“The scientific method’ doesn’t leave you”

Timandra Harkness interviews Trevor Phillips, the former head of the UK’s Commission for Racial Equality and the Equality and Human Rights Commission, about Covid-19 disparities, ethnic identities and origins, and the often fraught relationship between science and politics.

In April 2020, not long after the UK’s first coronavirus lockdown began, Trevor Phillips ran what he calls “a quick and dirty exercise” on some Covid-19 data. “It was pretty clear that there was something going on, that there was some relationship between the level of ethnic minority population in a local authority, and the incidence of Covid,” he says. “I’m almost embarrassed to say, I just ran the crudest possible regression. Basically, you just line up the local authorities by incidence of Covid death, towards the end of March and April, you just can’t escape it.”

The pattern that Phillips could not avoid seeing was the disproportionate impact of Covid-19 on ethnic minority populations. It is a pattern we have all become familiar with. Of the people who were critically ill with Covid-19 in England and Wales up to the end of August 2020, just over a third were from non-white ethnic minority backgrounds. The risk of death with Covid-19 is higher for almost every other ethnic group compared to “white British”. And according to an October 2020 government report, the rate of death involving Covid-19 in England and Wales up to the end of March and April, you just can’t escape it.”

The scientific method’ doesn’t leave you,” he says. “Most people in public life, when they run across evidence that doesn’t fit with their theories about why things are happening, they demand different evidence. And the scientist view is, ‘Oh, the evidence doesn’t fit my theory, I need to get a better theory’. I’m of that mind.”

A case in point: 15 years ago, while heading the CRE, Phillips was presented with data that showed, broadly, that black and Asian school students underperformed their white counterparts. However, as Phillips tells it, more granular data on disparities in educational outcomes then became available, which revealed a more complex picture. Pakistani Muslims and Bangladeshis, for example, were doing comparatively badly, but Indian students were doing well. Phillips suggested the data indicated that the prevailing theory was flawed, that “racist teachers” could not be solely responsible for their students’ disadvantage, and the CRE needed to look for other causes.

“I said, ‘Look, there’s something wrong about our theory, that this is all about racist teachers, because I don’t know any teacher who can walk into a classroom and instantly distinguish between the Indian and the Pakistani, and treat the Pakistanis like dirt and treat the Indians like they’re princes. I just don’t see that happening.’ There are some people who have never accepted that and never forgiven me for it. But it’s there in front of you. And now [that] we collect much better data, it’s just manifest.”

Phillips has remained a controversial political figure, and he is unrepentant. “If you want to change life chances for people who are disadvantaged because of their gender or their race, then you’ve got to know what the problem is, so that you can start to analyse and intervene.”

Understanding origins

When Phillips set about intervening in the Covid-19 story, he hoped to have more to offer than some crude regressions. With Professor Richard Webber he runs a data analysis company, Webber Phillips, that specialises in two things that could be useful in a pandemic.

One is geodemography: knowing the demography of regions that can be as small as individual postcodes. This is familiar data-driven profiling, of the type used for marketing. Richard Webber is perhaps best known for developing the postcode classification system Mosaic for data brokers Experian. Mosaic uses around 800 categories to classify postcodes as “blue collar strivers” or “alpha territory”, for example.
Webber Phillips’s other specialism is using names to predict people’s ethnic and linguistic roots, a system they call Origins. Combining the two, the company’s website suggests, can answer questions like, “What parts of London are becoming the new cool areas for Nigerians?” or “How do I find Lithuanians in Burton on Trent?” Such answers may be useful to a local authority wanting to know which streets need Covid leaflets printed in a different language, for example.

Associating names with ethnic and linguistic origins brings its own pitfalls. Phillips is clear that their system could not and should not identify individuals, for example. But even on a population scale, why not just ask people to classify themselves? Partly, Phillips says, because in practice many people will skip that type of question, making the results too inaccurate to be useful. And partly because, when they do answer, “what people think they are telling you isn’t necessarily what you want to know”.

He describes an exercise Webber Phillips carried out among people of Turkish Cypriot origin. When asked to self-classify, “something like half of those individuals” ticked the box labelled “white British”, because this is how they perceive themselves, says Phillips. But it does not always help to know what people think of themselves, he says, especially when trying to understand discrimination. “People aren’t discriminated against because they think they’re something. They’re discriminated against because of what everybody else thinks about them.”

