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Original Research

When experts disagree: interviews with public health experts on health outcomes in the UK 2010–2020

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ABSTRACT

Objectives: To ascertain the views of public health experts on adverse trends in life expectancy across England and Wales over the past decade, causal factors, possible solutions, and their opinions about how the prepandemic situation influenced the UK's COVID-19 response.
Study design: Semistructured, in-depth interviews.
Methods: Nineteen public health experts were identified by purposeful sampling and invited to take part via e-mail. Sixty-three percent responded and participated ($n = 12$), six females and six males. Interviews took place via Microsoft Teams between November 2021 and January 2022. Interviews were transcribed and analysed using thematic content analysis.
Results: There was no consensus on the significance of the stalling and, at some ages, reversal of previous improvements in life expectancy between 2010 and 2020. Explanations offered included data misinterpretation, widening health inequalities, and disinvestment in public services, as well as some disease-specific causes. Those accepting that the decline was concerning linked it to social factors and suggested solutions based on increased investment and implementing existing evidence on how to reduce health inequalities. These interviewees also pointed to the same factors playing a role in the UK's poor COVID-19 response, highlighting the need to understand and address these underlying issues as part of pandemic preparedness.
Conclusions: There was no consensus among a group of influential public health experts in the UK on the scale, nature, and explanations of recent trends in life expectancy. A majority called for implementation of existing evidence on reducing inequalities, especially in the wake of COVID-19. However, without agreement on what the problem is, action is likely to remain elusive.

Introduction

Trends in population health provide a means to track societal progress and life expectancy at birth is among the most widely used measures. It has some limitations; when reported as a single national measure, it provides no information on geographic or social inequalities. However, it does enable comparisons between countries and over time. Life expectancy has increased considerably since records began in 1840, albeit at different speeds and with some fluctuations, and substantial events such as both World Wars and the 1918 flu pandemic (Fig. 1).[1,2]

In the 2010s, the long-term improvements began to stall.[3] Although the upward trajectory continued, improvements were among the smallest among high-income countries (HICs).[4] The scale, significance, and causes of this have been disputed. Explanations proposed include particularly cold winters or severe flu; that fluctuations are to be expected and are no cause for alarm; the apparent slowdown is a consequence of rapid improvements in the first decade of the 21st century; and the impact of austerity policies in the 2010s and associated cuts to health and social care budgets (Box 1).[5–7]

The last of these interpretations is especially controversial. Deaths at older ages made important contributions to slowed progress in life expectancy but some have highlighted that old-age pensions were relatively protected. Yet, this only provides a partial picture, as there were cuts to other benefits meaning the average UK pensioner saw a real terms weekly income (after housing costs) increase of £12 between 2010 and 2020, an increase of just £1.71 a day.[8]

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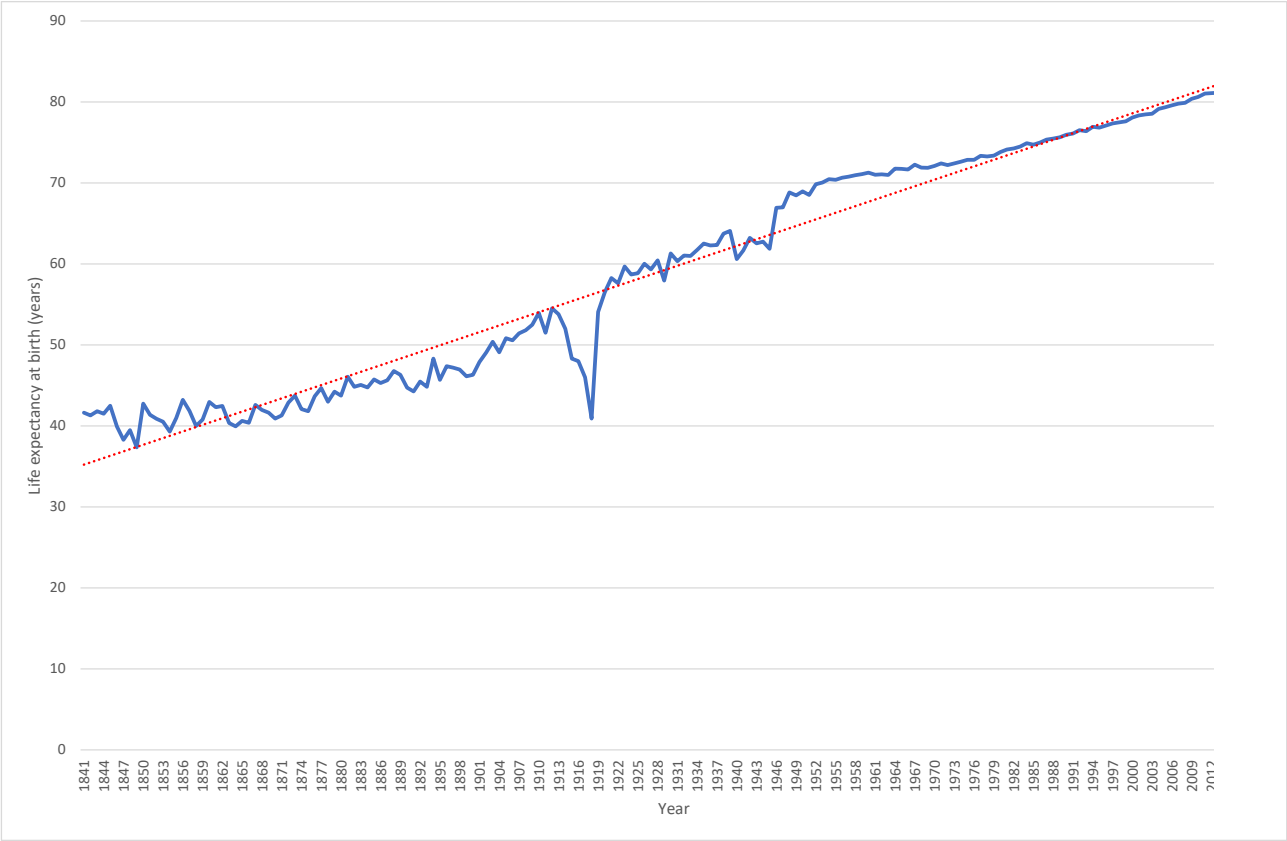

