HOUSE OF COMMONS

Work and Pensions Committee

Oral evidence: Health and Safety Executive's approach to asbestos management, HC 560

Wednesday 15 December 2021

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Watch the meeting

Members present: Stephen Timms (Chair); Debbie Abrahams; Steve McCabe; Nigel Mills; Dr Ben Spencer; Chris Stephens; Sir Desmond Swayne.

Questions 58 - 96

Witnesses

I: Professor John Cherrie, Emeritus Professor of Human Health, Heriot-Watt University; Professor Julian Peto, Professor of Epidemiology, London School of Hygiene and Tropical Medicine; Clare Gilham, Assistant Professor, London School of Hygiene and Tropical Medicine; and Professor Kevin Bampton, Chief Executive Officer, British Occupational Hygiene Society, and the Faculty of Asbestos Assessment and Management.

II: Darren Evans, Management Committee Member, Asbestos Testing and Consulting, Asbestos Removal Contractors Association; Graham O'Mahony, Chair, UK Asbestos Training Association; and Ruth Wilkinson, Head of Health and Safety (Policy and Operations), Institution of Occupational Safety and Health.

Written evidence from witnesses:

Professor Julian Peto FRS FMedSci – Professor of Epidemiology at London School of Hygiene and Tropical Medicine [ASB0036]

Professor John Cherrie – Institute of Occupational Medicine [ASB0006]

Professor Kevin Bampton – British Occupational Hygiene Society [ASB0025]

Darren Evans – ATAC. Asbestos Testing and Consulting Trade association [ASB0022]

Examination of witnesses

Witnesses: Professor Cherrie, Professor Peto, Clare Gilham and Professor Kevin Bampton.

Q58 **Chair:** Welcome to the meeting of the Work and Pensions Select Committee and particularly welcome to the four witnesses who are joining us for our first panel this morning, two here in Committee room 16 and two joining us virtually. Thank you, all of you, for being willing to help us today.

Can I ask each of you very briefly to introduce yourselves to the Committee, starting with Professor Peto?

Professor Peto: I am a professor of epidemiology at the London School of Hygiene. For 27 years I was head of the section of epidemiology at the Institute of Cancer Research in London. I started doing work on asbestos with Richard Doll in 1975 when I was working in Oxford and I have been doing it more or less ever since.

Chair: We are very pleased that you are with us. Thank you for joining us.

Clare Gilham: Hello, I am an assistant professor at the London School of Hygiene and Tropical Medicine and I have worked with Julian Peto for 20 years.

Professor Cherrie: Hello, I am emeritus professor of human health at Heriot-Watt University and a principal scientist at the Institute of Occupational Medicine. My research has mostly been involved in cancer epidemiology and health impact assessment. My particular specialism is exposure estimation.

Professor Kevin Bampton: I am chief executive officer of the British Occupational Hygiene Society, which is a scientific charity, and also host to the Faculty of Asbestos Assessment and Management, which is the learned professional body for the scientific part of the business. I am a former professor of public law.

Q59 **Chair:** Thank you all very much. Can I start with the first question, which is to ask each of you what your assessment is of the current risks from asbestos in schools and hospitals and how you think those risks compare with the asbestos risks in other workplaces?

Professor Peto: The note that I circulated has a table that shows the predicted risks in people with no occupational exposure, born in different years since 1940. These are risks per 10,000 people. They go down from about 15 or 20 per 10,000, which is anything up to about one in 700 or one in 500. These are people with no occupational exposure. They would include teachers and nurses. By occupational exposure, we mean

plumbers, electricians, construction workers and factory workers who might have been exposed to asbestos. Putting them aside, this is the general population. People born between about 1940 and 1954 had a lifetime risk of getting on for one in 500, maybe one in 700.That is spread across the board. It is exactly the same in men and women. We know that from measuring their lung burdens, measuring how much asbestos they have in their lungs. We have a very good linear dose response between the amount of asbestos in your lungs and your mesothelioma risk.

That declines, up to people born after 1985, to about one in 20,000. The fibre levels are 20 times lower. That is fibre that is breathed in predominantly in buildings. Not much is breathed in out of doors. That is essentially the exposure to the general population from asbestos in buildings. Those are exposures that are presumably still going on. It is very much less than it was but it is still going on, so the risk looks as though it is of the order of one in 20,000.

One important point about these results, and we were very surprised when we saw it, is the environmental exposure was much, much heavier in people who were born before 1975 than people who were born afterwards. Asbestos stopped being installed between 1975 and 1980. Our results suggest very strongly that most of the exposure to the general population happened while the asbestos was being installed rather than subsequently. What we are seeing now is the effect of the subsequent exposure, which people are mainly concerned about, the environmental releases, but our results suggest very strongly it is more than an order of magnitude less than it was during the period up to 1975 when asbestos was being installed.

