Role of public health professionals in the climate and ecological crisis: a qualitative study

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ABSTRACT

Background The climate and ecological emergency is the single biggest health threat facing humanity, yet it is not clear to what extent the public health workforce have been involved in work on this topic. This research aimed to establish what public health consultants working in local authorities in England perceive their role to be, whether the climate crisis is seen as a core component of public health and to identify barriers to action.

Methods Semi-structured interviews were undertaken with a purposive sample (n=11) of local authority public health consultants in England. Participants were recruited via public health organisations, social media or snowballing. Thematic content analysis was used to identify codes and themes.

Results Public health professionals have started work on climate change but reported being unclear about their role and feeling isolated working on this topic. Barriers to action included shortage of financial resources, communication tools and capacity, limited sharing of best practice, lack of local expertise and conflict between the need for action on climate change and other urgent issues.

Conclusion We highlight the need to urgently address existing barriers to enable this important part of the public health workforce to play their role in tackling the climate and ecological crisis.

BACKGROUND

The climate crisis is already affecting millions of people across the globe: from unprecedented floods in Asia1 to drought and summer heat in Europe.2 Together with accelerating environmental degradation and biodiversity loss,3 the climate crisis will have profound and long-lasting impacts on health,4 5 including exacerbating health inequalities from the expected changes.6

Mitigating climate change, adapting to its effects and planning for future impacts is needed urgently.7 Some interventions to mitigate climate change such as active travel8 and reducing energy usage through insulating and retrofitting homes9 have significant public health co-benefits.10 11 Similarly, emergency planning, responding to extreme weather events, monitoring of emergent infectious diseases and adaptation planning to manage the impacts of climate change also fall within the remit of public health professionals.12 13

Despite this, there is no clear guidance from UK public health bodies and little literature defining the role of public health professionals in this crisis, with the exception of the Faculty of Public Health Climate and Health Strategy,14 published after the commencement of this study.

Within England, most public health consultants work in local authorities.15 Woodhall et al found that consultants struggled with a lack of strategic leadership and a lack of awareness of the health impacts of climate change among colleagues and the public. Additional resources, support and leadership were deemed necessary to progress work in this area.16

It is unclear what mandate and role local authority public health teams have when working on the climate and ecological crisis. This study therefore aimed to understand
senior public health professionals’ perception of their own role in tackling the climate and ecological crisis in English local authorities; to establish whether working on the climate and ecological crisis is considered a core part of their work and to explore potential enablers and barriers to progress.

METHODS
Semi-structured qualitative interviews were undertaken with public health consultants and directors of public health. Public health consultants have completed 5 years full time equivalent public health training, or a recognised portfolio and gained consultant accreditation from the Faculty of Public Health. Directors of public health are public health consultants who lead public health teams in English local authorities.

ETHICAL APPROVAL
Exemption from the need for formal ethical approval was granted by the University of Manchester.

SAMPLING
We recruited participants through convenience and snowball sampling. Recruitment emails were sent via the Faculty of Public Health and the Association of Directors of Public Health membership lists. Additionally, the study was publicised on twitter and on informal email networks.

Purposive sampling was used to identify consultants and directors of public health who may not be as engaged in this area of work, to gain a broad range of perspectives. Participants who expressed interest were also requested to share the recruitment email with colleagues who were not actively working on climate change and health.

CONSENT
An information sheet about the study was sent to participants alongside gathering participants’ informed consent via email. When the consent form was not completed prior to the interview, it was read out at the start of the interview and verbal consent was recorded.

PATIENT AND PUBLIC INVOLVEMENT
Patients were not involved in the design of this study, but the study protocol and topic guide were designed and piloted in conjunction with the target audience of public health consultants.

DATA COLLECTION
Semi-structured interviews were undertaken by the research team (PD, MvH AG) using a predetermined topic guide. Interviews were undertaken on Zoom, with video and audio recording, and automated transcript generation.

Interview files and consent forms were securely stored on a University of Manchester account and could only be accessed by the research team.

Automated transcripts were checked and amended by PD, MvH and AG to ensure congruency with the interviews. Names, locations or identifiable information were redacted, and transcripts were pseudonymised before analysis. Original audio, video and auto-transcription were deleted following transcription of the interviews.

Pseudonymised transcripts were password protected and accessible by all researchers from a University of Manchester One drive folder.

The topic guide was developed by the research team, in conjunction with public health consultants and qualitative researchers. The guide (online supplemental appendix A) was piloted, and feedback used to amend the guide.