Fig. 1. Life expectancy at birth in England and Wales, both sexes, 1840 to 2020. Source: Human Mortality Database. Note: Blue line shows the value, red dotted line shows the linear trend. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

While all of these explanations likely play some role, consensus remains elusive, as does agreement on appropriate policy responses. This is problematic in a country facing a cost of living crisis and will be a barrier to preparation for a future pandemic. The UK's poor outcomes during the COVID-19 pandemic, despite its scientific capacity, have been linked by some to deteriorating health in previous years.

We asked public health experts in the UK what they thought about this issue. They have all written or spoken about it, in public statements that cover the range of views set out above. However, given the experience of the pandemic, their views may have changed, or they may now be able to express views that they could not previously, for example, due to holding official positions. We adopted a qualitative approach to discover why consensus has been elusive and, potentially, to propose further research on previously overlooked topics. Additional background material is available in Appendix 1.

This paper builds on previous work on the interface between research and policy,[9–12] in particular in the contested area of health inequalities, an issue at the heart of the right-left political divide in many countries, and where views on solutions diverge, ranging from redistributive taxation to the 'trickle down economics', exemplified by Liz Truss, the current British Prime Minister.[13,14]

Methods

Participants

We sought individuals with relevant professional and scientific expertise who had commented publicly on this issue. This was not a huge public debate so the pool of potential invitees was small. As we sought to include a diversity of opinions, we used purposeful sampling. We emailed 19 experts, enclosing a participant information sheet and consent form. Twelve (63%) responded and were interviewed: six females and six males; seven did not respond (Appendix 2). Interviewees represent a diverse group of experts in the most senior positions from academia, government, civil service, medical journals, and non-governmental organisations with experience in economics, public health, and/or public policy. All gave written consent and agreed to the use of anonymised quotes.

Data collection

One of us (LH) conducted semistructured, in-depth interviews between November 2021 and January 2022 via Microsoft Teams.[42] The semistructured interview guide (Table 1) was agreed by the research team, informed by the existing literature and areas of divergence. These questions were shared with participants before the interviews, which were recorded and transcribed following University guidance.[43] Interviews varied from 20 to 60 min. Transcriptions were not returned to participants and there were no repeat interviews.

Analysis and findings

We report our findings according to the consolidated criteria for reporting qualitative research (COREQ).[44] Coding of the data was done by one coder (LH), and the data managed with NVivo software, using thematic content analysis to identify emergent themes.[45] Following Braun and Clarke, this involved six steps.[46] First, familiarisation involved transcribing the interviews, making initial notes, and combining interview responses by question (1–4).

Box 1
What is already known on this topic.

Mortality rates in England and Wales began to increase for some groups after 2015;[15,16] infant mortality rates rose, disproportionately in the most deprived areas of the country,[17] and working-age mortality increased, mirroring the rises in 'deaths of despair'[a] seen in the USA.[18–20] The initial 'blip' would soon become an overall slowdown, with longstanding progress in life expectancy reversing in some groups, widening overall inequalities.[22] While other HICs experienced increased mortality at some times in this period, especially in 2014–15, the UK, along with the USA, has emerged as an outlier in the decade since 2010.[23–26]

The deterioration in health affected more than one group, more than one measure, over more than year. Indeed, a 2018 Public Health England (PHE—now the UK Health Security Agency or UKHSA), report concluded 'The main findings suggest the overall slowdown in improvement [in mortality] is due to factors operating across a wide range of age groups, geographies, and causes of death'.[27] It listed as potential causes a combination of ambient temperature, influenza, increasing mortality rates from dementia, slowdown in previous improvements in cardiovascular disease (CVD) mortality rates, widening health inequalities, and cohort effects.[b,27–29] However, it included little mention of the policy of austerity pursued since 2010, with accompanying cuts to public services and, especially, health and social care[30–32] even though there is an increasing body of national and international evidence pointing to it playing a role.[7,21,33–41]

Second, coding was undertaken within NVivo, highlighting sections of text in the transcription of each interview within the questions and creating codes that described the ideas or content. The codes were added to or new ones developed as this process continued. Using NVivo, the data were then grouped by code to explore the main findings and recurring ideas. Third, a series of themes was generated from the codes, with most codes combined into one of a series of overarching themes. Fourth, we compared the themes to the raw data to check for omissions and ensure that themes were representative. Fifth, we defined and named the themes, attempting to ensure the names helped us understand the data and were themselves understandable. Finally, the account was written up. Although the interviews were informed by the literature and debates about the phenomenon being studied, the approach taken was inductive, allowing themes to emerge from the interviews following initial open-ended questions in the interview guide.

Results

Fig. 2 shows the six themes and sub-themes that emerged from the data[c]. Many of the sub-themes are cross-cutting. For example, the role of inequalities was raised by experts in all six themes.

[a] The term 'deaths of despair' was originally used to describe rising mid-life mortality in the USA due to suicide, drugs, and alcohol-related disease.