The risk to teachers is likely to be higher than the risk to the general population because schools had such a large amount of asbestos in them. All buildings, virtually, built between 1955 and 1975 had asbestos put into them but schools had a lot put in. You would expect teachers who were working during that period to have higher mesothelioma rates, and they do by about something under 50% higher. Their risk might be one in 500, rather than one in 700.[1]

That essentially is the problem that the Committee faces. The environmental exposure was massive while asbestos was being installed. It seems to have declined rapidly and been very much lower since then. There is no current evidence that teachers are more heavily exposed than anybody else. As a matter of fact, I doubt if they are because schools

[1] Professor Peto clarified after the hearing that one in 500 is the average for all teachers and that the latest HSE data on female PMRs suggest that exposure was highest in primary and nursery teachers, with a lifetime risk of about 1 in 300

have been looked at more carefully than most other buildings. Domestic asbestos is a problem. We see the odd asbestos fibre in plumbers' lungs because they are pulling out old boilers so they are being exposed to asbestos that might have been installed in the 1950s or 1960s.

Q60 **Chair:** Thank you. Is it right that it was your research in part that drew attention to the problems in the 1970s?

Professor Peto: Yes, in the 1970s I was the first person to fit a linear dose response to the mesothelioma and the lung-cancer data. Those models that I put forward 45 years ago are still accepted and the risk estimates are still the same. I used to be a poster boy for the anti-asbestos campaigners because I was pointing out that asbestos was very dangerous, the industry was dishonest and there was going to be a mesothelioma epidemic. The risk estimates were exactly the same as they are now but the exposure levels have gone down, so now I am their deadly enemy.

ResPublica contacted me the other day and asked me if I would help with its press release. I said I would be delighted to but I did not think that they wanted me. I sent them a copy of what I sent you and I have not heard from them since.

Chair: Thank you very much.

Clare Gilham: I do not have a huge amount to add to what Julian said because obviously we work together. Perhaps I should highlight that some of the work that we have been doing recently is looking at lung samples from young people, population-based samples. These are people aged 18 to 25, aged 30 maximum, very young people. We are looking in their lung samples, counting asbestos fibres. What we have seen, as Julian said, is a massive decrease in the number of fibres we find.

We do see a difference with those who are occupationally exposed, as Julian said, plumbers and electricians. Many of the young people do not report any asbestos exposure. We maybe spend an hour on the phone with them going through a detailed questionnaire and many of them report no knowledge at all of any exposure, which is perhaps understandable. We do occasionally get some electricians and plumbers who say they disturbed an asbestos board, for example. Then generally we do see some fibres in their lungs but they are still much, much lower than the levels that we have seen in men born in the 1940s.

Professor Peto: I should clarify one thing. We get lung samples by interviewing people who have had a pneumothorax operation. Pneumothorax is a collapsed lung. There is typically a small lesion in the apex of one lung and they snip it out and sew it up. Being pathologists, they keep the bit that they snipped out, so English hospitals are full of lung samples from people born from the 1930s right up to 15 years ago.

Q61 **Chair:** You then ring up the people whose samples you can get hold of?

Professor Peto: Via an extraordinary torturous ethical process via their GPs, yes, but we do. We ring them up and we say, "We've got a bit of your lung. Can we interview you and look at it?" And they say yes.

Chair: Very interesting, thank you. Professor Cherrie.

Professor Cherrie: I do not disagree with anything that I have heard so far, but I want to point out that we know very little about the current situation because the epidemiology and the lung analysis inevitably are lagged by the time that it takes for that person to die or for the sample to be collected.

There is no systematically collected information about the number of schools that have asbestos or the number of hospitals where it is located, the number of people who may be exposed or the levels of exposure that they may experience. Although we know that the exposures are most probably less than they were in the past, we have very little idea about current situations from survey data.

Professor Peto: Can I respond to that? We are collecting lung samples—

Chair: Let me take Professor Bampton and then perhaps if you would like to come back at the end.

Professor Kevin Bampton: To pick up from what John was saying, the risk not only comes from the nature of the exposure but the effectiveness of management. One of the things that I will keep coming back to is that there is an inadequacy of the management of the risk, and schools and hospitals have been under huge amounts of pressure. Their leaders have lots of things to do and asbestos management is possibly not at the top of that list. The absence of data and the sharing of data means that there is always the potential that it becomes overlooked in dealing with other estate-based crises. So the risk is not just about the epidemiology, it is also about the effectiveness, the regulation and management.

Q62 **Chair:** We will certainly come to some questions about that, thank you. Coming back to you, Professor Peto, the latest statistics do show a decline in mesothelioma deaths. Is it your expectation that that will accelerate from here and do you think that there will be differences between men and women in the future?

Professor Peto: There is a huge difference between men and women now. There were six times as many mesotheliomas in men as there were in women because it was predominantly men who were heavily exposed.

