



World Gastroenterology Organisation

Global Guardian of Digestive Health. Serving the World.

CLIMATE CHANGE - Changing the World through Education and Advocacy

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Inform. Educate. Train. Advocate.



Disclosures

- Nil



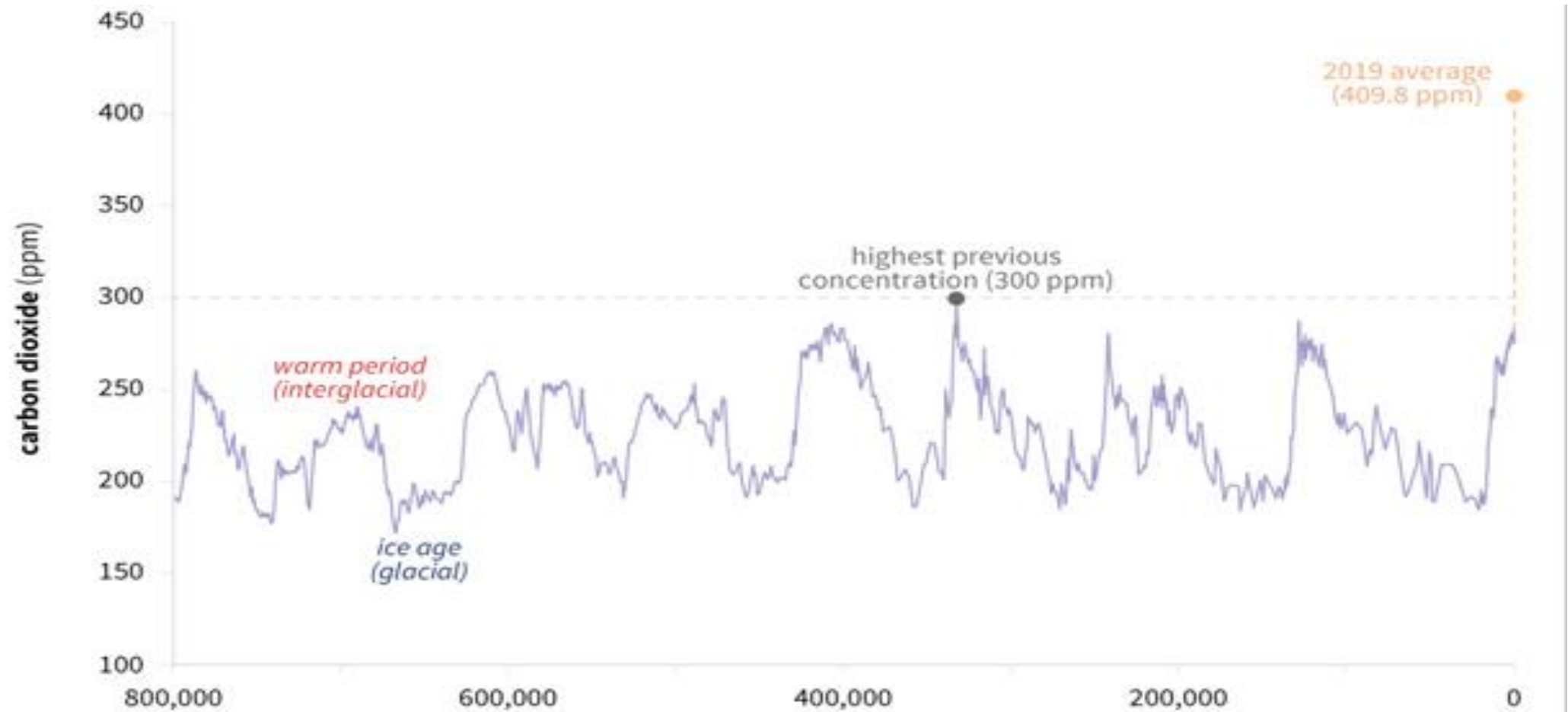
CLIMATE CHANGE

- Is it occurring?
- Is it cyclical or anthropogenic?
- What are we witnessing?
- How long have the scientists been warning us?
- Why has the world taken so long to respond?
- Why has it taken so long for doctors to respond?
- What should we do now?