[b] Cohort effects refer to 'factors that may affect people born or experiencing a situation at a particular time' (PHE, 2018). One example is historical trends in smoking prevalence.

[c] While an inductive approach was used overall, specific prompts on 1) the role of austerity and 2) the role of migration were used, providing two preconceived themes based on the literature and research questions

Table 1
Interview questions.

Question	Prompts
As you know, life expectancy improvements have stalled in England and Wales in recent years. How would you describe these changes?	
What do you think are some of the causes?	Has austerity played a role? Has migration played a role?
If there is a problem, what solutions might there be?	
What impact did the trends leading up to 2020 have on the COVID-19 pandemic in the UK, if any?	

Interpretation of changes in life expectancy

Experts varied widely in their overall view of the changes, from describing the slowdown in improvements in life expectancy as 'unprecedented' and 'shocking', to consistent with trends seen in other HICs, or due to misinterpretation of the data. The range of views can be seen in the quotes in Table 2.

Causes of change in rate of improvements

Data misinterpretation

Two experts highlighted the importance of caution in interpreting the data and argued that some commentators had: a) focussed disproportionately on the year-on-year increase in mortality in 2014–15; b) ignored the dramatic improvements in mortality in the first decade of the 21st century (2000–2010) which may have given the appearance of a slowdown in subsequent years; c) used inappropriate and/or selective period and country comparisons (Table 3).

Changes in mortality from specific diseases

Most experts emphasised disease-specific factors, such as increasing obesity, flu epidemics, increased use of dementia codes, drug-related deaths, and changes in CVD mortality, although there were some areas of discordance. For example, there was marked disagreement about the importance of improvements in CVD outcomes before 2010 (Table 4).

Most also pointed to factors that would account for changes in outcomes of certain diseases, such as health behaviours, which in turn are shaped by, for example, the obesogenic environment, while growing social isolation was raised as contributing to worsening outcomes from dementia. In all of these discussions, the role of inequalities was widely accepted and seen as something that could be addressed.

Quote 1	'Lifestyle is another issue. We know that we have a a sick environment, an obesogenic environment. You only have to look at the data on smoking in the most deprived areas … You know people who feel that they've got no hope … they're living in an obesogenic environment in poverty. They're smoking. Many of them are drinking, and we know that drugs of addiction are steadily going up, so it all comes together.' -Expert 10

Limit of human lifespan

One expert (Expert 8) asked whether we were reaching the limit of human life expectancy, although highlighting that this could not apply to the UK given other countries were clearly doing better, such as Japan.

Complex and uncertain

Of those who thought there was a problem, there was agreement that it was unlikely that there would be one single explanation.

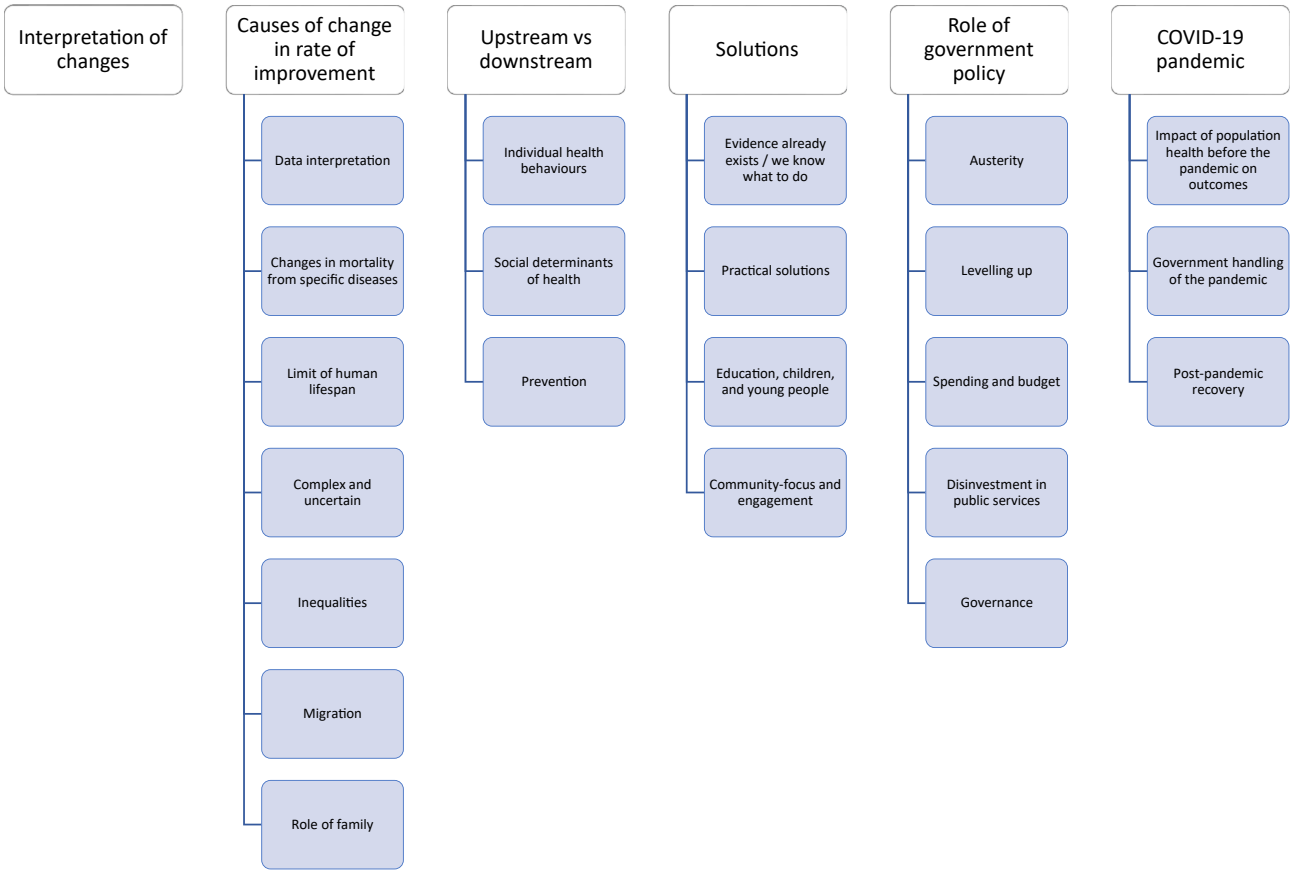

Fig. 2. Map of key themes and sub-themes.

