Title
Climate change and health: A survey of attitudes, knowledge and behaviours of Australian general practitioners

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Abstract

Introduction

General practitioners (GPs) are front-line witnesses to the impact of climate change (CC) on health. This survey provides a snapshot of GPs' knowledge, attitudes and behaviours relating to CC, which will inform strategies to support their capacity to respond.

Method

Cross-sectional on-line survey using an instrument developed by a panel of GP and CC experts.

Results

There were 213 respondents: 81% were 'moderately/very' concerned about the effects of CC on health, 70% thought it was relevant to practice and 60% believed it is currently impacting patients' health. Despite this, 70% thought their practice/clinic was taking inadequate steps but 63% of GP were personally taking action to decarbonise. GPs did not feel comfortable raising CC issues during consultations.

Discussion

Recommendations to support GPs include: education for GPs (how CC affects specific diseases), support for decarbonising practice (financial support and information for practice owners/patients) and partnering with patients (encouraging open discussions).

Introduction

Climate change is widely recognised as the greatest global health threat of the 21st century, an "unacceptably high and potentially catastrophic risk to human health."[1-3] Climate change is accelerating[4] and Australian general practitioners are front-line witnesses to the health impacts from excessive heat and climate-related disasters such as floods and bushfires.

Since 2017, *The Lancet* Countdown has been monitoring the effect of climate change on health and tracking the responses of health systems and governments.[5,6] Since 2018, *The MJA-Lancet* Countdown has provided a country specific annual report for Australia. [7,8] These reports highlight the inaction, with minimal progress despite many climate-related disasters and evidence of increasing health impacts.[8]

Many Australian medical representative bodies and colleges have developed position statements that recognise the impact of climate change on health, including the RACP, (three position statements),[9] AMA,[10] AMC,[11] RACGP,[12] ACRRM,[13] ACEM,[14] and ANZCP.[15] The position statements discuss the current and future impacts of climate change on health and highlight the potential to increase inequities due to a disproportionate burden on vulnerable populations such as the elderly, children, rural Australians and people living with chronic disease.[10,12] There are unique and potentially devastating impacts on the connection between health and country for Aboriginal and Torres Strait Islander people.[11,12] A research report titled *RACP Climate change and Australia's health care systems*, was overseen and endorsed by a group of 10 medical colleges and it described the impacts of climate on health systems.[16]

General practitioners (GPs) are a key health professional group impacted by climate change as they are seeing the effects of climate change on patients and also have the potential to mitigate and adapt to the risks due to their wide reach across communities.[8] The important role of general practice and the need for training is increasingly reflected by GP groups. In 2023, the WONCA Europe Council revised the Definition of General Practice/Family Medicine to now state that 'One Health, Planetary Health and Sustainability is the bedrock of General Practice/ Family Medicine'[17] and the RACGP has incorporated climate change and health into its curriculum. The Australian National Health and Climate Strategy (2023)

highlights the importance of education and support of health professionals to support progress towards carbon emission reduction targets.[18] Many Australian health professionals are concerned about the carbon emissions from health and want guidance on how to reduce it.[19]

To support this rapidly evolving role of GPs in climate and environmental health, an understanding of the experience, concerns and needs of GPs is required. There is little data exploring the knowledge and attitudes of Australian GPs to climate change and its impact on health. A survey of GP registrars (trainees) showed that they are motivated to receive climate health education and engage in environmentally sustainable practice.[20] A study of GPs in Switzerland showed a willingness of GPs to integrate the impact of climate change on health into their clinical activities, however they believed they lacked overall knowledge and scientific evidence on effective interventions.[21] Surveys of American medical specialists have demonstrated progressive engagement with the issue of climate change and health.[22-24] There are no published surveys of experienced Australian GPs.

The aims of this research were to provide a snapshot of GPs' knowledge, attitudes and behaviours relating to climate change and health and to use this information to make recommendations to support GPs in their practice. The survey findings will also provide a baseline for future comparison.