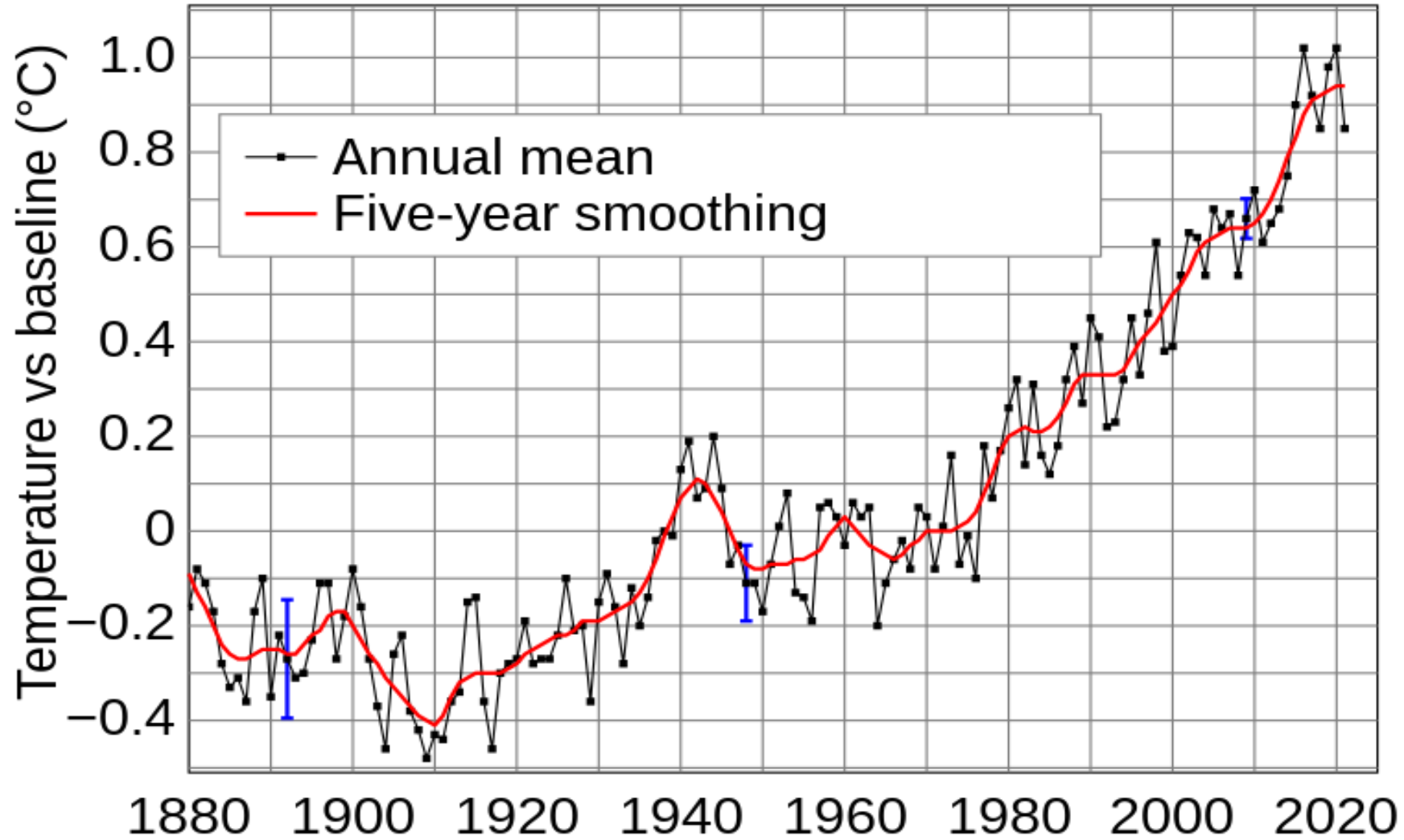
TERMINOLOGY

- Green House gases (GHG)
- Global Warming
- Climate Change
- Sustainability





Global Average Temperature





Is Climate Change Happening?

- **Scientists had predicted changes, which have eventuated**

Seemingly small rises in average global temperatures will have profound effects:

- Heat waves, droughts, extreme weather events, floods
- Wild fires, adding further to Greenhouse Gas rises
- Ice-caps melting, sea levels rising, coastal lands submerged
- Failure of food and water security
- Massive impacts on health



What are we witnessing?