Data and profiling can be reductive ways to understand people, because they capture only what is measurable from the outside, not our innermost thoughts and aspirations. But to understand the forces at work on a population scale, affecting each of us in different ways, that outside-in data is sometimes the most important thing.

Webber Phillips applies its Origins analysis for organisations wanting to know how well (or badly) they are doing in representing ethnic minorities at all levels, and for public bodies. “We do a lot of number-crunching for local authorities,” says Phillips. “Because the census is 11 years old, it doesn’t tell you where people are, and we can detect that very quickly. We’re now thinking about moving into the health sphere. And that was provoked by Covid. I think, as we’ve discovered with Covid, “

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ignorance is lethal. And we just have to get on with understanding the value of data about backgrounds and demography in health in a way that we really shied away from in the past.”

Data gaps

Covid-19 has revealed gaps in available data. Death certificates in England, Wales and Northern Ireland, for example, do not record the ethnicity of the deceased at all, and its recording in Scotland is voluntary. Where organisations do collect data on ethnicity, it is most often self-reported in a few broad categories. Phillips thinks his company could help fill these gaps, as Origins “can segment by 250 different ethnic or linguistic groups, so we can separate Cantonese from Mandarin, Ebo from Yoruba, etc.” using only names on records.

But Phillips’s past political controversies proved to be an obstacle to his early involvement in this sort of work.

“Depressingly, and I still feel furious about this, there was a lot of fuss about us being involved, which meant that we couldn’t really get to do any work. I think if we had been able to get on this in April, or early May, we would have been able to predict the outbreaks in Leicester, for example.”

Webber Phillips is now working with the Cabinet Office Race Disparity Unit, which produces quarterly reports on Covid Disparities and a plan for action. One of the expert advisors on that team is Dr Raghib Ali, who told me in December 2020 what data from the first wave has revealed about the disproportionate impact of the virus on ethnic minorities in Britain.

“The key finding that we started with was that people from ethnic minority backgrounds did have a higher age-adjusted death rate compared to the white population,” he says. “If you just look at the crude figures, then actually the white population has the highest rate because the white population is older, on average. Once you adjust to age, that picture changes completely.

“The second thing is to try to understand what’s causing that. And so we look for other risk factors that could explain those differences.”

Coronavirus does discriminate by age and sex, it seems. Older people and males are at relatively higher risk. But finding that ethnic minorities are suffering disproportionately could simply reflect that in the UK they tend – on average – to lead different lives than their white counterparts. Ethnicity could be a marker for other risk factors, not a direct cause.

The Office for National Statistics (ONS) has done a lot of work on the various risk factors associated with ethnicity, using modelling and information from the 2011 census (bit.ly/35gE6AZ). “What they found was that where you lived and population density were the biggest factors in explaining increased risk,” says Ali. “That explained about half the risk. Occupation was another important risk factor, and also deprivation and household crowding.

“One you adjusted for all of those, most of the risk in most ethnic groups was explained. There was some residual risk left, particularly for black Africans. The main limitation of the ONS work was that we didn’t have data on comorbidities like diabetes and obesity, which are also important risk factors for death.”

Another study, Oxford Open Safely, did have data on comorbidities, but not on occupation, so the next task for the Race Disparity Unit report team is to combine data sets to get a multidimensional picture of each patient.

“The UK is the best place in the world to do this kind of analysis,” says Ali, “because we’re able to link huge amounts of patient data, both primary and secondary care. In other countries it would be very difficult to do this. In the UK we’re not going to get the perfect answer, but I think we’ll get the best answer, at least with these ethnic groups, anywhere in the world. We’ll be able to say, as definitively as possible, how much of it is due to socioeconomic risk factors, how much is due to biological risk factors, and how much is unexplained.”

Science and politics

One source of controversy when ethnic disparities in Covid impact first began to be investigated was the question of biological risk factors. Just as males tend to be at higher risk of severe illness and death from Covid than females, was it possible that biological differences contributed to the different impact on different ethnic groups? This speculation received short shrift from Angela Saini, award-winning author of Superior: The Return of Race Science, who has warned against “leaping to assumptions of racial difference”. She wrote in Prospect magazine (bit.ly/2KZYqzU) that: “The job of science here is to account for all external factors until we are left with what can only be biology. The problem is, no researcher has anywhere near the information needed for such exhaustive analysis.” (For Dr Raghib Ali’s perspective, see “Covid outcomes and ethnicity”.)

