Role of participatory learning approaches in climate and health education and driving local action

Medical Society Consortium on CLIMATE & HEALTH
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https://health.prayaspune.org/
Prayas Health Group
An NGO from Pune, India
Case study

How climate and health education can be leveraged to influence community-level processes for better health adaptation?

- Bhor Taluk, Pune, Maharashtra, India
- 9 villages (9000+ population) under one Primary Health Center
Approach

- Sharing learning dialogues
- Use of classic PRA tools in Climate change & health context
- Action oriented dialogues
Adopting PRA tools to climate-health context

- Participatory Learning Using Pictorial Tools
- Case vignettes - to shift the understanding from general to specific and theory to action
- Timeline - to gain a temporal perspective of changes to weather, economic conditions, social changes, local disease patterns, etc.
- Listing and ranking - to prioritize climate and health concerns in the given context
Participatory Learning Using Pictorial Tools

‘Chitrakatha’
A handmade presentation using a storytelling method
The Chitrakatha prompted people to share observations from various life domains and facilitated the discussion on local vulnerabilities and health linkages.

- **Depleting water levels** – dysfunctional water purification system – increasing diarrhea cases

- **Two cases of recent deaths** during a hot summer week - Both in their early 60s, had diabetes and hypertension

- **Use of pesticides even during winter** because of disrupted weather cycle – similarities drawn with VBDs
Case vignettes

A diarrhea outbreak happened during the project period. It was used to trigger discussions on:

- Heightened risks due to climate change
- Existing individual and systems-level actions
- How these could be strengthened

We adopted Causal Loop Diagrams to highlight the issues.
Risk factors for outbreaks of diarrhoea

Individual level treatment seeking

Reporting to health system by community health workers

Healthsystems-level actions for controlling the outbreak and prevention
Risk factors for outbreaks of diarrhoea

Why and how climate change can exacerbate the situation

Individual level treatment seeking

Reporting to health system by community health workers

Healthsystems-level actions for controlling the outbreak and prevention
Early reporting by community health workers, village health committees

Regular feedback from health system to village panchayat on water quality assessments

Collective actions at village level

Preventive and promotive behaviours

Early reporting by private clinics

Role of different stakeholders in system strengthening
Timeline: Temporal mapping of vulnerabilities

What was our village like? Situation before ..... Situation Now

- Weather events and disasters
- Demographic characteristics
- Social and Economic condition
- Housing amenities
- Village development (road, electricity, public transport etc)
- Disease patterns
- Access to safe water, sanitation
- Access to health-care
Changing contexts

Health risks

Potential health consequences

likely solutions at individual and collective levels

Decided to display the chart at GramPanchayat office
Listing and Ranking

- Created a profile of the village
- Existing situation of social determinants of health (safe water, waste management, air pollution, access to electricity, cooling appliances) and health care access
- Ranking and prioritization
- Planning collective action
Action oriented dialogues

- Early warning dissemination (extreme heat) using Gram Panchayat Loudspeaker, Gram Suraksha Yantrana, whatsapp groups
- Protection from extreme heat - head-caps to farm-laborers
- Waste segregation - Installing dry/wet waste collection buckets in the village
- Safe water - A resolution to demand water quality report from PHC
Learnings and Way forward
Learnings

- People could relate to the science of climate-health connections; when grounded in their experiences.
- It improved comprehension
- **Contextual vulnerability** could be extracted through sharing learning sessions – an important step towards better health adaptation.
- The process initiated deliberations on climate-focused **micro-scale health adaptation** actions.
Learnings

- Information and appeals, when combined with action plans, can increase people’s confidence in their ability to act.

- Crucial skill set in climate-health context, with dynamically evolving vulnerabilities and uncertainty of health impacts.
Challenges

- Intersectionality issues – participation and power
  - Marginalized, migrant people
  - Gender
  - Changing demography
- Lack of immediate direct benefits reduced willingness and openness to participate in the dialogue
Way forward

- Continued engagement with different stakeholders over a longer period
  - Strategies for better outreach and engagement
- Integration within existing community engagement efforts
Thank you!