Observed situation currently:

- Droughts lasting several years in some areas
- The highest temperatures ever recorded
- The largest wildfires ever experienced
- Followed by the heaviest rainfall ever recorded
- “one in 100 years” flood levels – occurring 3 times in 2 years
- Similar extreme events in Europe and North America in last 2 years



Why has the World taken so long to respond?

- **Lobbyists and opinion leaders**
 - “What would scientists know?”
- **Politicians denying the evidence**
 - Their “role” is to support employment and industry
 - Their “role” is to support the economy – short term
- **Global Climate Coalition (GCC) – 1989-2001**
 - Formed from oil, coal, auto, utility, steel and rail industries
 - E. Bruce Harrison employed to “change the narrative”
 - Lobbied politicians against reducing fossil fuel use



Why has it taken so long for doctors to respond?

- We **ARE** an honest and trusted profession
- Science pointed to GHGs, temperatures, weather events
- Initial uncertainty about link of these to:
 - food production
 - water security
 - habitat destruction
 - biodiversity
 - health generally



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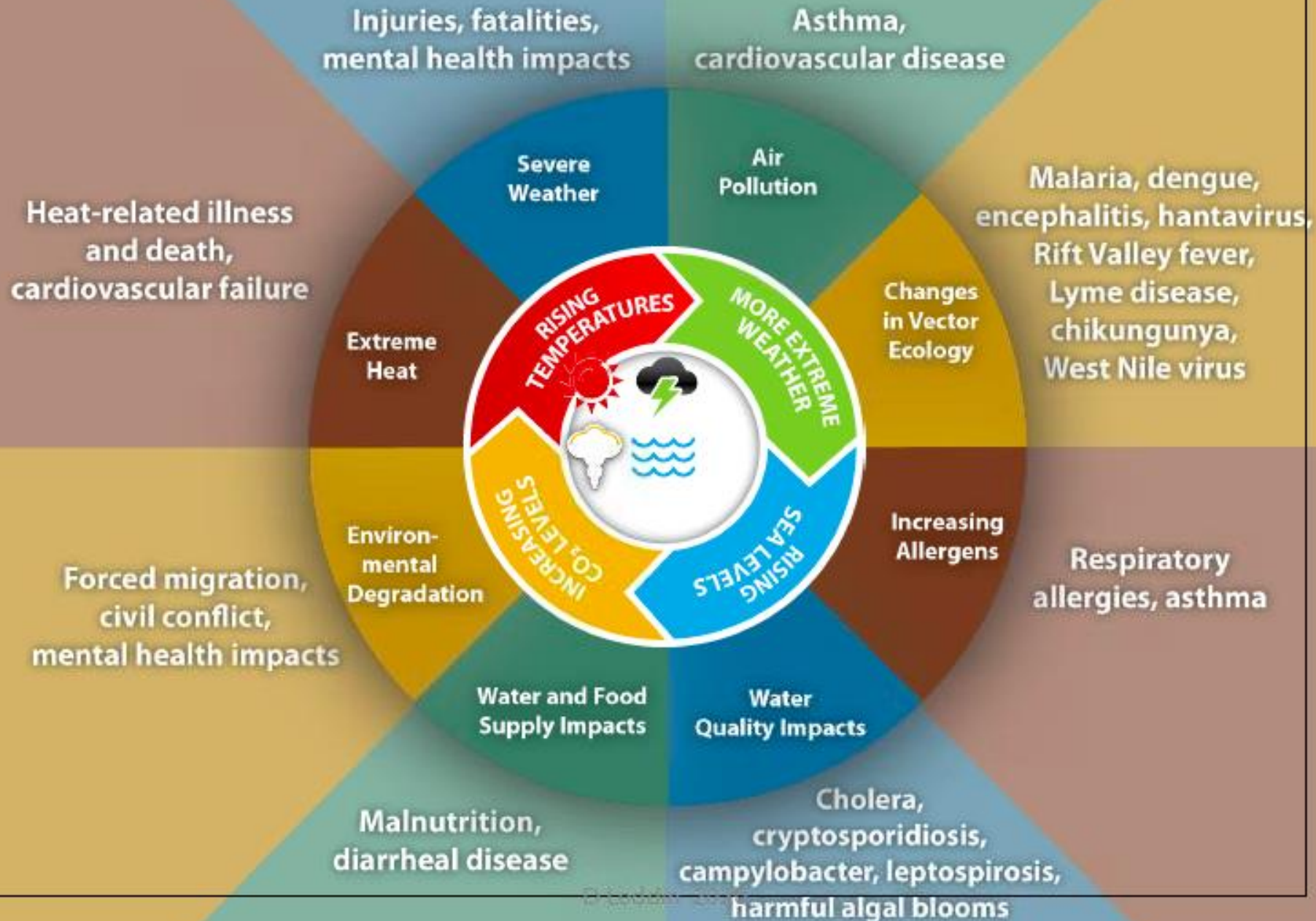
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Climate Change and Australia