Methods

Cross-sectional survey methods were used. The survey instrument was developed by a panel of experts that included expert GPs from the RACGP Climate and Environmental Medicine Specific Interest Group. Elements were incorporated from surveys used by researchers investigating the knowledge and attitudes of American physicians.[23] The survey asked GPs about the link between climate change and the health effects they are seeing in their patients, how concerned they are about the issue of climate change, how they see their role in related patient education and what actions they are taking to reduce the carbon footprint of their practices.

An invitation to complete the survey was distributed to potential participants in newsletters and media communications from the RACGP to its membership. The RACGP has over 50,000 members (29,000 Fellows, 7,000 other GP members and 6,000 Registrar members (GPs in Training.))[25] A link and QR code were included in the invitation, and these allowed potential respondents to access the participant information sheet and the survey. Eligibility criteria were: GPs, practising or retired from practice in Australia and completing the on-line consent. Membership of the RACGP was not an inclusion criterion.

Qualtrics was used for survey hosting, data collection and preliminary data analysis.[26] Statistical analysis was conducted using SPSS (version 29).[27] Descriptive statistics were used to describe respondent characteristics and chi square analysis was used to compare responses between groups.

The study was approved by The University of Notre Dame Australia Human Research Ethics Committee (Reference Number: 2023-091).

Results

There were 213 survey respondents, and their characteristics are shown in Table 1. Sixty seven percent were female, and four percent identified as Aboriginal and/or Torres Strait Islander. Most were in community general practice (72%) and 93% were in clinical practice. There was a broad range of ages and participants represented all states and territories and both rural and metropolitan locations. Sixteen percent were practice owners. 48% had more than 20 years' experience as a medical practitioner. Around one third were members of the RACGP Climate and Environment Specific Interest Group and/or Doctors for the Environment Australia (DEA). Nearly half (49%) were not involved in any climate advocacy groups. 50% of respondents believed they had personally experienced the effects of climate change a 'moderate amount' or a 'great deal.'

Concern, perceived knowledge and attitudes

81% of participants were 'moderately' (9%) or 'very' (72%) concerned about the effects of climate change on health while 10% were 'not at all concerned.' Respondents were confident in their knowledge, with 96% feeling at least 'a little knowledgeable' and 66% feeling 'quite' (40%) or 'very' (26%) knowledgeable about climate change and health. When asked how

much climate change has harmed people in Australia and around the world, around 80% responded ‘a moderate amount’ or ‘a great deal.’ However, there was a perception that the harm to Australia (41% ‘moderate’ and 36% ‘great deal’ and) was less severe than the global harm (20% and 62%). 60% of respondents believed that climate change is affecting the health of their patients ‘a moderate amount (37%)’ or ‘a great deal (23%).’ When asked about whether climate change is relevant to their medical practice, 70% thought it was relevant ‘a moderate amount (27%) or ‘a great deal’ (43%).

Further detail is shown in Supplementary Table S1.

How climate change is affecting health of patients

More than 50% of respondents believed that climate change was affecting the following aspects of patient health (Figure 1): mental health (68%), allergies/asthma (67%), severity of illness due to air pollution (66%), heat-related effects (62%), loss of infrastructure (55%), food and water insecurity (52%) and injuries/harm from weather events (51%). Diarrhoea from food/waterborne illness (53%) was the only condition that the majority believed was not being affected by climate change. Respondents believed that climate change would affect every illness condition in the future.

Preparedness, actions and barriers

GPs did not feel that their community or their practice /workplace were prepared for the effects of climate change (Table 2). 60% felt their community was prepared, ‘not at all’ (23%) or ‘a little’ (37%) and 70% thought their practice was taking steps to reduce emissions ‘not at all’ (29%) or ‘a little (41%).

Analysis by participant characteristics (Table 3) showed that practice owners tended to believe they were taking more significant actions to reduce emissions than non-practice owners (40.7% vs 22% believing the actions were ‘moderate’ or ‘great’, P=0.04). There were no significant differences according to gender (p=0.36), rurality (P=0.58) or experience in practice (P=0.20). The most common actions taken by practices that had taken actions ‘a moderate amount’ or ‘a great deal’ were reducing paper (90%), installing solar panels (40%) installing insulation (26%) and using renewable energy (16%). The most frequently reported

barriers to practices taking action were cost (57%), not a priority in the practice (47%), lack of support from management (44%) and lack of political will (34%).