DATA ANALYSIS
Data were analysed using reflexive thematic analysis, the process of identifying patterns or themes within qualitative data, using guidance from Braun and Clarke. All researchers first familiarised themselves with the data, reading through interview transcripts and making notes on observations and insights. PD coded all transcripts, and 20% of interviews were coded by all three researchers (AG, MvH, PD). Codes were discussed at several stages throughout the analysis to ensure that consensus was reached between the research team. Themes were developed iteratively over a series of meetings until a consensus was reached and theme names were finalised. Researchers moved between the above phases as necessary.

A reflexivity statement can be found in online supplemental appendix B.

RESULTS
A total of 11 interviews (female=8, male=3) were completed with directors of public health (n=6) and public health consultants (n=5) from different local authority areas across England. Participants had been in their role for varying amounts of time, with some being relatively recently appointed and others who had been working for several decades. Interviews lasted between 44–62 min and were undertaken between January and April 2022.

Seven main themes were identified as described below.

1. Working on the climate crisis is complicated by seemingly more urgent issues taking precedence and the response to climate change is inadequate
A key point made by participants was that local authorities did not address the climate crisis at a level commensurate with the threat it poses to public health, and that often more immediate problems took precedence over tackling long-term threats. This predisposition to focus on the immediate was described as a major challenge to
work on the climate crisis in local authorities and felt to be influenced by the election and re-election cycles of local councillors. Specific events and crises cited as reasons delaying action on the climate crisis were the COVID-19 pandemic, the Ukraine war and the cost-of-living crisis. Interestingly, many participants worried that while the health effects of climate change would prove to be significantly more severe than more immediate health threats (such as COVID-19 and the cost of living crisis), the resources given to tackle the climate crisis were significantly less in comparison.

And if it’s a (climate) emergency...we have an emergency once a month...that’s not really an emergency is it.

Participant 1

I think the main one is that human nature, focusing on the current situation. So you know that whole thing that you see, which makes us quite good at reacting to something like a pandemic, but just makes us terrible at reacting to climate change. So that there’s always something on the day day radar, firefighting. Whether it’s a recession, it’s Brexit, it’s COVID, it’s Ukraine, there’s always something, and there will be something.

Participant 3

2. Consultants struggle to define their role in the complexity of the climate crisis
Participants discussed their struggles to translate the complexity of the climate crisis into tangible interventions or programmes of work. Reasons for this challenge included a lack of guidance from governing bodies, a lack of a mandate to work on the climate crisis and the challenge of understanding and identifying what to do about such a complex problem. Many participants struggled to identify the most effective role for public health, as solutions to the climate crisis were perceived to lie outside the power of public health or the direct control of local authorities. There was also disagreement among participants around other roles, with some participants reporting that public health should play a stronger leadership role, while others felt that public health should take a step back and let others take the lead.

And so, if we can’t cope with the obesity foresight diagram, and actually work with it, how can we cope with climate change?

Participant 2

3. Consultants already have relevant skills to work on the climate crisis
It was felt by seven participants that that the existing skills of public health consultants could be applied to act on the climate crisis, such as persistence, communication, framing arguments for local populations, engaging with the public and interpreting and communicating data. Participants also discussed that using health and health inequalities were useful framing devices for the climate crisis, particularly when communicating with local authority stakeholders.

I think a lot of the sort of skills are the basic public health skills so I’m not sure there’s anything around skills that would be different to what we have in our training already.

Participant 10

4. Public health consultants working on the climate crisis feel isolated
Participants reported feeling isolated in their work on the climate crisis and feeling their colleagues lacked insight into the relevance of climate change for public health work. Participants also perceived this to impact on whether action on the climate crisis was prioritised within the public health team’s own work, and expressed their desire for networks and time to consider the role of public health in tackling the climate crisis.

But there’s not much sophisticated shared learning so I feel quite isolated as a public health specialist who I think is doing a decent job of working on this, but I can’t even gauge that because I don’t know who the other people are who might be doing a decent job.

Participant 2

5. Validation helps to break down barriers and facilitates progress
One major factor that appeared to break down barriers within organisations was validation of public health work on climate change from outside organisations or individuals. Validation in the form of funding for climate related projects, especially if it was a substantial amount of money, was felt to be particularly effective. Validation could also come from senior leaders, or, on a smaller scale, from within the public health team, for example through backing proposals for reducing carbon emissions or advocating for active travel.

Just after we won the money, I remember going to this meeting with the current leader and the (redacted) cycling (lead) and a couple of the great and the good. And the leader said to me how much is this grant for? (laughs) And I went 25 million. And he sort of went oh that’s quite a lot of money isn’t it?

Participant 1

Validation of the importance of the climate change for public health was also seen to happen when local authority areas felt the direct impacts of climate change, with consultants in affected areas describing having an easier time to drive through the necessary changes.