- 2020 bushfires burnt an area the size of Portugal
- 2020 rain in Qld and NSW the heaviest ever recorded
- Droughts 2000 – 2020 the worst recorded in Qld and NSW
- Coastal erosion impacting Qld, NSW and Victoria
- Dengue fever and Ross River fever spreading south

Impact of Climate Change on Human Health



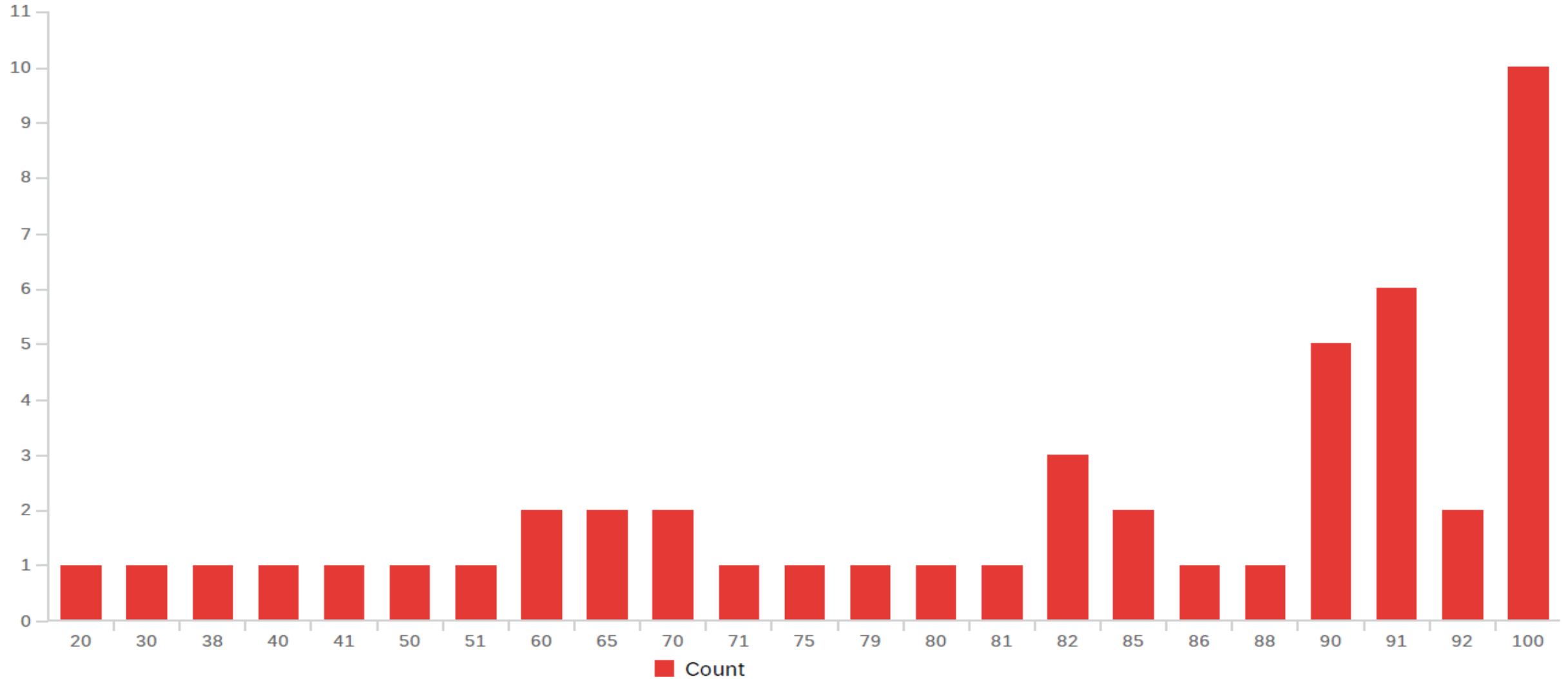


WGO Survey 2021

- Federation of 119 Member Societies
- Representing 66,500 Gastroenterologists from all regions
- Surveyed the Presidents of each Society
- 48% response rate

