

March 2023

Chapter 6

Queensland Health

Exploring the health of culturally and linguistically diverse (CALD) populations in Queensland: 2016–17 to 2019–20



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6. Appendices

6.1 Appendix A: Abbreviations

ABS	Australian Bureau of Statistics	MADIP	Multi-Agency Data Integration Project
AHPF	Australian Health Performance Framework	MESB	mainly English-speaking background
AIHW	Australian Institute of Health and Welfare	MHiMA	Mental Health in Multicultural Australia
ASCEEG	Australian Standard Classification of Cultural and Ethnic Groups	nec	not elsewhere classified
ASR	Age-standardised rates	NCIS	National Coronial Information System
CALD	Culturally and linguistically diverse	NESB	non-English speaking background
Census	Census of Population and Housing	PAD	Potentially avoidable deaths
CI	Confidence interval	PHRN	Population Health Research Network
CIMHA	Consumer Integrated Mental Health and Addiction	PI	Performance indicator
COB	Country of Birth	PPH	Potentially preventable hospitalisations
COD URF	Cause of death unit record file	QHAPDC	Queensland Hospital Admitted Patient Data Collection
COPD	Chronic obstructive pulmonary disease	QLD	Queensland
DJAG	Department of Justice and Attorney-General	RBDM	Registries of Births, Death and Marriages
ERP	Estimated resident population	SACC	Standard Australian Classification of Countries
HHS	Hospital and Health Service	SAR	Special administrative region
ICD	International Classification of Disease	UK	United Kingdom

6.2 Appendix B: Country of birth categories and regions

The Australian Bureau of Statistics (ABS) categorises the countries of the world into nine major groups. However, for the purpose of this report, these groups were further classified into three broad categories based on country of birth:

1. Australian born
2. Born outside Australia and from a country with a mainly English speaking background (MESB)
3. Born outside Australia and from a country with a non-English speaking background (NESB).

The assignment of MESB and NESB population groups were based on a person's self-reported country of birth, regardless of whether English was their first or preferred language, or their length of residence in Australia. The three broad categories mentioned above were further disaggregated into 14 regions and countries as shown below.

Broad country of birth	Region of birth	Countries		
Australian	Australian	Australia Australian external territories, nec	Norfolk Island	
Mainly English Speaking Background (MESB)	New Zealand	New Zealand		
	North American	Bermuda	St Pierre and Miquelon	
		Canada	United States of America	
UK/Ireland		England	Jersey	
		Guernsey	Northern Ireland	
		Ireland	Scotland	
		Isle of Man	Wales	
Non-English Speaking Background (NESB)	Middle East	Bahrain	Oman	
		Gaza Strip and West Bank	Qatar	
		Iran	Saudi Arabia	
		Iraq	Syria	
		Israel	Turkey	
		Jordan	United Arab Emirates	
		Kuwait	Yemen	
		Lebanon		
	North African		Algeria	Spanish North Africa
			Egypt	Sudan
Libya			Tunisia	
Morocco			Western Sahara	
		South Sudan		

Broad country of birth	Region of birth	Countries	
Non-English Speaking Background (NESB)	North-East Asia	China (excludes SARs and Taiwan) Hong Kong (SAR of China) Japan Korea, Democratic People's Republic of (North)	Korea, Republic of (South) Macau (SAR of China) Mongolia Taiwan
	Other Americas	Anguilla Antigua and Barbuda Argentina Aruba Bahamas Barbados Belize Bolivia Bonaire, Sint Eustatius and Saba Brazil Cayman Islands Chile Colombia Costa Rica Cuba Curacao Dominica Dominican Republic Ecuador El Salvador Falkland Islands French Guiana Grenada Guadeloupe Guatemala Guyana	Haiti Honduras Jamaica Martinique Mexico Montserrat Netherlands Antilles Nicaragua Panama Paraguay Peru Puerto Rico Sint Maarten (Dutch Part) South America, nec St Barthelemy St Kitts and Nevis St Lucia St Martin (French Part) St Vincent and the Grenadines Suriname Trinidad and Tobago Turks and Caicos Islands Uruguay Venezuela Virgin Islands, British Virgin Islands, United States