This work was possible because of the sincere efforts of my teammates - Vaishali Dongre, Ram Ombale, Anjana Salunke; funding support by Intox Pvt. Ltd; and the enthusiastic participation of people from Bhor Taluk.

Contact ritu@payaspune.org for more information,
Nothing brings people together like good food.

There is nothing in the world that good food cannot fix.

There is no sincerer love than the love of food.

George Bernard Shaw

I only eat in three places: Here, There and Everywhere!

-Daniel L. Worona
Food Security and Nutrition in the World
Climate change is projected to negatively impact the four pillars of food security.
Climate variability and extremes are a key force behind the recent continued rise in global hunger.
The future of food and farming: 2050s

By 2050, climatic impacts on food security will be unmistakable. There are likely to be 9 billion people on the planet, most people will live in cities and demand for food will increase significantly.

Widespread impacts on food and farming are highly likely

Average decline in yields for eight major crops across Africa and South Asia

Marine fisheries will also be affected

Fisheries yields in high latitudes: 30-70%

Fisheries yields in the tropics: -40%
The Future of Food and Farming: 2050 (2/2)

Heat and water may pass critical thresholds

- Temperature increases of more than 4°C will endanger the ability of farms and ecosystems to adapt.
- Water cycles will be very different and less predictable.
- Changes in the intensity, frequency, and seasonality of precipitation.
- Sea level rises and melting glaciers.
- Changes in groundwater and river flows.

We will need major innovations in how we eat and farm

To cope with climatic changes, we may need to consider:

- Completely different diets.
- Shifting production areas for familiar crops, livestock and fisheries.
- New approaches to managing waste, water and energy in food supply chains.
- Restoring degraded farmlands, wetlands and forests.
According to NASA’s Goddard Institute for Space Studies (GISS), the average global temperature on Earth has increased by at least 1.1° Celsius (1.9° Fahrenheit) since 1880.

The majority of the warming has occurred since 1975, at a rate of roughly 0.15 to 0.20°C per decade.
There's more carbon dioxide in our atmosphere than at any time in human history.
Historic Atmospheric CO2 Concentrations

Sources:
- Mauna Loa Observatory, NOAA: ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_annmean_mlo.txt
- Law Dome Ice Core, Carbon Dioxide Information Analysis Center: http://cdiac.ornl.gov/ftp/trends/co2/lawdome.combined.dat
Number of extreme climate-related disasters has doubled since the early 1990s.
Increased air temperatures and rainfall levels can affect soil. Crops can fail through drought and flooding.

Cyclones and hurricanes can cause damage to animals and crops.

Change in temperatures (higher or lower) can affect plant growing seasons and livestock may not survive.

Change in temperatures can also affect fish and other species. Some marine diseases have been linked with changing climate.
Do you think that all this is going to impact our food? What we eat? How?
Whose food security and nutrition is most affected by changing climate?

The world’s 2.5 billion small-scale farmers, herders, fishers and forest-dependent communities, who derive their food and income from renewable natural resources
The impact of climate change will not be even across different food systems. Some regions are projected to have an increase in food production; however, generally the projected climate change is foreseen to have a negative impact on food security, especially in developing countries.
Projected changes in yield for major cereal crops at different levels of global warming

- Expected yield trends for rice, wheat, and maize at low altitude, derived from modelling over a range of temperatures and carbon dioxide concentrations, are shown in Figure.

- The orange markers indicate performance without adaptation and the green assume a variety of adaptations, including irrigation. The lighter coloured markers indicate rainfed crops with lower rainfall. The trends are predominantly downwards with outliers indicating more positive possible responses with adaptation. These are aggregated results, and more local variation is expected in specific conditions and locations.
Hunger Map - World Food Programme

Description: Map of countries by percentage of population suffering from chronic hunger.

- < 2.5%
- 2.5–4.9%
- 5.0–14.9%
- 15.0–24.9%
- 25.0–34.9%
- > 35.0%
- No data
What a 2°C and 4°C warmer world could mean for global food insecurity.
Bangladesh

58%

Bangladesh’s vulnerability to food insecurity could increase by 58% in comparison to the present day.

