# Tonight's webinar will begin shortly





We backed telehealth

so GP care would reach

beyond the practice

It all comes back to care

Renew your 2021-22 membership or join today at www.racgp.org.au/membership-renew







consistency of care

Unlock your practice potential



future workforce business potential

The RACGP's **Practice Experience Program** for non-VR doctors can benefit your practice, your business and your community.

Find out how at racgp.org.au/pep

## Simplifying and improving your CPD experience.

We've made even more improvements to your myCPD dashboard to save you time and personalise your experience.

Find out more at racgp.org.au/yourcpdhome



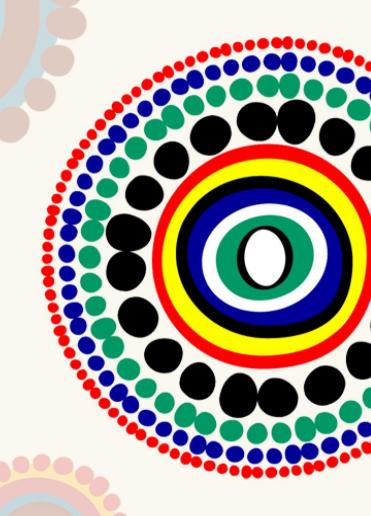
#### NACCHO-RACGP Resource Hub

Supporting effective and culturally safe primary healthcare

Learn more at www.racgp.org.au/cultural-safety









#### General Practice Business Toolkit

Helping you look after the business side of general practice

Establish, manage and enhance your practice using our new General Practice Business Toolkit.

Build a sustainable business with six easyto-navigate modules and a brand new set of interactive tools.

- Use the billing calculator to learn how to achieve your financial goals.
- Design your ideal practice layout.
- Set your vision and values and focus on what's important to you as a practice owner.

TO FIND OUT HOW YOU CAN GET THE MOST OUT OF THE TOOLKIT, VISIT www.racgp.org.au/gpbt

## We will begin in 45 seconds





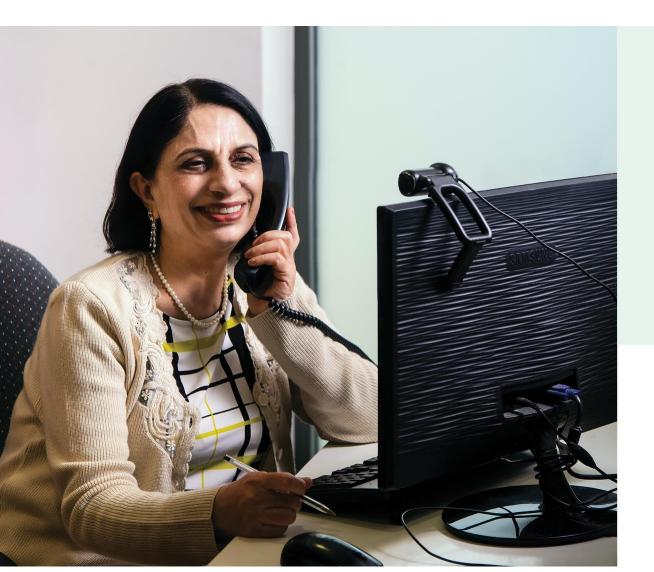
#### Upskill. Download.

Expand your skills in the diagnosis and treatment of dermatological conditions in your practice.

Sign up now for the new-look Certificate of Primary Care Dermatology.

REGISTRATIONS NOW OPEN www.racgp.org.au/dermatology









#### A unique insight into the state of Australian general practice

The RACGP's General Practice: Health of the Nation report is the only comprehensive study of general practice in Australia.

This year's report surveyed more than 1700 RACGP Fellows and highlights the impact of COVID-19 on GPs and their patients, including:

- the consequences of state and federal government initiatives for GPs
- the support GPs and patients received, and the areas where they needed more support
- the introduction of Medicare Benefits Schedule telehealth items.

Read the report and get a glimpse of the future of general practice by visiting the website: www.racgp.org.au/hotn



Training GPs to help people tackle alcohol and other drug use



racgp.org.au/AOD

## We will begin in 15 seconds





We backed telehealth

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It all comes back to care

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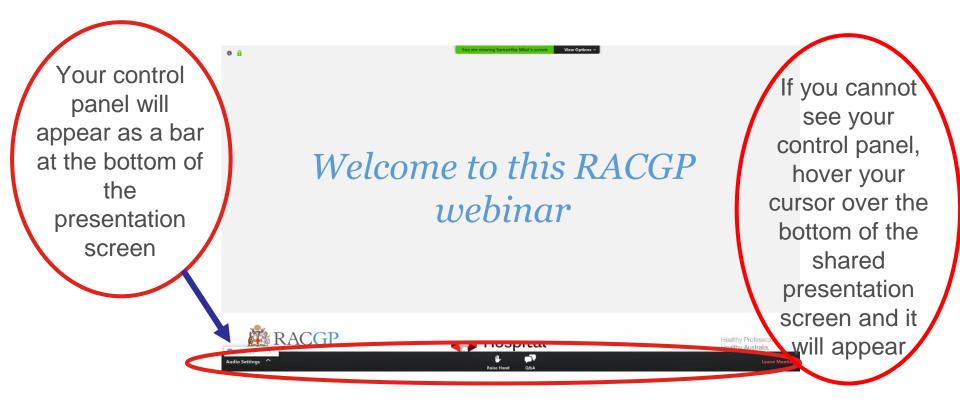
# Welcome to tonight's webinar







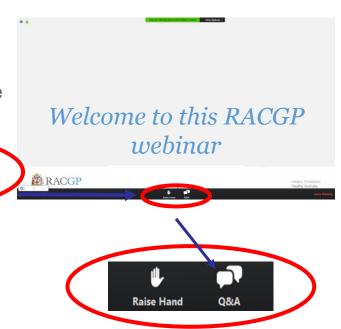
### Where is my control panel?