In contrast to the large proportion feeling that their practice was not taking steps to reduce emissions , 63% of respondents reported making efforts to reduce their own carbon footprint at work ‘a moderate amount’ (40%) or ‘a great deal’ (23%). The youngest and oldest age groups were less likely to be taking action (P=0.03) and doctors were more likely to be taking action as they became more experienced in practice (P=0.01). There were no significant differences according to gender (p=0.08), rurality (P=0.76) or practice ownership (P=0.88). The most common changes reported were lifestyle changes (85%), reducing unnecessary tests (78%), deprescribing (70%) and implementing high-value care (55%).

Overall, 87% of GPs were not taking specific steps to educate their patients about climate change, reporting taking steps ‘not at all (46%) or ‘a little’ (41%). For those acting ‘a moderate amount’ (11%) or ‘a great deal’ (2%), the most frequent actions were discussion in a consultation (65%), discussing medication (52%) and displaying material in the waiting room (24%). Most (87%) GPs reported did not initiate discussions about climate change and health with patients, raising the issue ‘not at all (37%) or ‘a little’ (50%).

The most frequently reported barriers to discussing climate change with patients were time (49%), the perception that patients wouldn’t be interested (26%), not my role (23%) and patients wouldn’t understand (16%). Patients were reported as asking about climate change and health ‘not at all (58%) or ‘a little’ (35%).

Discussion

This survey reports the attitudes and actions of Australian GPs towards climate change and health. While the sample size is small in relation to the number of GPs in Australia, there is broad representation across age groups and geographic areas. The demographic characteristics of the respondents suggest that respondents are not necessarily climate advocates, yet they feel informed, concerned about the issue, engaged with the topic and motivated to make changes. The long professional experience of the respondents is of interest

as research in the general population suggests that older Australians tend to be less worried about the impacts of climate change.[28]

A significant majority of these GPs are concerned about the effects of climate change on health, and they are confident in their knowledge about climate change. However, the responses to some questions (such as diarrhoea/ water-borne disease being a potential impact of climate change) suggest that they may in fact not be as well-informed as they believe. Future education for GPs should focus on specific information about conditions that climate change affects.

The data also show a sense of urgency as GPs believe that climate change is already affecting the health of their patients and there is a strong expectation that the impact will increase in the future. Despite this, there is a notable gap in preparedness. GPs feel that their communities and practices have not undertaken strategies to adequately prepare for the effects of climate change. It is noted that only 16% of the sample were practice owners, lower than the 23% reported by the RACGP.[29] The barriers to preparedness of practices have been identified and demonstrate a perceived lack of will and support from management rather than lack of motivation from individual respondents. While some practices have taken steps to mitigate their environmental impact, the most common action (reducing paper) is nearly universal in offices and does not imply a strong commitment to 'greening the practice.' GPs feel that these actions are inadequate. Of relevance, practice owners were more likely to feel they were taking significant action to reduce the carbon emissions of the practice than non-owners. More research is needed to determine the cause of this difference in perception. It is possible that practice owners are doing more 'behind the scenes' than GPs see happening. It is also possible that owners perceive their actions as more significant than they are. Regardless of what is happening on a practice level, individual GPs are taking more significant steps to change their personal practice to reduce their personal carbon footprint and contribute to a lower-carbon health system such as deprescribing and avoiding low-value care.

Respondents report that patients do not often raise climate change and GPs are not raising the issue in consultations. Lack of time and lack of funding was reported as the most significant

barrier. There was also a suggestion that political and/or philosophical barriers also played a role with some GPs concerned that patients may not be interested, and that climate change may be perceived as a personal political issue that is inappropriate to discuss in a consultation. GPs may be underestimating the level of understanding of these issues in the general Australian population. Recent surveys show that 80% are aware that climate change is happening and 75% are concerned about this, acknowledging the impacts on health through heat, mosquito borne diseases and water quality.[30]

Of interest, very few GPs thought that thought it was irrelevant to patient care yet are unable to discuss it. In light if the well document impact of climate change, in particular extreme heat and heat waves, on the very young, the elderly, pregnant women and people taking certain medications, alerting patients to the threats and how to adapt their behaviour through health management plans is of increasing significance.

