



Supplementary material

**This appendix was part of the submitted manuscript and has been peer reviewed.
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Appendix to: Thompson KJ, Finfer SR, Coombes J, et al. Incidence and outcomes of sepsis in Aboriginal and Torres Strait Islander and non-Indigenous residents in New South Wales: population-based cohort study. *Crit Care Resusc* 2021; 23: 337-45. <https://doi.org/10.51893/2021.3.OA11>.

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eTable 1: Baseline socio-demographic and health risk characteristics of 45 and Up Study participants overall and by Aboriginal and Torres Strait Islander and non-Indigenous status

Risk factors	Aboriginal and Torres					
	Overall (n, %)		Strait Islander (n, %)		Non-Indigenous (n, %)	
N overall	264,678		1,928		258,078	
Mean age (SD)	62.7 (11.1)		57.9 (9.2)		62.6 (11.1)	
*at recruitment	62.7 (11.1)		57.9 (9.2)		62.6 (11.1)	
Sex						
women	142,177	53.7%	1,094	56.7%	138,518	53.7%
men	122,501	46.3%	834	43.3%	119,560	46.3%
Annual household income (AUD)						
< 20,000	51,748	19.5%	593	30.8%	49,914	19.3%
20,000-39,999	46,249	17.5%	329	17.1%	45,213	17.5%
40,000-69,999	46,875	17.7%	277	14.4%	46,092	17.9%
≥70,000	62,610	23.7%	279	14.5%	61,871	24.0%
unknown/missing	57,196	21.6%	450	23.3%	54,988	21.3%
Highest education level attained						
no uni degree or diploma	51,748	19.5%	593	30.8%	49,914	19.3%
certificate or diploma	46,249	17.5%	329	17.1%	45,213	17.5%
uni degree	46,875	17.7%	277	14.4%	46,092	17.9%
unknown/missing	62,610	23.7%	279	14.5%	61,871	24.0%
Region of residence						
cities	137,928	52.1%	747	38.7%	134,732	52.2%
inner regional	92,131	34.8%	725	37.6%	89,814	34.8%
outer regional/remote	29,697	11.2%	425	22.0%	28,732	11.1%
unknown/missing	4,922	1.9%	31	1.6%	4,800	1.9%
Index of Disadvantage Quintile						
1st (least)	54,673	20.7%	138	7.2%	53,811	20.8%
2nd	44,213	16.7%	223	11.6%	43,280	16.8%
3rd	49,222	18.6%	296	15.3%	48,096	18.7%
4th	55,491	21.0%	462	24.0%	54,000	20.9%
5th (most)	54,046	20.4%	769	39.9%	52,021	20.2%
unknown/missing	7,033	2.7%	40	2.1%	6,870	2.7%
Body Mass Index (kg/m²)						
<18.5	3,362	1.3%	33	1.7%	3,238	1.3%
18.5<25	90,139	34.5%	397	20.9%	88,252	34.6%
25<30	96,758	37.0%	623	32.9%	94,616	37.1%
30+	54,497	20.9%	644	33.9%	52,990	20.8%
unknown/missing	19,922	7.6%	231	12.2%	18,982	7.4%
Country of Birth						
Australia	198,317	74.9%	1,826	94.7%	193,470	75.0%
Other	64,252	24.3%	73	3.8%	63,003	24.4%