The mesothelioma risks at very young ages and our lung-burden measurements show that difference has virtually disappeared for mesotheliomas that are going to be caused now—historically mesotheliomas were concentrated in these heavily exposed men. But in the youngest people, people born since 1980, the mesothelioma rates are converging rapidly and they have virtually converged between men and

women. The lung-burden measurements are doing exactly the same thing.

I would like to come back on the point about the delay. We are looking at lung samples that were collected in an operation more recently. You have to wait literally 50 years. If you look at the proportional mortality data on teachers, the excess among teachers is confined to teachers who were born before 1955, in other words, teachers who were working during the period up to the late 1970s when asbestos was being installed in schools in vast quantities. Our research suggests that that is where they got their exposure. There is no evidence of any excess in younger teachers. The numbers are still tiny because it takes so long to get mesothelioma. If you were born after 1955 you still have not reached the age of peak risk.

Q63 **Chair:** You would expect mesothelioma deaths to continue to decline, would you, from here?

Professor Peto: Yes. You do not have it with you but the document that I submitted has a graph on it that summarises the situation very nicely. This graph comes from our 2018 paper and shows the mesothelioma death rate up to the age of 50 in people born in each period from 1940 up to about 1975. You cannot go beyond 1975 because people born after 1975 are not 50 yet. That top line is the decline in male death rates for people born in 1940 up to people born around 1970. The dotted line underneath it is the decline in the average lung burdens we are measuring in people born from 1940, but that goes right up to 1990 because we have more recent measurements. That is the important point in relation to what John said. We have lung-burden measurements that overcome—that is why we did the study—this appalling 50-year gap between what is happening now and the cancers it is going to cause.

That is why I think these data are so important. First, they show this very reassuring decline. The mortality data show this enormous decline up to people born in the 1970s in both men and women and they show the extraordinary correspondence between the average lung burdens and the death rate, which we have also studied on an individual basis. We got the same results essentially by looking at the average level in the whole population and the average death rate in people born in different years and then interviewing individuals and doing an individual case-control study to get a dose response. We get essentially the same dose response. One fibre per milligram causes a lifetime risk of about one in 10,000. That is essentially the conclusion.

Q64 **Sir Desmond Swayne:** Clare, are we able to be precise about the role of background exposure in buildings now?

Clare Gilham: We hope to be as precise as we can because, as I said earlier, we are looking at lung samples taken from young people now. Currently we are collecting lung samples from a couple of hospitals in London. We are looking for lung samples that were taken at a collapsed lung operation in men and women who were around the age of 18 in their

operation. The idea is that they have not been occupationally exposed and they have not had the opportunity to do much work so their primary exposure up until now would be at home and at school.

The analysis that you do on the lungs is called TEM, which is very technical and hugely expensive, maybe £1,000 a sample. We would love to analyse 5,000 samples but it is hugely expensive. So far in these very, very youngest people we have only looked in 18 lungs, but we are collecting around 100 at the moment, so the idea is that we will be able to have better estimates in the coming year or two around what sort of levels of asbestos we find in these youngest people.

We know what is in the lungs of people born in the 1940s and the 1950s because they are developing mesothelioma and we have looked in those lung samples and seen huge levels, but it takes 50 years to develop mesothelioma. That is why we see the rates going down so rapidly at the moment, because the people who were heavily exposed are now in their 70s and their 80s. They are the people who are dying of mesothelioma.

The next generation's exposure levels are much lower, so by the time they get to 70 or 80, which is the period where you would expect them to have mesothelioma, they have much lower risks. That is why the death rate should drop quite rapidly, because those who were heavily exposed in the 1960s and 1970s are dying out. That is why we are trying to look in the lungs of the youngest people to try to predict the future. There is obviously uncertainty around trying to do things like that.

Q65 **Debbie Abrahams:** Good morning, everyone, and thank you very much for joining us today. My questions are around whether there are any gaps in evidence in relation to asbestos in non-domestic buildings and the workplace. Are there significant gaps and if so are they being plugged by new research that we may not be aware of?

Professor Peto: Our view is that you cannot get any useful estimate of exposure other than by measuring lungs. The reason for saying that is that the long-run average exposure in buildings is typically far less than 0.001 fibres per millilitre—very much less. Your risk is determined by what you breathe in in total. A brief exposure to a higher level does not cause a large risk. It is the total number of fibres that you breathe in, particularly before the age of 30 or so. The younger you breathe it in, the bigger the risk is, and that is quite clear. We do not see any way of measuring that other than by looking at lungs, so that is what we are doing. My personal view is that nothing else is of any value because it is so quantitatively uncertain.

Chair: Professor Cherrie wants to come in.

Professor Cherrie: I am aware of the research that the Health and Safety Executive published about 15 years ago, where they used a technique where they put a sample on to the individual—in this study it was plumbers—and they allowed the dust that was in the air to be

attracted to the sample. It did not involve any active sampling using pumps but was a passive sampler. They were able to measure in the plumbers average concentrations of about 0.5 fibres per millilitre using TEM techniques. These kinds of approaches could be valuable for people who are still occupationally exposed but they have episodic exposures because of the nature of their work. That would be maintenance workers in hospitals or schools and other situations.