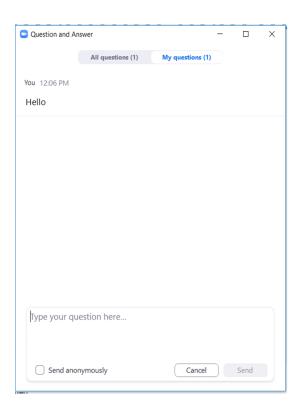


### Listen only mode

You have been placed on "mute" to optimise the learning experience for you and your peers

Use the question box function to talk to us.





#### Introductions



Dr Kate Wylie
Presenter

RACGP Specific Interests - Climate and Environmental Medicine

### Acknowledgement of country

The nation called Australia is stolen land. First Nations people have never ceded their sovereignty of their land and respect is owed to all Aboriginal and Torres Strait Island Nations and people.

Further, I pay my respects to Elders past present and emerging and welcome any ATSI people present here today.





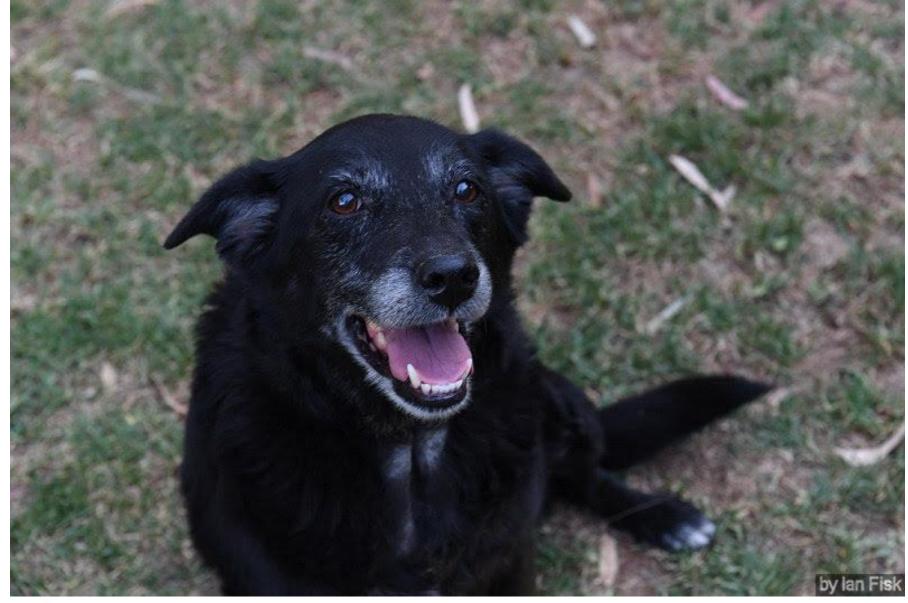














RACGP | Specific Interests

Healthy Profession. Healthy Australia.

#### **NATURAL HISTORY:**

5 key concepts

#### **SYMPTOMS:**

3 case scenarios

#### TREATMENT PLAN:

- Profession
- **Practitioners**
- People
- Political Advocates

When someone says they don't believe in global warming





### Learning Outcomes

By the end of this online QI & CPD activity, you should be able to:

- Describe how burning fossil fuels causes global warming
- Identify three common health impacts of climate change
- Describe which groups are at the greatest risk of heat related illness
- Describe which groups are at the greatest risk of smoke inhalation from bushfires
- Identify the mental health impacts of climate change



## 1. THE SCIENCE IS SETTLED







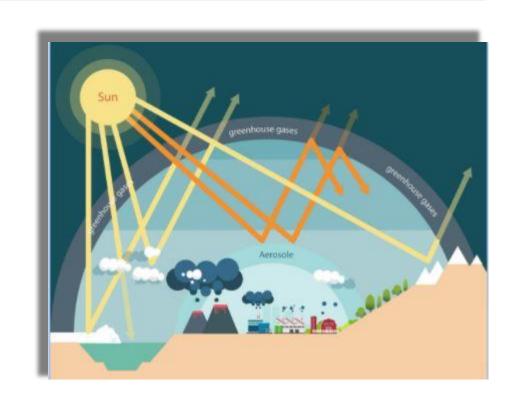
#### Global Warming and Climate Change 101

Burning Fossil Fuels Releases Greenhouse Gases →

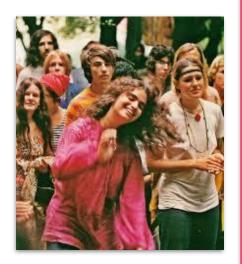
Which increases the Greenhouse effect  $\rightarrow$ 

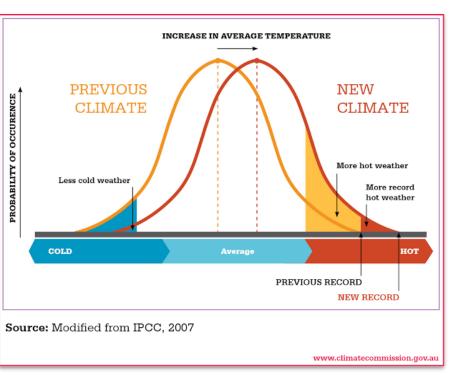
Which increases the temperature

Causing more extreme heat and changing the climate.



