

Table S1: Search terms used in the rapid review

Database	Search terms used	Additional constraints
Web of Science	<p>Title: ((((((heatwave* OR "heat wave"* OR heat OR hot OR weather OR climat* OR "excess heat" OR EHF OR heat ind* OR "Universal Thermal Climate Index" OR UTCI* OR "apparent temperature" OR "humidity ind"* OR season*) AND (health OR mortalit* OR death* OR morbidit* OR hospital* OR emergency OR ambula* OR emergency OR "primary health" OR "general practice" OR clinic* OR morbidity OR mortality OR injur* OR disease* OR symptom*) AND Australia))))))</p> <p>Refined by: [excluding] WEB OF SCIENCE CATEGORIES: (SURGERY OR ECOLOGY OR BIOCHEMISTRY MOLECULAR BIOLOGY OR PLANT SCIENCES OR FOOD SCIENCE TECHNOLOGY OR GEOGRAPHY OR ENERGY FUELS OR MARINE FRESHWATER BIOLOGY OR PHARMACOLOGY PHARMACY OR TOXICOLOGY OR AGRONOMY OR WATER RESOURCES OR VETERINARY SCIENCES OR FORESTRY OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR HORTICULTURE OR BIOPHYSICS OR OCEANOGRAPHY OR LIMNOLOGY OR ZOOLOGY OR EVOLUTIONARY BIOLOGY OR AGRICULTURE DAIRY ANIMAL SCIENCE OR MICROBIOLOGY OR SOIL SCIENCE OR ENTOMOLOGY OR FISHERIES OR PARASITOLOGY)</p> <p>Timespan: All years. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI, CCR-EXPANDED, IC.</p>	<ul style="list-style-type: none"> • Search was limited to the years 2010 and 2023.

PubMed	<p>((("Extreme Hot Weather"[Mesh] OR "Hot Temperature/adverse effects"[Mesh] OR "Extreme Heat/adverse effects"[Mesh] OR "Heat Stress Disorders/mortality"[Mesh] OR "Climate/adverse effects"[Mesh] OR heatwave*[Title/Abstract] OR "heat wave"*[Title/Abstract] OR heat[Title/Abstract] OR hot[Title/Abstract] OR weather[Title/Abstract] OR climat*[Title/Abstract] OR season*[Title/Abstract] OR "excess heat"[Title/Abstract] OR EHF[Title/Abstract] OR heat ind*[Title/Abstract] OR "Universal Thermal Climate Index" [Title/Abstract] OR UTCI * [Title/Abstract] OR "apparent temperature"[Title/Abstract] OR "humidity ind"*[Title/Abstract]) AND ("Patient Care"[MeSH] OR "Hospitalization"[MeSH] OR "Ambulatory Care"[MeSH] OR "primary health care"[MeSH] OR mortalit*[Title/Abstract] OR death*[Title/Abstract] OR morbidit*[Mesh]) AND (Australia))</p>	
CINAHL	<p>(((((heatwave* OR "heat wave"* OR heat OR hot OR weather OR climat* OR "excess heat" OR EHF OR heat ind* OR "Universal Thermal Climate Index" OR UTCI* OR "apparent temperature" OR "humidity ind"* OR season*) AND (health OR mortalit* OR death* OR morbidit* OR hospital* OR emergency OR ambula* OR emergency OR "primary health" OR "general practice" OR clinic* OR morbidity OR mortality OR injur* OR disease* OR symptom*) AND Australia))))</p>	

Table S2: Data extracted from the included articles

Reference	Exposure variables	Health Outcome variables	Study location	Remoteness areas	Climate zones	Population groups studied	Results
58	Universal Thermal Climate Index (UTCI)	Singleton stillbirths (neonates born with no sign of life at or after ≥ 20 weeks' completed gestation)	Western Australia	All Remoteness classes in WA	All Climate Zones in WA	Fetal sex (male or female), gestational age (preterm if < 37 weeks' gestation or term birth), maternal age at birth delivery (≤ 19 , 20–34, and ≥ 35 years), tobacco smoking status (non-smoker or smoker), marital status (married or unmarried), and race or ethnicity (Caucasian or non-Caucasian)	The cumulative risk from the 6 preceding days to the day of stillbirth was higher by 19% in the 99th percentile/heat stress (RR = 1.19, 95% CI: 1.17, 1.21) as compared to the risks at no heat stress (medium UTCI).
59	UTCI	De-identified data on births collected by the Midwives Notification System (singleton live births with spontaneous onset of labour and vaginal delivery at 20–36 weeks of gestation)	Western Australia	All Remoteness classes in WA	All Climate Zones in WA	Infant sex (male or female), gestational age (20–27, 28–31, and 32–36 weeks), preterm birth (periviable birth (20–26 weeks) and late preterm birth (34–36 weeks), maternal- age at birth delivery (≤ 19 , 20–34, and ≥ 35 years), tobacco smoking status (non-smoker or smoker), marital status (married or unmarried), and race or ethnicity (Caucasian or non-Caucasian)	The relative risk for the delivery day and up to six preceding days exposures to heat stress (99th percentile, 31.2 °C) increased compared to no thermal stress (median UTCI, 13.8 °C).

29	Daily T _{min} and T _{max}	Hospital admissions (HAs) (Hospitalisations for urologic diseases)	Queensland	All Remoteness classes in Queensland	All Climate Zones in Queensland	Males, females, younger groups and the elderly (≥ 60 years old) with urological diseases	Among the urologic diseases, renal failure showed the strongest increase -5.88% (95% CI: 5.25%, 6.51%).
30	Daily T _{mean}	HAs (Hospitalisations for renal disease)	Queensland	All Remoteness classes in Queensland	All Climate Zones in Queensland	Males and elderly people with renal diseases, people living in hotter climate zones and those living in relatively socioeconomically disadvantaged areas	Associations between high temperature and hospitalizations for renal diseases showed a decreasing trend during the summer seasons from 1995 to 2016.
42	Urban Heat Island (UHI) effect – Heatwave (HW) (HW days are defined by 24 h temperatures exceeding 90th, 95th, 98th and 99th percentile thresholds for two or more consecutive days)	HW-attributable excess deaths	New South Wales (Six regions in Sydney: Sydney East, Sydney West, Gosford, Wyong, Newcastle and Wollongong)	Major Cities of Australia	Temperate	People over 75 years of age	On average, 117.3 deaths per year were attributed to heat, with a 95% CI of 37.2–189.8 deaths.
46	HW (Days over the 95th and 99th temperature percentiles were identified)	ED presentations (heat-related illness)	Victoria (nine south-west Victorian hospitals (1. Otway Health; 2.	Major Cities of Australia and Inner Regional Australia	Temperate	Farming and non-farming towns	Of 61,631 ED presentations from individuals residing in nine Local Government Areas, 5% were on days of high-heat, and 95% were on days of non-high-heat.

			Colac Area Health; 3. Timboon and District Healthcare Service; 4. South West Healthcare Camperdown; 5. Terang and Mortlake Health Service; 6. South West Healthcare Warrnambool ; 7. Moyne Health Service; 8. Portland District Health; 9. Western District Health Service).				
83	Daily Tmax and Tmin	Hospitalisations and post-discharge deaths for stroke (in patients with and without pre-existing hyperlipidaemia)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Males and females; People living in the suburbs with low-level greenspace and people living in suburbs with the lowest socioeconomic advantage level or the lowest economic resources level	Significant effect of heat on hospitalizations for stroke was observed only in individuals with pre-existing hyperlipidemia (OR: 1.85; 95% CI: 1.07-3.19), with more males vulnerable than females who were living in suburbs with

							low-level greenspace (OR: 4.23; 95% CI: 1.08-16.61).
84	Daily Tmean	HAs (renal diseases, mental health, diabetes, ischaemic heart diseases and heat-related illnesses), length of hospital stay, and costs	Adelaide (South Australia)	Major Cities of Australia	Temperate	Temperature-Related Disease patients	Climate (RCP 8.5) and demographic modelling was projected to increase heat-attributable HAs, length of hospital stay, and costs of 2.2% (95% CI: 0.5, 3.9), 8.4% (95% CI: 1.1, 14.3), and 7.7% (95% CI: 0.3, 13.3), respectively by 2050.
70 .	EHF	ED presentations	Adelaide (South Australia)	Major Cities of Australia	Temperate	Age groups 0–14 and ≥65 year	A total of 1161 (95% eCI: 342, 1944) HW-attributable all-cause ED presentations and associated healthcare costs of AU \$1020.3 (95% eCI: 224.9, 1804.7) were estimated during the warm seasons of 2014–2017.
156	HW [HWs were defined as daily average temperatures at or above a heat threshold (90th, 95th, 98th, 99th percentile of the yearly temperature distribution) for at least two consecutive days]	Out-of-hospital cardiac arrest	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Cardiovascular disease patient (out of hospital cardiac arrest)	When a threshold of the 95th percentile of yearly temperature distribution was used to define HWs, out-of-hospital cardiac arrest risk increased 1.25 (95% CI 1.04 to 1.50) times and at the 99th percentile, the relative risk increased to 1.48 (1.11 to 1.96).