These findings can help direct strategies to support GPs to mitigate the effects of climate change on their patients and to work towards a lower-carbon health system. The concerns and motivations of GPs expressed in this study align with broader public health and government concerns and plans to decarbonise healthcare.[6,18] Recommendations for supporting GPs to address climate change and health, based on survey findings, are shown in Table 4. The key areas are education, decarbonising practice and support to partner with patients.

This study has strengths and limitations. Survey methodology has other inherent limitations, including generally low response rates and the inability to deeply explore responses with participants. The response rate for this survey cannot be calculated as the invitation was included in general communications and news items from RACGP rather than being sent as a stand-alone email through a mailing list. A similar survey of Australian surgeons reported a response rate of 0.04% and still provided useful insights to guide policy. [31]The strength of this study is its broad representation across age groups, rural and metro practitioners and the 4% indigenous representation help to balance the small sample size. There is potential bias as GPs with an interest in climate change could be more likely to respond to the survey. However, it is noted that 50% of respondents were not a member of the RACGP climate change interest group or any other climate change-related advocacy group. Also, when asked

about barriers, 8% of respondents chose the option ‘I don't believe that climate change is an important issue,’ suggesting that the sample was not comprised entirely of GPs interested in the area.

In conclusion, the survey reveals a high level of concern and awareness among Australian GPs regarding climate change and its health impacts. However, there are significant gaps in preparedness and patient education to address. By supporting GPs to overcome barriers and enhancing support for climate-related initiatives, GPs can play a pivotal role in mitigating and adapting to the health impacts of climate change and promoting a more environmentally sustainable health system.

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Table 1: Survey respondent characteristics

Characteristic		**n**	**%**
Age	<30 years	12	6
	31-40 years	43	21
	41-50 years	60	29
	51-60 years	46	22
	61-70 years	38	18
	>70 years	8	4
	Total	207	100
Gender	Female	139	67
	Male	61	29
	Non-binary	2	1
	Other	1	0
	Prefer not to answer	4	2
	Total	207	99
Indigenous status	Aboriginal	5	2
	Torres Strait Islander	1	0
	Aboriginal and Torres Strait Islander	4	2
	Not Aboriginal and/or Torres Strait Islander	190	92
	Prefer not to answer	6	3
	Total	206	99
Work setting	Community General Practice	154	72
	Hospital	19	9
	Other clinical	9	4
	Non-clinical, Medical Education	13	6
	Non-clinical, Administrative	0	0
	Other non-clinical	2	1
	Retired	7	3
	Other	9	4
	Total	213	99
Currently in clinical practice (managing patients)	Yes	191	93
	No	15	7
	Total	206	100
Metro / Rural	Metropolitan	113	53
	Regional	58	27
	Rural	30	14
	Remote	12	6
	Total	213	100
State / Territory	ACT	6	3
	NSW	47	22
	NT	11	5

	Queensland	49	23
	SA	17	8
	Tasmania	14	7
	Victoria	41	19
	WA	25	12
	Not working in Australia	2	1
	Total	**212**	100
Qualification	RACGP (practising)	169	82
	ACRRM (practising)	2	1
	GP Registrar	16	8
	GP (retired)	8	4
	Other (specify)	11	5
	Total	**206**	**100**
Practice owner	Yes	33	16
	No	171	83
	Not sure/ other	2	1
	Total	**206**	**100**
Experience as a medical practitioner	0 to 5 years	15	7
	5 to 10 years	31	15
	10 to 15 years	38	18
	15 to 20 years	24	12
	>20 years	98	48
	Total	**206**	100
Advocacy group membership*	RACGP Climate and Environment Specific Interest Group	65	32
	Doctors for the Environment Australia (DEA)	74	37
	Climate and Health Alliance (CAHA)	22	11
	Healthy Futures	10	5
	Non-medical Advocacy groups eg. Aust Conservation Foundation, Greenpeace	28	14
	Other group (specify)	19	9
	Not a member of any advocacy groups	98	49
	Total	**316**	na
Outside your role as a doctor, how much have you personally experienced the effects of climate change?	Not at all	25	13
	A little	45	23
	A moderate amount	73	38
	A great deal	43	22
	Not sure	8	4
	Total	**194**	100