1960-1991: 21.8°C





2019: 23.3°C



https://www.theguardian.com/australia-news/2020/jan/02/2019-australia-hottest-year-record-temperature-15c-above-average-temperature





#### HOW DOES CLIMATE CHANGE **AFFECT AUSTRALIA?** Cyclones are likely to become more intense, but less frequent. Extreme rainfall events are expected to become more intense. Hotter and drier conditions will lead to harsher bushfire weather. Heatwaves will become even longer and hotter. Higher sea levels will increase flooding in coastal cities and towns. Potential severe thunderstorm days are expected to increase. Droughts are likely to happen even more often. CC CLIMATE COUNCIL.ORG.AU crowd-funded science information



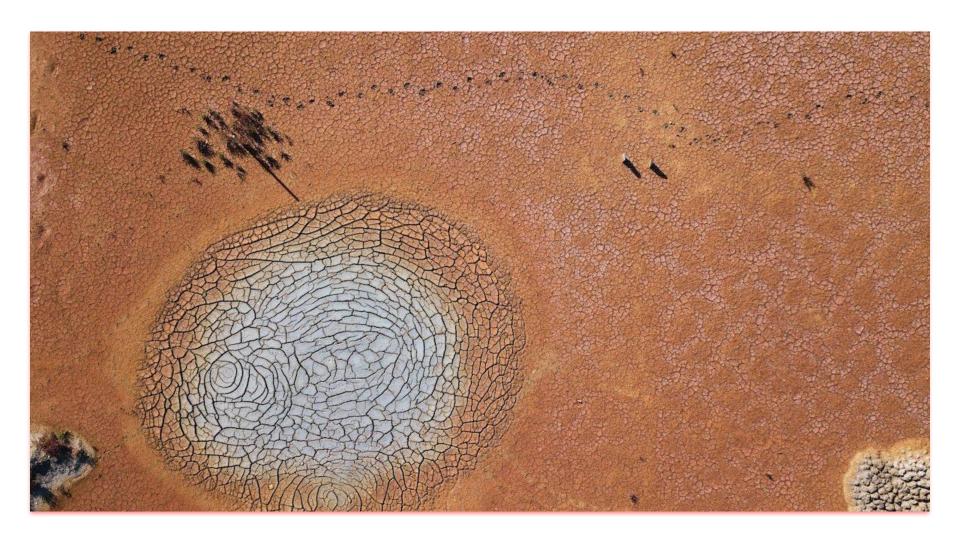


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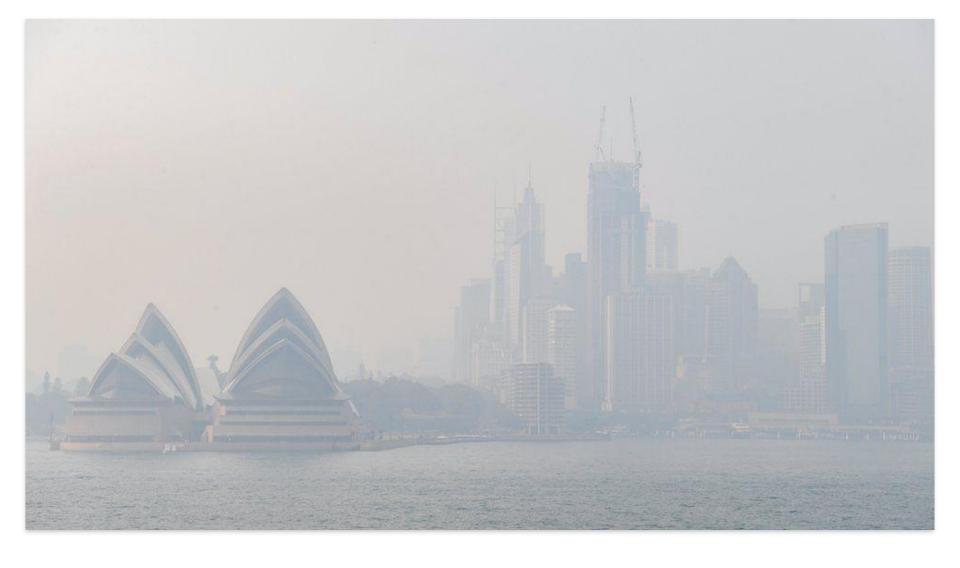






















### 2. THE CLIMATE CRISIS IS A HEALTH **EMERGENCY**



#### Climate change is the biggest global health threat of the 21st century

Costello A et al. May 19 2009 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60935-1/fulltext

#### Climate Emergency Declarations:

#### Australia

- AMA
- DEA
- RACGP
- RACP
- ACEM
- ACRRM
- CICP
- RANZCP
- RANZA
- etc

#### Global bodies:

- Global Climate and Health Alliance
- Global Green and Health Hospitals
- The Lancet
- Planetary Health Alliance
- World Medical Association









https://www.who.int/news-room/events/detail/2021/11/06/default-calendar/2021-global-conference-onhealth-and-climate-change



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# Medical Research Community

<u>Call for emergency action to limit global temperature increases, restore biodiversity, and protect health</u>

#### >230 Medical Journals -

The UN General Assembly in September 2021 will bring countries together at a critical time for marshalling collective action to tackle the global environmental crisis. They will meet again at the biodiversity summit in Kunming, China, and the climate conference (COP26) in Glasgow, UK. Ahead of these pivotal meetings, we — the editors of health journals worldwide — call for urgent action to keep average global temperature increases below 1.5°C, halt the destruction of nature, and protect health.

https://www.mja.com.au/journal/2021/215/5/call-emergency-action-limit-global-temperature-increases-restore-biodiversity

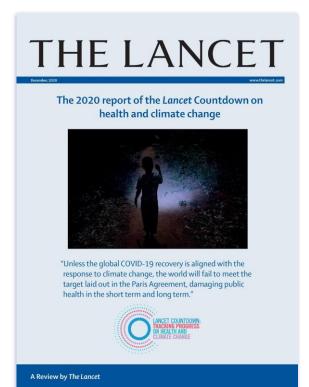
#### **Lancet Countdown**: started in 2015.