52	EHF	Ambulance dispatches	Tasmania (Ambulance Tasmania for all regions of Tasmania)	Remote, Inner Regional and Outer Regional Australia	Temperate	Elderly (over 65), the young (5 and under) subgroups; and those from the areas with the greatest socio-economic disadvantage	Ambulance dispatches increased by 34% (OR 1.34, 95% CI 1.18-1.52) during extreme HWs, by 10% (OR 1.10, 95% CI 1.05-1.15) during severe HWs and by 4% (OR 1.04, 95% CI 1.02-1.06) during low-intensity HWs.
36	Hourly temperature	Acute kidney injury; ED visits	Queensland (Data from seven cities of Queensland, Australia, including Brisbane, Cairns, Mackay, Mount Isa, Rockhampton, Toowoomba, and Townsville)	Brisbane (Major cities of Australia), Cairns (Outer Regional Australia), Mackay (inner Regional Australia), Mount Isa (Remote Australia), Rockhampton (Inner Regional Australia), Toowoomba (Inner Regional Australia), Townsville (Outer Regional Australia)	Brisbane (Subtropical), Cairns (Tropical), Mackay (Subtropical), Mount Isa (Grassland), Rockhampton (Subtropical), Toowoomba (Temperate), Townsville (Tropical)	Males and those aged >64 years, particularly those with pre-existing diabetes, hypertension, heart failure, or chronic kidney disease	The effect of heat exposure on acute kidney injury occurred in the same hour of heat exposure (odds ratio (OR): 1.37; 95% confidence interval (CI): 1.10, 1.71).
49	Tmean	ED admission	Hobart, Tasmania	Inner Regional Australia	Temperate	NA	The relative risk of being admitted to the Royal Hobart Hospital for the years 2003-2010 was significantly higher

							for all temperatures above 27°C (P < 0.05 in all cases).
K. I. Duwalage, 33	Daily Tmax	ED presentations	South-East Queensland (Data from EDS in EDs in Queensland's Metro South Hospital and Health Service. The EDs belong to the Logan Hospital, Princess Alexandra Hospital, Queen Elizabeth II Jubilee Hospital, and Redland Hospital)	Major Cities of Australia	Subtropical	NA	Maximum daily temperature was found to be a significant predictor of presentations to public hospital EDs in South-East Queensland.
37	HW (HW was defined a95th percentile of the mean temperature for three or more consecutive days in each community)	Cause-specific ED visits specific (infectious and parasitic diseases, endocrine, nutritional and metabolic diseases, mental and behavioural	Queensland (five urban communities Brisbane, Townsville, Cairns, Mackay and Rockhampton and three	Brisbane (Major cities of Australia), Cairns (Outer Regional Australia), Mackay (inner Regional Australia),	Brisbane (Subtropical), Cairns (Tropical), Mackay (Subtropical), Mount Isa (Grassland), Longreach	Residents in urban and rural areas with a wide range of diseases including endocrine, nutritional and metabolic diseases, diseases of the nervous system, and diseases of the genitourinary system	Emergency department (ED) visits for endocrine, nutritional and metabolic diseases (RR: 1.18, 95% CI: 1.04-1.34), diseases of the nervous system (RR: 1.09, 95% CI: 1.02-1.17), and diseases of the genitourinary system (RR: 1.05,

		disorders, diseases of the nervous system, diseases of the ear and mastoid process, diseases of the circulatory system, diseases of the respiratory system, diseases of the skin and subcutaneous tissue, diseases of the musculoskeletal system and connective tissue, diseases of the genitourinary system, and injury, poisoning and certain other consequences of external causes)	rural communities Mount Isa, Longreach and Toowoomba)	Mount Isa (Remote Australia), Rockhampton (Inner Regional Australia), Toowoomba (Inner Regional Australia), Townsville (Outer Regional Australia), Longreach (Very Remote Australia)	(Grassland), Rockhampton (Subtropical), Toowoomba (Temperate), Townsville (Tropical)		95% CI: 1.00-1.09) increased substantially during HW days.
87	HW (Three HW definitions were adopted in this study: 2 days & 90th percentile, 2 days & 95th percentile, and 2 days & 97th percentiles)	Hospitalizations and post-discharge deaths for Alzheimer's disease	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Alzheimer's disease patients who lived in communities with low-level vegetation	Hospitalizations and postdischarge deaths due to Alzheimer's disease increased by 51% (95% CI: 2%, 126%) and 269% (95% CI: 76%, 665%), respectively, during middle-intensity HWs (i.e., 95th percentile & ≥ 2 days).

72	EHF and HW {90 th , 95 th 97 th and 99 th percentiles of mean temperature distribution) and duration (2 days)}	Hospitalizations and post-discharge deaths for diabetes	Brisbane (Queensland; Mater Children's Hospital, Princess Alexandra Hospital, Queen Elizabeth II Jubilee Hospital, Royal Brisbane and Women's Hospital and Prince Charles Hospital)	Major Cities of Australia	Subtropical	Children and male diabetics	When EHF was used to define HWs, there were significant increases in hospitalizations (7%; 95% CI: 1%, 15%; P = 0.039) and post-discharge deaths (68%, 95% CI: 10%, 158%; P = 0.017) during HW days, compared with non-HW days.
148	HW (Six HW definitions were used in this study)	Effect on or harmful to fetal growth (to examine the effects in different gestational months on the risk of preterm birth and stillbirth)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Early pregnancy (earlier gestational months might be key exposure windows for HW-affected stillbirth)	HW exposure in early pregnancy was more likely to increase the risk of stillbirth compared with HW exposure in late pregnancy.
73	EHF	Work related ambulance calls and compensation claims (for Work-	Adelaide, (South Australia)	Major Cities of Australia	Temperate	Male workers and those new to the job	Positive associations were observed during moderate HWs in compensation claims made by new workers (RR 1.31, 95% CI 1.10-1.55), workers in

		related injuries and illnesses)					medium-sized enterprises (RR 1.15, 95% CI 1.01-1.30), indoor industries (RR 1.09, 95% CI 1.01-1.17), males (RR 1.13, 95% CI 1.03-1.23) and laborers (RR 1.21, 95% CI 1.04-1.39).
85	Tmax different percentiles (99th and 90th)	Occupational injury and illness	Melbourne (Victoria), Brisbane (Queensland) and Perth (Western Australia)	Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia) and Perth (Major Cities of Australia)	Melbourne (Temperate), Brisbane (Subtropical), Perth (temperate)	Young workers and those in 'regulated indoor climates; female workers; those aged 25 to 34 years; workers who are not an apprentice/trainee and workers 'in a vehicle or cab'	Compared to the median maximum temperature (T-max), extremely hot temperatures (99th percentile) were associated with a 14% (95% CI: 3-25%) increase in total workers' compensation claims in Melbourne, but there were no observed effects in Brisbane or Perth, with the exception of traumatic injuries that increased by 17% (95% CI: 3-35%) during extreme heat in Perth.
86	Daily Tmax (99th Percentile)	occupational injury and illness	Adelaide (South Australia)	Major Cities of Australia	Temperate	Workers working in the occupation, including animal and horticultural workers'; 'cleaners', 'food service workers, 'metal workers' and 'warehouse' workers	Compared with optimal temperatures, extremely hot temperatures (99th percentile) were associated with an increase in overall claims (RR: 1.30, 95%CI: 1.18-1.44), whereas a non-significant increase was observed with extremely cold temperatures (1st percentile, RR: 1.10 (95%CI: 0.99-1.21).
69	EHIaccl (acclimatisation)	ED attendances, admissions, and	Perth (Western	Major Cities of Australia	Temperate	Ages groups 5–11 and 65–84	In all study locations, an increase in temperature that did

	excess heat index with two separate thresholds)	mortality (cardiac symptoms, dehydration, diabetes mellitus, heat exhaustion, malaise, psychiatric symptoms, renal/urinary symptoms, respiratory symptoms and stroke.)	Australia; data were obtained from a convenience sample of 18 hospitals in five countries: Australia, Botswana, Netherlands, Pakistan and the USA)				not coincide with time to acclimatise resulted in increased ED attendance.
44	HW event Victoria (14-17 January and 18-21 January 2014)	Deaths reported to the Coroners Court of Victoria; using medicolegal data obtained from both the police investigation report and the pathologist's report)	Victoria	All Remoteness classes in Victoria	All Climate Zones in Victoria	Elderly (over 70)	The most common primary cause of death in heat-related deaths (HRDs) was circulatory system disease (n=57, 60.6%), which was significantly higher when compared with non-HRDs (n=39, 30.5%; $\chi(2)=20.1$, $p<0.001$, OR 3.5, 95% CI 2.0 to 6.2).
74	HW (EHF>0)	Ambulance callouts (HW-related emergency morbidity)	Perth (Western Australia; Perth metropolitan area)	Major Cities of Australia	Temperate	Males, people over 60 years old, people with low socio-economic status, and those living in coastal areas during periods of HWs	The ambulance callout rate was higher during HW days (14.20/100,000/day) compared to non-HW days (13.95/100,000/day) with a rate ratio of 1.017 (95% confidence interval 1.012, 1.023).
75	EHF>0	ED attendances	Perth (Western	Major Cities of Australia	Temperate	Males, people older than 60 years or younger than	The ED visit rate was higher in HW days (77.86/100,000/day)