Broad country of birth	Region of birth	Countries	
Non-English Speaking Background (NESB)	Other North-West Europe	Aland Islands Austria Belgium Denmark Faroe Islands Finland France Germany Greenland	Iceland Liechtenstein Luxembourg Monaco Netherlands Norway Sweden Switzerland
	Other Oceania and Antarctica	Adelie Land (France) Argentinian Antarctic Territory Australian Antarctic Territory British Antarctic Territory Chilean Antarctic Territory Cook Islands Fiji French Polynesia Guam Kiribati Marshall Islands Micronesia, Federated States of Nauru New Caledonia Niue	Northern Mariana Islands Palau Papua New Guinea Pitcairn Islands Polynesia (Excludes Hawaii), nec Queen Maud Land (Norway) Ross Dependency (New Zealand) Samoa Samoa, American Solomon Islands Tokelau Tonga Tuvalu Vanuatu Wallis and Futuna
	South-East Asia	Brunei Darussalam Cambodia Indonesia Laos Malaysia Myanmar	Philippines Singapore Thailand Timor-Leste Vietnam

Broad country of birth	Region of birth	Countries	
Non-English Speaking Background (NESB)	Southern and Central Asia	Afghanistan Armenia Azerbaijan Bangladesh Bhutan Georgia India Kazakhstan	Kyrgyzstan Maldives Nepal Pakistan Sri Lanka Tajikistan Turkmenistan Uzbekistan
	Southern and Eastern Europe	Albania Andorra Belarus Bosnia and Herzegovina Bulgaria Croatia Cyprus Czech Republic Estonia Gibraltar Greece Holy See Hungary Italy Kosovo Latvia	Lithuania Malta Moldova Montenegro Poland Portugal Romania Russian Federation San Marino Serbia Slovakia Slovenia Spain The Former Yugoslav Republic of Macedonia Ukraine

Broad country of birth	Region of birth	Countries
Non-English Speaking Background (NESB)	Sub-Saharan Africa	Angola
		Malawi
		Benin
		Mali
		Botswana
		Mauritania
		Burkina Faso
		Mauritius
		Burundi
		Mayotte
		Cameroon
		Mozambique
		Cape Verde
		Namibia
		Central African Republic
		Niger
		Chad
		Nigeria
		Comoros
		Reunion
		Congo, Democratic Republic of
		Rwanda
		Congo, Republic of
		Sao Tome and Principe
		Cote D'Ivoire
		Senegal
Djibouti		
Seychelles		
Equatorial Guinea		
Sierra Leone		
Eritrea		
Somalia		
Ethiopia		
South Africa		
Gabon		
Southern and East Africa, nec		
Gambia		
St Helena		
Ghana		
Swaziland		
Guinea		
Tanzania		
Guinea-Bissau		
Togo		
Kenya		
Uganda		
Lesotho		
Zambia		
Liberia		
Zimbabwe		
Madagascar		

Source: ABS: Standard Australian Classification of Countries (SACC)⁸⁰.

⁸⁰ Australian Bureau of Statistics. Standard Australian Classification of Countries (SACC). 2016. ABS Canberra.

Available from: <https://www.abs.gov.au/statistics/classifications/standard-australian-classification-countries-sacc/latest-release>

6.3 Appendix C: Methodology

Age-standardised rates

Age-standardisation is a method of adjusting a crude rate to reduce the influence of age when comparing rates between populations with different age structures. This report used the direct age-standardisation approach.

The age composition of the total estimated resident population of Australia as at 30 June, 2001 has been used as the standard population. The age-standardised rates were expressed per 100,000 population.

Age-standardised rates are calculated using the following formula:

$$\text{Age-standardised rate} = \frac{\sum(r_i P_i)}{\sum P_i}$$

where r_i is the age specific rate in age group i - of the study population and P_i is the standard population for i^{th} age group.

Results based on small populations, or a small number of events, are unreliable and exhibit a large amount of random variation. Age-standardised rates were not presented if the total number of events was less than 20 over all age groups, or the population was less than 30 in any age group.

10-year age groupings starting with the age group 0–9, 10–19...60–69, 70+ were generally used to calculate the age-standardised rates in this report, except for potentially avoidable death rate calculations where age groupings of 0–9, 10–19...50–59, 60–74 were used.

Confidence intervals and statistical significance

In general, a confidence interval is a range of values that is likely to include the cohort's actual rate with a certain degree of confidence (95 times out of 100). If the confidence intervals do not overlap between two populations being compared, we can be confident that the difference is statistically significant. The 95% confidence intervals were calculated based on [*APHO. \(2008\). Technical Briefing 3: Commonly used public health statistics and their confidence intervals. York, UK: Association of Public Health Observatories.*](#)

Potentially avoidable deaths (PAD)

Potentially avoidable deaths (PAD) are defined as death before the age of 75 years, from specific conditions that are deemed potentially avoidable, given the present health and social conditions. PAD is defined as per the [*National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2022.*](#)

Potentially preventable hospitalisations (PPH)

Potentially preventable hospitalisations (PPH) are specific hospital admissions that potentially could have been prevented by timely and adequate health care in the community.