Annual report monitoring progress across 5 domains:-

- Climate change impacts, exposures and vulnerability.
- Adaptation, planning and resilience for health
- Mitigation actions and health co-benefits
- Economics and finance
- Public and political engagement.

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32290-X/fulltext





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#### RACGP: Climate change and Human Health Position Statement 2019

**Recognises** climate change as a key public health issue

**Commits** to mitigation and adaptation strategies (in practice and in the broader community)

**Advocates** for policies to protect health

Considers it important for **GPs** to **learn** about it, **communicate** about it and **research** it.



#### **Impact of Climate Change on Human Health**









# 3. CLIMATE CHANGE IS A SOCIAL JUSTICE ISSUE



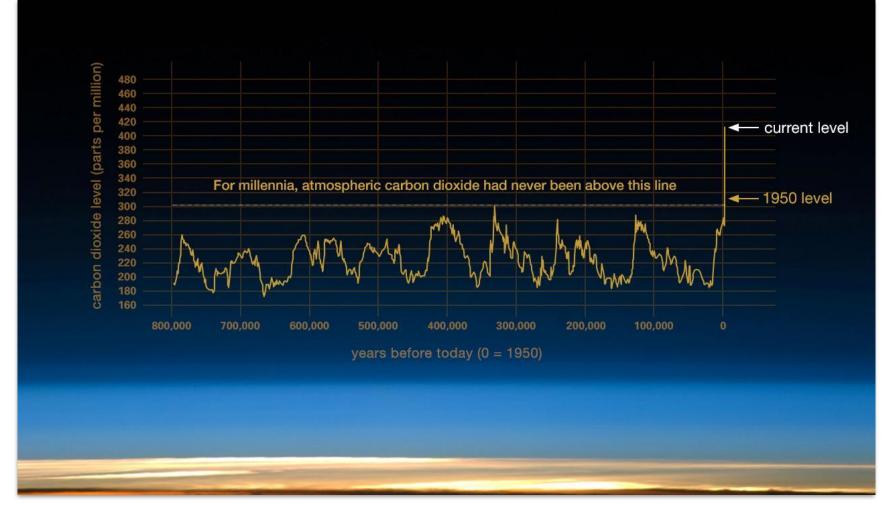






# 4. WE MUST ACT NOW





**August 5 2021 = 415.54 ppm** 

https://www.co2.earth/daily-co2

https://climate.nasa.gov/evidence/



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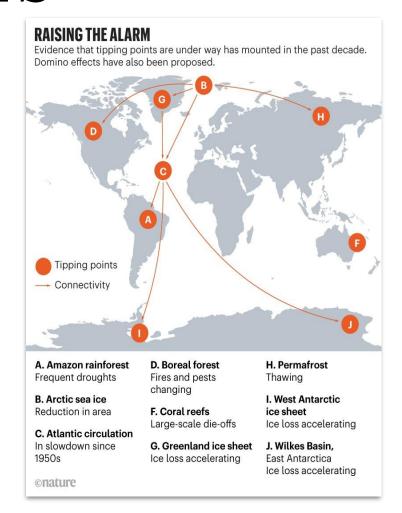
### TIPPING POINTS

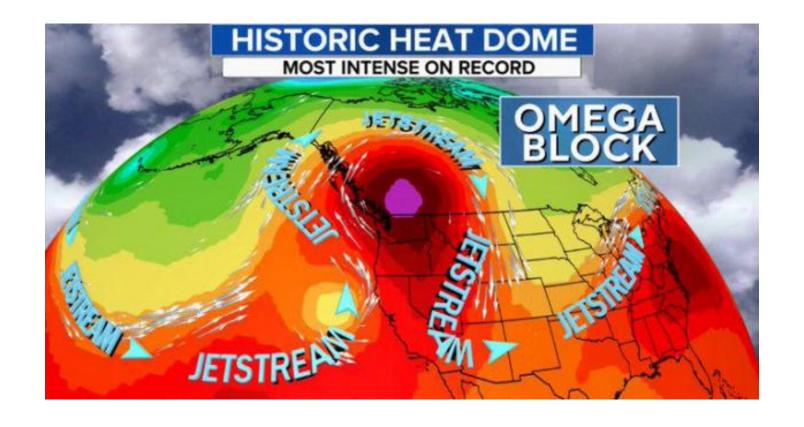
"A climate tipping point, or any tipping point in any complex system, is where a small change makes a big difference and changes the state or the fate of a system."

Once the point is tipped we can't reverse it.

