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Q&A

The BMJ interview: Chris Whitty, England's chief medical officer, on covid-19

Never has the role of chief medical officer (CMO) been under such scrutiny. In a rare interview, England's CMO speaks to The BMJ's editor in chief, **Fiona Godlee**, about the pandemic and what it's like to be a physician in Whitehall

Fiona Godlee, Mun-Keat Looi

This interview was conducted on 28 October and has been edited for length and clarity

How are you, Chris?

I'm fine. To be honest, I'm much more concerned about everybody who's working on the front line because that's the really hard work. And as we look forward to what's going to be an extremely difficult winter for the NHS—one that I suspect, unfortunately, will be unlike any we've seen in recent memory—I'm really concerned about the welfare and the morale of all the medical professionals who are working on this, because this is going to be a long and difficult slog.

I think all of us have huge admiration for what people did in the first wave. It was really extraordinary. And we're going to have to do that again.

What do you think is likely to happen over the next two months as we head into winter?

This is a new virus. It may behave in ways we're not expecting. From an epidemiological point of view, there's minimal evidence of significant immunity at this stage. So, unfortunately, a lot of people could become infected.

I think we have to assume that this virus will benefit from the winter season, just as most other respiratory viruses like flu and adenovirus that we come across every winter in the NHS do. So, my expectation is that, even if we do exactly the same things as we did two or three months ago, rates of infection will be higher.

Even in a typical flu season about 7000 people a year in the UK die of seasonal flu. And in a bad flu year, which often goes quite unremarked, it can be north of 20 000 people dying. SARS-CoV-2 is significantly more lethal than flu, in every age group apart from maybe children. It's extremely transmissible, as we've seen with these explosive outbreaks around the world. So, I think we have to assume that there will be significant outbreaks and, as a result, significant numbers of people in hospital, some of whom, sadly, will die. I don't think I'm saying anything that will come as a surprise to anybody in the NHS.

In every winter season some hospitals come under very substantial pressure, and some even have to call for mutual support. And that's even without covid. So, I anticipate significant pressures this year.

There are four ways this virus is going to kill people and cause long term morbidity, as well as mortality. First, there's the direct effects of covid. And as we know, there are significant morbidity effects as well as mortality effects.

Second is where we have an over-running of the emergency services such that all emergency care stops. We fortunately avoided that in the first wave, but it's not a given if we don't take strong action.

Third, some people need urgent but not emergency care—elective care—which will be delayed further because the health service is under considerable strain.

And fourth, we all know that deprivation leads to serious long term ill health effects, life long in some cases, and generational impacts. The things we have to do to keep the virus under control have significant social and economic impacts.

We're faced by all of these. Making things better for one of them can have a negative impact on the others. For example, freeing up bed space to ensure that we have emergency care puts greater pressure on the elective care system. Bringing in more societal measures will have a bigger impact on the economic effect while it brings down the covid numbers.

We're in this very difficult tension where in every direction we go there are harms, and we're trying to find the least harmful combination of things we can do. But this is going to be tricky to manage, and the health effects are going to spill well beyond those who get covid directly, although obviously there will be significant numbers of those.

There have been calls for more transparency about how the government balances the things you've mentioned with the advice from its advisers and committees such as SAGE [the Scientific Advisory Group for Emergencies]. Would more transparency help health professionals to feel confident in the strategy? And if so, how could that be achieved?

I'm very much in favour of transparency in all areas. I was really pleased that, for example, the SAGE minutes were published—I think that's exactly as it should be. I can see no disadvantage to openness.

It's important that people making very, very difficult political decisions have the time and space to be able to do that before this constant commentary on it. But I do think that transparency, wherever possible, is a good thing. And certainly on the science side, we've tried to be very open about what our advice is and how it's given.

In mid-September SAGE advised the government to impose a two week circuit breaker rather than localised targeted restrictions. As I understand it, the circuit breaker would probably not in itself reduce the number of cases. What would be the point?

The concept of a circuit breaker is that you buy time; you wind back the clock from wherever you are by a few weeks, and that helps to slow down the rate of rise. But you still have to do things after you come out of it. It's not something where you do it and then that's a substitute for all the other things you have to do. Rather, it's a way of trying to slow stuff down. But it comes obviously at a very significant impact in terms of the other societal things that we were talking about before. So, it's not a panacea.