Quote 1	'Almost certainly this is multifaceted and the search for simple solution answer is probably wrong … this is more complex than austerity and it's more complex than winter. Both might be important.'- Expert 2
Quote 2	'I can't give you a definitive single, overarching answer 'cause I don't think there is one … I think it's a combination of a lot of things … I don't think one reason represents even 50% of why it's happened' – Expert 8

Inequalities

Almost all experts (11 of 12) agreed that widening inequalities were likely to be important, both to explain what had happened and to develop responses. Several highlighted gender inequalities and differences in access to health care, citing the inverse care law,[47] and noting how not everyone was affected to the same extent. However, one expert felt the data on inequalities had been misinterpreted (Table 5).

Migration

The experts were unanimous that migration was unlikely to have had a substantial impact but if it did, it would likely be positive. One expert suggested that, going forward, the return of older British migrants from countries such as Spain following Brexit may impact adversely on the figures.

Quote 1	'I mean if [migrants] are any part picture they're probably a positive part, and they're probably a very small part of the picture anyway' – Expert 3

Quote 1	'I can't quite quantify to what extent it impacts of life expectancy but I do think it's worth mentioning is that families in this country a lot smaller than they used to be … It's partly to do with the way we live house households or smaller … You don't quite see generations of people living in the same households as such, and so I think there's a much greater reliance on the state for health care and social care really so.' – Expert 8

Role of family

One expert pointed to the changing role of the family and the implications for state support.

Social determinants of health

Most (11 of 12) raised the social determinants of health as a cross-cutting theme, especially in relation to the pandemic. The impact of poverty on health was raised frequently (Table 6).

Living and working conditions

Experts argued that inequalities in housing, environments, and labour impacted on health, especially during the pandemic (discussed further under theme six: COVID-19 pandemic; Table 7).

Access to health care services

Inequalities in access to health care services and a need to shift to community-focus and user-led interventions were raised as both a problem and a solution (Table 8).

Table 2
Quotes on the theme 'interpretation of changes in life expectancy'.

Quote 1	'I would describe these changes as completely shocking and a real wake up call … Life expectancy is one of the key sort of 'canary in the coal mine' statistics in public health' – Expert 3
Quote 2	'I would describe it as dramatic … it's pretty dramatic to get the break in the curve [of life expectancy improvements] … If it were the case that this was the result of government policy? That's pretty powerful. Wow … So it was dramatic and close to unprecedented' – Expert 7
Quote 3	'I think it's appalling … you can't just dismiss it because it's happened so specifically and differently in places in the UK compared to elsewhere' – Expert 12
Quote 4	'I think it's probably less substantial than is often portrayed … It's not the sort of catastrophe and cataclysm that sometimes is portrayed' – Expert 4
Quote 5	'I think it's disappointing to have seen it stall, but it's not unique to England, or indeed the UK' – Expert 6
Quote 6	'… those slowing down trends were observed in many countries, so the UK wasn't alone in that. But what did make the UK stand out was of course especially as our life expectancy didn't compare very well anyway, particularly for women. We really are the bottom compared to all West European countries'. Expert 9
Quote 7	'Looking at the confusion, I think that much of the discussion was based on the 2014–2015 period, which … slightly distorted the discussion … So if we're … looking at their side, the first decade of the 21st century and the second decade the 21st century, then there was quite a substantial change. We've had a very, very high rate [of improvement] and then followed by a rather low rate and therefore the difference is quite substantial' – Expert 4
Quote 8	'The trend in life expectancy has stalled, as I would describe it … from 2010 for both males and females … and most ages … I don't think it's fallen in the true sense of the word. And I think it would be a little bit overzealous to say it's fallen … it's certainly not growing, that's for sure' – Expert 8

Table 3
Role of data misinterpretation.

Quote 1	'It could be partly artificial … the same thing you could interpret in different ways … the difference between 2014 and 2015 was because 2014 was the lowest ever recorded winter excess mortality, which drives the whole process … you pick the time and what deciles and ignore everybody else you can … selectively choose bits which are perhaps more consistent with ideas about what ought to have happened rather than the what did happen.' Expert 4
Quote 2	'It does depend [a] bit on which time period you use and … which comparison period use for this whole baseline as well … you might find one analysis Iceland is worse, or you might find the USA is worse or England worse, just depending on exactly the time bounds … but the truth is that there's the overall pattern can't really be hidden that lots of high-income countries have seen this stalled trend'. – Expert 5

Solutions

Evidence already exists/we know what to do

Most experts believed that solutions already exist, especially concerning inequalities, arguing that 'we already know the answers' (Expert 3) and that the government could make a difference reasonably quickly by tackling the social determinants of health through a range of policies (Table 9).

Practical solutions

Some experts pointed to specific, practical solutions, for example highlighting the failure to prioritise prevention, with one calling for a ring-fenced NHS prevention budget (Expert 1) and making general practice lines freephone (Expert 2).