We don't know exactly when these will occur but the causes of the tipping points are already underway.

https://www.nature.com/articles/d41586-019-03595-0





From SBS World News : July 25. Getty Images



#### Paris Agreement: 2016.

Aim: Limit to 2°C and as close to 1.5°C as possible

IPCC 1.5°C: 2018

For a 50% chance of limiting global warming to 1.5°C, we need to halve global emissions by 2030 and reach ZERO by 2050.

https://www.ipcc.ch/sr15/

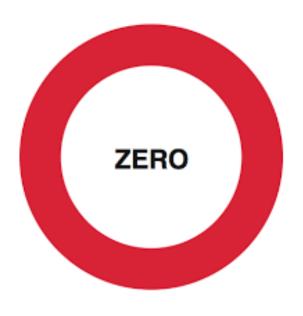
<u>IPCC 2021:</u> "Unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming to 1.5°C will be beyond reach".

https://www.ipcc.ch/assessment-report/ar6/

#### **AIM HIGH GO FAST:**

- every 10th of a degree matters
- 75% reduction by 2030 and Zero by 2035

https://www.climatecouncil.org.au/wp-content/uploads/2021/04/aim-high-go-fast-why-emissions-must-plummet-climate-council-report.pdf



#### Global greenhouse gas emissions scenarios in Data Potential future emissions pathways of global greenhouse gas emissions (measured in gigatonnes of carbon dioxide equivalents) in the case of no climate policies, current implemented policies, national pledges within the Paris Agreement, and 2°C and 1.5°C consistent pathways. High, median and low pathways represent ranges for a given scenario. Temperature figures represent the estimated average global temperature increase from pre-industrial, by 2100. 160 Gt CO2e 140 Gt CO2e No climate policies 120 Gt CO2e (4.1-4.8°C) 100 Gt CO2e 80 Gt CO2e 60 Gt CO2e 40 Gt CO2e Historic 20 Gt CO2e 2°C pathways 0 Gt CO2e 1.5°C pathways 2000 2020 2040 2080 2100 2060 Based on data from the Climate Action Tracker (CAT). The data visualization is available at OurWorldinData.org. There you find research and more visualizations on this topic. Licensed under CC-BY-SA by the authors Hannah Ritchie and Max Roser.

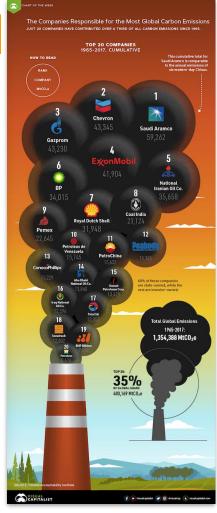


# 5. GREED IS KILLING OUR PLANET



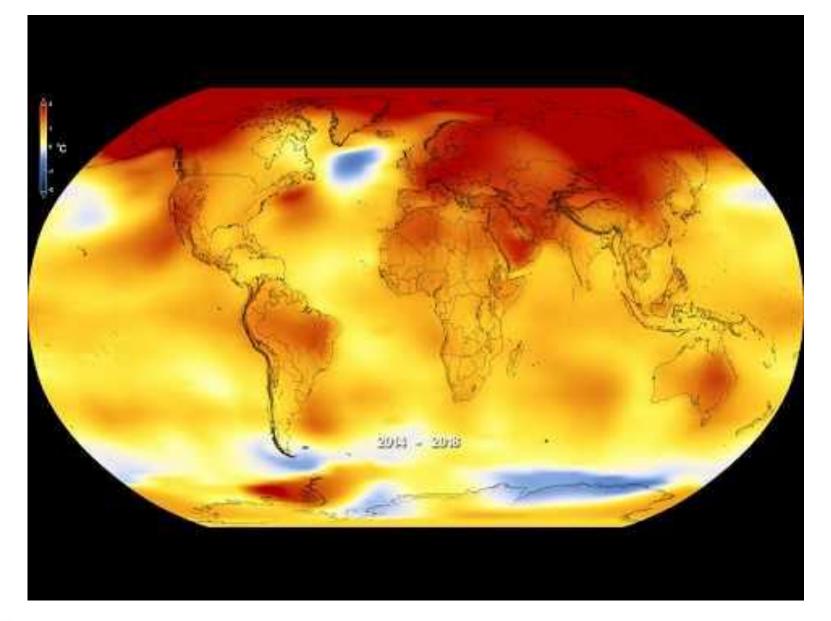
#### Fossil Fuels are big business - \$4.65 trillion pa













# Case Studies

- 1. Heat
- 2. Smoke Inhalation
- 3. Mental Illness



# Clinical scenario 1: Heat

Mrs Esaurimento da Calore, 82.

Collapses in your waiting room on a hot summer's day.

The last 4 days the temperature has been >35°C, with night time minimums above 25.

E: 90/60, HR 110, lips dry, cap return 1 sec

Social Hx: Lives alone, on the pension.

PHx: Hypertension. Heart failure. Arthritis. Sciatica, Insomnia,

Medication list: coversyl plus, lasix, endep.



# Health Effects

Heat exhaustion and heat stroke

Heart attacks

Strokes

Kidney disease

Suicide

#### South Australia 2009 heat wave: 400 excess deaths

"The highest increase in mortality was due to causes of direct heat, particularly in the 75+ age group, followed by ischaemic heart disease related mortality in 15 to 64 year olds and stroke-related in 65 to 74 year olds".

 $\label{lem:https://www.sahealth.sa.gov.au/wps/wcm/connect/fc6a5238-14c1-4b1c-9534-ed2c04391f4d/Extreme+heat+and+the+risk+to+your+health+-to+your+health+-to+your+health+-to+your+health+-to+your+health+-to+your+health--to+path--to-your-health--to-your-he$ 

SA: increased temperature causes increased renal disease (kidney stones, acute kidney injury and UTI's)

UTIs.https://ehjournal.biomedcentral.com/articles/10.1186/s12940-017-0331-4



https://www.sahealth.sa.gov.au/wps/wcm/connect/6023f98b-bdcf-416b-9d3a-cfff9ea728c8/A4+Poster+-

+Signs+and+symptoms+of+heat+illness.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-6023f98b-bdcf-416b-9d3a-cfff9ea728c8-n5jhfeO