Professor Kevin Bampton: The levels of compliance that are achieved in terms of the management of asbestos, especially when it is being removed or being dealt with, those are key areas and that is where things can potentially go off the scale of measurement. For the long-term background undisturbed exposure, it is very difficult to measure, apart from the types of approach that John is talking about, but the degree to which there is compliance with the regulations that are there to deal with asbestos when it is exposed, we are not sure. There is quite a lot of anecdotal evidence from analysts to suggest that things are not managed as they should be, and they certainly are not monitored as they should be.

The reach of the regulator to be able to ensure that everybody manages asbestos well and manages the removal is insufficient to ensure that we know just how much asbestos is being disturbed and how well it is being managed. That is a real gap in the knowledge. I do not think anyone could definitively tell you what is really going on in the sector.

Q66 **Debbie Abrahams:** Based on that, do you think HSE needs to be commissioning more research in this area?

Professor Kevin Bampton: I think the only way in which you can be effective in regulation in an area like this is to know how effective you are in encouraging the right behaviours. For these status quo situations it may be difficult to measure but, as John said, there is a whole raft of people who go into, for example, social housing, who are changing smart meters, who are going to be installing insulation and so on. We have no idea about how well equipped they are even to recognise the risks and what level of disturbance they are causing.

I think we are going to see a massive change in the building stock arising from a whole series of factors, including the greening agenda—I know that is something that we will come on to—but we do not know how that is going to affect the disturbance of asbestos. There are some very basic things that we are just learning. For example, asbestos roofing tends to be regarded as fairly benevolent, but when moss grows on it the moss can pull out asbestos fibres which are then strewn around the place. It is the extent of these types that are not understood.

Q67 **Debbie Abrahams:** In relation to asbestos management, you are saying that it falls well short of what it needs to. Are there any specific approaches that you would be advocating?

Professor Kevin Bampton: Where to start? If you look at all the HSE's guidance, the biggest guidance document it produces is the guidance for analysts on asbestos. It is massive. It has just been reissued after five years. When you have massive guidance documents, that often tells you that there is a lot going wrong in a sector and there is a lot to be done.

Within that massive guidance there is very little that tells you about what an asbestos survey is. An asbestos survey is the means by which a duty holder, who may not know anything about asbestos, gets to understand what the risks are that they need to manage, and make a decision about removal or not. The whole area of asbestos surveys, what they are, how effective they are, is something that needs a thorough understanding.

On the relationship between analysts and contractors, contractors quite often appoint the analysts, and there is an unhealthy potential relationship there, because one might not want to get the messages about risk that are going to make something more expensive and more time consuming. So there is a whole series of things around market behaviour. Covid has showed us how much behavioural stuff is important. Whether or not you understand the epidemiology, how people behave and how people comply is crucial to what the health outcomes are. At virtually every part of the process there are gaps in our understanding about what really is happening.

Q68 **Debbie Abrahams:** We were very surprised in previous evidence that the Committee took that, for example, there is not an automatic reference in the risk register of NHS trusts to asbestos on their estate. Is that something that needs to be considered—how it is reported?

Professor Kevin Bampton: The whole communication of asbestos risk is problematic. If you buy a house now, you are going to get an energy performance certificate. If there a log burner has been installed, there is something that has to be stuck on the wall and so on. But if you buy any premises, whether it is commercial or non-commercial, the chances of you knowing what really is sitting there in terms of asbestos is very limited.

That has a whole set of knock-on effects. You need to have a refurbishment survey if you are changing a building, if you are knocking it down or changing it, if you positively know that there is no asbestos—but there is not a positive duty on your solicitor to absolutely make sure that any asbestos survey has been disclosed. The building regulations do not necessarily articulate what is needed to ensure that you are looking at asbestos.

Asbestos surveys are not like the calculations that you would have for CO_2 emissions or insulation, which are very detailed. They tend to be verbal; they are quite limited. We have wonderful 3D CAD where you can identify all sorts of risks, but you will not see a 3D survey in BIM that identifies where the asbestos is. Even if someone discovers it, it is not

necessarily going to be found by a subsequent owner, by a builder or someone coming in to do work.

Debbie Abrahams: Thank you. Did you want to make some concluding remarks, Professor Cherrie?

Professor Cherrie: Yes, briefly. The information that Kevin has been talking about is very important, but there is no attempt to systematically collate that evidence and use it as intelligence to understand what the problem might be for the whole of the UK.

Debbie Abrahams: Very helpful, thank you so much.

Q69 **Steve McCabe:** The Health and Safety Executive try to assess occupational risk by using proportion mortality rates. How does that work and what are the obvious strengths and weaknesses in that approach? I am not sure who to start with.