*More than one response possible
RACGP: Royal Australian College of General Practitioners; NA: not applicable

Table 2: GP-reported preparedness for climate change, mitigating actions and barriers

Statement	Response	n	%
My local community is well prepared for climate-related events	Not at all	45	23
	A little	71	37
	A moderate amount	41	21
	A great deal	14	7
	Not sure	21	11
	Total	192	99
My practice/workplace has taken steps to reduce its carbon footprint	Not at all	56	29
	A little	78	41
	A moderate amount	30	16
	A great deal	15	8
	Not sure	13	7
	Total	192	101
What steps has your practice/ workplace taken?*	Reducing paper e.g. e-scripts, e-communication	116	90
	Solar panels	51	40
	Insulation	34	26
	Renewable energy	20	16
	Electric vehicle charging points	10	8
	Other	29	22
What barriers does your practice/ workplace face in tackling climate change?*	Financial constraints	109	57
	Climate change is not a priority in my practice/ workplace	90	47
	Lack of support from leaders or management	84	44
	Lack of political will	65	34
	It is not clear how my practice/ workplace can tackle climate change	56	29
	My practice/ workplace doesn't have time to work on climate change	47	25
	Other barrier (specify)	22	12
	No barriers	18	9
	Don't know	9	5
I have personally made efforts to reduce my carbon footprint at work	Not at all	24	13
	A little	43	23
	A moderate amount	76	40
	A great deal	44	23
	Not sure	4	2
	Total	191	101
What steps have you taken?*	Lifestyle changes	143	85
	Reducing unnecessary tests	131	78
	De-prescribing	118	70
	High value care	93	55

	Nature prescribing	84	50
	Renewable energy	52	31
	Other	34	20
My patients ask me about the effects of climate change on health	Not at all	103	58
	A little	63	35
	A moderate amount	11	6
	A great deal	2	1
	Not sure	0	0
	Total	179	100
I initiate a discussion about the effects of climate change on health with my patients	Not at all	66	37
	A little	90	50
	A moderate amount	20	11
	A great deal	2	1
	Not sure	1	1
	Total	179	100
I have taken steps to educate my patients about the effects of climate change on health	Not at all	83	46
	A little	73	41
	A moderate amount	19	11
	A great deal	4	2
	Not sure	0	0
	Total	179	100
What steps have you taken?*	Including a discussion about climate change in a consultation	67	65
	Discussing changes to medication to reduce the environmental impact	54	52
	Displaying material in the waiting room	25	24
	Other steps to educate my patients	25	24
What barriers may prevent you from discussing climate change and health with your patients?*	I don't have time	90	49
	I don't think that my patients would be interested in how climate change affects health	48	26
	I don't believe it is my role to discuss my personal/political views with my patients	42	23
	I don't think that my patients would understand how climate change affects health	29	16
	I don't know enough about how climate change affects health to discuss it with my patients	27	15
	Discussing these issues with my patients will not make much difference to their overall health	25	14
	I don't believe that climate change is an important issue	14	8
	Climate change and health are not directly relevant to patient care	12	7
	There is no rebate for this activity	36	20
	Other barrier (specify)	36	20
	No barriers	29	16
	Don't know	3	2

*more than one response possible so total is not given

Table 3: GP-reported practice and personal actions to reduce carbon emissions, tabulated by respondent characteristics