unknown/missing	2,109	0.80%	29	1.50%	1,605	0.6%
Smoking						
Never	151,061	57.1%	798	41.4%	147,453	57.1%
Past	94,336	35.6%	715	37.1%	92,051	35.7%
Current	19,185	7.2%	412	21.4%	18,490	7.2%
unknown/missing	96	0.04%	3	0.2%	84	0.03%
Alcohol Consumption						
None	85,660	32.3%	847	43.9%	83,110	32.2%
1<7/week	75,809	28.6%	443	23.0%	74,245	28.8%
7+/week	97,629	36.9%	547	28.4%	95,739	37.1%
unknown/missing	5,580	2.1%	91	4.7%	4,984	1.9%
Medical history (self-report)						
Heart disease						
No	233,642	88.2%	1,688	87.5%	227,951	88.3%
Yes	31,036	11.7%	240	12.4%	30,127	11.7%
Stroke						
No	256,483	96.9%	1,851	96.0%	250,234	97.0%
Yes	8,195	3.1%	77	4.0%	7,844	3.0%
Diabetes						
No	4,118	88.1%	1,595	82.7%	235,530	91.3%
Yes	554	11.9%	333	17.3%	22,548	8.7%
Asthma						
No	231,399	87.4%	1,554	80.6%	225,789	87.5%
Yes	33,279	12.6%	374	19.4%	32,289	12.5%
Health Insurance						
Private	168,034	63.5%	631	32.7%	165,233	64.0%
No private	96,643	36.5%	1,297	67.3%	92,844	36.0%
unknown/missing	1	0.0%	0	0.0%	1	0.0%
Charlson co-morbidity index						
0	252,406	95.3%	1,790	92.8%	246,275	95.4%
1-2	9,935	3.8%	116	6.0%	9,546	3.7%
3+	2,337	0.9%	22	1.1%	2,257	0.9%
Ever treated (Depression or Anxiety) *last month of baseline						
No	209,055	79.0%	1,373	71.2%	2,014,105	79.1%
Yes	18,781	7.1%	281	14.6%	18,148	7.0%
Missing	36,842	13.9%	274	14.2%	35,825	13.9%
K10 Score (Questionnaire-Derived) *average of non-missing entries						
<3.0	242,467	91.61%	1,592	82.57%	237,367	91.97%
3.0+						
(includes 3.0, max 5.0)	15,412	5.82%	271	14.06%	14,503	5.62%
Missing (all K10 dimensions missing)	6,799	2.57%	65	3.37%	6,208	2.41%

*Note N = 4,672 with unknown Aboriginal status

Derivation of Sepsis, Infection and Organ dysfunction codes used in this study

Methods: The study investigators initially took ICD-10 codes listed under explicit sepsis, infection and organ dysfunction published by the Global Burden of Disease Study collaborators (ref). As these codes were established for cause of death and used ICD-10-CM definitions which do not necessarily correspond to ICD-10 nor ICD-10-AM, the codes were reviewed independently by two study authors for whether they should be included and any discrepancies were adjudicated by a third author. Additional explicit sepsis codes were also included as they differed from ICD-10-CM (R57.2; R65.1).

Explicit Sepsis ICD-10-AM codes		
Code	Description	
A02.1	Salmonella sepsis	
A20.7	Septicaemic plague	
A21.7	Generalized tularaemia	
A22.7	Anthrax sepsis	
A24.1	Acute and fulminating melioidosis	
A26.7	Erysipelthrix sepsis	
A28.2	Extraintestinal yersiniosis	
A32.7	Listerial sepsis	
A39.4	Meningococemia, unspecified	
A40	Streptococcal sepsis	
A41	Other sepsis	
A42.7	Actinomycotic sepsis	
A54.86	Gonococcal sepsis	
B00.7	Disseminated herpesviral disease	
B37.7	Candidal sepsis	
O85	Puerperal sepsis	
R57.2	Septic Shock	
R65.1	Systemic Inflammatory Response Syndrome of infectious origin with organ failure	
Infection ICD-10-AM codes		
Code	Description	Excluded (Explicit Sepsis codes)
A00	Cholera	
A01	Typhoid fever	
A02	Other salmonella infections	A02.1 Salmonella Sepsis
A03	Shigellosis	
A04	Other bacterial intestinal infections	
A05	Other bacterial food-borne intoxications	
A06	Amebiasis	
A07	Other protozoal intestinal diseases	
A08	Viral and other specified intestinal infections	
A09	Diarrhea and gastroenteritis, presumed infectious origin	
A19	Miliary tuberculosis	
A20	Plague	
A21	Tularemia	A21.7 Generalized Tularemia