There’s no doubt that, when the weather changes here, everyone starts to get nervous about what is happening. I suppose flooding is probably the point of the spear that we’re seeing work on locally...
We specifically asked participants about their understanding of biodiversity loss as an important tool to engage the public on the climate crisis, although participants also called for more resource allocation from the local authority to support this work. Participants illustrated the need to undertake high quality community engagement to understand barriers to change among the public. If we have loads of people saying to the politicians, this is a complete issue to us, I think we’d be a bit further down the road.

Participant 4

6. Public opposition or support plays a crucial role in the success of action

One key enabler for local council action on climate change appears to be public support. Participants highlighted their key role play in working with the public to build awareness on issues around the climate crisis. If we have loads of people saying to the politicians, this is a complete issue to us, I think we’d be a bit further down the road.

Participant 4

Other participants reported public opposition and a general toxic atmosphere when trying to implement climate-related initiatives.

I’ve also worked really closely with the director of place on active travel and I think (redacted geographical location) isn’t unique in that active travel has been at times quite contentious and almost quite [a] toxic issue.

Participant 6

Community engagement was viewed by participants as a core aspect of public health work, and this was highlighted as an important tool to engage the public on the climate crisis, although participants also called for more resource to undertake this community engagement. Participants illustrated the need to undertake high quality community engagement to understand barriers to change among the public.

7. Biodiversity is often omitted in discussions around the climate and ecological crisis

We specifically asked participants about their understanding of the climate and ecological crisis, although many participants only responded with regards to the climate crisis. The three participants who did mention the ecological crisis acknowledged that this is a topic where there is less knowledge and action at a local authority level. Participants recognised the lack of resources and knowledge on biodiversity loss as a key barrier, but articulated the importance of public health making the case for action due to the links between biodiversity loss and health impacts.

I’m trying to think about ecological emergency I think I’m probably less well... I’ve thought through less and probably less engaged in it really.

Participant 10

DISCUSSION

Principal findings of this study

This study found that although participants highlighted the importance of the climate crisis as the major defining public health issue in their lifetime, current work in local authority was not commensurate with the scale of the problem. A lack of urgency, inability to prioritise action on climate change in the face of seemingly more urgent crises and public health consultants being unclear about their own role in climate action were the key barriers. Backing of climate action by colleagues, government bodies, public health institutions and the public, as well as funding to mitigate and adapt to the climate crisis, were named as major enabling factors, and could be used as arguments to persuade local decision makers to consider climate change as a priority issue for urgent, extensive action.

Strengths and weaknesses of this study

The local authority consultants we interviewed are well placed to comment on the role of public health professionals in tackling the climate and ecological crisis, as well as the challenges, gaps and needs of the public health system to facilitate action.

This was not only because participants were actively working in the field of public health, but also because their geographical distribution and experience from a wide range of councils enabled insights from different areas across the country. Local authority based public health professionals are already working with local organisations and teams that are relevant to tackling climate change, such as travel and transport. Public health consultants are therefore well placed to advocate for the health benefits of tackling climate change and drive change on a local level, if they feel it is within their mandate and they are well supported by the wider public health system and national public health organisations to do so. Due to limited resources, we were unable to recruit for longer, yet recognise the important perspectives the 11 participants offered, including insights which can be used to shape and design future research studies. This study uses semi-structured interviews, an appropriate method to gather in-depth insights into enablers, barriers and gaps that allows public health professionals to work effectively on the climate crisis. Despite efforts we did not manage to recruit participants who thought that public health does not have an important role in tackling the climate crisis. Selection bias is likely to have played a role, with consultants already concerned about climate change more likely to respond to an invitation to participate. However, due to the increasing impact of climate change, and a general increase in concern among the population and healthcare professionals, we have reason to believe that public health professionals will be increasingly concerned, and these findings are likely to have relevance to the broader workforce.