Table 4
Quotes demonstrating the differing opinions on the role of CVD mortality.

Quote 1	'The [improvement in] cardiovascular diseases slowed … what is that explaining? That's just a description. Even if it were correct, it's not explaining anything unless you say … it's all downstream.' – Expert 7
Quote 2	'Clearly the slowdown in cardiovascular disease mortality has played a big role. Now some of that could be due to austerity, because there were very significant cuts in public health budgets, we know that. But equally that is being seen across some European countries as well.' – Expert 9
Quote 3	'A great majority of the reduction in improvement between the first and second decades was due to changes in in CVD. I mean, in the UK it's something like the first decade CVD dropped by a third. In the second decade it dropped by 4% that's using Global Burden of Diseases data …' – Expert 4
Quote 4	'there are proposals around having run out of new interventions in relation to cardiovascular disease, which again I don't think are particularly plausible, but particularly because the most deprived groups have seen the worst trends and they're still not getting through and accessing all of the benefits that those treatments can offer, and so you would, in a sense, expect inequalities and those deaths to have narrowed rather than widened if there wasn't a sort of ongoing chain of health care interventions coming through as it were.' – Expert 5

Table 5
Quotes on inequalities.

Quote 1	'… if it's [life expectancy] going to stall then it needed to stall for everybody in the exact same way. But it didn't, so that for me is why there's an issue. That's why we need to start asking questions of why it happened' – Expert 12
Quote 2	'COVID, of course globally has amplified inequalities … our inequalities were widening anyway … so you know we're looking at a magnified effect.' – Expert 9
Quote 3	'So we've got inverse care law writ large in that at the moment getting the types of services which are more empowering so I think things like so all that's going on with mental health services with peer to peer and early intervention' – Expert 2
Quote 4	'[inequalities got] smaller after about 2002/3 and increased again after about 2012, so it's consistent with saying that New Labour's policies to reduce health inequalities worked. And when those policies were reversed, it took a couple of years, but … health inequalities started to increase again.' – Expert 7
Quote 5	'I think there's been a lot of confusion about … inequality in that decade … people have said that inequality increased. That's not how I read the evidence.' – Expert 4
Quote 6	'Ah well, it's increasing inequalities isn't it? … it's unfair that money makes money and those without can't. And health allows you to live a good life and stay healthy. Unhealth stops you from staying healthy. So the division starts with the inequalities and gets ever greater.' – Expert 10

Table 6
Quotes on the social determinants of health.

Quote 1	'To tackle the social determinants of health at their most upstream level and manifestation. To tackle poverty, to tackle inequality, to tackle deprivation.' – Expert 3
Quote 2	'At any point to suggest that individuals are only responsible for their health whilst also living in a structure that means they are more likely to have poor health outcomes, less likely to be able to afford a decent home, buy good food, all of those things that may make you healthy, is just ridiculous.' – Expert 12

Education, children, and young people

Approximately half of the experts called for investment in education, children, and young people, citing the negative impact of cuts to Sure Start centres, to education, and of austerity more broadly on child poverty and child health (Table 10).

Table 7
Quotes on living and working conditions impact on health.

Quote 1	'there is a convergence of evidence around poverty and declining … circumstances for choice … and empowerment of people so you know they're increasingly boxed in to less and less income … and that makes healthy choices very difficult. And also I think the nature of work is important. I mean, these are the wider determinants, but if people have two or three jobs just to keep going and most of the poverty is in work … ' – Expert 6
Quote 2	'… housing needs to move towards passive house standards for housing and ecologically, sustainable and affordable heating systems with adequate room and no damp, etc. And with housing being available according to needs, and not just about what you can afford.' – Expert 5

Table 8
Quotes on access to health care services.

Quote 1	'We don't have progressive health services. We don't look at equity of access, we look at equity of offer, so the fact that every woman in certain age groups is offered screening breast and cervical, we get a big tick. But actually for many of these women, should we be actually trying to reach them in different ways … the poor areas have much longer waiting lists, much more unmet health need, so they have bigger needs.' – Expert 10
Quote 2	'… we probably need to look hard about whether or not we just skew more of our [NHS] resources to areas of unmet need and a richer understanding of unmet need' – Expert 2

Table 9
Quotes on evidence already exists sub-theme.

Quote 1	'The increase in social and economic inequalities? … [People say] there's nothing to be done because we don't understand the causes … well in my view we know a great deal. We know what to do.' – Expert 7
Quote 2	'That means rapid recognition of how everything is is connected … don't just publish a report that says 'oh social determinants of health' actually carry through with that ….listen to the evidence' – Expert 12
Quote 3	'… people arguing for more research and I'm thinking, we may not know everything about everything, but we know enough to make a difference now … it's deeply frustrating. We've got evidence on what works … we've trialled some of these things.' – Expert 9
Quote 4	'You might choose to be blind to the evidence that's out there but you had to choose to be blind … we had had in this country [a] series of health inequalities Government commissioned reports here. The Black report, the Acheison, the Marmot review coming out in 2010 that all said the same thing'. – Expert 3

Community-focus and engagement

One (Expert 2) argued for co-creation of solutions with affected communities. Another (Expert 11) called for integrated health services, closing the gap between primary and secondary care (Table 11).

Governance

One (Expert 1) highlighted the need for 'smart governance', without which policies would be ineffective (Table 12).

Prevention

A majority argued that solutions should focus on prevention, with greater NHS spending and wider public health measures such as addressing the obesogenic environment (Table 13).