A22	Anthrax	A22.7 Anthrax Sepsis
A23	Brucellosis	
A24	Glanders and melioidosis	A24.1 Acute and fulminating melioidosis
A25	Rat-bite fevers	
A26	Erysipeloid	
A27	Leptospirosis	
A28	Other zoonotic bacterial diseases, not elsewhere classified	A28.2 Extraintestinal yersiniosis
A30	Leprosy	
A31	Infection due to other mycobacteria	
A32	Listeriosis	A32.7 Listerial sepsis
A36	Diphtheria	
A37	Whooping cough	
A38	Scarlet fever	
A39.0	Meningococcal meningitis	
A39.1	Waterhouse-Friderichsen syndrome	
A39.2	Acute meningococemia	
A39.3	Chronic meningococemia	
A39.4	Meningococemia, unspecified	
A39.5	Meningococcal heart disease	
A39.81	Meningococcal encephalitis	
A39.82	Meningococcal retrobulbar neuritis	
A39.89	Other meningococcal infections	
A39.9	Meningococcal infection, unspecified	
A42	Actinomycosis	A42.7 Actinomycosis sepsis
A43	Nocardiosis	
A44	Bartonellosis	
A46	Erysipelas	
A48	Other bacterial diseases, elsewhere classified	
A48.0	Gas gangrene	
A48.1	Legionnaires disease	
A48.3	Toxic shock syndrome	
A49	Bacterial infection of unspecified site	
A49.9	Bacterial infection, unspecified	
A54	Gonococcal infection	A54.86 Gonococcal sepsis
A59	Trichomoniasis	
A69.0	Necrotising ulcerative stomatitis	
A69.1	Other Vincent's infections	
A69.9	Spirochetal infection, unspecified	
A70	Chlamydia psittaci infections	
A74	Other diseases caused by chlamydiae	
A75	Typhus fever	
A77	Spotted fever (tick-borne rickettsioses)	
A78	Q fever	

A79	Other rickettsioses	
A80	Acute poliomyelitis	
A81	Atypical virus infections of CNS	
A83	Mosquito-borne viral encephalitis	
A84	Tick-borne viral encephalitis	
A85	Other viral encephalitis, not elsewhere classified	
A86	Unspecified viral encephalitis	
A87	Viral meningitis	
A88	Other viral infections of CNS, not elsewhere classified	
A89	Unspecified viral infection of CNS	
A90	Dengue fever	
A91	Dengue hemorrhagic fever	
A92	Other mosquito-borne viral fevers	
A93	Other arthropod-borne viral fevers, not elsewhere classified	
A94	Unspecified arthropod-borne viral fever	
A95	Yellow fever	
A96	Arenaviral hemorrhagic fever	
A98	Other viral hemorrhagic fever, not elsewhere classified	
A99	Unspecified viral hemorrhagic fever	
B00	Herpesviral [herpes simplex] infections	B00.7 Disseminated herpesviral disease
B01	Varicella	
B02	Zoster	
B03	Smallpox	
B04	Moneypox	
B05	Measles	
B06	Rubella	
B08	Other viral infections characterized by skin and mucous membrane lesions, not elsewhere classified	
B09	Unspecified viral infection characterized by skin and mucous membrane lesions	
B10	Other human herpesviruses	
B25	Cytomegaloviral disease	
B26	Mumps	
B27	Infectious mononucleosis	
B33	Other viral diseases, not elsewhere classified	
B34	Viral infection of unspecified site	
B37	Candidiasis	B37.7 Candidal sepsis
B38	Coccidioidomycosis	
B38.7	Disseminated coccidioidomycosis	
B39	Histoplasmosis	
B39.3	Disseminated histoplasmosis capsulati	
B40	Blastomycosis	
B40.7	Disseminated blastomycosis	
B41	Paracoccidioidomycosis	
B41.7	Disseminated paracoccidioidomycosis	