Strengths and weaknesses in relation to other studies

To the best of our knowledge, this is the first qualitative study that explores the perceptions of public health consultants in England on the climate and ecological crisis, and their own role in tackling it. Previous studies have explored the perceptions of public health as well
as wider healthcare professionals of English speaking nations on climate change, however we have not identified any studies with English public health consultants. Detailed information on views, knowledge and support needs is however required to engage and activate the English public health workforce, particularly considering that the English public health system is unique in having public health situated in local government. Despite the specific conditions of the English public health system, we identified several themes that have been mentioned in previous literature. Substantial concern about the impacts of climate change on health were almost ubiquitous in studies in line with international agencies’ concerns. Evidence suggests however that action to protect health is inadequate, a recent review of local authorities climate change plans found that 80% of all local authorities have a climate change plan, but only 50% included reference to the health impacts of the climate crisis. This is echoed by a central government report included reference to the health impacts of the climate crisis. Major new findings of this research were the palpable sense of urgency and despair of participants, the conflict arising from having to balance climate action with other urgent public health work and the difficulties in implementing major changes to tackle climate change from politically restricted positions. To our knowledge, this study is the first to explore the power of external validation through organisations, the public and funding to catalyse local authority and public health action on the climate crisis. As more people and organisations recognise the threat the climate crisis poses to health, individuals and organisations can use this power to support local action on climate change. This paper has identified a need for public health consultants to apply their existing skill set to the climate and ecological crisis, but also raised the need to work on climate change as their job did not want to engage with this research, however we feel that exploring opposing opinions would have added depth and richness to the debate on public health's role in climate change.

The meaning of this study

This paper brings a fresh and urgently needed qualitative perspective on what the role of public health professionals is in a time of accelerating climate and ecological breakdown. To our knowledge, this question has not been asked before. By providing busy public health consultants with a space for reflecting on the climate crisis and their role in it, we have uncovered fresh insights that can be used to inform training and policy. The lack of action relative to the scale of the crisis is an important finding. Major new findings of this research were the palpable sense of urgency and despair of participants, the conflict arising from having to balance climate action with other urgent public health work and the difficulties in implementing major changes to tackle climate change from politically restricted positions. To our knowledge, this study is the first to explore the power of external validation through organisations, the public and funding to catalyse local authority and public health action on the climate crisis. As more people and organisations recognise the threat the climate crisis poses to health, individuals and organisations can use this power to support local action on climate change. This paper has identified a need for public health consultants to apply their existing skill set to the climate and ecological crisis, but also raised the need to evaluate what skills public health consultants may need in the future where climate and environmental breakdown is a reality. This study provided insights into the relationship between public health and the public, including the need to engage with communities and local councillors to effect change within local authorities, and mobilising the public to effect change in climate change policies. Finally, this is the first study to explore the isolation which public health consultants feel, giving them extra mandate and importance to the many networks which are available for public health professionals to engage with on climate change and health. It highlights the importance of promoting existing networks which enable public health professionals to disseminate information and share best practice.

Possible explanations and implications for policymakers

There are three main recommendations from this study:

1. To ameliorate feelings of isolation, public health consultants need to be able to participate in networks for support, guidance and sharing of best practice, such as special interest groups at the Faculty of Public Health and existing regional networks working on climate change and health. Participation will be easier if groups are well promoted, participation is supported by workplaces and these groups are adequately resourced to provide the support that is required.

2. Public health consultants need to be supported by national agencies, public health organisations and fund- ing bodies to trial creative and innovative actions and build the evidence base for effective public health action on this topic, including on how to challenge existing power structures. 

3. Knowledge on the relationship between climate change and health needs to form more of a core component of public health training as well as ongoing professional development for practising public health consultants. Adequate training materials need to be provided to ensure that public health professionals have access to education and training commensurate to the scale of the climate crisis.

Unanswered questions and further research

Further research which quantifies the number of public health consultants who see action on climate change as part of their job role would be important. Second, research which explores in detail how existing barriers could be tackled, for example the specifics of how to address knowledge gaps and which tools would be needed to support public health professionals in their roles and by whom these should be produced. Further important research questions are outlined in box 1.

CONCLUSION

This important study is the first to qualitatively explore the role of public health consultants working on the climate and ecological crisis in the current political and economic context. As coordinated action on the climate and ecological crisis becomes increasingly urgent, it is important that public health consultants and the public health system overcome the challenges outlined in this study.

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Contributors

All coauthors (PD, MvH and AG) substantially contributed to the design of the study, undertook the interviews, transcribed the interviews, participated in analysis and came to consensus on key themes and findings. All co-authors (PD, MvH and AG) contributed to the write up of the study, including drafting the work and approving the final version for publication. PD is guarantor for the study.

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Competing interests

None declared.

Patient and public involvement

Patients and/or the public were not involved in the design, or conduct, or reporting or dissemination plans of this research.

Patient consent for publication

Not required.

Ethics approval

This study involves human participants but University of Manchester exempted this study —the exemption letter has been included in the submission. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review

Not commissioned; externally peer reviewed.

Data availability statement

Data are available upon reasonable request.

Supplemental material

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Box 1 Questions for future research

› Which interventions led by public health local authority teams to mitigate climate change, or adapt to the effect of climate change, are the most effective?

› How can public health professionals engage in the most effective community engagement to make meaningful progress on climate action within their communities?

› Which skills that public health professionals may not be aware of at the moment may the public health community need to manage the unpredictability of the future?


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