Professor Peto: Proportional mortality is based on the fact that the last occupation is recorded on the death certificate. They take deaths up to the age of 75 and code the occupation, and then they look at the distribution of occupations and different causes of death. They compare them to all deaths. You take all deaths, and if 10% of all deaths are in building workers—it is not as high as that—and then you find that 20% or 30% of deaths are from mesothelioma in building workers, that tells you that the death rate from mesothelioma is substantially higher in building workers than it is in the general population. It is a very sensitive way of detecting large risks.

One limitation that Robin Howie suggested is that it was misleading because it only went up to age 75. That is just wrong, because you know for mesothelioma that if you know what the death rate is at age 75 you know what it is going to be for the rest of your life. It goes up in a completely steady increase. It is higher at the age of 90 than it is at the age of 85 once you have been exposed to asbestos. We know very well what that curve is, so you can predict lifelong risks, as we have done, based on deaths up to the age of 50, so you can certainly do it on deaths up to the age of 75.

That is not a criticism. The main criticism, or the first one, is that there is a 50-year lag. The PMR for teachers tells you what happened to teachers born in 1950 but it does not tell you what happened to teachers born in 1955 or 1960 because they are still too young to have got enough mesothelioma to be visible in the statistics.

The second serious limitation is that your last occupation, for many occupations, is likely to be, in many cases, a lifelong occupation. Teachers are a good example for women, but less so for men. An awful lot of people will do other things and then teach afterwards, so they will finish up with "teacher" on their death certificate. So they give a crude estimate of the effect of different occupations on major causes of death.

They are very useful and very sensitive and they show exactly the same pattern in relation to carpenters and plumbers and so on that we found in our case-control studies where we interviewed them and got lifetime exposure histories.

Q70 **Steve McCabe:** They record the last occupation and therefore might miss an earlier occupation where you could be—

Professor Peto: All they have is that one thing, last usual occupation, and that is all that is recorded.

Steve McCabe: That is what I am saying. That would miss if the person had a previous occupation where they may have been exposed to risks. That would be missed in this method, is that right?

Professor Peto: Yes, but that does not matter. You detect that there is a risk associated with that occupation but you get a very crude estimate of what proportion of deaths are due to that occupation.

Q71 **Steve McCabe:** Is it also true that after the age of 75 it does not record occupation at all?

Professor Peto: The PMRs are calculated up to 75. I think the death certificate still records it but it would not add—if you look at people aged 85, you are going even further back. People who are 85 now were born in 1936. We are less interested. We know what happened. People of 75 have far higher mesothelioma risks than people aged 85 and it is far more relevant.

The changes that have taken place in mesothelioma death rates, people do not realise how enormous they are. Mesothelioma was so rare that people argued about whether it existed in the 1950s and into the 1960s. From 1968 onwards we have had national mortality data in Britain. We have the longest run in the world. People born in 1970, for example, I looked it up and there were 37[2] male mesothelioma deaths at age 45 to 54 in people born around 1970. That was in a single year, 2019. Twenty-five years earlier, in 1994, in that age range, people aged 45 to 54 then were born around 1945. They were born 25 years earlier and there were 137 mesothelioma deaths at age 45 to 54. There is a 10-fold reduction in the number of male deaths aged 45 to 54 from 1994 to 2019 because people born in 1945 were 10 times more heavily exposed than people born in 1970.

Chair: I think Professor Bampton wanted to come in. Do you want to comment on this?

Professor Kevin Bampton: Yes, just to say that like a lot of occupational exposures that have latency, we almost wait until people are

[2] Correction: Professor Julian Peto let us know immediately after the session that he had intended to say, "13 male mesothelioma deaths at age 45 to 54 in people born around 1970" and not "37".

dead before we start counting, but there are obvious opportunities within our systems to pick up exposure potential. Anyone who has seen a personal independence payment form will know that we ask questions that are as detailed as how many times someone goes to the loo, but we do not ask them, "What have you been exposed to in the workplace?"

The absence of information about workplace exposures, including asbestos, when people start to get ill and fall into the benefit system, or at routine health points, stores up a problem for the future, in that we will have to wait for death certificates or brilliant minds like Professor Peto to get medical information. We are potentially losing the opportunity to understand the risks of all types of exposures, including asbestos, when we could be asking the question, "Is there a chance that you were exposed to asbestos during your working life?" when you manifest with the early issues with your mobility or your breathing or whatever and start to go into the benefit system.

Steve McCabe: That would be an additional method of collecting information. I am sorry, were you trying to add something earlier?

Clare Gilham: No, probably not. As I mentioned earlier, we have interviewed a couple of thousand, maybe 3,000, people—I cannot remember off-hand—and we have looked at the lungs of maybe 500 people. These are lung samples from mesotheliomas, from lung cancers, from pneumothorax, and there are quite a few people who report no exposure whatsoever yet we find asbestos and sometimes substantial asbestos in their lungs.