Role of government policy and spending

Austerity

Views on the role of austerity were divided. Some saw the slowdown as 'not a surprise given what was going on in the economy and policy arena' (Expert 3), and the 'marked change in policy approaches in 2010' (Expert 12). However, not all agreed, for example, one noted noting how the changes were driven mainly by worsening mortality in older people, who were 'protected in the main from the force of austerity by the triple lock in place … the simple austerity argument doesn't quite cut it' (Expert 2). Another saw the austerity arguments as 'very unconvincing' (Expert 4). One argued for cautious interpretation when comparing to other European countries in Southern Europe (Expert 5) (Table 14).

Table 10
Quotes on education, children, and young people.

Quote 1	'Invest, reduce child poverty, invest in early child development, reverse the cuts in spending on education per pupil. 8% cut in education per pupil from 2010. And these were amazing, regressive cuts in funding to local government.' – Expert 7
Quote 2	'I don't want to say spend more on the NHS, because that's the easy thing to say. I would actually say if I had to choose where to spend money … I'd probably choose to spend it on the on the education system rather than the health system … I do think the education system is an absolutely crucial instrument to protect and advance health.' – Expert 11

Table 11
Quotes on community focus and engagement.

Quote 1	'Some communities have very high levels of community assets which people can draw on, other communities have much lower levels of community assets and so almost public services have to work a lot harder to fill some of those gaps … there is something there for our conceptualisation of unmet need being not just clinically-led but also thinking about what are the resources and the assets in the community and are there people in communities where there are less of those assets? … Community activities that progressively build the confidence in people … like social prescribing but we don't want to medicalise' – Expert 2
Quote 2	'… having these palaces of high tech medicine in our hospitals and general practice separated from each other in the rigid way we have and public health too … I don't think that's the that's necessarily at all the best way … How do you provide integrated care for local communities?' – Expert 11
Quote 3	'I don't think consultants should be locked in hospitals all the time they need to be getting out into communities. But equally, GPs shouldn't just be in the community … we need to get these consultants out of hospitals … the community is where it's at and just waiting people for people to come into out patients is crazy.' – Expert 11

Table 12
Role of governance.

Quote 1	'Our health inequalities targets, for instance, everybody signed up to them blindly for the last 30 years, and they've got worse. So the issue isn't commitment, the issue isn't metrics, the issue isn't signing up to it. The issue is delivery and governance.' – Expert 1
Quote 2	'One of the things we need is smart governance. We can't just act on the supply side to this solution, which has been one of our problems. What we need is to work on the demand side and actually get the public to be saying 'why aren't you doing this' to the politicians who then say to the system managers, 'Why aren't you doing this?' And … the public get this, and and the system managers get it, but they seem to be caught in a stagnant position of being able to unable to address it. It's not that people don't get it 'cause they health services full of really smart people' – Expert 1

Levelling up

Some of the experts raised the Government's 'levelling up' agenda, emphasising it was unclear about what it meant while stressing the need for action across government. One said it was a positive move from a 'deeply Conservative government' (Table 15).

Table 13
Quotes on prevention as a solution.

Quote 1	'I think obesity rates reflect the obesogenic nature of society. So that's because people make profit from unhealthy foods and from transporting us around to out of town shopping centres and out of town entertainment places. So we need to redesign our urban realm. We need to re-design our food systems that to prioritize health and taste, frankly. In doing so, we can support health and and support people to be a healthy weight because it's actually incredibly difficult to maintain a healthy weight in that context of obesogenesis.' – Expert 5
Quote 2	'If someone is seriously ill and in front of you, it might have been better to spend the money preventing them. But by the time you see them, it's too late so you're primary duty is to fix them … and the problem with that is the NHS will continue to be increasingly unsustainable because all the time you are allowing the exacerbation of risk into health conditions into the need for treatment and if you just spend the money at the treatment end of that cycle all the time that budget will the demand the need will get bigger and bigger and bigger.' – Expert 1
Quote 3	'I think there needs to be a much more renewed and invigorated push on public health and prevention. We've neglected that much too long.' – Expert 9

Disinvestment in public services

Many saw a need to address disinvestment in public services and, especially, in health protection and health and social care (Table 16).

COVID-19 pandemic

Disinvestment in public services 'which was done in a regressive way' (Expert 7), including declining health protection and an 'overstretched' health care system before 2020, were cited as important in the poor COVID-19 pandemic outcomes. These have been explored under the theme 'role of government policy'.

Table 14
Examples of different views on the role of austerity.

Quote 1	'Those changes in life expectancy are rooted in the austerity economics that result from 2010 … it is to do with increasing poverty, increasing inequality, increasing deprivation, and the chronic stress related to those things. And that's it really. And and I think what happened to the Social Security system is a really key part of that … those changes are due to deliberate economic policy that was adopted in the face of world leading expert economic opinion on what should happen following the global financial crisis. You know it's completely and utterly unnecessary to adopt austerity economics at that time. But it was it was a chosen policy because it fit with the neoliberal ideologies and ambitions of the coalition, and then and then the Conservative governments, and about reducing the size of the state. So it was a quite cold eyed, deliberate political choice. And they knew that people would suffer.' – Expert 3
Quote 2	'So the other main one [cause proposed] has been that government austerity policies were responsible for it. Well, the problem there is that countries like The Netherlands which has identical mortality patterns in both decades to the UK had no austerity in the same sense. No reductions in it's sort of health service expenditure, etc. In fact, 18 of the 19 major established market economies actually had a lower mortality improvement in the second decade than in the first decade … all those different economies which have very different patterns of austerity and government policy, so again that I found that those arguments very unconvincing.' – Expert 4
Quote 3	'Glib statements about you know 'Southern European countries that did or didn't implement austerity during a particular period of time and look at their stats' I think at times have been quite unhelpful and perhaps not awfully well informed by what the actual experience of fiscal balance in government policy and economic policy has been' – Expert 5

Table 15
Example quotes on 'levelling up'.