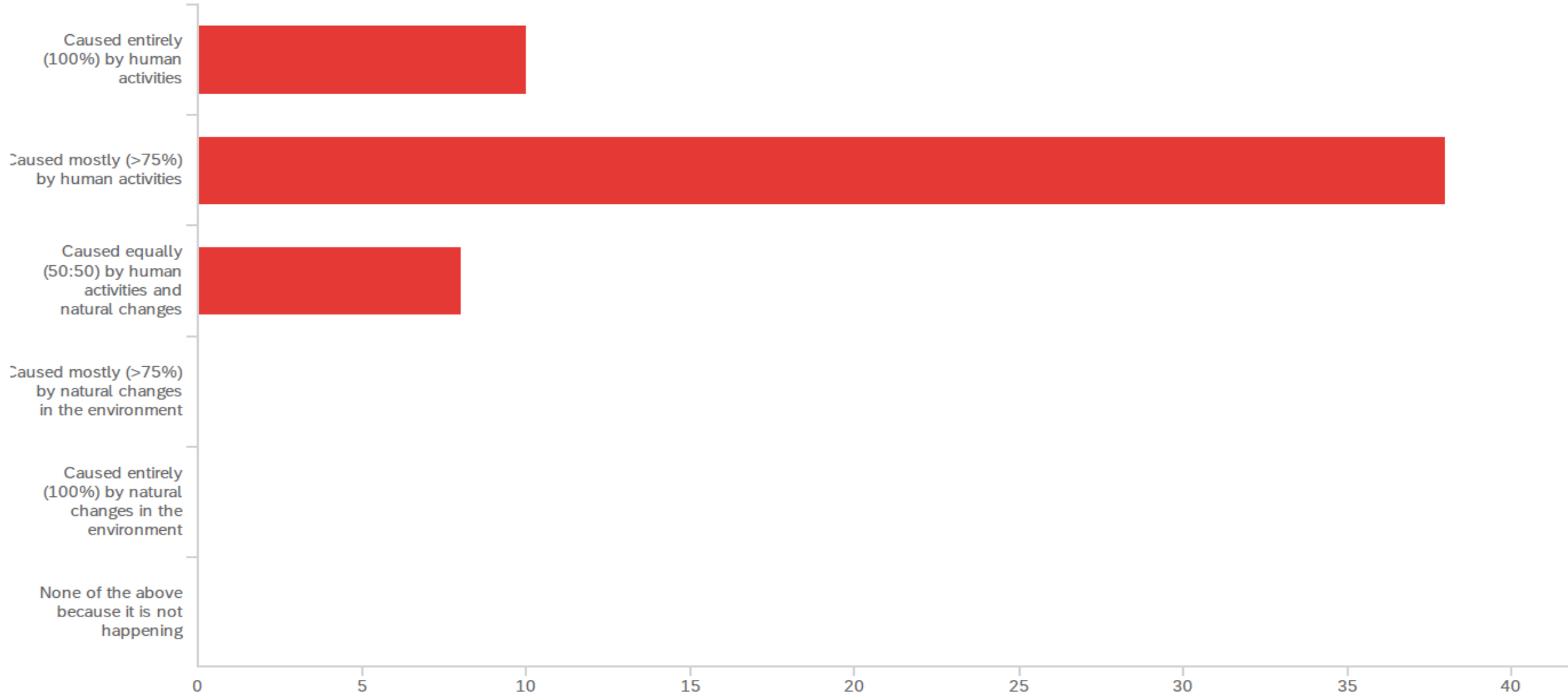


Q1 - Some people have described climate change as a crisis. Can you tell us how you personally feel? Please move the slider so that it shows your opinion from 0 (I do not think that climate change is happening at all) to 100 (I think this is a major crisis).