			Australia; Perth metropolitan area)			15 years, Aboriginal people, and people with low socio-economic status	compared with non-HW days (73.90/100,000/day) with a rate ratio of 1.053 (95% confidence interval 1.048, 1.058).
138	HW: three temperature metrics were selected and compared: maximum temperature (HWD01), mean temperature (HWD02), and minimum temperature (HWD03) is greater than or equal to the 90th percentile of the warm season	HAs related to ischemic heart disease, heart failure, cardiac arrest, heart arrhythmia, conduction disorders, and hypertensive diseases	Sydney (New South Wales; Greater Sydney, Australia)	Major Cities of Australia	Temperate	Age groups 0–64 years and 65 years and over with cardiovascular diseases	Stronger HW effects were observed on high- compared to low-level particulate matter (size 10µm) days for emergency hospital admissions (EHAs) for cardiac arrest for all ages combined, 0-64 years and 65 years and above; conduction disorders for 0-64 years; and hypertensive diseases for all ages combined and 0-64 years.
27	Tmean (Temperature- mortality relationship)	Deaths	Australia (daily time- series data that captures the number of deaths and the ambient temperatures across the	Australia	All Climate Zones in Australia	NA	Using the national data set of death records to create time- series data (using the data set of 1,717,224 deaths) for the whole of Australia between 2006 and 2017, this study finds that the majority of deaths related to temperature in Australia are caused by heat.

			whole of Australia)				
50	EHF (severe/extreme HWs)	ED presentations	Tasmania (Hobart and Launceston)	Inner Regional Australia	Temperate	Children 15 years and under, children 5 years and under	ED presentations increased by 5% (OR 1.05, 95% CI 1.01-1.09) across the whole population, by 13% (OR 1.13, 95% CI 1.03-1.24) for children 15 years and under, and by 19% (OR 1.19, 95% CI 1.04-1.36) for children 5 years and under.
71	EHF and HW (as defined below) ≥ 5 consecutive days when T_{max} is $\geq 35^{\circ}\text{C}$ ≥ 3 consecutive days when the maximum temperature is $\geq 40^{\circ}\text{C}$	ED admissions (ED presentations) related to urinary disease	Adelaide (South Australia; Adelaide metropolitan hospital ED and inpatient admission data were acquired)	Major Cities of Australia	Temperate	ED and inpatient admissions for acute kidney injury and Kidney failure; both gender and age groups < 65 years and ≥ 65 years	ED presentations increased on HW days compared to non-HW days for total urinary disease (IRR 1.046, 95% CI 1.016–1.076), urolithiasis (IRR 1.106, 95% 1.046–1.169), and acute kidney injury (AKI) (IRR 1.416, 95% CI 1.258–1.594). Likewise, inpatient admissions increased for total urinary disease (IRR 1.090, 95% CI 1.048–1.133) and AKI (IRR 1.335, 95% CI 1.204–1.480).)
63	Daily Tmean, apparent temperature, dewpoint temperature	Daily mortality in summer	Sydney (New South Wales), Melbourne (Victoria), Brisbane (Queensland), Perth (Western Australia) and Adelaide	Major Cities of Australia	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical), Perth (Temperate), Adelaide (Temperate)	All ages	Adding a linear term for relative humidity (RH) to the temperature term improved fit slightly, with an increase of 23% in RH (the 99th percentile anomaly) associated with a 1.1% [95% CI: 0.8, 1.3] decrease in mortality.

			(South Australia)				
143	Tmax	Occupational heat induced illness (related costs)	Adelaide (South Australia; the metropolitan area of SA)	Major Cities of Australia	Temperate	Men, those aged 25 to 44 years, new workers, medium-size businesses, and those employed in the mining industry	When thresholds were exceeded, 1°C increase of Tmax was associated with a 41.6% (95% CI, 29.3% to 55.1%) and 74.8% (95% CI, 33.4% to 129.2%) increase in health service cost and work days lost due to OHI, respectively.
40	EHF	All-cause daily mortality, ambulance call-outs, EHAs and ED presentations, specific ICD codes: effects of heat and light, (volume depletion) and (exposure to excessive heat	South Australia (Murray Mallee, Kangaroo Island, Adelaide Hills, Yorke and Lower Eyre, and Adelaide Metro)	Murray Mallee (Inner Regional Australia), Kangaroo Island (Remote Australia), Adelaide Hills (Inner Regional Australia), Yorke and Lower Eyre (Remote Australia), Adelaide Metro (Major cities of Australia)	Temperate	Adelaide population	The analyses of ambulance call-out data indicated significant increases in demand during high severity HW days (35%; CI 24–47%).
79	EHI	All-cause mortality (Temperature related mortality)	Sydney (East, City and Inner West North, South West, Outer West),	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia),	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical),	NA	The burden of risk associated with mortality related to future temperatures and climate change within Australia coincides with HWs rather than coldwaves.

			Melbourne (Central Coast Melbourne Inner, North and West), Brisbane (East and Mornington Brisbane, Brisbane City), Adelaide (Ipswich, Logan and Morten Bay Adelaide), Perth (North, Central and Hills West and South Perth West East)	Brisbane (Major Cities of Australia), Perth (Major Cities of Australia), Adelaide (Major Cities of Australia)	Perth (Temperate), Adelaide (Temperate)		
149	Tmean, Tmax and Tmin	PTB (preterm birth) and stillbirth	Brisbane (Queensland; the metropolitan area of Brisbane)	Major Cities of Australia	Subtropical	2nd and 3rd trimester of pregnancy	High temperatures in the 3rd trimester of pregnancy significantly increased the risk of preterm birth, with similar hazard ratios (HRs) [95% confidence intervals (CIs)] for high [1.21 (1.16, 1.26)] temperatures in comparison with thresholds and increased risk of stillbirth was significantly associated with

							both low and high temperatures at the 2nd trimester of pregnancy, and lower HRs were observed for low temperature [1.23 (1.04, 1.45)] than high temperature [1.47 (1.24, 1.74)], in comparison with threshold.
60 .	Tmin, Tmax, Tmean, dew point temperature, vapour pressure, simplified wet bulb globe temperature, apparent temperature, 3DAT (3 day avg temp), 3DMT (3 day max temp), EHF)	HAs related to cardiovascular conditions, including ischemic heart disease and heart failure; respiratory conditions, including pneumonia, acute lower respiratory infections, and chronic lower respiratory diseases; and renal conditions, including renal failure	Cairns (Queensland), Brisbane (Queensland), Sydney (New South Wales), Adelaide (South Australia), and Perth (Western Australia)	Cairns (Outer Regional Australia), Sydney (Major Cities of Australia), Brisbane (Major Cities of Australia), Adelaide (Major Cities of Australia)	Cairns (Tropical), Sydney (Temperate), Brisbane (Subtropical), Perth (Temperate), Adelaide (Temperate)	NA	HW and temperature indices had the best fit for cardiovascular admissions, humidity indices had the best fit for respiratory admissions, and combined heat-humidity indices had the best fit for renal admissions.
114	HW (based on intensity, 95th to 99th percentiles of temperature distribution) and duration (two or more	Deaths (mortality burden of HW for the older population)	Sydney (New South Wales), Melbourne (Victoria), Brisbane (Queensland), Adelaide (South	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical), Perth (Temperate),	Elderly population	HW was associated with an average death increase of 28% (95% CI: 15% to 42%), and greater increases were mostly observed for more intense HWs across multiple megacities.

	consecutive days)		Australia), and Perth (Western Australia)	Australia), Perth (Major Cities of Australia), Adelaide (Major Cities of Australia)	Adelaide (Temperate)		
88	HW (We categorized temperature into extremely-hot and not-extremely-hot, and extremely-hot temperature refers to temperature at least ≥ 96 th percentile of the monthly temperature distribution, and accordingly, HWs were categorized into four types: 1) Type I: extremely-hot days followed by extremely-hot nights (HWboth); 2) Type II: extremely-hot	Mortality	Sydney (New South Wales), Melbourne (Victoria), Brisbane (Queensland)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	NA	Brisbane had more type I HWs, and Brisbane people (relative risk (RR): 1.255; 95% CI: 1.148, 1.371) were more vulnerable than those in Melbourne (RR: 1.147; 95% CI: 1.076, 1.223) and Sydney (RR: 1.070; 95% CI: 1.004, 1.142) to type I HW.