My practice/workplace has taken steps to reduce its carbon footprint						
		not at all or a little		moderate amount or a great deal		P-value
		n	%			
Gender	Female	92	77.3%	27	22.7%	0.36
	Male	39	70.9%	16	29.1%	
	Total	131	75.3%	43	24.7%	
Age	<30 years	8	88.9%	1	11.1%	0.01
	31-40 years	35	92.1%	3	7.9%	
	41-50 years	39	70.9%	16	29.1%	
	51-60 years	26	66.7%	13	33.3%	
	61-70 years	24	75.0%	8	25.0%	
	>70 years	2	33.3%	4	66.7%	
	Total	134	74.9%	45	25.1%	
Experience in practice	0–5 years	12	100.0%	0	0.0%	0.20
	5–10 years	22	81.5%	5	18.5%	
	10–15 years	24	75.0%	8	25.0%	
	15–20 years	14	66.7%	7	33.3%	
	>20 years	62	71.3%	25	28.7%	
	Total	134	74.9%	45	25.1%	
Practice owner	Yes	16	59.3%	11	40.7%	0.04
	No	117	78.0%	33	22.0%	
		133	75.1%	44	24.9%	
Rurality	Metropolitan	69	75.0%	23	25.0%	0.58
	Regional	35	70.0%	15	30.0%	
	Rural	22	84.6%	4	15.4%	
	Remote	8	72.7%	3	27.3%	
	Total	134	74.9%	45	25.1%	
I have personally made efforts to reduce my carbon footprint at work						
		not at all or a little		moderate amount or a great deal		P-value
		n	%			
Gender	Female	38	30.4%	87	69.6%	0.08
	Male	25	43.9%	32	56.1%	
	Total	63	34.6%	119	65.4%	
Age	<30 years	8	88.9%	1	11.1%	0.03
	31-40 years	15	38.5%	24	61.5%	
	41-50 years	16	28.1%	41	71.9%	
	51-60 years	15	36.6%	26	63.4%	
	61-70 years	9	26.5%	25	73.5%	
	>70 years	4	57.1%	3	42.9%	
	Total	67	35.8%	120	64.2%	
Experience in practice	0–5 years	8	66.7%	4	33.3%	0.01
	5–10 years	13	46.4%	15	53.6%	
	10–15 years	14	41.2%	20	58.8%	
	15–20 years	4	18.2%	18	81.8%	
	>20 years	28	30.8%	63	69.2%	

	Total	67	35.8%	120	64.2%	
Practice owner	Yes	10	37.0%	11	63.0%	0.88
	No	57	35.6%	103	64.4%	
	Total	67	35.8%	120	24.9%	
Rurality	Metropolitan	34	35.1%	63	64.9%	0.76
	Regional	21	41.2%	30	58.8%	
	Rural	9	32.1%	19	67.9%	
	Remote	3	27.3%	8	72.7%	
	Total	67	35.8%	120	64.2%	

Table 4 Recommendations to support GPs respond to the impact of climate change on health, informed on survey responses