PPH categories are based on the [*National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2022.*](#)

The definition used in this report has one exception for diabetes complications, summarised in the following table.

Chronic - Diabetes complications
E10–E14.9 as principal diagnoses and E10–E14.9 as additional diagnoses where the principal diagnosis was*:
<ul style="list-style-type: none">• hyperosmolarity (E87.0)• acidosis (E87.2)• transient ischaemic attack (G45)• nerve disorders and neuropathies (G50–G64)• cataracts and lens disorders (H25–H28)• retinal disorders (H30–H36)• glaucoma (H40–H42)• myocardial infarction (I21–I22)• other coronary heart diseases (I20, I23–I25)• heart failure (I50)• stroke and sequelae (I60–I64, I69.0–I69.4)• peripheral vascular disease (I70–I74)• gingivitis and periodontal disease (K05)• kidney diseases (N00–N29) [including end-stage renal disease (N17–N19)].

Agreement definition.

Rate ratios

The rate ratio is the age-standardised rate for a country/region divided by the age-standardised rate for the Australian-born (referent) group. While not included in this report a value of 1.0 would indicate that a country/region rate was equivalent to the Australian-born rate. A rate ratio value of, for example, 2.3 indicates that the country/region rate was 2.3 times higher than the Australian-born rate.

6.4 Appendix D: Data sources

Broad country of birth, regions of birth and countries

The Standard Australian Classification of Countries (SACC)⁸¹ are published by the Australian Bureau of Statistics and has a three-level hierarchical structure (major and minor groups and countries) and was used to guide the categories used in this report.

Hospitalisations

The Queensland Hospital Admitted Patient Data Collection (QHAPDC) collects demographic data and clinical information on all admitted patients separated from both public and licensed private hospitals and private day surgeries in Queensland. In this report the hospital data was restricted to Queensland residents admitted to Queensland health facilities. Unqualified neonates, boarders, organ procurements and psychiatric hospital episodes were excluded in this report's analyses.

Mortality

The cause of death unit record file (COD URF) sourced from the Australian Coordinating Registry is a dataset containing information related to all deaths registered in Australia for a given reference year. The national dataset is a compilation of death records from each of the State and Territory Registries of Births, Deaths and Marriages (RBDMs) and from State and Chief Coroners through the National Coronal

Information System (NCIS) (DJAG, 2022).

Deaths were restricted to Queensland residents whose death was registered in Queensland and analyses in this report is based on year of death.

Queensland total estimated resident populations (ERPs)

Total estimated resident populations (ERPs)⁸² for Queensland are published by the Australian Bureau of Statistics yearly. ERPs improve on the Census counts by place of usual residence by adjusting for the estimated net Census undercount and including Australian residents who were temporarily overseas at the time of the Census.

Population counts by country of birth of person were drawn from the Australian Bureau of Statistics (ABS) Census of Population and Housing, 2016⁸³.

The Queensland ERP data was apportioned according to population proportions derived from the 2016 Census data—by five-year age group (0–4, 5–9...80–84, 85+) and sex.

Reference population

The 2001 Australian estimated resident population⁸⁴ was used as the standard population in calculating age-standardised rates, as described in Appendix C.

⁸¹ Australian Bureau of Statistics. Standard Australian Classification of Countries (SACC). 2016. ABS Canberra. Available from: <https://www.abs.gov.au/statistics/classifications/standard-australian-classification-countries-sacc/latest-release>

⁸² Australian Bureau of Statistics. Regional Population by Age and Sex, Australia 2018. Catalogue No. 3235.0. 2020. ABS Canberra.

⁸³ Australian Bureau of Statistics. Country of Birth of Person (BPLP – 4 Digit Level) by State (UR), Age in Five Year Groups (AGE5P) and Sex (SEXP). 2016. Census TableBuilder. ABS Canberra. Accessed 12 October 2021. Available from: <https://guest.censusdata.abs.gov.au/webapi/jsf/tableView/tableView.xhtml>

⁸⁴ Australian Bureau of Statistics. Population by age and sex – 2001 census edition. Catalogue No. 3201.0. 2003. ABS Canberra.



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