Exposure to hazards vary across the country; including droughts, sea level rise, and flash flooding. People most affected are those whose livelihoods focus on shrimp, fish and rice farming. The south coast could experience a 14-20% decrease in boro rice yields by the 2030s.

Ethiopia

32%

Ethiopia’s vulnerability to food insecurity could increase by 32% in comparison to the present day.

Future higher temperatures put coffee, teff and sorghum production, and pastoral livelihoods at risk. Sheep, goats and cattle are more susceptible to heat stress.

Cambodia

44%

Cambodia’s vulnerability to food insecurity could increase by 44% in comparison to the present day.

A 4°C increase in temperature could result in a 3% increase in the number of households that cannot afford a nutritious diet.

88%

Bangladesh’s vulnerability to food insecurity could increase by 88% in comparison to the present day.

46%

Ethiopia’s vulnerability to food insecurity could increase by 46% in comparison to the present day.

66%

Cambodia’s vulnerability to food insecurity could increase by 66% in comparison to the present day.
CLIMATE CHANGE AND FOOD SECURITY- A case study from Zimbabwe

• https://www.unisdr.org/preventionweb/files/57530_undpzw2017zhdbriefsclimatechange%5B3%5D.pdf
Case of Arsenic poisoning
Indigenous sustainable farming systems?
Case Study from Africa

- Shifting cultivation
- Organic farming
- Agroforestry
- mixed cropping
Traditional Tribal Farming In Odisha

• Farmers of the Dongria Kondh tribe in the south-western parts of Odisha follow traditional practices that include a lot of diverse cropping.

• Crops like millets, leaves, legumes, tubers, vegetables, pulses, sorghum and rice are raised throughout the cropping season and are harvested one by one from October to the February end.

• This kind of practice keeps the farmer away from agrarian crisis because if one crop fails, they have many more to depend upon.
What brings you joy?
Sources of satisfaction and delight

What are you good at?
Your skills, resources, and networks

What work needs doing?
Climate and justice solutions

Your climate action!
Thank You!
A Systematic Review to Identify the Effectiveness of Greenhouse Gas Mitigation Interventions for Healthcare Systems in Low- and Middle-Income Countries

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Dr Susannah Mayhew
Introduction

Climate Change

Health
Introduction

Climate Change

Health
Health care impact on climate

Scope 1
17%
- Waste generated in operations
- Business travel
- Business goods
- Capital goods
- Employee commuting
- Operational emissions 13%

Scope 2
12%
- 12% Electricity 28%
- Other sectors/services 8%
- Chemical/pharmaceutical products 5%
- Computers/electronics/optical equipment 0.2%
- Agriculture 9%
- Rubber/plastic products 1.3%
- Other primary industries 3%
- Waste treatment 3%
- Processing of sold products
- End-of-life treatment of sold products
- Leased assets
- Investments
- Franchises

Scope 3
71%
- Purchased goods and services
- Other fuel/energy activities
- Waste generated in operations
- Other sectors/services

Many components of scope 3 are "unmeasured" and are not fully captured in the 71% of total emissions. These are depicted in purple.

Low- and Middle-Income Setting

- Gap in research
- Opportunity
- Adaptation interlinkages
Recent developments

• UNFCCC COP26 Health Commitments
• 2022 World Health Day
• G7 Leader’s Communique
• Call WHO for a healthy and sustainable COVID-19 recovery
• COP27 & COP28
Methods

Identify all relevant peer-reviewed literature on GHG mitigation interventions in health care systems in LMICs to inform pathways towards net-zero health care systems.

- **Systematic review:**
  - Conceptual Framework: Theory of Change
  - Title, abstract and full-text screening against eligibility criteria by two screeners.
  - Following PRISMA guidelines.
  - Protocol is published.
Results

• Total yield: 25,570 records.
• Included articles: 22.
• 6 overarching topic areas across 11 countries.
  • Energy (n=10)
  • Waste (n=8)
  • Heating and cooling (n=1)
  • Operations and logistics (n=1)
  • Building design (n=1)
  • Anaesthetic gases (n=1)
Results continued

