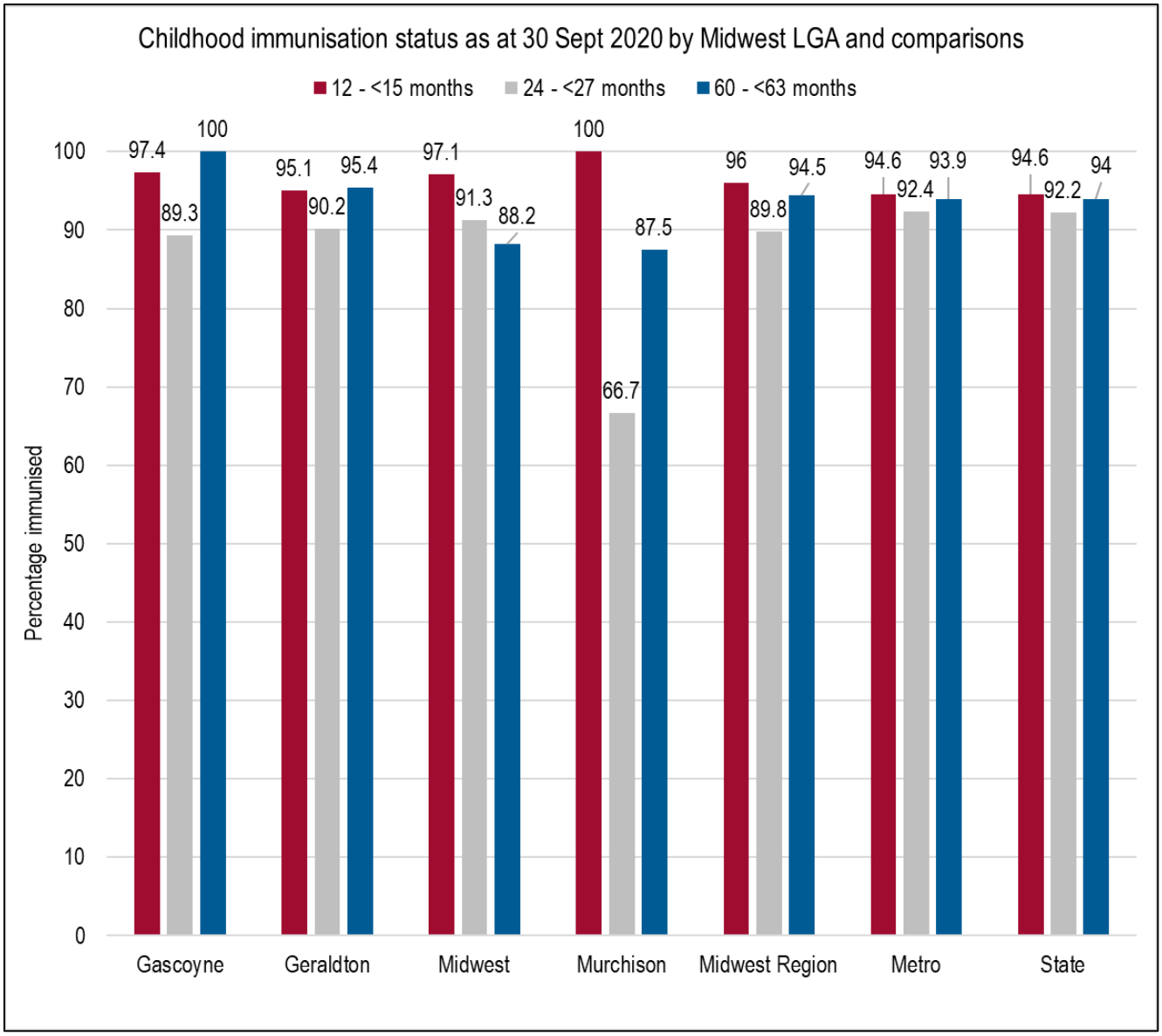
- Of the 649 public births by Midwest residents in 2020-21, 80% occurred at Midwest hospitals, with 19% occurring at a Perth metropolitan hospital.
- Geraldton district residents had the highest proportion of births at a hospital in their own district (88% at Geraldton Hospital), followed by Gascoyne (51% at Carnarvon Hospital)
- Murchison residents had the highest proportion of births occurring at a hospital in another WACHS region or in Perth metropolitan area (54%).




*Source: Hospital Morbidity Data Collection, Department of Health*

## Childhood Immunisation

- In 2020, the Midwest region had 94.5% of children immunised at five years of age in 2020, higher than the State (94%).
- Murchison district had recorded 100% immunisation for the 12-15 month age groups, however rates were notably lower for the older age groups, particularly in the 24-27 month age group
- Midwest district immunisation rates were all low for the 60 – 63 month age group.