# Heatwaves: Australia's most deadly natural

disaster

1100 Deaths a year: 2017

https://www.dea.org.au/wp-content/uploads/2017/02/DEA\_Climate\_Change\_\_Health\_Mini\_Fact\_Sheet\_final.pdf

#### Vulnerable Groups

Elderly

The very young

Pregnant women,

Mental health conditions,

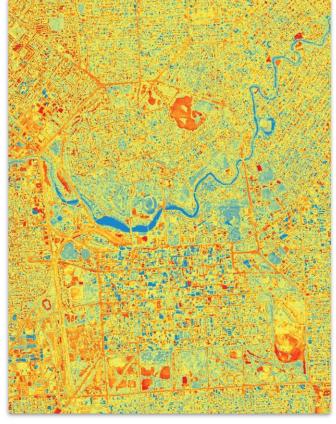
Underlying medical conditions

Outdoor workers

Poverty

Homeless

LIVING IN A CITY: URBAN HEAT ISLANDS





# Clinical Scenario 2: Breathing

Mr Senza Rispero, 16 y.o.

**Presentation:** Shortness of breath

and cough

Dharug man of the Eora nation.

E: RR 24, looks SOB, wheeze, 02satn 94%

**Further info:** Lives in Sydney. Bush fires burning in surrounding hills for the past 3 months.

Air quality index: 400

Past history: asthma





# Air Quality Index

5 major pollutants: ground level ozone, particulates (PM 2.5, PM 10), CO2, SO2 and NO2.

In Sydney's East, the Air Quality Index sat at **518.** 

Financial Review: Jan 8 2020

https://www.afr.com/policy/energy-and-climate/bushfire-smoke-pushes-air-quality-beyond-hazardous-range-in-sydney-20200108-p53ppq



AQI	Air Pollution Level	Health Implications	Cautionary Statement (for PM2.5)
0 - 50	Good	Air quality is considered satisfactory, and air pollution poses little or no risk	None
51 -100	Moderate	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
101-150	Unhealthy for Sensitive Groups	Members of sensitive groups may experience health effects. The general public is not likely to be affected.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
151-200	Unhealthy	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion
201-300	Very Unhealthy	Health warnings of emergency conditions. The entire population is more likely to be affected.	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
300+	Hazardous	Health alert: everyone may experience more serious health effects	Everyone should avoid all outdoor exertion

# Smoke inhalation

Unprecedented smoke-related health burden associated with the 2019-2020 bushfires in eastern Australia. Arriagada et al

**1/10/2019-10/2/2020:** Bushfire smoke  $\rightarrow$ 

417 (95% CI, 153-680) excess deaths,

1124 (95% CI, 211–2047) hospitalisations for cardiovascular problems

2027 (95% CI, 0–4252) for respiratory problems

1305 (95% CI, 705–1908) presentations to emergency departments with asthma

https://www.mja.com.au/journal/2020/213/6/unpr ecedented-smoke-related-health-burdenassociated-2019-20-bushfires-eastern



# Pollution: Burning fossil fuels → 1 in 5 deaths

CEOS-Chem: Collaboration between Harvard University, the University of Birmingham, the University of Leicester and University College London, found that more than 8 million people died in 2018 from fossil fuel pollution, significantly higher than previous research suggested—meaning that air pollution from burning fossil fuels like coal and diesel was responsible for almost 1 in 5 deaths worldwide.

Global Mortality from outdoor fine particulate pollution generated by fossil fuel combustion: Results from GEOS-Chem: Vhora K et al

nttps://www.sciencedirect.com/science/article/abs/pii/S0013935121000487

# Clinical Scenario 3: Eco-Anxiety

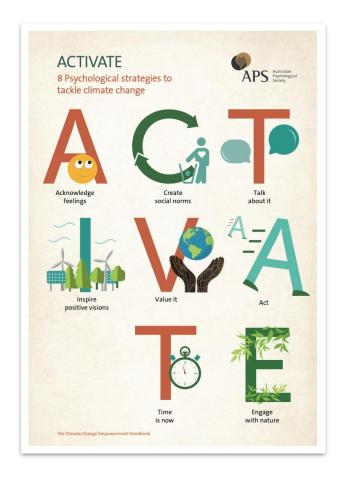
Ms Ansia Ecologica. 24 y.o.

**Presentation**: anxiety and panic

Further info: worried about global warming, is overwhelmed by sadness and anger. Very politically engaged but disillusioned about the future.

Decided not to have children because she would not bring them into this world. Lately stopped attending Uni and going out. What's the point, we're all going to die?





https://www.psychology.org.au/getmedia/b2304d9c-64d4-40a6-b063-3014128ec740/ACTIVATE-climate-change.pdf

- 1. Acknowledge feelings about climate change to yourself and others and learn ways of managing them so you can face and not avoid the reality of climate change.
- **2. Create social norms** about protecting the environment. "Everyone is doing it." "It's normal to be green."
- 3. Talk about climate change and break the collective silence so that more and more people see it as a risk that requires action.
- **4. Inspire positive visions** of a low-energy, sustainable, zero carbon world so that people know what we are working towards and can identify steps to get there.
- **5. Value it.** Show that caring for the environment reinforces caring for other things we value (family etc)
- **6. Act** to contribute to climate change solutions and feel engaged and less despairing.
- 7. Time is now. Climate change is here and now and is relevant to us all now.
- **8. Engage with nature** to restore your spirit and connect with what we are trying to protect.

# Further resources

Psychology for a Safe Climate: <a href="https://www.psychologyforasafeclimate.org/">https://www.psychologyforasafeclimate.org/</a>

"Our purpose is to contribute psychological understanding and support within the community, helping people face the difficult climate reality".