Trevor Phillips takes a different view. Keen to use all available data to eliminate social factors and see if any unexplained disparities remain, he feels strongly that ruling out biological factors from the start could be a dangerous mistake. “There’s a thing called race,” he says, “and you cannot pin it to something purely biological. But some population groups are at higher risk than others. And when people say stuff like, ‘Oh, race is just a social construct’, I’m afraid I see mildly red.” His strong feelings on the matter are connected to his own experience. Phillips’s family carries the gene for sickle cell anaemia, and as the National Health Service website informs, “most people who carry the sickle cell trait have an African or Caribbean family background” (bit.ly/35fPQnp).

Certainly, we need much more research, much more and better data, and much more knowledge about Covid-19. But that will never tell us what course of action to take, and this troubles Phillips.

“One of the worst parts of the whole debate about science and Covid is that people keep substituting what they want, which is something called ‘certainty’, with the word ‘science’. I worry about it. Scientists are not equipped or elected, or appointed, to make the judgements that politicians have to make.

“There are two big problems here: that science is all about certainty, and that politics is about right and wrong. Politics is not about right and wrong. Politics is always, always, always about what is wrongest and what is a bit less wrong. If there was a right answer, you wouldn’t need politics. Everybody would know what it is. What you do in politics is make choices between bad options and worse options.”

Repeated refrains from the UK Prime Minister about “following the science” or
Covid outcomes and ethnicity

Dr Raghib Ali is keeping an open mind about what might explain the ethnic disparities in Covid-19 outcomes. However, he is sceptical that biological differences play an important role, and especially sceptical of a genetic explanation, “given that we’re looking at very disparate groups”. People of black African origin seem to share the highest levels of risk in the UK, but African humans are more genetically diverse than any other set of human populations.

“If you compare two black people, they’re more genetically diverse than a white person and a black person,” says Ali, “so for some genetic risk to be in black Africans, black Caribbeans, Pakistanis, Bangladeshis, Indians, Filipinos, is all extremely unlikely. The only thing which might be common is that they will have slightly darker skin, so they have slightly lower Vitamin D levels. I’m not convinced it’s going to have a major role, but it’s possible.”

Some studies have suggested associations between genes linked to blood group and more or less serious outcomes from Covid infection, but as Ali points out, in the UK, “the increased risk to ethnic minorities is predominantly because of increased risk of infection, as opposed to increased risk of a poor outcome once infected. So that’s why things like population density, occupation, overcrowded housing, are the predominant risk factors. They were much more likely to be infected in the first place. Once they were infected, there’s not much evidence they’re more likely to die from it.”

Research is ongoing into genetic contributions to risk (go.nature.com/3pTUIX7), but as Ali points out, “you can’t change people’s genes anyway. You need to address what we call modifiable risk factors.”

“So, people who are in high-risk occupations should obviously be given appropriate PPE [personal protective equipment] and testing and risk assessment, to see if they have additional risk factors,” says Ali. “In terms of where people live, you target your public health campaigning and messaging to those high-risk areas. You can’t change overcrowding easily, and you can’t change deprivation.”

When deciding priorities for vaccination, Ali does not believe ethnic categories are very useful. “The vaccine should be based on your absolute risk, not your relative risk,” he says. “So, for example, my relative risk is higher as a British Indian-origin doctor than a white doctor, slightly higher. But people in their sixties, seventies or eighties are at much higher risk, and it should be based on absolute risk of dying once infected.” For this, Ali thinks the QCovid Risk Calculator (qcovid.org), developed at the University of Oxford to give individual risk scores, is a useful tool.

“It is true, for example, that if you had a 50-year-old black African male with diabetes or obesity, it might be the same risk as a 60-year-old white female without obesity or diabetes. In both cases, it’s not based on ethnicity, it’s based on absolute risk. Once you start getting down to the lower age groups, 50 to 60, occupation becomes important there as well. So, if it’s bus drivers or security guards or taxi drivers, whatever their ethnic group they should be given priority.”

One aspect of the disparity in Covid impact that remains mysterious is what has happened within health care. For example, says Ali, a study of more than 100 deaths of health services staff as of 22 April 2020 found that 94% of doctors who died were non-white (bit.ly/35eTxcO). But only 44% of doctors are non-white. The same study found that non-white nurses and midwives are only 20% of their profession, but they made up 71% of those who died with Covid.

“That is quite hard to explain,” says Ali, “because particularly the doctors are generally well paid, they’re not living in poor areas, overcrowded housing, etc. So, there is further work that needs doing in this area.”

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