That comes back to what Kevin was saying earlier about labelling and being aware that there is asbestos there. In many public buildings there are stickers. It is not my area, but I have asbestos in my house and there is no sticker on it. That comes back to what Kevin was saying about the regulations of asbestos in buildings where people do not know it is there and then young building workers do not know that they are being exposed.

Q72 **Steve McCabe:** Could I conclude that what I am hearing is that the PMR method is pretty reliable, but that there are other ways we could collect additional information that we do not generally choose to do? Is that accurate?

Professor Peto: You have to be specific about what you are talking about. What sort of further information? Collecting information in itself is not very useful.

Steve McCabe: I was thinking about what I have just been listening to from Professor Bampton.

***Professor Peto*:** As Clare said, we had a plumber whose lungs were full of asbestos and he swore he had never been exposed to asbestos in his life. People do not know. My generation do but one in 100 men my age

are going to die of mesothelioma. One in a 100 of the whole population. It is the worst occupational cancer disaster in the history of the world. It is extraordinary. One in 10 of all carpenters. When I say one in 100, that is averaged across the population. It is probably about one in 700 for someone like me who did not work with it.

Q73 **Nigel Mills:** I am trying to interpret what you are telling us, Professor Peto. Sometimes it sounds like this is not as bad as some have made it out to be and the problem has largely been fixed. Is there more that we should do? Ought we to be going around and trying to have a planned removal of asbestos from all the buildings where it remains or are risks now sufficiently low that there is no need to engage all that disturbance?

Professor Peto: It is a very difficult question. We do not have good data on what environmental exposures have been over the last 20 years because the data is so limited. You look at 18 lungs and you find two fibres. Sixteen have no fibres and you see one fibre in each of the other two, and that electron microscopy costs £700 per sample.

We have very strong evidence that the serious environmental exposures in buildings occurred during or soon after it was being installed. It was being installed on a massive scale up to the mid-1970s and then it tailed off and had more or less finished by about 1980. What we see is vastly higher lung burdens in men and women who never worked with asbestos, across the whole population, if they were born in the 1950s than if they were born after 1975. If the major exposure in buildings came as a result of installing asbestos and disappeared within a few years afterwards, there is a real danger that you will recreate the problem by removing it. You are recreating a workforce who work with asbestos, when they had virtually disappeared apart from occasional contact by electricians and plumbers.

They certainly need educating, I agree with that very strongly, but there is a real danger that asbestos removal is already increasing exposure both to the asbestos removal workers and to the general population. It may well be that the process—in fact, there were experiments done in the 1980s that showed this. When you took a building where you pulled out all the asbestos, the level went up enormously during the removal, obviously, but it was higher when the building was reoccupied six months later than it had been before the removal started. To simply say that asbestos causes cancer and we have to pull it all out, there is a real danger that you will increase the risk by doing it. It is not an easy question.

Nigel Mills: Any comments from the other witnesses on that?

Professor Cherrie: We have been advocating some systematic assessment of the potential future risks for asbestos and using this as a way of exploring what the benefits or detriments might be of having some eradication programme. Clearly we are removing asbestos from buildings slowly as time goes on because of the process of demolishing

buildings or remediating buildings. Should we do this faster or slower? We just do not have the evidence to say one way or the other.

I was part of the scientific team that did the cancer burden studies for the Health and Safety Executive, looking at trying to estimate the number of cancers caused by work from past exposure. In those studies we also looked at potential policy interventions that could be undertaken to change the risk in the future. If we could do that for asbestos eradication, that would provide us with a sound basis to make judgments about policy. You can also use this exercise to gain knowledge about the potential costs of removing asbestos in the future and make judgments about the costs and the benefits together in some balanced way.

Professor Kevin Bampton: Buildings do not last forever, so what is safe now, secure and better undisturbed, becomes disturbed at some point. The Palace of Westminster itself is beginning to have intrusive surveys around asbestos. Some will be really easy to remove, perhaps, but there is a risk. Some will be very hard to remove and it will be a huge undertaking to do that. That is same with asbestos throughout the building stock.

The concerns about saying let's rip it all out are not just about the fact that it creates a lot of immediate, short-term risk. Theoretically, that is a manageable risk. There are methods of doing this safely. It is the market's ability, because it is a commercial operation, to do this well, to do it safely and to dispose of it. There is a postcode lottery. If you want to dispose of asbestos in some parts of the country, your local authority will help you and you will be able to find a skilled firm at a good economic rate. If you go to other parts of the UK you will not be able to find any help from the local authority. There will not be a local place to dispose of it and there is not a market to help you. That disparity is a really important one because if we set the clock ticking we have to make sure that there are some fire escapes.

To me, this is a bit like do you take your foot off the landmine? Obviously if you take your foot off the landmine you are going to cause some serious damage to yourself if you do not have a plan B. If you leave it there, you are not going to be able to stand there forever. These buildings are not going to stand forever. The period of time when asbestos was installed, it was on a quick fix. Eventually this stuff will out.