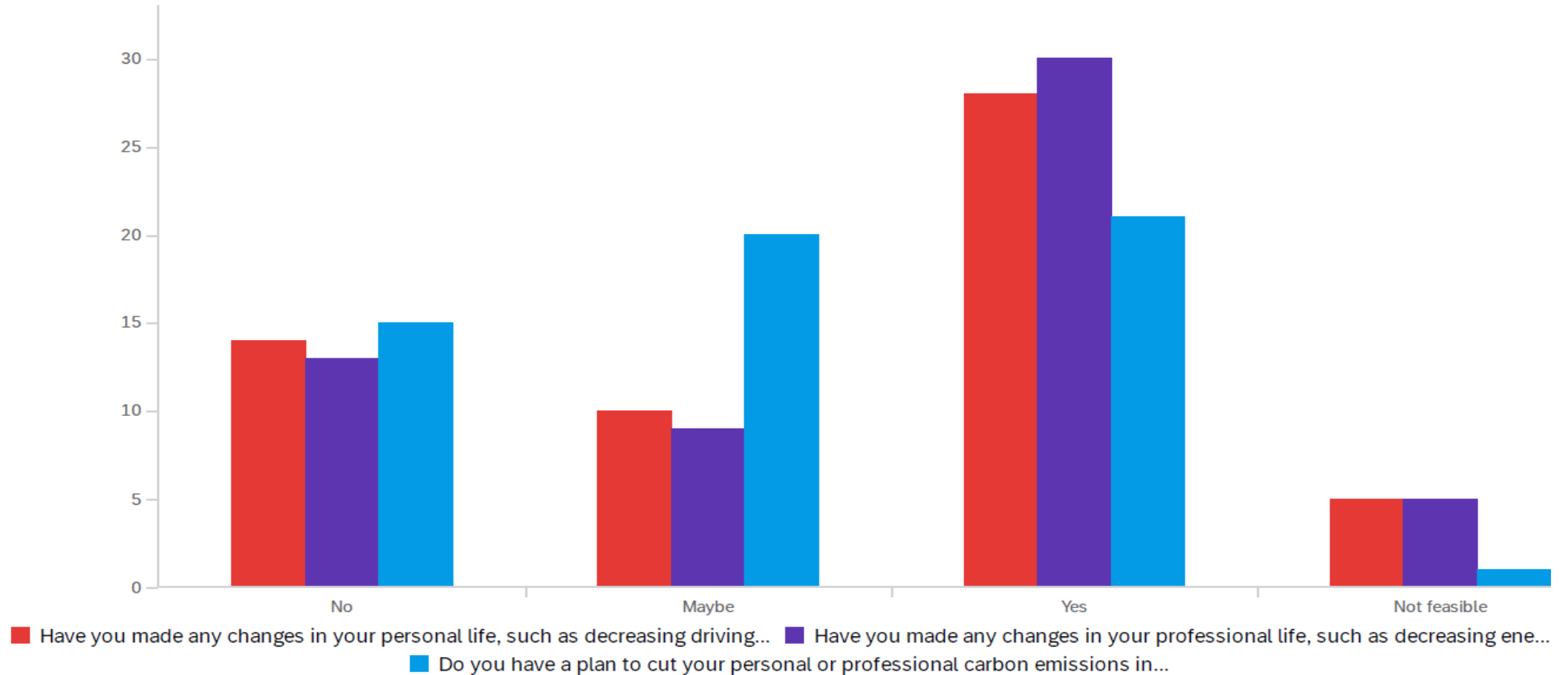


Q2 – Assuming climate change is happening do you think it is....





Q3 – Now we would like to know how engaged you personally are on this issue?





Q4 – Health professionals have not been very engaged on the issue of climate change

– Why do you think that is so?

- I don't see Climate Change as a problem to medical practice
- Lack of information and awareness of what to do
- I am always busy with medical practice
- CC less to do with healthcare sector, more to do with industry
- Climate Change is not an issue in my country
- It is difficult for any physician to have any impact
- We have more important issues – hunger, poverty, war



Q12 – Finally, do you have any thoughts, comments, suggestions you would like to share with us? Is there anything else we can do to help? Are there other barriers we have not touched on?