B42	Sporotrichosis	
B42.7	Disseminated sporotrichosis	
B43	Chromomycosis and phaeomycotic abscess	
B44	Aspergillosis	
B44.7	Disseminated aspergillosis	
B45	Cryptococcosis	
B45.7	Disseminated cryptococcosis	
B46	Zygomycosis	
B46.4	Disseminated mucormycosis	
B48	Other mycoses, not elsewhere classified	
B49	Unspecified mycosis	
B50	Plasmodium falciparum malaria	
B50.8	Other severe and complicated Plasmodium falciparum malaria	
B54	Unspecified malaria	
B55	Leishmaniasis	
B57	Chagas Disease	
B58	Toxoplasmosis	
B59	Pneumocystosis	
B60	Other protozoal diseases, not elsewhere classified	
B64	Unspecified protozoal disease	
B67	Echinococcosis	
B95	Streptococcus, Staphylococcus, and Enterococcus as the cause of diseases classified elsewhere	
B96	Other bacterial agents as the cause of diseases classified elsewhere	
B97	Viral agents as the cause of diseases classified elsewhere	
B99	Other and unspecified infectious diseases	
G00	Bacterial meningitis, not elsewhere classified	
G01	Meningitis in bacterial diseases classified elsewhere	
G02	Meningitis in other infectious and parasitic diseases classified elsewhere	
G03	Meningitis due to other and unspecified causes	
G04	Encephalitis, myelitis and encephalomyelitis	
G05	Encephalitis, myelitis and encephalomyelitis in diseases classified elsewhere	
G06	Intracranial and intraspinal abscess and granuloma	
G07	Intracranial and intraspinal abscess and granuloma in diseases classified elsewhere	
G08	Intracranial and intraspinal phlebitis and thrombophlebitis	
H05.01	Cellulitis of orbit	
H05.02	Osteomyelitis of orbit	
H05.03	Periostitis of orbit	
H60.2	Malignant otitis externa	
H70.0	Acute mastoiditis	
I00	Rheumatic fever without heart involvement	

I26.01	Septic pulmonary embolism with acute cor pulmonale	
I26.90	Septic pulmonary embolism without acute cor pulmonale	
I33	Acute and subacute endocarditis	
I38	Endocarditis, valve unspecified	
I39	Endocarditis and heart valve disorders in diseases classified elsewhere	
I40.0	Infective myocarditis	
I76	Septic non-pulmonary arterial embolism	
I96	Gangrene, not elsewhere classified	
J01	Acute sinusitis	
J02	Acute pharyngitis	
J03	Acute tonsillitis	
J04	Acute laryngitis and tracheitis	
J05	Acute obstructive laryngitis (croup) and epiglottitis	
J06	Acute upper respiratory infections of multiple and unspecified sites	
J09	Influenza due to certain identified influenza viruses	
J10	Influenza due to other identified influenza virus	
J11	Influenza due to unidentified influenza virus	
J12	Viral pneumonia, not elsewhere classified	
J13	Pneumonia due to Streptococcus pneumoniae	
J14	Pneumonia due to Haemophilus influenzae	
J15	Bacterial pneumonia, not elsewhere classified	
J16	Pneumonia due to other infectious organisms, not elsewhere classified	
J17	Pneumonia in diseases classified elsewhere	
J18	Pneumonia, organism unspecified	
J20	Acute bronchitis	
J21	Acute bronchiolitis	
J22	Unspecified acute lower respiratory infection	
J36	Peritonsillar abscess	
J39.0	Retropharyngeal and parapharyngeal abscess	
J39.1	Other abscess of pharynx	
J85	Abscess of lung and mediastinum	
J86	Pyothorax	
K35	Acute appendicitis	
K36	Other appendicitis	
K37	Unspecified appendicitis	
K57	Diverticulitis disease of intestine	
K61	Abscess of anal and rectal regions	
K63.0	Abscess of intestine	
K63.1	Perforation of intestine (nontraumatic)	
K65	Peritonitis	
K75.0	Abscess of liver	
K81.0	Acute cholecystitis	
K81.2	Acute cholecystitis with chronic cholecystitis	
K83.0	Cholangitis	

K95.01	Infection due to gastric band procedure	
K95.81	Infection due to other bariatric procedure	
L02	Cutaneous abscess, furuncle and carbuncle	
L03	Cellulitis	
L04	Acute lymphadenitis	
L08	Other local infections of skin and subcutaneous tissue	
M00	Pyogenic arthritis	
M01	Direction infections of joint in infectious and parasitic diseases classified elsewhere	
M86	Osteomyelitis	
N10	Acute pyelonephritis	
N15.1	Renal and perinephric abscess	
N30	cystitis	
N39.0	Urinary tract infection, site not specified	
N41.0	Acute prostatitis	
N41.2	Abscess of prostate	
N41.3	Prostatocystitis	
N45	Orchitis and epididymitis	
N70	Salpingitis and oophoritis	
N71	Inflammatory disease of uterus, except cervix	
N72	Inflammatory disease of cervix uteri	
N73	Other female pelvic inflammatory diseases	
N74	Female pelvic inflammatory disorders in diseases classified elsewhere	
N98.0	Infection associated with artificial insemination	
O03.0	Genital tract and pelvic infection following incomplete spontaneous abortion	
O03.5	Genital tract and pelvic infection following complete or unspecified spontaneous abortion	
O03.88	Urinary tract infection following complete or unspecified spontaneous abortion	
O04.5	Genital tract and pelvic infection following (induced) termination of pregnancy	
O04.88	Urinary tract infection following (induced) termination of pregnancy	
O07.38	Urinary tract infection following failed attempted termination of pregnancy	
O08.0	Genital tract and pelvic infection following ectopic and molar pregnancy	
O08.83	Urinary tract infection following ectopic and molar pregnancy	
O23	Infections of genitourinary tract in pregnancy	
O75.3	Other infection during labour	
O86	Other puerperal infections	
O88.3	Obstetric pyemic and septic embolism	
O91	Infections of breast associated with pregnancy, the puerperium and lactation	
O98	Maternal infectious and parasitic diseases classifiable	