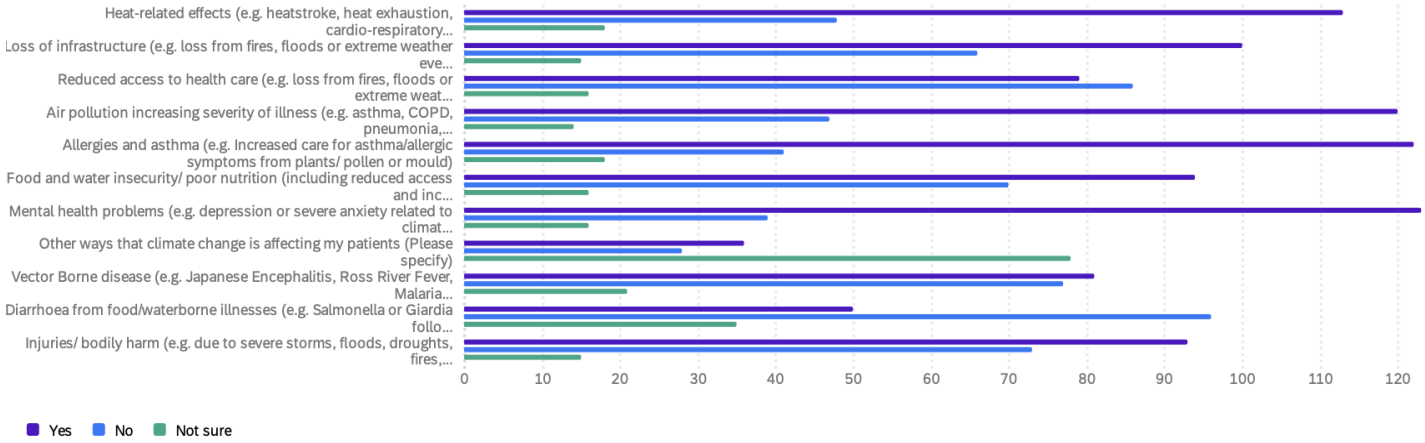
Support area	Level of need	Rationale based on survey
General education and support		
Awareness for GPs about a link between climate change and health	Moderate	Awareness is already high However, a small minority (8%) don't believe that climate change is an important issue
Education for GPs about the impact of climate change on specific health conditions	High	While confidence is high, knowledge may not be
GPs decarbonising their practices		
Education for practice owners/ managers about 'greening' the practice	High	Management is a barrier identified by GPs. Practice owners may believe their actions are more significant than they are.
Education for GPs about 'greening' the practice and decarbonising care	High	Some GPs not sure how their workplace can tackle climate change GPs may not be aware of steps the practice is taking on behalf of the group. Target GPs with less experience to let them know what steps to take. Helping GPs to redirect their concern towards action is empowering and relieves anxiety
Grants/ financial support to practices to make changes	High	Financial constraints are a major barrier
GPs partnering with patients		
Education of GPs on how to talk about climate change during consultations e.g. acknowledging the level of climate change awareness within the general population, identifying climate health effects as aggravating factors in chronic health conditions, incorporating climate effects in GP Management plans	High	GPs are reluctant to raise the issue with patients
Remuneration for GPs having discussions about climate change and how it is impacting individual patients – new item number and/or acknowledgement this is an appropriate issue to include in discussions with patients	High	Biggest barriers for GPs are lack of time and rebate
Education for patients about what the practice is doing to reduce emissions	High	Encourage management to make changes and use it as a promotional strategy
Information for patients from authoritative medical bodies about climate change and its impact on health	High	Frame climate change as a health rather than a political issue to make GPs comfortable raising it with patients
Information for patients encouraging them to ask their GP how climate change is affecting their health	High	GPs feel uncomfortable raising climate change but may discuss if raised by patients
Information for patients about how to work with their doctor and make choices to decarbonise health care	High	GPs are motivated to make changes and it can be a doctor-patient partnership

Supplementary Table S1: Respondent concern and beliefs about the impact of climate on health

Question	Response	n	%
How concerned are you about the effects of climate change?	Very concerned	139	72
	Moderately concerned	17	9
	A little concerned	16	8
	Not at all concerned	20	10
	Not sure	2	1
	Total	194	100
How knowledgeable do you feel about the impact of climate change on health?	Very knowledgeable	50	26
	Quite knowledgeable	78	40
	A little knowledgeable	55	28
	Not at all knowledgeable	6	3
	Not sure	5	3
	Total	194	100
Over the last decade, how much do you think climate change has harmed people in Australia?	Not at all	22	11
	A little	20	10
	A moderate amount	80	41
	A great deal	70	36
	Not sure	2	1
	Total	194	99
Over the last decade, how much do you think climate change has harmed people across the globe?	Not at all	18	9
	A little	13	7
	A moderate amount	39	20
	A great deal	121	62
	Not sure	3	2
	Total	194	100
How relevant do you think climate change is to your medical practice?	Not at all	24	12
	A little	27	14
	A moderate amount	53	27
	A great deal	83	43
	Not sure	7	4
	Total	194	100
How much do you think climate change is affecting the health of your patients?	Not at all	24	13
	A little	45	25
	A moderate amount	67	37
	A great deal	42	23
	Not sure	4	2
	Total	182	100

Figure 1: GP perceptions of current and future effects of climate change on the health of their patients

Do you think that climate change is currently affecting your patients in any of the following ways?



Do you think that climate change might affect your patients in the following ways in the next 10–20 years?