Quote 1	'the whole 'Levelling up' agenda if it's to mean anything … needs to get a much more forensic look at what's driving inequalities across all dimensions and address them … whether it's public health prevention talk, addressing things like obesity. 'leveling up' this has got to be a cross government agenda.' – Expert 9
Quote 2	'… we've got the whole 'levelling up' rhetoric at the moment. Now that should be a surprise … because who would have thought you would hear that the those those those words coming from the mouth of a deeply Conservative government? It's how they got their large majority in the last election, and now they're really panicking about having something to show for it … so I think we will see some action around leveling up … I don't suppose we will see the kind of comprehensive policies that we need to see for true leveling up, but that rhetoric is at least there.' – Expert 3
Quote 3	'Like everyone else, I don't know what it [levelling up] is yet. I mean, and I think clever thing politically is it means what I want it mean to me. It means what you want it to mean to you. It's very clever. It's a slogan … '– Expert 10

Impact of population health before the pandemic on COVID-19 outcomes

Most experts felt that it was the *causes* of earlier adverse trends in life expectancy that were important. In particular, they highlighted the role of work and living conditions on outcomes (Table 17).

One expert suggested using previous trends to explore COVID-19 would be unhelpful: '… [COVID-19] is changing so rapidly that the idea that there would be any traction in trying to use sort of long term past trends … wouldn't be the most useful way of trying to proceed' (Expert 4).

Table 16
Quotes on the disinvestment in public services.

Quote 1	'… if you start with health and social care … we've been underfunding these services for for a long time now … we compare very badly with with Europe … there's only so far you can go with an overstretched NHS with cuts to public health and social care spending, So that has to be a starting point: if we want better health outcomes, we've got to start spending on it.' – Expert 9
Quote 2	'… just as during Second World War, we needed to spend a lot of money … and when we set up the health service, we decided to to to spend the money on that … Governments can spend on what they choose to spend and and it's not about there not being the money available … Money is just something that the government can create when it wants to to do the things it wants to do. There is a magic money tree.' – Expert 3
Quote 3	'Economic interventions are about a different purpose to the economy. So the economy should be designed and that the whole purpose of the economy should be about improving health, improving equity, achieving ecological sustainability, achieving social outcomes. It shouldn't be about economic growth and as long as we pursue economic growth and try to fix all the side effects of that, I think we're somewhat doomed to repeat the mistakes of the past.' – Expert 5
Quote 4	'All public systems that were that needed to be mobilized to respond effectively, to manage and prevent the worst effects of the pandemic had been disinvested in; That whole system of Health Protection was under invested in … local authority Public health services cut and Public Health England cut. So they were devalued, under resourced and not in a fit state to meet the challenge of a global pandemic' – Expert 1
Quote 5	'We went into the pandemic with very overstretched health and social care system which meant we were possibly on the back foot a bit … relative to many other Western countries, you know in terms of beds, doctors staffing all of that … So we went into the pandemic facing an overstretched NHS.' – Expert 9
Quote 6	'I found a lot of statistics alarming in the last year and a half, but the ones that really stuck out for me … was the excess mortality or people dying in their own homes … I think [its] symptomatic of a health care system which is struggling to cope.' – Expert 7

Table 17
Examples of quotes on the role of population health before the pandemic on COVID-19 outcomes.

Quote 3	'We weren't fast enough with our response around lock down and and protecting people. We certainly were hopeless about protecting people within our care homes … we had a worst pandemic than we need have done. It meant that more people were exposed to COVID than need be. More people got sicker from COVID than they need and more people died.' — Expert 3
Quote 4	'… the policies designed to stop the spread of that virus … were only gonna work for people who have a nice house, have a spare room that they can work in, don't actually have to leave the house, can afford to stock up on groceries, have the space to stock up on groceries … everything that happened that climate of austerity that responsiblisation of health that put that emphasis on the individual meant that of course COVID was going to be far worse in the UK than it was in other countries.' — Expert 12
Quote 1	'… what cardiovascular disease and diabetes meant during the pandemic … they were significant risk factors for adverse COVID outcomes. and I think these are the kinds of areas where there is some potential for relatively quicker wins. They remain massive problems in their own right … but with the right policies you can turn things round in these areas relatively quickly.' — Expert 9
Quote 2	'It's not an arguable case that we've been dealing with a syndemic. The evidence is very, very clear … not only do you have two biological epidemics coinciding, but you also have the biological overlaid on the social, so … you have these two epidemics on a on a gradient or pattern of poverty and inequality and that again does drives worse health outcomes' — Expert 11
Quote 3	'[people are living] in unfair circumstances … at their homes, their neighbourhoods, their working environments. So all of those things that mean you're already more likely to have poor health meant that you are more likely to die from COVID and then that became something that then explained it away 'oh don't worry actually they had an underlying health condition'. Our social structure meant they had an underlying health condition which meant they were more likely to die from a virus' — Expert 12
Quote 4	'People are working in warehouses … probably working in multiple places … on zero hours contracts they're probably traveling quite a way to get there … bunched together because they're trying to cut down their travel costs. They're good enough jobs, but they're unstable and insecure, and they have to work, so they go when they're sick and therefore they bring the infection back into their families.' — Expert 6
Quote 5	'… with such a hyper infectious disease in which household transmission seem to have played such an important part … the nature of housing … when people do the proper work on this, they'll see that the nature of countries housing circumstances probably had an enormous role' — Expert 2

Government pandemic policies/handling of the pandemic

Those who had a view on the pandemic response were unanimously negative suggesting more people died than needed and that the lockdown policies were regressive (Table 18).