Overview of countries reported on in the 22 included articles, with the colour representing the number of times this country was reported with grey none, lightest purple 1, and darkest purple 6 articles.
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
<th>Reduction CO₂ (e) kg / year unless otherwise stated (% if known)</th>
</tr>
</thead>
</table>
| Bangladesh | A photovoltaic (PV)/Converter/Wind/Battery/Generator energy generation system for a temporary health centre                                                                                             | A: X (27%)  
B: X (25%)                                                                                       |
| India   | A 5-kWp on-grid solar photovoltaic rooftop system for one urban hospital                                                                                                                                   | 11,287                                                                                           |
| Malaysia | A grid connected PV-fuel cell-battery system for energy and heating of one university hospital building                                                                                                   | 71,004 (74%)                                                                                     |
| Philippines | A solar PV panel energy system with (32.1) and without (32.2) grid-connection for a rural healthcare facility                                                                                           | 32.1: 19,598 (59%)  
32.2: 62,776 (72%)                                                                                   |
| India   | A solar PV panel for a laboratory                                                                                                                                                                          | 13,860 (100%)                                                                                     |
| Nigeria | Optimal hybrid renewable system configurations for electricity generation for six rural clinics from six different regions                                                                                | 20,113 (83%)                                                                                     |
| Turkey  | Solar energy in combination with Aquifer Thermal Energy Storage (ATES) for electricity generation for heating and cooling for one university hospital | 2,100,000                                                                                         |
| India   | A solar PV tunnel dryer for surgical cotton for one city                                                                                                                                                    | A: 12,150 (100%)  
B: 6720 (100%)                                                                                     |
| Brazil  | A hybrid polygeneration system for the provision of electricity to a Brazilian hospital under four legal scenarios.                                                                                       | 38.1: 4,852,036 (63%)  
- 17,774,491 (233%)                                                                                   |
<p>| India   | A PV-diesel–battery energy system for energy generation for a remote healthcare centre                                                                                                                                 | 1813 (46%)                                                                                         |</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
<th>Reduction CO$_2$ (e) kg / year unless otherwise stated (% if known)</th>
</tr>
</thead>
</table>
| Pakistan| An integrated system of hospital solid waste treatment and disposal consisting of composting, incineration, and material recycling is compared to the standard scenario of incineration and landfill (A) and to incineration only (B).         | A: 2806 (62%)  
B: 2610 (47%)                                                                 |
<table>
<thead>
<tr>
<th>Country</th>
<th>Area</th>
<th>Description</th>
<th>Reduction $\text{CO}_2 (\text{e})$ kg / year unless otherwise stated (% if known)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Heating and cooling</td>
<td>An eight-row heat pipe heat exchanger system added to the air conditioning system in one orthopaedic ward in a university hospital</td>
<td>314 (147%)b</td>
</tr>
<tr>
<td>India</td>
<td>Anaesthetic gases</td>
<td>Induction dose only sevoflurane during paediatric ophthalmic examination for children aged 1-5</td>
<td>7700 (22%) per day of 10-12 procedures</td>
</tr>
<tr>
<td>China</td>
<td>Building design</td>
<td>The energy consumption of an outpatient hospital lobby building design of a lobby of 16 m2 with two exterior walls, south oriented at the same height as the rest of the hospital</td>
<td>186 - 1011b</td>
</tr>
<tr>
<td>India</td>
<td>Operations and logistics</td>
<td>Usage of multiuse pharmaceuticals, a short surgical duration and a quick turnaround time during cataract surgery</td>
<td>124 (95%) per case</td>
</tr>
</tbody>
</table>
Conclusion

- Momentum
- Promising interventions
- Sustainability & Scalability
- Limitations
- Integration adaptation
- Grey literature

_The time is now._
Funding

Three partial grants have been received with thanks to the Prince Bernhard Culture Fund, VSBFonds and dr. Hendrik Mullerfonds.
Thank you for your attention!