	<p>days followed by not-extremely-hot nights (HWday); 3) Type III: not-extremely-hot days followed by extremely-hot nights (HWnight); and 4) Type IV: not-extremely-hot days followed by not-extremely-hot nights (HWwarm.)</p>						
89	<p>HW (e.g., intensity mean temperature 90th, 95th, 97th and duration 2, 3 or 4 days)</p>	HAs (in infants)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Infant (infants' HAs)	<p>There was no significant increase in infants' HAs when HWs intensity was defined as mean temperature ≥ 90th percentile or ≥ 95th percentile of the mean temperature across the study period. When HW intensity increased to ≥ 97th percentile, infants' HAs increased significantly (RR: 1.05, 95% CI: 1.01, 1.10), and this increase raised with the increase of HW duration.</p>

47	HW defined by EHF	All HAs (including overall ED attendances) cardiovascular diseases, respiratory diseases, kidney diseases, and heat-related diseases, overall ED deaths	Western Australia	Western Australia	All Climate Zones in WA	Children aged 14 years or less and those aged 60 years or over	The more intense the HW, the higher the health service usage rates. Those aged 15–59 and 60 years and over were more at risk of heat- or kidney disease-related HAs than those aged 0–15 years. Meanwhile, those aged 0–14 and 60 years and over had a higher chance to attend ED than those aged 15–59 years.
90	HW greater than three consecutive days of maximum temperature in excess of 35 °C	Work related accidents	Adelaide (South Australia; Adelaide Metropolitan Region)	Major Cities of Australia	Temperate	Age groups younger than 35 and older than 55	Experienced workers and male workers were also slightly over-represented in accidents during the HW periods. Nevertheless, all three factors have been found not to have a statistically significant association with number of accidents (with $\chi^2 = 8.974$, d.f. = 5, $p = 0.110$ for age; $\chi^2 = 0.522$, d.f. = 1, $p = 0.470$ for experience; and $\chi^2 = 2.850$, d.f. = 1, $p = 0.091$ for gender).
144	Tmax and HW (Tmax \geq 35C for 3 consecutive days)	Campylobacter (food borne)	Adelaide (South Australia)	Major Cities of Australia	Temperate	NA	In relation to HW intensity, which is the daily maximum temperature during a HW, notifications decreased by 19% within a temperature range of 39-40.9 °C (IRR 0.811, 95% CI 0.692-0.952). There was little evidence of an increase in risk and a lack of association

							between Campylobacter cases and temperature or HWs in the warm seasons.
142 .	Daily Tmax and Tmin (Day time and overnight temperatures)	Acute work-related injury (outdoor working conditions)	Melbourne (Victoria; metropolitan Melbourne area)	Major Cities of Australia	Temperate	Younger workers (<25 years); workers employed in the highest strength occupations and for male workers; for female workers, workers aged 25–35 and ≥55 years, "light" and "limited" physical demand groups, and "in vehicle or cab" and "regulated indoor climate" workplace exposure groups	Significant positive associations between temperature and acute work-related injury were seen for younger workers (<25 years), with the odds of injury increasing by 1% for each 1° C increase in daily minimum temperature, and by 0.8% for each 1° C increase in daily maximum temperature.
55	Tmax	Preterm birth (born before 37 completed weeks of gestation)	Alice Springs, Central Australia (Northern Territory)	Remote Australia	Grassland	Last 3 weeks of pregnancy	An immediate effect of temperature exposure is observed with an increased relative risk of 1%–2% when the maximum temperature exceeded the 90th percentile of the summer season maximum temperature data.
120	HW events (5 HW events 2007-2009)	HAs for patients aged 65 years or older and using psychotropic drugs, length of stay in hospital and mortality	Adelaide (South Australia)	Major Cities of Australia	Temperate	Age groups 65–80 years and >80 years	Psychotropic use, particularly antipsychotics, predicted increased length of stay during non-HW (subdistribution hazard ratio: 95% CI, 0.82, 0.72-0.94; P = 0.003) but not HW (subdistribution hazard ratio: 95% CI, 0.89, 0.69-1.14; P = 0.36) periods.

41	EHF	Ambulance call outs, ED presentations, mortality	New South Wales	All Remoteness classes in NSW	All Climate Zones in NSW	NA	For all of NSW, very intense HWs resulted in an increase of 10.8% (95% confidence interval (CI) 4.5, 17.4%) in mortality, 3.4% (95% CI 0.8, 7.8%) in ED presentations and 10.9% (95% CI 7.7, 14.2%) in ambulance call-outs.
14	Hourly temperature	Hourly ambulance calls	Brisbane (Queensland)	Major Cities of Australia	Subtropical	NA	The findings suggest that hot hourly temperatures (>27 degrees C) increase the demand of ambulance services.
115	HW (Daily mean temperature \geq 90th, 92.5th, 95th, and 97.5th percentiles of temperature with duration \geq 2, 3, and 4 d)	Mortality (all causes/non accidental)	Sydney (New South Wales), Brisbane (Queensland), Melbourne (Victoria)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	People living in moderate cold and moderate hot areas	The higher the temperature threshold used to define HWs, the higher HW associations with mortality.
61	Tmin, Tmax, Tmean, dew point temperature, vapour pressure, simplified wet bulb globe temperature, apparent temperature, 3DAT (3 day	HAs related to cardiovascular conditions (ischaemic heart diseases and heart failure), respiratory conditions (pneumonia, lower respiratory infections and chronic lower respiratory	Sydney (New South Wales)	Major Cities of Australia	Temperate	NA	Daily maximum simplified Wet Bulb Globe Temperature (sWBGT) consistently improved fit more than most other temperature indices.

	avg temp), 3DMT (3 day max temp), EHF)	conditions), renal conditions, selected admissions where the mode of separation was death					
116	Tmean	Deaths	Melbourne (Victoria), Sydney (New South Wales) and Brisbane (Queensland)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	NA	In temperate areas such as northern Europe, east Asia, and Australia, the less intense warming and large decrease in cold-related excess would induce a null or marginally negative net effect, with the net change in 2090–99 compared with 2010–19 ranging from –1.2% (empirical 95% CI –3.6 to 1.4) in Australia to –0.1% (–2.1 to 1.6) in east Asia under the highest emission scenario, although the decreasing trends would reverse during the course of the century.
135	Daily Tmean, Tmax and Tmin	ED admission data and HAs related to renal disease categories - total renal disease, urolithiasis, renal failure, acute kidney injury (AKI), chronic kidney disease (CKD), urinary	Adelaide (South Australia)	Major Cities of Australia	Temperate	Older patients (renal disease incidences)	A 1°C increase in daily minimum temperature was associated with an increase in daily ED admissions for acute kidney injury (IRR 1.037, 95% CI: 1.026-1.048), renal failure (IRR 1.030, 95% CI: 1.022- 1.039), CKD (IRR 1.017, 95% CI: 1.001-1.033) urolithiasis (IRR 1.015, 95% CI: 1.010- 1.020), total renal disease (IRR

		tract infections (UTIs), lower urinary tract infections (LUTIs) and pyelonephritis					1.009, 95% CI: 1.006-1.011), UTIs (IRR 1.004, 95% CI: 1.000-1.007) and LUTIs (IRR 1.003, 95% CI: 1.000-1.006).
65	Mean annual degrees of heat (indices of annual heat)	Annual mortality	Brisbane (Queensland), Melbourne (Victoria), Sydney (New South Wales)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	NA	On average, regression coefficients of annual mortality on heat and cold mean degrees were 1.7% [95% confidence interval (CI): 0.3, 3.1] and 1.1% (95% CI: 0.6, 1.6) per degree, respectively, and daily attributable fractions were 0.8 (95% CI: 0.2, 1.3) and 1.1 (95% CI: 0.9, 1.4).
136	HW (5 day HW in 2009)	Heat-related hospitalizations	Adelaide (South Australia)	Major Cities of Australia	Temperate	Patients with Pre-existing heart disease and dementia	Pre-existing heart disease [Adjusted odd ratio; (AOR)=13.56, 95% CI 1.27 to 144.86] and dementia (AOR=26.43, 95% CI 1.99 to 350.73 significantly increase the risk of direct heat-related hospitalisations during HWs.
34	Tmean	Salmonellosis	South-East Queensland (SEQ includes the state capital Brisbane and has 3.2 million residents)	Major Cities of Australia	Subtropical	NA	A 5 °C increase in mean temperature and 10 mm increase in precipitation were associated with increases in salmonellosis cases of 45.4% (95% CrI 40.4%, 50.5%) and 24.1% (95% CrI 17.0%, 31.6%), respectively.