What SAGE was saying is that this is one of the tools that need to be considered. I think it was slightly overwritten [in the media] as saying that you've got to do this or nothing else will work. We need to do quite a lot of things, and this is one of the tools to think about.

How do you respond when it doesn't seem that the government is going to follow what you consider to be important advice?

The thing to understand is that I'm only presenting the health advice. I passionately believe in the health side of things, and I strongly believe that good science leads to good political decisions. But the economic side [and] the societal issues are also important. The political leaders who have to represent the public have to balance all these different elements together.

Whenever I look at a problem, I generally decide whether it's primarily technical, political, or a bit of both. If it's primarily technical I'll say, look, in my view, there's only one technically correct solution. So: which kind of drugs should we be using to treat covid? That's a technical decision. Politics should play no part in that. Equally, prioritisation or balance between different elements of the response—for example, health against education against wider societal aims—those are political questions.

There's an extremely heated international debate on how countries should manage the pandemic. Where do you sit on the spectrum between suppression of the virus at one end and population immunity at the other?

Let's start with "herd immunity," as it's sometimes called in the press, which was perhaps most represented by the Great Barrington Declaration.[1] My view is that it's wrong scientifically, practically, and probably ethically as well. [It's] really a pretty minority view, but it's been seen as a much wider view. It's a perfectly respectable one—but the reason it's wrong scientifically is that it starts from the assumption that you will get herd immunity and that this is how you control epidemics.

For the great majority of the infections I've dealt with—and I'm an infectious disease epidemiologist—you never get herd immunity. You don't get it for malaria, you don't get it for HIV, you don't get it for Ebola. Secondly, it makes an assumption that immunity will be maintained, at least for some period of time. And this is not clear yet with covid. We certainly know, for example, that antibodies wane quite fast. So, I think scientifically it's on very weak foundations.

Then there's the practical question. Let's say that it was possible to achieve immunity. It works on the assumption that you can identify all of the people who come to harm and completely exclude them for the remainder of the time that this virus is in circulation, or least in high circulation. Anyone who's thought about this with this particular virus, which is incredibly easy to transmit, realises that this is extremely impractical as a solution. SAGE have looked at this twice and came to the same conclusion both times.

The third reason I personally have problems with it is that, ethically, it would lead to a significant number of people dying who otherwise would not have died of this virus. And it almost certainly would lead to much higher pressure on the NHS and therefore some of the indirect damage.

As for the other end of the spectrum—which is, why can't we just eradicate this virus?—that's also impractical for a variety of reasons. There are reasons why we have, to date, only managed to eradicate one human disease—smallpox—with two or three others that have been just on the edge for a long time. It's very, very difficult to do.

What we've got to do is get this virus down as low as is practical at any point in time, using the tools we've got, and expect that we will get medical countermeasures. It might come in the form of vaccines. It might come in the form of drugs, as happened with HIV, for example: we don't have an HIV vaccine, but we've got very good control in the UK on that. There are other possible technical solutions. So, we shouldn't see that we'll be in the current state for an indefinite period. I have an absolute belief in the ability of science to get us out of this hole. But it is going to take a while before we get to that point.

What's your sense of the likelihood of a vaccine in the next year?

There's the biggest effort to get vaccines that's ever been seen. I think there's a reasonably good chance that we will get a vaccine in the next year. But nobody should assume that, and nobody should put a date on it. You never know which one is definitely going to cross the finishing line first. Obviously, we would all hope that the first two or three vaccines that are leading will work, and if every single one of the vaccines worked that would be an outstanding result. But let's see.

Recent data published by the *Financial Times* show that countries that have done worse in terms of covid deaths have also done worse economically, with the UK scoring badly on both counts. This suggests that it's a false dichotomy to talk about health versus wealth and that we have to control the virus to restore our economy. Is that how you see things?

That is absolutely how I see things.

What can you say to local public health professionals who feel left out of the approach in terms of Track and Trace and other public health measures, who believe that it would be better with their involvement?