**Supervisors**
Dr Sarah Whitmee
Prof Sir Andrew Haines

**Advisors**
Dr Fawzia Rasheed
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Dr Susannah Mayhew
## Costing

<table>
<thead>
<tr>
<th>Ref, Country</th>
<th>Intervention</th>
<th>Costs ($)</th>
<th>Payback period</th>
<th>ROI</th>
<th>IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(25), Bangladesh</td>
<td>A photovoltaic (PV)/Converter/Wind/Battery/Generator energy generation system</td>
<td>NPC: 69,377,300</td>
<td>7 years</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>(28), India</td>
<td>A 5-kWp on-grid solar photovoltaic rooftop system</td>
<td>Initial capital: 3658</td>
<td>7.1 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(29), Malaysia</td>
<td>A grid connected PV-fuel cell-battery system</td>
<td>NPC: 98,318</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(32), Philippines</td>
<td>A solar PV panel energy system with (32.1) and without (32.2) grid-connection</td>
<td>NPC: 27.1: 87,139</td>
<td>32.1: 9.7 years</td>
<td>32.1: 6.10%</td>
<td>32.1: 9.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27.2: 146,284</td>
<td>32.2: 4.5 years</td>
<td>32.2: 15.90%</td>
<td>32.2: 20.80%</td>
</tr>
<tr>
<td>(34), India</td>
<td>A solar PV panel</td>
<td>Initial capital: 12,000</td>
<td>4 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(35), Nigeria</td>
<td>Optimal hybrid renewable system configurations for electricity generation</td>
<td>NPC: 71,210 - 108,920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(37), India</td>
<td>A solar PV tunnel dryer for surgical cotton</td>
<td>NPC: 10,660</td>
<td>3.38 years</td>
<td>86-150%</td>
<td></td>
</tr>
<tr>
<td>(39), India</td>
<td>A PV-diesel–battery energy system</td>
<td>NPC: 13,523</td>
<td>9.9 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Considering adaptation

<table>
<thead>
<tr>
<th>Type of interlinkage</th>
<th>Definition</th>
<th>Action</th>
<th>Primary objective</th>
<th>Interlinkage explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-benefit</td>
<td>“When a plan, policy or measure that aims to enhance an adaptation (mitigation) objective leads simultaneously to the enhancement of mitigation (adaptation) objective”</td>
<td>Hospital-wide passive heating and cooling system</td>
<td>Mitigation</td>
<td>Cooling can also be used in warm months to adapt to high temperatures</td>
</tr>
<tr>
<td>Synergy</td>
<td>“An interaction between an adaptation and a mitigation plan, policy, strategy or practical measure that produces an effect greater than the constituent components”</td>
<td>Green hospital rooftops</td>
<td>Adaptation and mitigation</td>
<td>Increase in energy efficiency of the hospital and a decrease in water runoff</td>
</tr>
<tr>
<td>Conflict</td>
<td>“A plan, policy or measure that counteracts or undermines one or more planning goals between adaptation and mitigation”</td>
<td>Individual air conditioning in hospital rooms</td>
<td>Adaptation</td>
<td>Increased use of individual, unsustainable air condition units to adapt to increased heat cause increased emissions</td>
</tr>
<tr>
<td>Trade-off</td>
<td>“A situation that necessitates choosing (balancing) between one or more desirable, but sometimes conflicting, plans, policies or measures”</td>
<td>Medical supply chain</td>
<td>Adaptation or mitigation</td>
<td>Challenges to set priorities in the supply chain due to reducing and reusing (mitigation) versus increasing supplies in preparation for health emergencies (adaptation)</td>
</tr>
</tbody>
</table>

Conceptual Framework

- Problem Statement
- Impact / Aim
- Assumptions
- Outcomes
- Outputs
- Potential risk and Barriers
Conceptual Framework

Problem Statement

- Impact of climate change on human health
- Impact of the health care system on climate change
- Synergies or co benefits with adaptation
- Paucity of evidence, particularly in Low- and Middle-Income Settings
Conceptual Framework

Impact / Aim

- Advance health care system through GHG mitigation
- Knock on effect: reduction of climate risk
- Indirect effect: catalytic effect on local and national climate goals
Conceptual Framework

Assumptions

• Delivery assumptions
• Impact assumptions
• Possible unintended consequences
• Theory of change process assumptions
Conceptual Framework

Outcomes

• A reduction of GHG emissions of health care operations (Scope 1)
• A reduction of GHG emissions of health care electricity (Scope 2)
• A reduction of GHG emissions of health care supply chains (Scope 3)
• A cobenefit or synergy of the mitigation intervention with actions contributing to climate change adaptation
Conceptual Framework