The exception was the furlough scheme, about which all were positive. One said it showed what a government can do to improve population health (Table 19).

Table 18
Government pandemic response beyond the furlough scheme.

Quote 1	'We weren't fast enough with our response around lock down and and protecting people. We certainly were hopeless about protecting people within our care homes.' — Expert 3
Quote 2	'… the policies designed to stop the spread of that virus … were only gonna work for people who have a nice house, have a spare room that they can work in, don't actually have to leave the house, can afford to stock up on groceries, have the space to stock up on groceries … everything that happened that climate of austerity that responsiblisation of health that put that emphasis on the individual meant that of course COVID was going to be far worse in the UK than it was in other countries.' — Expert 12

Table 19
Quotes regarding the government's furlough scheme during COVID-19.

Quote 1	'… the furlough scheme is one of the most remarkable pieces of public policy ever. We reversed engineered the tax system in a week … so that was one bit that was good in a sea of stuff that was just awful.' — Expert 2
Quote 2	'… furlough and the boost to Universal Credit showed what governments can do, and those were two … unthinkable things prior to the pandemic … had they not been in place, things would have been so much worse and so it's interesting to see that happen, but also is sad to think … if we had the employment protection and the increase in Social Security prior to the pandemic, well that would have made a big difference to mortality pre COVID.' — Expert 5

Postpandemic recovery

Finally some, but not all, highlighted how the pandemic has exposed and amplified existing inequalities and could be a catalyst for change (Table 20).

Discussion

Main findings of this study

We asked 12 public health experts about recent slowing of improvement in life expectancy in England and Wales and what should be done. Six main themes emerged: meaning of the trends, their cause, the role of social determinants of health, possible solutions, the role of government policy, and the COVID-19 pandemic (Fig. 2).

There was no agreement about the meaning of mortality trends in England and Wales before 2020, consistent with disagreements in the current literature. Some saw them as 'shocking' and 'appalling', others as misinterpretation of data, and yet others as no different from what was happening elsewhere. One rare area of agreement was that migration had no significant impact but, if it did, it would be positive. This view is consistent with the literature from other HICs.[48–52] There was particular disagreement about the role of longer-term trends in CVD and austerity.

Most also agreed about the social determinants of health, pointing to existing evidence in the Marmot reports[3,53] and the earlier Acheson report in 1998 and the Black report in 1980.

Table 20
Postpandemic recovery quotes.

Quote 1	'I think the impact of the pandemic and everything that's gone before on inequalities will be extremely profound … It's the areas that were the worst off prior to the pandemic that then got hit. Not just directly in terms of the numbers of deaths from COVID and related effects. But you know all the built in effects, the children, the schooling, the lack of IT, the mental health issues, you know this is ….is a tsunami waiting to happen.' — Expert 9
Quote 2	'… unless you address chronic ill health and the growing unhealthy period of life that people lead and the issues of poverty and inequality … Unless you address those absolutely core to pandemic preparedness and the reasons why we've performed so badly as a country … You don't learn the lessons.' — Expert 11
Quote 3	'I am starting to hear people talking about 'How do we make sure that we don't go into the next problem in the same sort of parlous state?' because there was there was not a single public health professional or social epidemiologist or academic in this arena who was surprised by by what happened to us during COVID.' — Expert 3
Quote 4	'So there's an opportunity here to try and influence both policy, but also the big outfits in this country. The NHS, local government, but particularly philanthropy and other parts of the system that need to play in very actively if we are actually to build back fairer.' — Expert 6

Most also agreed that the UK entered the pandemic in an unhealthy state, consistent with other literature[54,55] but not everyone linked this to the slowdown in life expectancy improvements in the 2010s.

Implications of this study

Owing to the small number of experts interviewed, we cannot say particular views are generalisable to, for example, economists or demographers, academics or civil society experts, and it would be unwise to attempt to do so. However, what is concerning, is that without a public health community in agreement, political acceptance and action may remain unlikely.

The importance of understanding the causes and possible solutions of adverse changes to health outcomes has only heightened given the UK's poor performance in the COVID-19 pandemic. Some suggested that policies to put the UK back on its upward trend in life expectancy pre-2010 would only be possible once there was understanding and acceptance of the state of health at the onset of the pandemic.[56]

Limitations of this study

This study has limitations. First, there is inevitable selection bias; invitations were sent out by researchers who have written on this topic whose views may be unwelcome in some quarters. Second, while we sought a diverse range of opinions, we cannot ignore responder bias, as those who agreed may differ from those who did not. Third is interviewer bias, which is increased by having a single researcher (LH) conducting interviews, especially given her previous research on this topic, so themes were tested by discussion among the three authors in an attempt to address this.

Fourth, we did not seek to build consensus on the causes or solutions. For the latter, one option, undertaken with other contentious issues such as Brexit, would be a citizens' assembly.[57]

Finally, we cannot say why some experts in public health do not see the change in trends in life expectancy in the UK as not significant. Yet, without a shared understanding, we will struggle to propose solutions.[58]

Conclusion

Twelve influential public health experts varied in their view of the scale, nature, and causes of the stall of improvements in life expectancy in England and Wales in the 2010s. Those who felt there was a problem called for implementation of existing evidence to address health inequalities, acting on the social determinants of health, and investment in public services. However, without agreement about what the data tell us, it is difficult to see how policies can be enacted to improve health and reduce inequalities. This makes it difficult to agree what needs to be done and, while politicians must decide on policy, when experts disagree, change is less likely.

Author statements

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No further competing interests declared beyond the reflexivity statement included in the manuscript.

Appendix A. Supplementary data

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