When I go to places like Harlow or Blackpool or so on, you see remarkable public health leaders doing the day job, [working on] all the other areas of public health on top of all the covid activity. Particularly in this second wave, which is much less of a national picture and where we have a lot more tools at our disposal, I have

a lot of sympathy with the view that there should be local leadership and local ownership of many of the decisions. We're very fortunate to have such good directors of public health—there's a long tradition of that in the UK. And I think that trusting them to make good local judgments is very sensible.

The first wave was a slightly different situation because, firstly, the whole of the UK went through the wave almost the same way: it was very similar across the country, and we were starting out from an incredibly standing start with very few tools. But as we go through this second wave we have a much more varied picture, which is actually much more typical of what other countries, in Europe for example, had in the first wave.

I think that this makes the argument for local leadership and local decisions where possible. You can't do it across the board, because the health system will be criticised for having a very confusing picture if we do things too differently and for being too monoculture if we do things all the same. There's a balance between having some degree of a national approach and some degree of local. And I think that inevitably in the second wave the ratio is slightly different and should be slightly different.

The UK government seems to have preferred a more centralised approach, with commercial companies delivering many of the measures. Do you envisage a larger role for the public sector and local public health teams in the second wave?

I don't think I'm saying anything about the public sector versus private sector, which is a debate I consider to be in the political delivery end rather than the public health end. Mine was more to do with local authorities, local directors of public health, and their considerable contribution compared with the national. It's basically about using both. They don't have the degree of specialisation; they don't have the resources that you have centrally—but they do have local knowledge. They have local experience. They understand what's happening locally.

I had always understood that the CMO was the head of public health in the UK. But people are confused about where oversight or leadership of public health sits, given what's happened with Public Health England and the new Joint Biosecurity Centre. People see you as the head of public health in the UK. Is that right?

I felt quite strongly when I came into this role, not just for public health, but for the medical profession as a whole, that we ought to have a collective leadership. I am definitely part of that collective leadership. But there are the royal colleges and, in the case of public health, obviously the Faculty of Public Health, and there are all the various NHS organisations in NHS England. There are the devolved nations, which have complete control over health decisions pretty well. And local authorities which have very significant influence, which you were talking about before. It's neither right nor sensible that anybody says, "I am the person who just leads the whole thing." I see this as a collective leadership, but the CMO role is and always has been a senior leader within that system.

Particularly going through this crisis at the moment, it's been really important that the leaders talk very regularly to the presidents of the royal colleges, to the directors of public health, to the leaders of NHS England and PHE [Public Health England]. It's important that we see ourselves as a collective leadership. I would actually see the editors of the major journals as part of that collective leadership of the profession: it doesn't mean having to be brought into other people's decisions, but you help influence how this goes, and I think that's important. We see ourselves as a profession with a collective leadership, of which I am one, and many people who might be listening to or reading this are also leaders.

As a civil servant you're accountable to the government, but how do you guard your own credibility, when that's where your authority comes from among your colleagues and the wider world?

The CMO role is different from most civil service roles, in that I'm statutorily independent while being government. And so I feel that, no, I'm not bound by what the government's view is. I give my own view straight. I hope people realise that I give my own view and I don't feel constrained.

Where being a civil servant matters is that there's an absolute statutory requirement, rightly, for impartiality and to stay out of party politics. So, if I think something is a political issue, I'm not going to engage publicly in it.

No one [in government] has ever said to me, 'Gosh, you went a bit far there' or 'I want you to say this, and if you don't there's going to be trouble.' They've always accepted that this role is an independent role, and it ceases to have use if people like me are having to cut our jibs just to suit the situation. It would no longer be helpful to the government. That's the way it works, that's the way it has always worked, and the way in my view it always should work.

After the Dominic Cummings incident you were asked at the press conference what your views were. It could seem that Boris Johnson rather quickly stepped in to stop you commenting . . .

I did think it was a party political issue at that point in time. I've been very careful across the board never to comment on individual people. At its extreme, I really strongly push back against journalists asking about individual patients, which they did near the beginning.

The UK lacks an independent organisation such as the Robert Koch Institute in Germany, which provides information, data, and analysis to the public. Do you think this is something the UK should aim to establish?

In this kind of pandemic, I don't think it makes much difference where the advice is situated. I think it's very important that public health advice is seen to be free of political interference. We can agonise rather a lot about exactly what form that should take. Some of those who were very exercised about the fact that PHE was no longer to be PHE were very exercised about PHE being created in the first place, saying it was disgraceful that it was being created out of otherwise independent organisations.