Outputs | Actions reducing GHG emissions and reducing loss of life or disability

- Scope 1
- Scope 2
- Scope 3
- Adaptation
Conceptual Framework

Potential risk and Barriers

• Financial barriers
• Lack of adequately trained health workforce
• Lack of access to technology
• Lack of support and awareness
CLIMATE CHANGE-RELATED VOTING RECORDS OF SKINPAC-SUPPORTED MEMBERS OF THE 117TH CONGRESS: A CROSS-SECTIONAL STUDY

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Kenneth A. Katz, MD, MSc, MSCE
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San Francisco, CA

Markus D. Boos, MD, PhD
Department of Dermatology, Department of Pediatrics, University of Washington School of Medicine and Seattle Children’s Hospital
Seattle, WA
The Multifactorial Impact of Climate Change on Cutaneous Disease
Dermatologist beliefs on climate change

- 97% believe that human behavior is contributing to climate change.
- 96% believe that climate change is occurring.
- 94% are concerned about climate change.
- 89% believe that climate change will impact the incidence of skin diseases in their areas.
- 88% believe that dermatologists should play an advocacy role in climate change-related health issues.
- 86% believe that climate change will affect their life.

Position Statement

On
Climate and Health
(Approved by the Board of Directors: July 28, 2018)

There is a strong consensus among professional societies of physicians that the health and well-being of Americans are being adversely affected by climate change, and that these health concerns will continue to worsen as climate changes advance. Moreover, it is apparent that the very young and very old, as well as those of low-income and minority communities, are and will continue to be disproportionately affected by climate change.

There are many dermatologic consequences of climate change that will increasingly affect our patients and challenge our membership. In recognition of the importance of climate change to the health and well-being of our patients, the American Academy of Dermatology resolves to:

- Raise awareness about the effects of climate change on skin health and skin disorders;
- Work with other medical societies in ongoing and future efforts to educate the public and to mitigate the effects of climate change on global health;
- Educate our patients about the effects of climate change on the health of their skin; and
- Support and facilitate efforts of our members to decrease the carbon footprint of their dermatology practices and medical organizations in a cost-effective (or cost-saving) manner.
• Used by med societies as a lobbying tool

• SkinPAC = American Academy of Dermatology’s (AAD) PAC
  • $1.48 million given in 2019-2020

• AAD Advocacy Mission:
  • “Adapt to the shifting healthcare landscape while contributing to policies that protect the quality of dermatologic care”

• Incongruence between PAC contributions and legislators’ voting records with respect to positions on public health issues

skinpac.org/aboutus.aspx?

Schuur et al. JAMA Netw Open. 2019;2(2):e187831

STUDY DESIGN

• Cross-Sectional Analysis

• SkinPAC contributions to members of 117th U.S. Congress
  o January 3, 2021 to January 3, 2023

• Key environmental legislation selected from the League of Conservation Voters’ scorecard (https://scorecard.lcv.org/)

• Voting records for these bills (www.congress.gov) and 2021-2022 SkinPAC contributions were compared (www.fec.gov/data/committee/C00359539/)
  o A vote for bill passage aligned with the AAD’s position statement
• S.J. Res. 14 - Congressional Disapproval of Oil and Natural Gas Sector
  o House Vote: 06/25/21 | Senate Vote: 04/28/21

• H.R. 803 - Protecting America’s Wilderness and Public Lands Act
  o House Vote: 02/26/21

• H.R. 5376 - The Inflation Reduction Act
  o House Vote: 11/19/21 | Senate vote: 08/07/22

• Senate Treaty Doc. 117-1 - Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
  o Senate Vote: 09/21/22
SkinPAC contributions during the 117th Congress:

- $841,500 total
- 185 congressional campaigns
<table>
<thead>
<tr>
<th>CHAMBER</th>
<th>BILL OR RESOLUTION NAME (NUMBER)</th>
<th>DATE OF VOTE</th>
<th>CONTRIBUTIONS TO MEMBERS VOTING IN FAVOR</th>
<th>CONTRIBUTIONS TO MEMBERS VOTING AGAINST</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>Joint Resolution for Congressional Disapproval of Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review (S.J.Res.14)</td>
<td>6/25/2021</td>
<td>Number of congressional members receiving contributions</td>
<td>$411,500</td>
</tr>
<tr>
<td></td>
<td>Protecting America’s Wilderness and Public Lands Act (H.R.803)</td>
<td>2/26/2021</td>
<td>$411,500</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Inflation Reduction Act (H.R.5376)</td>
<td>11/19/2021</td>
<td>$410,000</td>
<td>67</td>
</tr>
<tr>
<td>Senate</td>
<td>Joint Resolution for Congressional Disapproval (S.J.Res.14)</td>
<td>4/28/2021</td>
<td>$56,500</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Inflation Reduction Act (H.R.5376)</td>
<td>8/7/2022</td>
<td>$56,500</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Amendment to Montreal Protocol (&quot;Kigali Amendment&quot;) (Treaty Document 117-1)</td>
<td>9/21/2022</td>
<td>$86,000</td>
<td>6</td>
</tr>
</tbody>
</table>
CONCLUSIONS

• Other legislative priorities likely drive contributions, \textit{NOT} position statements on public health issues

• Climate impacts are a threat multiplier for health, equity, and the health sector

• Tremendous opportunity for action
  
  o Prioritization of SkinPAC contributions to candidates with favorable voting records on environmental legislation

  o Track alignment between monetary political contributions and Congressional voting records regarding AAD positions on critical public health issues
If not us, WHO?

If not now, WHEN?

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Journal of Climate Change and Health Virtual Special Issue: Climate and Health through a Health Specialty Focused Lens

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What is a Scoping Review?

• Protocol-driven literature review
  – Overview of what’s been written in a field
    • Surveys large databases
      – Medical librarian
    • Primary research +/- reviews, other
    • “Grey literature”
      – Conference proceedings, policy papers

• May ask specific focused questions

• Assesses themes, gaps, “take-home lessons”
Invited Scoping Reviews from each specialty

- What are the health impacts of climate change you are seeing in patients in your specialty?
- Author teams
  - North America/Europe / HIC academic center
  - International / LMIC / under-represented partner
  - Trainee/junior faculty
  - Bigger teams and narrower question for larger specialties

Preliminary findings presented at Climate & Health 2023 (NY, October 20-22, 2023) (climatehealth2023.com)
Which Specialties?

- **Published**
  - *Surgery, Ophthalmology, Neurology*

- **Submitted**
  - *Palliative Care, Psychiatry/Psychology, Respiratory Care*

- **In process**
  - *Allergy/Immunology, Anesthesia, Cardiology, Dermatology, Emergency Medicine, Endocrinology, Forensic Pathology, Geriatrics, Infectious Disease, Nephrology, Oncology, Pediatrics, Physiatry, Primary Care, Rheumatology, Women’s Health*
Examples of specific questions addressed in scoping reviews

• How has climate change affected
  – Risk of developing cancer?
  – Outcomes for patients with cancer?
  – Delivery of care for oncology patients?

• How has climate change affected
  – Access to reproductive health services?
  – Attitudes towards family size choices?
Emerging Themes and Gaps

• **Themes**
  – Heat effects identified in nearly all specialties
  – Role of nutrition identified in several specialties
  – Connecting to vulnerable populations
  – Access to care

• **Gaps**
  – Lack of studies from the Global South
  – Variable disease groupings used in studies, for example CVD in aggregate or not.
Some Takeaways

• There were a lot of papers on climate change and health!
  – Numbers are increasing over time and geographically
  – Recognize challenges in some settings to perform studies

• Climate change can
  – promote conditions for agricultural pathogens that are carcinogenic
  – increase the incidence of cataracts and retinal detachment
  – impede access to basic surgical care
Conclusions

• Virtual Special Issue on Specialties
  – Useful resource
  – Snapshot in time
  – Identifies gaps in research
    – Can use for advocacy in your specialty and hospital

• REVIEWERS WELCOME!

• Stay tuned for new articles in this issue over upcoming weeks/months

Thank you