Australian Psychological Society <a href="https://www.psychology.org.au/for-the-public/Psychology-topics/Climate-change-psychology">https://www.psychology.org.au/for-the-public/Psychology-topics/Climate-change-psychology</a>

"...the solutions to climate change require profound changes in human behaviour. We are interested in how to help people understand climate change, how to cope with it, and how to get involved in effectively addressing climate change."

#### **American Psychological Society**

https://www.apa.org/science/about/publications/climate-change



## Treatment Plan

It is the responsibility of health care practitioners to look after the health of humanity and to act in its best interests.

We have an opportunity to advocate for a health based response to the climate health emergency and address societal inequities at the same time.



As a PROFESSION As PRACTITIONERS Our Practice Our Patients As PEOPLE As POLITICAL ADVOCATES We can treat climate change as



RACGP | Specific Interests

Healthy Profession. Healthy Australia.

#### AS A PROFESSION

The Carbon Footprint of Australian Healthcare: 7% of Australia's footprint.

https://www.thelancet.com/journals/lanplh/article/PIIS2542-51961730180-8/fulltext

Global Carbon Footprint of healthcare = 5%

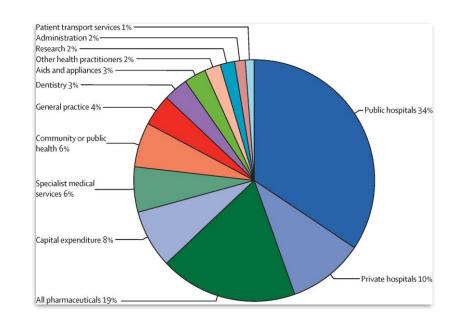
https://www.carbonbrief.org/healthcare-in-worlds-largest-economies-accounts-for-4-of-global-emissions

AMA and DEA position statement: Reduce emissions of health care by 80% bo 2030 and to zero by 2040.

https://www.ama.com.au/media/joint-statement-medical-professionals-call-emissions-reduction-health-care

"Every sector must play its part to reduce carbon emissions, and the healthcare sector, guided by the principle to 'first, do no harm', has an added duty to lead and take action to protect health."

Spokesperson for DEA Dr Eugenie Kayak

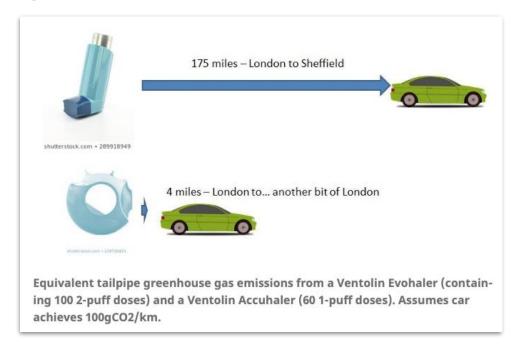




## AS PRACTITIONERS

#### **OUR PRACTICE**

- Greening our practices green energy providers, solar, recycling, reducing waste, reducing plastics
- Greening our prescribing choosing medications with a lower impact Deprescribing, Nature prescribing
- https://www.youtube.com/watch?v=f qN1EYV9T7A
- Greening our pathology and investigations - unnecessary ordering



https://greeninhaler.org/?fbclid=lwAR1vYbLSG\_8BHREI3Y9Co7P92mlNZgBiAqu\_ sd5JQox6KFLWCMwZCY2dwkQ

# AS PRACTITIONERS

#### **OUR PATIENTS**

- *Talk about it*. This is the most important health problem of this century, we're allowed to talk about it.
- Health co-benefits of action
  - Planetary health diet
  - Active transport -walk, cycle.
- Care plans
  - Heat waves
  - Air quality index
  - Disaster action plans
- Medications are we placing them at risk?



## AS PEOPLE

#### Be part of the solution, not part of the problem

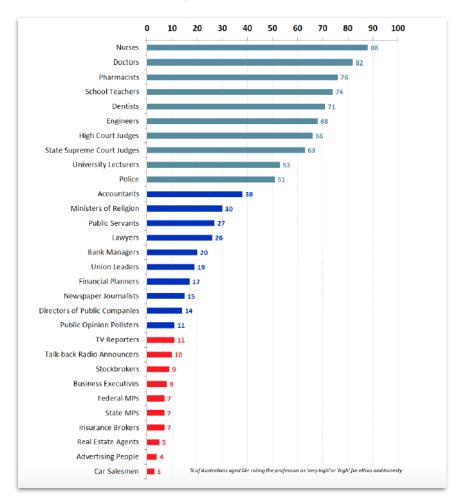
- Finance divestment and investment, offsets
- Advocacy vote climate, engage with politicians
- Transport walk, cycle, EVs, PT.
- Energy renewable energy provider, panels, batteries
- Diet planetary health diet, plant rich.

https://www.climatemedicine.net/individual-actions



# AS POLITICAL ADVOCATES

- Doctors are trusted Professionals
- Join the movement for change get involved with professional groups, community groups, present locally on climate and health
- Talk to your politicians visit them at work
- Write the letters, sign the petitions



Roy Morgan: 2021



**Specific Interests** 

Source: Roy Morgan 2021

Healthy Profession. Healthy Australia.





# Questions



Thank you very much for attending and to our presenters for their valuable time and information.

We hope you enjoyed this webinar.