*Source: HealthTracks,DoH*

## Australian Early Childhood Development Census (AEDC)

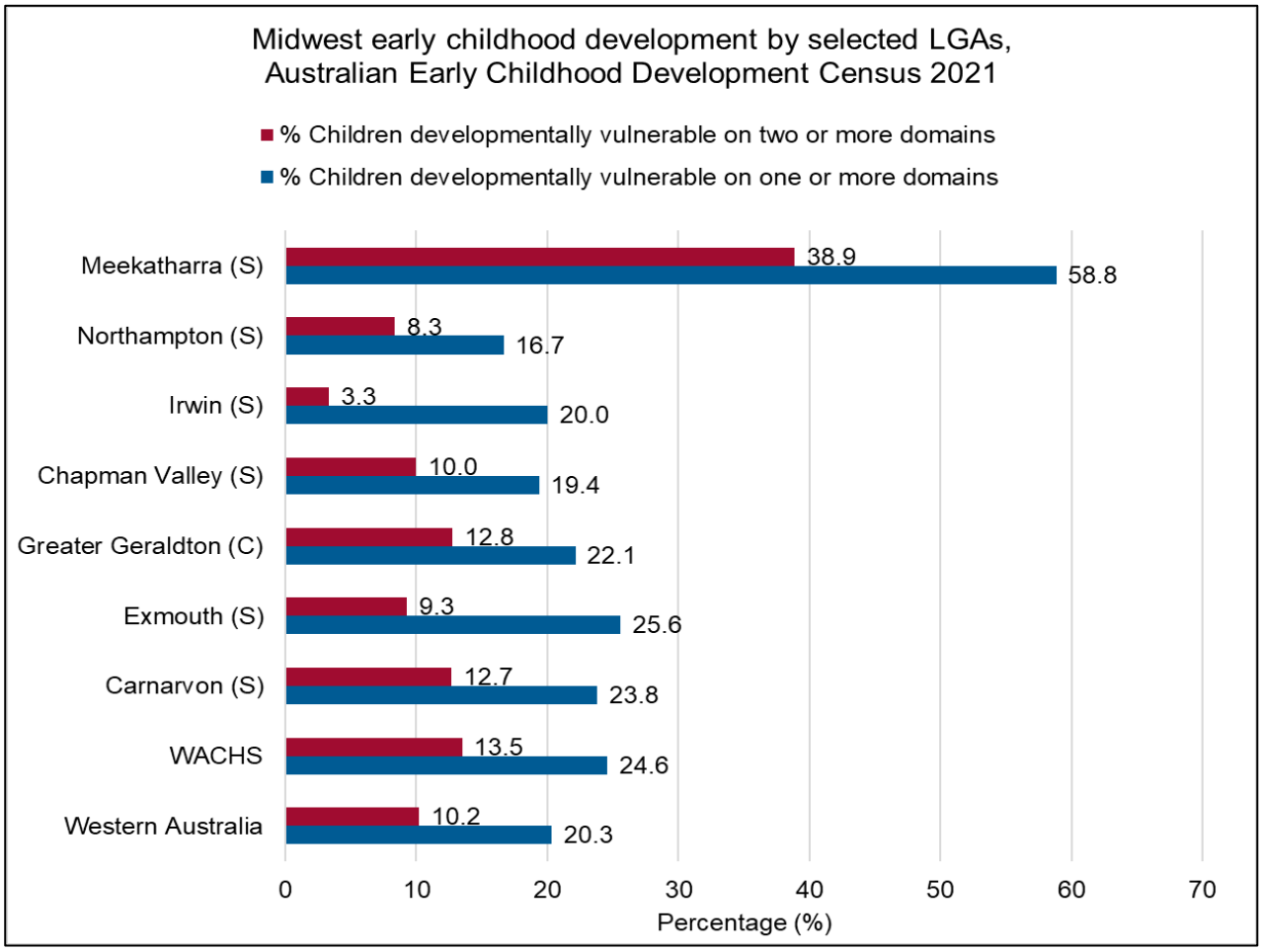
The AEDC uses the early development instrument tool to measure how young children have developed as they start their first year of full-time school.

A teacher completes a checklist for each child across each of the five domains of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, communication skills and general knowledge.

The scores of all Australian children are ranked and children ranked in the bottom 10% are classed as "developmentally vulnerable" whereas those in the top 75% are classed as "on track" while those in between are classed as "at risk".

Results are reported by a child's community of residence.

- The proportion of children rated as developmentally vulnerable on one or more domains of the AEDC across the Midwest, with the exception of Meekatharra, demonstrate similar or lower levels (particularly for Irwin) levels when compared to the WACHS and State averages.
- Meekatharra notably has 59% of children assessed as vulnerable on 1 or more domain and 39% with vulnerability on 2 or more developmental domains.




*Source: Australian Early Development Census. Some LGAs do not have available data due to low numbers.*

***Please note additional school aged and adult immunisation data is in development and will be included in the later version of this profile available in early 2023.***

## Sources for further information

WACHS Publications (https://www.wacountry.health.wa.gov.au/About-us/Publications/Health-profiles-and-service-plans)
Australian Bureau of Statistics (https://www.abs.gov.au/)
Australian Institute of Health and Welfare (https://www.aihw.gov.au)
MAPPA (https://mappa.com.au/)
Public Health Information Development Unit, Torrens University Australia, Social Health Atlases of Australia (https://phidu.torrens.edu.au/social-health-atlases/data)
Australian Early Development Census (https://www.aedc.gov.au/)

## Acknowledgements

Thank you to staff from WACHS and other agencies who have contributed to the design and information presented in this profile.

For further information regarding this profile please contact the WACHS Planning and Evaluation Team (Planning.WACHS@health.wa.gov.au)

***Please note a later version of this profile including additional data will be available in early 2023.***