There needs to be a plan, and it needs to be an integrated plan. There are opportunities as we renew building stock, as we improve insulation, to do things. It is about joined-up government. It is about joining up the opportunities to do things effectively.

Q74 **Chris Stephens:** Good morning, and thank you to the panel. Kevin, I will have some additional questions, so you will be last. I want to quickly ask everyone, and maybe start with you, Professor Cherrie. Are the current asbestos regulations we have for non-domestic buildings effective? If not, which parts are least effective?

Professor Cherrie: I am not the best person to answer this because I am not directly involved in the management of asbestos in non-domestic buildings. The regulations in general are fit, but the particular emphasis is how strictly should we be trying to control the work, particularly remedial work that goes on, and whether or not we should be trying to improve the methods that are available to control asbestos, in line with what the epidemiology is telling us, that there is a substantial risk for workers still if they are exposed to asbestos in remediation.

Chris Stephens: Thank you. Professor Peto, do you have any comments about the regulations?

Professor Peto: The difficulty with the regulations is that you do not have any objective measure of their impact. The statistics that most schools contain asbestos and so on and so forth are not very helpful. What you want to know is whether or not you will increase or reduce the risk to the workforce and whether you will increase or reduce the risk to the population by taking it out.

It is quite clear that you will increase the risk to the workforce. We are already seeing vastly lower levels. We still see occasional plumbers and decorators with some asbestos in their lungs, but far less than they had historically and many of them do not have any or do not have any more than the general population. The majority of building workers are not being detectably exposed now and you will create an exposed population. With the best will in the world, the amounts of money are so huge that builders are going to get asbestos removed cheaply if they can. The idea that you are going to have tightly regulated industry where everybody goes in in spacesuits is just not going to happen if you are going to try to remove asbestos on that scale.

The question then is whether that huge cost and small risk to a new workforce, a new asbestos-exposed workforce, is offset by a reduction in risk to the population. My personal view is that because it is impossible to control the process if you start removing asbestos on that scale; it will increase the risk to the population slightly—not much. I am not suggesting that we are going to have 2,500 mesothelioma deaths a year in 50 years' time, but the risk might go up slightly, rather than down. It might literally be doing damage to everybody as well as being extraordinarily damaging to education and to the public purse.

It is a very difficult question. My personal view is that the priority for the HSE should simply be to warn building workers particularly, and plumbers and so on, that they will come across asbestos from time to time and that they ought to treat it very, very carefully. Whether there should be more widespread remediation or how the regulation should be changed, I do not know.

The difficulty is that you cannot measure the exposure. That is the problem—you simply cannot measure the exposure. There are clearance regulations, whether it is 0.1 or 0.01 fibres per millilitre after clearance.

To say the clearance was legal is completely irrelevant. What you are interested in is the average long run that people in the building are going to be exposed to over the next 10 years.

That seems to be unmeasurably low. It is just not feasible to do. You would need a huge volume of air sampling that runs for weeks. Even then you are not sure if it is representative of what people are breathing in, because what people breathe in depends on whether they disturb a bit of dust on a surface and so on. I just do not think it is technically possible to make air measurements that give you any accurate idea of what the cumulative exposure for a building occupant is going to be over the next 10 years, which is what matters.

The only way that you can do it that I can see is by measuring people's lungs, because they are what you use to breathe in. The great thing about amphibole asbestos, which is what we are talking about, amosite particularly—brown asbestos is the bulk of what we are talking about—is that it stays in your lungs. That is jolly lucky because we get good dose-response relationships when we look at people who breathed it in 60 years ago and people who breathed it in 10 years ago. I do not see any alternative. I cannot see that there is any other indirect way of getting any handle at all on whether you are doing more harm than good by any of these measures.

Chris Stephens: Clare, any comments on the regulations?

Clare Gilham: No.

Q75 **Chris Stephens:** Professor Bampton, do you think the regulations are effective? Also, what evidence is there on how well people are complying with the regulations, or are there changes to monitoring that need to take place to improve compliance?

Professor Kevin Bampton: For the effectiveness of regulations, you have to have some benchmark. In trying to determine how effective regulations are, what are you trying to achieve and what is the problem? The problem is a different problem from maybe where we started from. The problem is not the people who are doing a good job, the problem is people who go outside the rules. If you ask any accredited lab, you will find that the accredited labs will have a sad story to say about the quality of work, but there is not a requirement in the regulations for labs involved in the survey process to have any accreditation, so you do not necessarily have high-quality things. This is something that the HSE wanted to have in 2014, to have surveys within some quality assurance.

Beyond that, you only need to look at the news week in and week out in terms of what HSE is saying about removal companies getting at it with a claw hammer. The challenge in the regulations probably comes in the issues of poor management, shoddy workmanship, avoidance of the rules and so on. The licensed trade is probably overstretched. HSE's capability to support them is overstretched.