The general principle should be—as with all medical advice, so this is true for clinicians as well—you should give the advice you give professionally, independently, and without any sense that you're cutting the advice according to what the person you're talking to wants to hear. Any doctor who doesn't abide by that general principle is not doing them, their patients, or the wider public if they're in public health, any favours at all. So, independence is, in my view, a state of mind and a tradition that should be firmly adhered to. Organisational structures strike me as less important.

At the beginning of the pandemic politicians made it clear that they would follow the science, and they and you and Patrick Vallance, the chief scientific officer, presented a

very united front. This seems to be less so recently, such as when you said that the three tier system wouldn't be enough. Does the loss of unity worry you?

What I said [about the three tiers] was, if an area of the country has got such a high level of transmission already and is rising such that it needs to go into the tier 3 areas, the very base case of tier 3 would probably not be sufficient on its own to allow that area to turn the curve down. But within tier 3 there are multiple options on top of that, which will need to be added to. There will be some degree of local discretion as to what the right ones are. But if you think that you've got tier 3 and can just do the base case, that will be insufficient.

What was reported was that I was saying tier 3 was no good. Quite often I give a very precise answer, and people cut out the bit that they want to hear and just narrowly report that. It's just like if you're talking to a patient and you're giving a long talk about all the pros and cons of the treatment and they choose to only hear one bit of it, and that's what they report back. That's what it feels like to me sometimes as a medical practitioner in the system.

What I said, I hope, was reasonably clear, and I would invite people to go back and listen to my words, which were carefully chosen and were, in my view, pretty accurate.

People may be surprised to learn that you're still practising clinically. Tell us why that is and how it feels at this time

I self-identify primarily as a doctor, so to me it matters a lot. It's also helpful to talk to colleagues all the way through the system—doctors, others, nurses, all of the other professionals. It grounds you in how the system is. So, there's a win for the wider role.

This is the first job I've done where I haven't actually done weekly clinics and done on-calls on a rota for acute medicine, because I didn't think I could stay up to date with all the acute medical guidelines. I've kind of restricted it to infectious diseases, which is my own specialist area. But I've hugely benefited from doing it all the way through the time I've been working in government, which is now about a decade.

I've been a clinician throughout that time—I have to do it at times when parliament's not sitting, in holiday times, but I really enjoy it, as well as thinking it's something I should do. It is a real privilege to be a doctor. And I think that anyone who's a clinician doesn't realise quite how lucky they are until they try to do something else.

What do you think we've learnt from this pandemic that we'll need to apply in the next one?

Unfortunately, we always say this at the end of every major epidemic: what this demonstrates is the need to get proper diagnostic capacity, proper public health systems properly rooted locally, because that's what actually stands you in good stead when you have an emergency. That's very easy to say during an emergency. Immediately afterwards, everyone will say it. And then the enthusiasm gradually wanes. And then you get to a situation where the next wave hits. This is a lesson you could have rewritten after several previous pandemics.

How will the pandemic end?

I don't think that the virus is going to disappear. We'll get medical countermeasures—drugs, vaccines, or other things—and they'll help us de-risk it significantly. But I think we'll have covid circulating, and it may become like seasonal flu. It may become like seasonal adenovirus. It might become something which is rather less seasonal. There are a variety of ways it could play out.

But I think that its impact on society, its impact on mortality, and its existential threat to medical practice in the wider sense—the stopping us from doing all the other elements of health—will fade, as we get on top of it with the medical countermeasures.

The medical countermeasures will make this a manageable problem, just as HIV is now a manageable problem. When I was a doctor in southern Africa a third of people my age had it, and it was 100% mortality. Now HIV is still a very serious threat, but it is much, much less a threat than it was. I'm not equating HIV and covid as diseases—they're very different—but they are two infectious diseases that have had a massive impact on society, where medical science and medical practice will reduce the risk such that the impact on society will be much smaller—without being able to say that it'll be completely gone. Because I don't think "completely gone" is a realistic goal for this or most other infections.

1 Great Barrington Declaration. 2020. https://gbdeclaration.org/.