139 .	Tmax	HA related to Distal intestinal obstruction syndrome	Sydney (New South Wales; Sydney Children's Hospital, Randwick, Australia)	Major Cities of Australia	Temperate	NA	The maximum temperature of the week before hospitalisation for constipation (mean (standard deviation) = 27.9 (6.3) °C) was significantly warmer compared with the season of admission (24.0 (4.1) °C; P < 0.0001).
121	HW (Tmax >=35C for 3 consecutive days)	Ambulance call outs, ED presentations, HA data, mortality	Adelaide (South Australia)	Major Cities of Australia	Temperate	Elderly (over 65)	The estimated differences in health-specific outcomes between 2009 and 2014 were statistically significant with 207 (59%) for cardiac-related call-outs, 134 (30%) for renal and 145 (56%) for heat-related emergency presentations.
91.	HW (Tmax >=35C for 3 consecutive days)	Salmonellosis (foodborne diseases)	Adelaide (South Australia; Adelaide metropolitan region)	Major Cities of Australia	Temperate	Salmonella cases (all age groups including <1, 1-9, 10-19, 20-39, 40-59, and 60+)	HW intensity had a significant effect on daily counts of overall salmonellosis with a 34% increase in risk of infection (IRR 1.34, 95% CI 1.01–1.78) at >41 °C.
145	Tmax	Salmonellosis (foodborne diseases)	Adelaide (South Australia; Adelaide metropolitan area)	Major Cities of Australia	Temperate	NA	Daily Salmonella species counts increased by 1.3% [incidence rate ratio (IRR) 1.013, 95% confidence interval (CI) 1.008–1.019] per 1 °C rise in temperature in the warm season with greater increases observed in specific serotype and phage-type cases ranging from 3.4% (IRR 1.034, 95% CI

							1·008–1·061) to 4·4% (IRR 1·044, 95% CI 1·024–1·064).
57	Tmean (past three consecutive daily mean temperatures and the last measured temperature upon presentation, i.e. 9 am or 3pm) (TDA+LMT)/2	ED heat-related presentations	Canberra (Australian Capital Territory; Metropolitan ED seeing patients in Canberra, Australia)	Major Cities of Australia	Temperate	Age older than >64 years old or younger than <2 years old	Heat-related presentations appeared to occur when the mean threshold temperature reached 25 degrees C (77 °F), with significant increases when the mean threshold reached 30 degrees C (86 degrees F).
80	EHF, Daily Tmax, Tmean, Tmin	EHAs; ambulance calls	Adelaide (South Australia; Adelaide metropolitan region)	Major Cities of Australia	Temperate	NA	EHF was found to differentiate days with HW-related excess morbidity significantly better than other widely used weather parameters.
81	EHF, Daily Tmax for HWs from 2008-March 2014	Ambulance call outs	Adelaide (South Australia; Adelaide metropolitan region)	Major Cities of Australia	Temperate	NA	An increase was found within the investigated time period in the annual average of the daily number of ambulance call-outs.
31	Monthly Tmean	ED visit childhood pneumonia and diarrhoea	Queensland	All Remoteness classes in Queensland	All Climate Zones in Queensland	NA	Monthly average temperature was negatively associated with ED visits for childhood diarrhoea in wet seasons.

92	Tmax (Tmax>Tthresh old-35.5)	Occupational illness	Adelaide (South Australia; Adelaide metropolitan region)	Major Cities of Australia	Temperate	Age group, ≤24 25–34, 35–54, ≥55	One degree increase in T-max was associated with a 12.7% (incidence rate ratio 1.127, 95% CI 1.067 to 1.190) increase in occupational heat illness claims.
93	HWs {A HW was defined as the mean temperature above a certain percentile (e.g., 90th,95th,98th and 99th centiles of mean temperature) for two or more consecutive days in the summer, the warm season and the whole year according to each city climatic conditions during 1988–2011}	Non-accidental and circulatory mortality	Brisbane (Queensland), Melbourne (Victoria) and Sydney (New South Wales)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	Elderly (aged 75 and over; both male and female)	Non-accidental and circulatory mortality significantly increased during HWs across the three cities, even with different HW definitions and study periods.
76	HW {several definitions using percentiles (e.g., from the	Mortality	Brisbane (Queensland), Melbourne (Victoria) and	Sydney (Major Cities of Australia), Melbourne (Major Cities of	Sydney (Temperate), Melbourne (Temperate),	Age group (0–75 years) and 75+ years both for male and female	The relative risk of mortality started to increase around the 95th percentile of temperature, increased sharply at the 97th

	75th to 99th centile) of mean temperature with duration ≥ 2 days}		Sydney (New South Wales)	Australia), Brisbane (Major Cities of Australia)	Brisbane (Subtropical)		percentile, and rose alarmingly at the 99th percentile.
77	Daily Tmax, Tmean, EHF	ED (ICD-10-AM diagnosis codes of T67 (Effects of heat and light) or external cause of injury code of X30 (Exposure to excessive natural heat) or X32 (Exposure to sunlight). Inpatient admissions were dated based on the day of admission)	Perth (Western Australia)	Major Cities of Australia	Temperate	NA	The EHF generally predicted periods that resulted in a similar or higher rate of health service utilisation, as compared to the two other temperature exposure formulas used in the study, for the thresholds examined.
125	Tmean	Mortality-non accidental deaths, cardiovascular deaths, respiratory deaths	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age group ≥ 65 years old and ≥ 85 years old	A 22% increase in nonaccidental mortality (95% CI: 14, 30) with a 1°C increase in mean temperature above a 28°C threshold in summers that followed a winter with low mortality, compared with 12% (95% CI: 7, 17) following a winter with high mortality.
28	Tmean (Mean temperature difference between the current and	Suicide	Darwin (Northern Territory), Brisbane (Queensland),	Darwin (Outer Regional Area), Sydney (Major Cities of Australia),	Darwin (Tropical), Sydney (Temperate), Melbourne	NA	Temperature difference (the difference in mean temperature between the current month and the previous one month) was positively associated with

	previous month)		Sydney (New South Wales), Melbourne (Victoria), Adelaide (South Australia), Perth (Western Australia), Hobart (Tasmania), and Canberra (Australian Capital Territory)	Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia), Perth (Major Cities of Australia), Adelaide (Major Cities of Australia), Canberra (Major Cities of Australia), Tasmania (Inner Regional Area)	(Temperate), Brisbane (Subtropical), Perth (Temperate), Adelaide (Temperate), Canberra (Temperate), Tasmania (Temperate)		suicide in Sydney, Melbourne, Brisbane and Hobart.
48	EHF	ED, Mortality	Western Australia	All Remoteness classes in WA	All climate zones in WA	NA	HW events were associated with a 4% increase in 3-day cumulative ED attendance rate (95% CI = 1.025–1.058, P <0.0001) among 1,662,718 ED attendances and marginally associated with an excess 7-day cumulative death rate (95% CI = 0.981–1.447, P = 0.078) among 32,836 deaths.
53	Daily Tmin and Tmax	HAs (for respiratory diseases)	Northern Territory (data were collected from two	Darwin (Outer Regional Area), Alice Springs (Remote Australia),	Darwin (Tropical), Alice Springs (Grassland), Gove	0–9 and 35 years and over age groups males, females, Indigenous and non-Indigenous people	Extreme temperatures were associated with increased HA rates for acute respiratory disease.

			public hospitals in the Northern Territory: the two major hospitals, Royal Darwin and Alice Springs, and three smaller regional hospitals, Gove, Katherine, and Tennant Creek)	Gove (Very Remote Australia), Katherine (Remote Australia), Tennant Creek (Very Remote Australia)	(Tropical), Katherine (Tropical), Tennant Creek, (Grassland)		
56	Tmax, Tmean, Tmin	HA (Ischaemic heart diseases, heart failure, pneumonia, lower respiratory infections, chronic lower respiratory conditions, renal failure, direct heat, exposure to sunlight)	Darwin (Northern Territory)	Darwin (Outer Regional Area)	Darwin (Tropical)	NA	Hot days appeared to have higher admission rates when preceded by high nighttime humidity.
117	Tmean	Mortality	Melbourne (Victoria), Sydney (New South Wales) and Brisbane (Queensland)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia),	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	NA	More temperature-attributable deaths were caused by cold (7·29%, 7·02–7·49) than by heat (0·42%, 0·39–0·44).

				Brisbane (Major Cities of Australia)			
118	Daily Tmean	Deaths (non-accidental causes)	Melbourne (Victoria), Sydney (New South Wales) and Brisbane (Queensland)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	NA	Mortality risk due to heat appeared to decrease over time in several countries, with relative risks associated with high temperatures significantly lower in 2006 compared with 1993.
94	Heat threshold days (Days with a minimum temperature of >24°C or a mean of >30°C)	ED presentations on hot days [further details explored include ED function variables: triage category, presenting complaint, demographics, arrival mode, time to doctor, ED length of stay (LOS), ED disposition, and discharge diagnoses]	Melbourne (Victoria)	Major Cities of Australia	Temperate	Elderly	This study found limited evidence of increased morbidity in the elderly during HW conditions.
137	Tmean and HW (intensity the 95th (26.5°C) and 96th (26.7°C)	Paediatric ED admissions	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Children aged 0–4 years and children aged 10–14 years	High (RR=1.27; 95% CI 1.12 to 1.44) and low (RR=1.81; 95% CI 1.66 to 1.97) temperatures were significantly associated

	centiles of the daily mean temperature as the hot threshold; duration: a minimum of 2–4 consecutive days with temperatures above the hot threshold)						with an increase in paediatric ED admissions.
151	Land surface temperature, HW (the 95th and 99th percentiles of the daily mean temperature as the heat threshold; and a minimum of 2–4 consecutive days with temperatures above the heat threshold were required)	ED visits for childhood pneumonia	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Children aged 2–5 years, female children and Indigenous children	High and low temperatures were both associated with an increase in ED visits for childhood pneumonia.
126	Tmax (during HW period, 18–23 February 2004)	Excess mortality (non-external)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	NA	The Hilbert-Huang Transform algorithm estimated 62 excess deaths related to the February 2004 Brisbane HW.