	elsewhere but complicating pregnancy, childbirth and the puerperium	
R78.81	Bacteraemia NOS	
T80.2	Sepsis following infusion, transfusion, or therapeutic injection	
T81.4	Infection following a procedure, not elsewhere classified	
T82.6	Infection and inflammatory reaction due to cardiac valve prosthesis	
T82.7	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts	
T83.5	Infection and inflammatory reaction due to prosthetic device, implant and graft in urinary system	
T83.6	Infection and inflammatory reaction due to prosthetic device, implant and graft in genital tract	
T84.5	Infection and inflammatory reaction due to internal joint prosthesis	
T84.6	Infection and inflammatory reaction due to internal fixation device	
T84.7	Infection and inflammatory reaction due to other internal orthopedic prosthetic devices, implants and grafts	
T85.7	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts	
T88.0	Sepsis following immunization	
U04	Severe Acute Respiratory Syndrome (SARS)	
Organ dysfunction ICD-10-AM codes and classifications		
Code	Description	Organ classification
D65	Disseminated intravascular coagulation [defibrination syndrome]	hematologic
D69.5	Secondary thrombocytopenia	hematologic
E87.2	Acidosis	cardiovascular
G93.4	Other and unspecified encephalopathy	neurologic
I46	Cardiac arrest	cardiovascular
I95.9	Hypotension, unspecified	cardiovascular
J80	Acute respiratory distress syndrome	respiratory
J95.2	Acute pulmonary insufficiency following nonthoracic surgery	respiratory
J96	Respiratory failure, not elsewhere classified	respiratory
J96.0	Acute respiratory failure	respiratory
J96.2	Acute and chronic respiratory failure	respiratory
J96.9	Respiratory failure, unspecified	respiratory
K72.0	Acute and subacute hepatic failure	hepatic
K72.9	Hepatic failure, unspecified	hepatic
N00	Acute nephritic syndrome	renal
N17	Acute kidney failure	renal
R09.02	Hypoxemia	respiratory
R09.2	Respiratory arrest	respiratory
R40.0	Somnolence	neurologic
R40.1	Stupor	neurologic

R40.2	Coma	neurologic
R40.20	Unspecified coma	neurologic
R41.82	Altered mental status, unspecified	neurologic
R55	Syncope and collapse	neurologic
R57	Shock, not elsewhere classified	not classified elsewhere

Explicit Sepsis ICD-10 AM codes for newborns (not included in this analysis)	
Code	Description
P36	Bacterial sepsis of newborn
P36.0	Sepsis of newborn due to streptococcus, group B
P36.1	Sepsis of newborn due to other and unspecified streptococci
P36.10	Sepsis of newborn due to unspecified streptococci
P36.19	Sepsis of newborn due to other streptococci
P36.2	Sepsis of newborn due to Staphylococcus aureus
P36.3	Sepsis of newborn due to other and unspecified staphylococci
P36.30	Sepsis of newborn due to unspecified staphylococci
P36.39	Sepsis of newborn due to other staphylococci
P36.4	Sepsis of newborn due to Escherichia coli
P36.5	Sepsis of newborn due to anaerobes
P36.8	Other bacterial sepsis of newborn
P36.9	Bacterial sepsis of newborn, unspecified
Organ dysfunction ICD-10-AM codes for newborns (not included in this analysis)	
P22	Respiratory distress of newborn