- Doctors are not very aware of the issues
- It is great that this is now being addressed
- I like your initiative and would like to take part if possible
- I thought this was an issue for Government, not for my Society
- Can you send us slides or other educational material please
- Please give us strategies to involve industry
- Please give us practical advice or direction to start engaging



Society Presidents Have Clearly Indicated:

- Doctors internationally are not aware of the issues
- Most Member Societies are not currently involved
- Presidents indicate a strong desire to engage
- Presidents are looking for direction on how their Society can initiate activity through Committee structures
- Presidents request slide decks, webinars, podcasts and other educational material to assist this process



WGO ROLE GOING FORWARD

- Provide information to Member Societies – Webinars, Slides
- Recommend that MS create Climate Change Committees
- Recommend that MS creates Agendas to Educate, Advocate and Research
- Recommend that MS hold sustainability sessions at all Conferences
- Recommend that MS create strategic plans for personal, departmental, national action



Medical Society Approach to Sustainability

1. Acknowledge the problem !!!!!
2. Committed leadership
3. Create sustainability teams in each organisation and institution
4. Identify “champions” in each institution
5. Create agendas – personal, institutional, national
6. Educate staff: Change attitudes and behaviour
7. Work with industry to create solutions



The Role of Medical Societies on CC

- Disseminate information to patients and the community
- Advocate for improved energy sources
- Advocate for appropriate diet (more vegetable based)
- Advocate for population control where possible
- Advocate for more efficient use of resources
- Promote walking, electric vehicles, train travel
- Reduce air travel until better sources of energy developed
- Advocate for green endoscopy



How do we save the world?

- We cannot wait for others to act
- We all have a role to play
- Sudden cessation of use of fossil fuels?
- TRANSITION to renewables
 - Solar, wind, water, hydrogen
- Need to spend on infrastructure and storage



Climate Action Opportunities

- Education – especially younger people
 - Facts
 - Refute disinformation
- Empowerment
 - trainees
 - Young people
- Create “champions” within CC committees
- Research

Shaukat et al GUT 2023,72:2219-2221



Climate Change in Medical Education

Medical Schools now teaching CC in curricula

- 2019, in 27% of USA medical schools
- 2021, in 55% of USA medical schools
- 2022, in 65% of USA medical Schools

Global Consortium on Climate and Health Education

JAMA.2024.13506



Climate Change and Sustainability

The undeniable Global Warming observed since the Industrial Revolution



Major Impacts of Climate Change

- Eco systems
- Food and water security
- Public Health
- Future well-being

• Lancet 2021, 398:1619-62



Climate Change and Sustainability

- Food production, crop prices, consumption important determinants of sustainability
- Avoiding depletion of natural resources to maintain ecological balance
- Ability to continue long term
- Maintenance of life on Earth as we know it.



Sources of Energy:

- Oil
- Gas
- Coal
- Solar
- Wind
- Hydroelectric and tidal
- Hydrogen?, Nuclear?



What Simple Steps Can Be Taken

- Personal
- Hospital or Institutional
- Country
- Global



What Simple Steps Can Be Taken

- Personal
 - Hospital or Institutional
 - Country
 - Global
-
- Energy use, Food production (& promotion of vegetarian diets), Transportation, Agriculture, Forest regrowth, Water conservation, Population control



THANK YOU

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Climate Change – Direct Health Effects

- Heat related
- Forest fires
- Drought and flooding
- Infectious diseases
- Food and nutrition security and agriculture
- Air pollution
- Allergy
- Forced migration and conflict
- Mental health effects



Climate Change Has Different Impacts in Different Areas

- **Increased extreme events**

- Drought, Floods, Hurricanes, Typhoons



Climate Change Impacts Flooding

- **Increasing Vector Born and other infective diseases**
 - Malaria
 - Dengue Fever
 - Ross River Fever etc
 - Cholera & Typhoid fever
 - Hepatitis
 - Schistosomiasis



Impact of Climate Change

- Economic
- Health
- Social

All of the above far greater than previously predicted

“Intergovernmental Panel on Climate Change report, 2018”



Climate Change Impacts

• Heat and Smog

- Respiratory illnesses
- Allergies
- Death, especially elderly people



Climate Change and Health.