95	HWs (HW as ≥ 3 consecutive days with daily maximum temperatures (T_{max}) ≥ 35 1C; also used the Australian Bureau of Meteorology (BOM) definition of ≥ 5 consecutive days of $T_{max} \geq 35$ 1C; or ≥ 3 consecutive days of T_{max} also used the Australian Bureau of Meteorology (BOM) definition of ≥ 5 consecutive days of $T_{max} \geq 35$ C; or ≥ 3 consecutive days of $T_{max} \geq 40$ C)	Work related injuries	Adelaide, (South Australia)	Major Cities of Australia	Temperate	Male workers aged ≥ 55 years, working in 'agriculture, forestry and fishing' and 'electricity, gas and water' industries	For total injury claims, there was no significant difference detected between HW and non-HW periods, however, for outdoor industries, daily claims increased significantly by 6.2% during HWs.
112	T_{max}	Work related injuries	Adelaide (South Australia)	Major Cities of Australia	Temperate	Male workers and young workers aged ≤ 24 working in agriculture, forestry and	A 1°C increase in maximum temperature between 14.2°C and 37.7°C was associated with a 0.2% increase in daily injury

						fishing, construction, electricity, gas and water.	claims. The incidence rate ratios (IRRs) for male workers and young workers aged ≤ 24 were (1.004, 95% CI 1.002 to 1.006) and (1.005, 95% CI 1.002 to 1.008), respectively.
54	Tmax (>95th percentile)	HAs related to ischaemic heart disease (IHD) and heart failure	Northern Territory (Royal Darwin, Gove, Katherine, Tennant Creek and Alice Springs)	Darwin (Outer Regional Area), Alice Springs (Remote Australia), Katherine (Remote Australia), Tennant Creek (Very Remote Australia)	Darwin (Tropical), Alice Springs (Grassland), Katherine (Tropical), Tennant Creek (Grassland)	25–64 year old Indigenous female population	Among 25-64 year olds, the Indigenous female population was more adversely affected by very hot days than the non-Indigenous female population, with admission rates for ischaemic heart disease (IHD) increasing by 32%.
96	HWs	EHAs (for renal diseases, aged 0-14 years)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Children aged 0-14 years with renal diseases	HWs exhibited a significant impact on EHAs for renal diseases in children after adjusting for confounding factors (odds ratio: 3.6; 95% confidence interval: 1.4-9.5).
119	Daily Tmean	All cause mortality	Melbourne (Victoria), Sydney (New South Wales), Brisbane (Queensland), Adelaide (South Australia), Perth	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia), Perth (Major	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical), Perth (Temperate), Adelaide (Temperate)	Age group of ≥ 85 years.	Heat-related mortality was projected to increase to 8 deaths per 100,000 population per year, respectively, by 2080. No changes to heat related susceptibility or population structure was considered in the modelling.

			(Western Australia)	Cities of Australia), Adelaide (Major Cities of Australia)			
97	HW (A HW was defined as the mean temperature above a heat threshold (i.e., 90th, 95th and 99th centiles of mean temperature) for 2 or more consecutive days in the summer season)	Non-external causes (NEC) mortality (ABS)	Melbourne (Victoria), Sydney (New South Wales) and Brisbane (Queensland)	Sydney (Major Cities of Australia), Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia)	Sydney (Temperate), Melbourne (Temperate), Brisbane (Subtropical)	Females aged 75 and over	A consistent and significant increase in mortality was observed during HWs.
98	HW (two or more consecutive days with the mean temperature above a certain percentile (e.g., 90-99th centile of the mean temperature) in the warm season)	Mortality and EHAs	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Elderly (≥ 75 years), age groups (0 – 64 years and 65 – 74 years)	While the elderly (≥ 75 years) were particularly vulnerable to both the EHAs and mortality effects of a HW, the risk for EHAs also significantly increased for two other age groups (0-64 years and 65-74 years) during severe HWs.

99	HW {(two or more successive days with daily maximum temperature $\geq 34^{\circ}\text{C}$ (HWD1) or $\geq 37^{\circ}\text{C}$ (HWD2)}	ED visits, average length of stay	Brisbane (Queensland; the greater Brisbane area, a subtropical city located in SEQ, Australia).	Major Cities of Australia	Subtropical	Ages 0 to 14 years, 15 to 64 years, 65 to 74 years and 75+ years	The heat-related hospital presentations significantly increased on HW days based on HWD1 (relative risk (RR) = 4.9, 95% confidence interval (CI): 3.8, 6.3) and HWD2 (RR = 18.5, 95% CI: 12.0, 28.4).
100	HW (two or more consecutive days with daily mean temperatures above the 95th percentile)	ED presentations (respiratory disease, cardiovascular disease and Other non-external causes (NEC))	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age groups 0–14, 15–64, 65–74 and 75+ years	Heat-related ED visits increased during HWs, however, due to overlapping confidence intervals, variations across socioeconomic areas should be interpreted cautiously.
157	Tmax and Tmin (Temperature anomaly- Temperature greater than the average daily temperatures for the period 1994-2004 with days and months aligned across years)	Acute myocardial infarction HAs	Melbourne (Victoria)	Major Cities of Australia	Temperate	Male and female ≥ 55	An increase in warmer weather during the cooler months of spring may result in increased morbidity, and an alert system based on summer thresholds may not be appropriate for early season heat health warnings.
183	Tmax	Daily HAs	Brisbane (Queensland)	Major Cities of Australia	Subtropical	> 65 years of age	A 10°C increase in daily maximum temperature during the summer was associated with a 7.2% increase in HAs

							(95% CI: 4.7, 9.8%) on the following day.
113	Tmax (Maximum temperatures of <15°C vs ≥30°C)	Presentations to the clinic (clinical session--half day)	Melbourne (Victoria)	Major Cities of Australia	Temperate	≤25 years of age	The factors associated with the largest difference in mean presentations per session were morning or afternoon (60 vs 51 per session), days of the week (57–67 per session), months of the year (93–112 per day), year (77–131 per day), maximum temperatures of <15°C vs ≥30°C (56–62 per morning session) and 5 working days after holiday periods (61 vs 54).
35	Tmean	Cardiovascular hospitalization or death (Abdominal aortic aneurysm rupture)	South-east Queensland (South-East corner of Queensland, Brisbane metropolitan area)	Major Cities of Australia	Subtropical	NA	At a mean temperature of 19°C (66°F), the odds ratio for rupture was 1.73 (95% confidence interval: 1.09, 2.76) compared with the reference temperature of 24°C.
140	Monthly T mean and Daily T mean (Mean monthly temperature and daily temperature measured at 9 am)	ED group presentations	Sydney (New South Wales)	Major Cities of Australia	Temperate	≤16 years of age	Temperature at 9 am, was significantly associated with the number of croup attendances (linear regression -0.2062; 95% CI -0.272 to -0.138).

101	HW (13 days HW in summer 2009)	Heat-related hospitalizations	Adelaide (South Australia)	Major Cities of Australia	Temperate	Elderly (aged over 65; both male and female)	People living at residential aged care (OR = 0.41, 95% CI: 0.15-0.70) and having higher number of co-morbidities (OR = 0.89, 95% CI: 0.83-0.95) reduced the risk of HA for direct heat-related illnesses during the HW, while having renal problems (OR = 1.72, 95% CI: 1.07-2.94), reporting a fall prior to hospitalization (OR = 2.04, 95% CI 1.10-3.77), receiving assistance from community (OR = 2.31, 95% CI: 1.24-4.30), living alone (OR = 2.41, 95% CI: 1.32-4.40), socio-economic disadvantage (OR = 2.10, 95% CI: 1.09-4.04) and no private health insurance (OR = 1.82, 95% CI: 1.05-3.16) increased the risk.
146	Tmean	Pediatric influenza	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Children aged 0–14 years	Mean temperature (RR: 0.86; 95% CI: 0.82-0.89) was negatively associated with pediatric seasonal influenza.
152	Diurnal temperature range (the temperature variation within one day)	ED childhood asthma	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Male children and children aged 5–9 years	The effect of the diurnal temperature range (DTR) on childhood asthma was the greatest for lag 0-9 days, with a 31% (95% confidence interval: 11% - 58%) increase of ED admissions per 5°C increment of DTR.