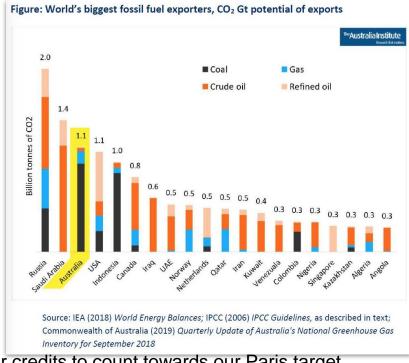


# Australia's Carbon Footprint: Adding fuel to the fire

- · Our emissions are increasing
- 15th biggest CO2 producing country in the world
- Second highest C02 producers per capita.
- Domestic use = 1.2% of world emissions
- Emit more greenhouse gases than 40 countries with a higher population than us.
- Add exports => 4% of global emissions
- World's biggest exporters of coal and natural gas
- Third biggest exporters overall

#### 2020 Climate Change Performance Index:

Australia came last out of 57 countries

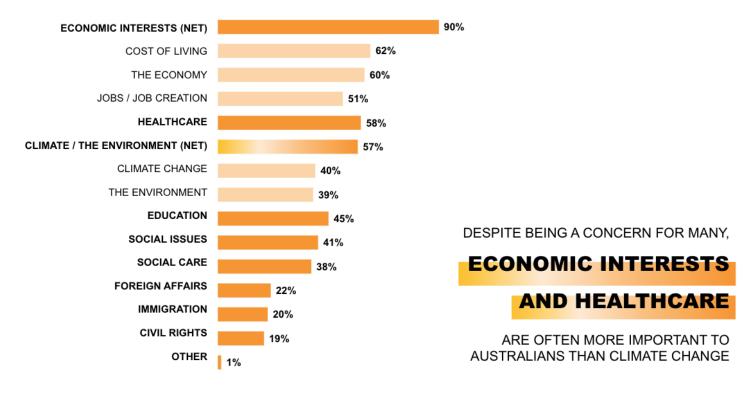


COP 25: 31 countries spoke against Australia using carryover credits to count towards our Paris target.

 We were linked with Brazil and Saudi Arabia as countries blocking rules to govern carbon markets and hampering the global ability to reduce emissions.

Australia is undermining the global response to the carbon crisis.







% OF AUSTRALIANS WHO CHOSE THIS POLICY AREA IN TOP 5 MOST IMPORTANT WHICH OF THE FOLLOWING ISSUES / POLICY AREAS ARE MOST IMPORTANT TO YOU PERSONALLY? BASE: N=2510

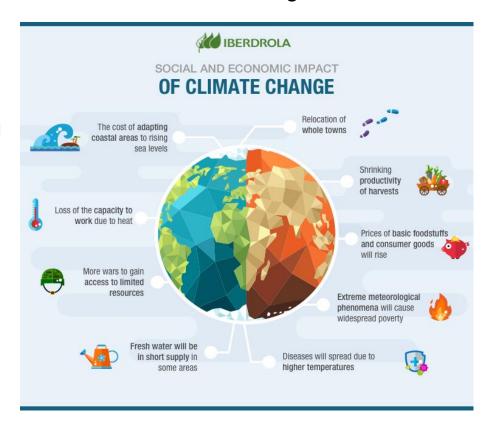
019

# Climate and the Economy

Costs more not to act than it does to act.

- Billions of dollars per year in subsidies
- Our government is propping up the fossil fuel industry and enables their continues expansion
- The jobs argument is a furphy
- Jobs in many sectors, not just fossil fuels
- The concept of a just transition
- Circular economy
- Universal basic income

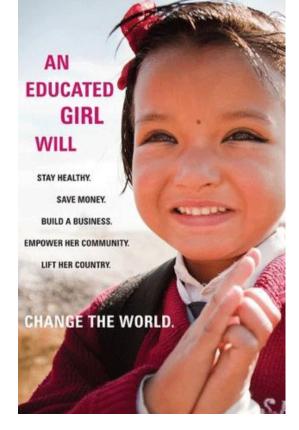
What price is human health?



Current global population = 7.8 billion. More people → Greater stress on ecosystems But:

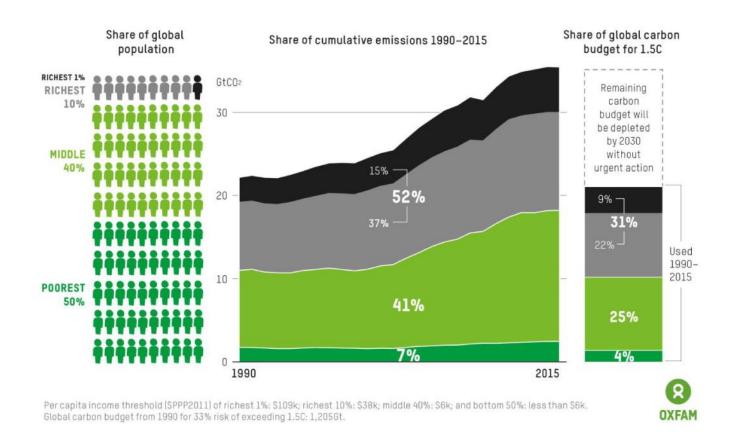
- Most emissions come from rich countries and people.
- We can choose to live more sustainably e.g. Eat Lancet. What is your carbon footprint?
- The best way to reduce population growth is through education especially the education of girls. This applies globally and in Australia.
- Educated women choose to have fewer children and are more able to access contraception. Educating girls increases equality and reduces poverty.













## No Nukes.

Radioactive decay is slow:

Eg. Uranium-238 has a half like of 4.5 billion years.

Radiation causes mutation and cancer.

E.g. Marie Curie who discovered the elements radium and polium and who coined the term radioactivity died of radiation induced leukaemia.

Unethical to risk the health of humans and animals for centuries to come.

Renewables are cheaper and they don't cause mutations.