Heat, Drought, Fires; Storms, Floods..... impacts:

- Food and water insecurity, malnutrition
- Sanitation, infectious diseases
- Gastrointestinal infections, liver diseases
- Forced re-location/migration
- Stress, anxiety, depression, mental health



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Impacts of Flooding

- **Increasing Vector Born and other infective diseases**

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Malnutrition

The domain of gastroenterologists?



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Sustainable Practice – Includes:

- Encouraging renewable energy production
- Reducing fossil fuel generated energy
- Introducing more re-useable material
- Producing less waste
- Eliminating unnecessary procedures



WGO Climate Change Mission

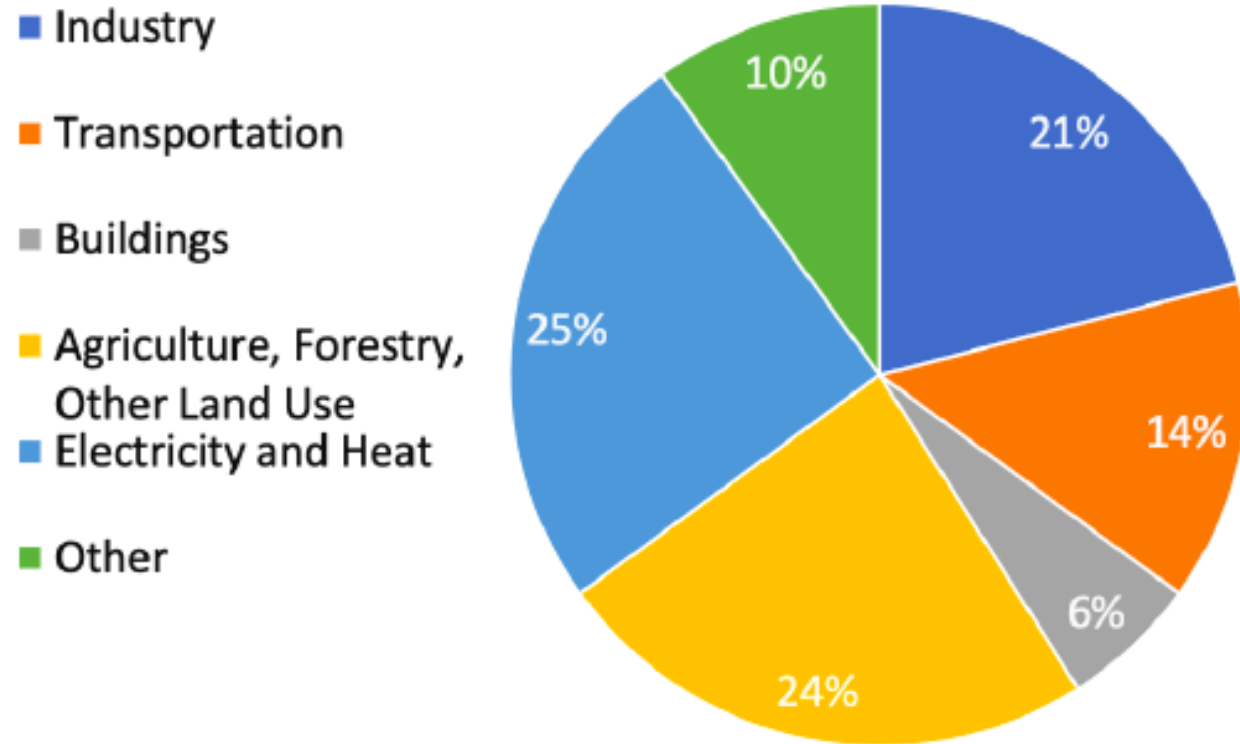
To promote sustainable gastrointestinal and liver health care through training, education, advocacy and research



Sources of Energy

- Oil
- Gas
- Coal
- Nuclear
- Hydroelectric and tidal
- Solar
- Wind

Sources of GHG by sector



- We need to know where GHG come from so that we can mitigate



Climate Change Impacts

- **Health Industry Influence**

- Large Employer (~5% of workforce)
- Major Industrial Activity
- Major Impact on Carbon Footprint
- Ethical Responsibility To Show Leadership?



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QUESTIONS