153	HW and Temperature	ED childhood asthma	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Male children and children aged 0–4 years	Both hot and cold temperatures were associated with increases in ED admissions for childhood asthma, and their effects both appeared to be acute.
62	EHF; HW: single day and 3 days [moving average] severe heat events as days where the temperature metric exceeds the 95th percentile of the monthly distribution for the study period in that zone. Both Tmax and the apparent temperature were used.	Mortality and HAs	Sydney (New South Wales)	Major Cities of Australia	Temperate	Children (1–14 years), adult asthma (15–64 years) and 65+ years	Single and three day events of unusually high temperatures in Sydney are associated with similar magnitude increases in mortality and HAs.
102	HWs (90th, 95th and 98th percentiles with duration 2-4 consec days)	PTB (Nov-March)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Indigenous and non-indigenous women of age group <20 years, 20–34 years and >34 years	HW was significantly associated with preterm birth: the associations were robust to HW definitions.
66	HW {(temperatures within the highest 5 percent and 1	HAs for cardiovascular (CVD), respiratory (RD), genitourinary (GU)	Sydney (New South Wales)	Major Cities of Australia	Temperate	All ages	On hot days, HAs increased for all major categories except genitourinary.

	per cent of the probability distribution 95th and 99th percentiles)}	and mental diseases (MD), diabetes (DIA), dehydration (DEH)					
103	HW (HW was defined as two or more consecutive days with a daily maximum temperature at or above 37C.) HWs were also defined by considering temperatures above the 90th, 95th, 97th, and 99th centile	Ambulance attendances	Brisbane (Queensland)	Major Cities of Australia	Subtropical	≥ 65 years of age	Main effects of temperature were found for total attendances, which increased by 50.6% (95% CI, 32.3%-71.4%) for a 9.5°C increase above a reference temperature of 29°C.
124	HW (Ambient temperature during the 7 day HW period in 2009)	HAs and ED presentations cause specific deaths	Melbourne (Victoria)	Major Cities of Australia	Temperate	Aged 70 or over	In the week following the onset of the 2009 HW in Melbourne, Australia, The Alfred Hospital observed a significant increase in total HAs (adjusted incidence rate ratio (IRR) 1.11, P = 0.046), ED presentations (IRR 1.15, P < 0.01) and general medical admissions (IRR 1.81, P < 0.01).
82	EHF (13 day HW in 2009)	Deaths	Adelaide (South Australia)	Major Cities of Australia	Temperate	NA	The 2009 South Australian HW had the highest ranked Excess Heat Factor in Adelaide's

							records. There were 58 heat related deaths, with the bulk of the heat related deaths following the peak Excess Heat Factor value (144 degrees C-2).
38	Tmax, Tmin	Dengue cases	Townsville and Cairns, Queensland	Townsville (Outer Regional Australia), Cairns (Outer Regional Australia)	Townsville (Tropical), Cairns (Tropical)	Age group 0-14, 14-64, 65+ years	Weather variables but not the Southern Oscillation Index were associated with dengue in Cairns and Townsville without a lag ($p < 0.01$). No significant lag was seen with the weather variables.
104	Tmax {Tmax-Tthreshold (34-36°C); HW (three or more days of ≥ 35 °C)}	Mortality, ED (total visits, mental health, cardiovascular, renal, respiratory) presentations, and HAs	Perth (Western Australia)	Major Cities of Australia	Temperate	NA	HW days were associated with increases in daily mortality and ED presentations, while total HAs decreased on HW days.
78	a) Tmax b) i) elevated temperature (maximum or minimum minus threshold temperature, set as 0 if $T < \text{threshold}$) and (ii) extreme temperature (maximum minus 40 °C, set as 0 if $T < 40$)	Mortality, ambulance call outs, ED presentations and HAs (renal, mental, total cardiovascular, ischaemic, respiratory, and a direct heat-related category comprising dehydration, heat and sunstroke and	Adelaide (South Australia)	Major Cities of Australia	Temperate	≥ 65 -years	A 10 °C increase in maximum temperature was associated with a 4.9% increase in daily ambulance call-outs (IRR 1.049; 95% CI 1.027-1.072), and a 3.4% increase in mental health related HAs (IRR 1.034; 95% CI 1.009-1.059) for the all-age population.

	<p>°C; or minimum minus 26 °C, set as 0 if T<26 °C)</p> <p>c) Hot days Hot days were defined by maximum temperature >90th, >95th, or >99th percentile for warm seasons</p> <p>d) Days grouped into 2 °C intervals of daily maximum or minimum temperature after rounding to the nearest whole degree, and mean daily excess outcomes (e.g., deaths) were calculated for each temperature interval</p>	exposure to excessive he					
51	Monthly Tmax	Ross river virus cases	Tasmania (Sorell Council, is located in the	Inner Regional Australia	Temperate	NA	Allowing for a 0- to 3-month lag period, temperature was the most significant driver of Ross River virus cases at 1-month

			south-eastern part of Tasmania, 25 km from Hobart)				lag, contributing to a 23.2% increase in cases above the long-term case average.
105	HW (daily maximum $\geq 37^{\circ}\text{C}$ for 2 or more consecutive days)	EHAs from non-external causes (NEC)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	65-74-year-olds and aged 75+	During HWs, there was a statistically significant increase in NEC mortality (OR 1.46; 95% CI 1.21 to 1.77), cardiovascular mortality (OR 1.89; 95% CI 1.44 to 2.48), diabetes mortality in those aged 75+ (OR 9.96; 95% CI 1.02 to 96.85), NEC EHAs (OR 1.15; 95% CI 1.07 to 1.23) and EHAs from renal diseases (OR 1.41; 95% CI 1.09 to 1.83).
155	Tmean	Ambulance calls (total calls and calls related to cardiovascular, respiratory and non-traumatic conditions)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	NA	Acute heat effects were found with a 1.17% (95% CI 0.86% to 1.48%) increase in total attendances for 1 $^{\circ}\text{C}$ increase above the threshold (0-1 days lag).
106	HW (Daily maximum temperature higher than 37°C for two or more consecutive days)	EHAs, mortality NEC	Brisbane (Queensland)	Major Cities of Australia	Subtropical	NA	Relative risks of mortality and EHAs ranged from 1.72 (95% CI: 1.40-2.11) to 1.81 (95% CI: 1.56-2.10) and from 1.14 (95% CI: 1.06-1.23) to 1.28 (95% CI: 1.21-1.36) at lag 1, respectively.

150	Weekly Tmean	Preterm birth and still birth	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Later gestational ages (last 4 weeks of the pregnancy)	There was an association between higher temperature and shorter gestation, as the hazard ratio for livebirth was 0.96 at 15 °C and 1.02 at 25 °C.
122	HW event (January 30-February 6, 2011)	ED visits, ambulance calls, and mortality	Sydney (New South Wales; the region included the Statistical Divisions of Sydney, Hunter, and Illawarra, and the Statistical Local Areas of Mid-Western Regional Part B, Lithgow, Oberon, Goulburn Mulwaree (Goulburn), and Goulburn Mulwaree (Bal) and comprised 8% of the land area of NSW and 73% of its population, i.e., 5.2	Major Cities of Australia	Temperate	Aged 75 years and older	All-cause ED visits increased by 2% (95% CI 1.01-1.03), all-cause ambulance calls increased by 14% (95% CI 1.11-1.16), and all-cause mortality increased by 13% (95% CI 1.06-1.22).

			million people				
127	Daily Tmean	Years of life lost (impact of temperature on mortality)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age groups 0–64, 65–84 and 85+	The temperature-related years of life lost will worsen greatly if future climate change goes beyond a 2° C increase without any adaptation to higher temperatures.
128	Daily Tmean, (HW: 99th percentile of daily mean temperature with a minimum of 2 to 4 consecutive days with temperatures below or above the thresholds).	Years of life lost due to CVD (cardiovascular disease) deaths	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age groups 0–64, 65–84 and 85+	The exposure-response curve between temperature and years of life lost was U-shaped, with the lowest years of life lost at 24°C.
129	Tmean	Mortality (all cause, CVD, RD)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	People aged over 85 years and with cardiovascular diseases	For every degree increase above the threshold, the highest percent increase in mortality on the current day occurred among people over 85 years (7.2% (95% CI: 4.3%, 10.2%)).
130	Tmean, Tmax and Tmin	Mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	All ages (Young ages (0–64), old ages (65–74), and very old (85+) with cardiovascular diseases	Akaike's Information Criterion was minimized when mean temperature was used for all non-external deaths and deaths from 75 to 84 years; when minimum temperature was used for deaths from 0 to 64 years,

							65-74 years, \geq 85 years, and from the respiratory diseases; when maximum temperature was used for deaths from cardiovascular diseases.
131	Tmean	Mortality related to cardiovascular diseases	Brisbane (Queensland)	Major Cities of Australia	Subtropical	All ages and for those aged \geq 65 years with cardiovascular diseases	The percentage increase in mortality was found to be 3.7% (95% CI 0.4% to 7.1%) for people aged \geq 65 years and 3.5% (95% CI 0.4% to 6.7%) for all ages associated with an increase of 1°C above the threshold temperature of 24°C.
154	Tmean, Tmax and Tmin	EHAs (respiratory and cardiovascular admissions)	Brisbane (Queensland)	Major Cities of Australia	Subtropical	>75 years,	In summer, EHAs for cardiovascular diseases increased monotonically with mean temperature and maximum temperature on the same day as admission, especially for people aged >75 years, with a 1.9% (95% CI: 0.2%, 3.7%) increase for each degree above 29°C of mean temperature which is negative but not significant effects on winter.
107 .	HWs various definitions (e.g., heat events of 3 or more consecutive days with maximum	Mortality, ambulance call outs	Adelaide (South Australia; Adelaide metropolitan area)	Major Cities of Australia	Temperate	NA	Increased mortality was associated with heat events of 3 or more consecutive days with maximum temperature (Tmax) \geq 43 °C or average daily temperature (ADT) \geq 34 °C, while ambulance call-outs

	temperature (Tmax) \geq 43 degrees C or average daily temperature (ADT) \geq 34 degrees C)						increased significantly at lower Tmax levels.
64	Tmax, Tmin, Tmean, wet bulb globe temperature, apparent temperature (including and excluding the wind component), Thom discomfort index (DI), relative strain index and humidex	Heat related mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	All causes of death that were potentially heat related, excluding the elderly age group	More deaths were likely to occur on hot days than on other (i.e., control) days, regardless of the temperature measure or biometeorological index that was used in the study.
108	HW (Tmax \geq 35C for 3 consecutive days)	Ambulance call outs, ED presentations, HA data and mortality	Adelaide (South Australia)	Major Cities of Australia	Temperate	15–64-year age group	Ambulance call-outs during the extreme HW events of 2008 and 2009 increased by 10% and 16%, respectively, compared to 4.4% during previous HWs.
109	HW (3 or more consecutive days when daily maximum temperatures	Ambulance callouts	Adelaide (South Australia)	Major Cities of Australia	Temperate	NA	Ambulance callouts increased by 3.6% during HW periods compared to non-HW periods in the warm season, with an increase of 2.6 callouts per 1 °C

	reached or exceeded 35°C)						in daily maximum temperature above a threshold of 34.6°C.
132 .	Sharp decrease or increase in temperature between neighbouring days	Non -external Mortality; cardiovascular mortality; respiratory mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age groups 65–74 years and >75 years	In Brisbane, a decrease of >3°C in temperature between days was associated with relative risks (RRs) of 1.157 (95% confidence interval (CI): 1.024, 1.307) for total non-external mortality (NEM), 1.186 (95%CI: 1.002, 1.405) for NEM in females, and 1.442 (95%CI: 1.099, 1.892) for people aged 65-74 years. An increase of >3°C was associated with RRs of 1.353 (95%CI: 1.033, 1.772) for cardiovascular mortality and 1.667 (95%CI: 1.146, 2.425) for people aged <65 years.
39	Weekly Tmax (Brisbane), monthly Tmax (Townsville)	Salmonella infection	Brisbane and Townsville (Queensland)	Brisbane (Major cities of Australia), Townsville (Outer Regional Australia)	Brisbane (Subtropical), Townsville (Tropical)	All age (salmonella infection)	A potential 1°C rise in maximum or minimum temperature may cause a very similar increase in the number of Salmonella infection cases.
133	Tmean	All cause mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age groups 0–64 years, 65– 74 years, 75–84 years and over 85 years	A clear increasing trend in the effect of high temperature on mortality with age was observed.
123	Tmean	All-cause mortality spatial analysis for elderly	Sydney (New South Wales)	Major Cities of Australia	Temperate	Population aged 65 and over	Over the entire Sydney Statistical Division (SD), mortality increased significantly on unusually hot

							days. Within the Sydney SD, the mortality on unusually hot days was found to be non-homogeneous, with most of the increased mortality occurring towards the south-west and west of the CBD.
68	HW (Tmax $\geq 35^{\circ}\text{C}$ for 3 or more consec days; daily Tmax of more than 5 consecutive days exceeds the average maximum temperature by 5°C , the normal period being 1961–1990; heat index to reach 40.6°C with Tmin not below 26.7°C as a period of at least 48h; Tmax $\geq 35^{\circ}\text{C}$ for at least 2 consec days; Tmax $\geq 37^{\circ}\text{C}$ for at least 2 consec days; The top 2.5%	ED, HAs, and mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	Age group (years: 0–14, 15–64, 65–74, 75 +)	During HWs, there was a statistically significant increase in EHAs for all ten HW definitions, with odds ratios ranging from 1.03 to 1.18.

	<p>(\$33.59uC) of daily maximum temperatures for a continuous 2 days period; The top 2.5% (\$33.59uC) of daily maximum temperatures for a continuous 3 days period; The top 5% (\$32.65uC) of daily maximum temperatures for a continuous 3 days period; The top 5% (\$32.65uC) of daily maximum temperatures for a continuous 4 days period; The top 5% (\$32.65uC) of daily maximum temperatures for a continuous 5 days period)</p>						
134	HW Brisbane (7-26 February 2004)	Non-external cause mortality and cardiovascular mortality	Brisbane (Queensland)	Major Cities of Australia	Subtropical	NA	There was a significant relationship between exposure to heat and excess deaths in the 2004 HW [estimated increase in non-external deaths: 75 ([95%

							confidence interval, CI: 11-138; cardiovascular deaths: 41 (95% CI: -2 to 84)].
147	Weekly Tmean	Weekly incidence of influenza (A and B) among pediatric patients	Melbourne (Victoria), Brisbane (Queensland), Sydney (New South Wales)	Melbourne (Major Cities of Australia), Brisbane (Major Cities of Australia), Sydney (Major Cities of Australia)	Melbourne (Temperate), Brisbane (Subtropical), Sydney (Temperate)	Adult patient (over 18 years old)	In the case of influenza B, the mean temperature was the key climate variable associated with the incidence of influenza in Hong Kong, Brisbane, Melbourne, and Vancouver.
141	Monthly Tmean	Renal colic ED admissions	Melbourne (Victoria)	Major Cities of Australia	Temperate	Age group (15-34, 35-44, 45-55, 56+)	There were significant positive correlations between the mean monthly maximum temperature and the absolute number (R=0.34, P=0.002) and rate (presentations/day, R=0.26, P=0.017) of presentations.
110	HW event 2009	ED admissions related to directly heat related symptoms, mental health, cardiovascular [excluding ischaemic and cerebrovascular - separately listed], ischaemic, cerebrovascular, respiratory [excluding	Adelaide (South Australia)	Major Cities of Australia	Temperate	5-64 years and 65+ years	HWs were linked to an increase in ED patient presentations.

		asthma], asthma, renal symptoms					
111	Tmax, Tmean, Tmin and 3 day moving average of the Tmean above	Acute Myocardial Infarction admissions	Melbourne (Victoria)	Major Cities of Australia	Temperate	Aged 35 years and older	Acute myocardial infarction increases during hot weather were only identified in the most disadvantaged and the least disadvantaged areas.
45	Tmax, Tmean, Tmin were observed over a 48 hour period	Mortality of people aged above 65	Victoria {Bendigo (Loddon), Wodonga (Hume), Latrobe Valley (Gippsland), Horsham (Grampians), Hamilton (Western District) Lakes Entrance (East Gippsland), Geelong (Barwon), Shepparton (Goulburn), Ballarat (Central highlands), Mildura (Mallee)}	Inner and Outer Regional Australia	Temperate	Aged 65 years and older	The establishment of threshold temperatures in all major rural regions of Victoria indicates that hot weather results in an increase in mortality in persons aged 65 years and older.

43	HW (Days when Tmax exceeded the 99th percentile; days for which this criterion was met on the previous day (lag1); and days where the 3-day moving average exceeded its 99th percentile; apparent temperature 9 am and 3 pm)	HA data (cardiovascular disease, cardiac arrest, cerebrovascular disease, respiratory disease, asthma, chronic obstructive pulmonary disease, renal disease, acute renal failure, calculus of the kidney and ureter, injury, heat-related injuries, mental and behavioural disorders, diabetes, dehydration and other disorders of fluid, electrolyte and acid–base balance.	Sydney (New South Wales; the study focussed on five regions in NSW: Sydney East, Sydney West, Gosford - Wuyong, Newcastle, and Illawarra)	Major Cities of Australia	Temperate	Men over 75 years of age	This study identified several main diagnoses and underlying conditions for EHA that are particularly susceptible to extreme heat events.
32	Tmax (monthly mean)	Cryptosporidiosis incidence	Queensland	All Remoteness classes in Queensland	All Climate Zones in Queensland	All age cryptosporidiosis cases	Results of the regression tree model (based on non-zero incidence rates) showed when the socio-economic index for the area was between 892 and 945, and temperature exceeded 32 °C, the relative risk of cryptosporidiosis was 3.9 (mean morbidity: 390.6/100,000, standard deviation: 310.5), compared to

							the monthly average incidence of cryptosporidiosis.
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