Professor Peto's point about the only way to find out is to look at people's lungs, I can see a logic in that, but in terms of regulations about human behaviour, effective regulations are ones that reduce bad behaviour, behaviour that causes risks. The big risks in asbestos exposure are not stable situations where they are well managed. The risks are where people can get away with whatever they want to do. The problem is HSE does not have eyes everywhere and does not benefit from the other agencies, the other organisations, who can potentially contribute.

This is where the joining up on information is really important. Without the help of all parties sharing information, HSE's job is almost impossible. Measuring the things when people are looking, it becomes compliance for those who are willing to comply. We do need a national approach to this that integrates all the datasets, all the opportunities that we can have to know about things, because it is so hard to measure specific instances and so on. It is bad practice and it is dodgy builders and poor management that are going to create the big risks.

Q76 **Chris Stephens:** The question on the strength of the regulations to strengthen those regulations—and I think you have touched on this briefly—is what is your assessment of the enforcement of the regulations by HSE and the weaknesses in its approach that you would want to see sorted out or strengthened?

Professor Kevin Bampton: HSE has very limited resources. I have huge respect for HSE. I see the brilliant work that it does across the board, but there is a very, very limited resource dealing with this within HSE. So the model it has to use is it has to work with the industry. The asbestos industry has to deliver the quality in terms of these regulations, and there is not a lot of capability within HSE to keep an eye on that industry. It is doing its own thing.

It is a very dysfunctional market. Some behaviours drive the market in the wrong way. Everyone wants to do asbestos assessment as cheaply as possible to avoid any risks, to cut down costs. They will do the necessary things to tick the boxes. But effectively the HSE is on a bit of a hiding to nothing. It is reliant on an industry and the industry is reliant on its clients' desire to pay for this and the urgency with which clients want to get things moving. The one-agency approach is just not capable of delivering the protection that society needs and deserves.

Q77 **Chris Stephens:** Thanks. Finally, additional regulations were put in place in 2002. Do we have sufficient data and has enough time elapsed to assess the impact of those additional regulations, or is there more work that needs to be done or does something need to be done to help us get that information?

Professor Kevin Bampton: My view is that there is probably not enough data to make a sound judgment. One could do more work. How worthwhile and what the cost-benefit analysis of that particular work

would be is difficult. How you design the requisite study to really determine the impact is almost impossible.

Chair: Thank you very much. I can see Professor Peto. Do you want to add something briefly on this?

Professor Peto: Just a very brief thing about the HSE. I too have extraordinary respect for the HSE, working under increasingly difficult circumstances. There is one thing it could do within its existing budget, which I think would be very important. We have very limited data on lung burdens but they are very, very important data. As Clare was saying, we have some more lung burdens and we could get more. We could focus on teachers. We could work in the NUT and ask teachers who had had a pneumothorax operation to write to us and so on and so forth. We could collect substantially more data on what is in teachers' lungs.

It is very difficult to get data on what is in asbestos removal workers' lungs, because the people who volunteer would probably be working for the firms that are extremely well regulated and do not expose their workers. I do not know whether or not that could be addressed.

Q78 **Chair:** HSE might commission you to do some further work, is that the point?

Professor Peto: It does the electron microscopy and it has all sorts of demands on its laboratory staff. It did our electron microscopy. All our electron microscopy was done by HSL, which is the HSE's laboratory. We would very much like it to analyse all of our samples and perhaps a few more.

Q79 **Sir Desmond Swayne:** Just on that point, on electron microscopy, what can it add and do we have the capacity, the lab capacity, to exploit it effectively?

Professor Peto: I think so, yes. It is a lot of work. It did treat it as a priority. It has done a huge amount of work for us. As I said, all the analyses that were done were done by it. It has better equipment now than it had 10 years ago. I do not know—you would have to address that question to it. You would have to ask HSL and HSE whether its laboratory has sufficient electron microscope capacity.

We need random samples from the population and focus samples—groups such as teachers and so on—and very young mesotheliomas. There are only 10 a year under the age of the 45—it is tiny numbers. Those are worth analysing continuously and maintaining that. The early warning of some people with high exposures will be a few young people with mesotheliomas. It will still be 20 or 30 years later, but you have to wait 20 or 30 years to see any mesotheliomas, but you could just begin them to see them in the youngest mesotheliomas.

Q80 **Sir Desmond Swayne:** Professor Bampton, can you explain the different exposure limits and what your reservations are about the European

Chemicals Agency's work on exposures? Are our exposure limits set at the right level? How do they compare internationally?

Professor Kevin Bampton: I will try to explain in a fairly logical way. The starting point is that the exposure should always be as low as reasonably practicable. Unlike other countries where it is a hard limit, we say that the legal duty is to go as low as possible. I will come back to that.

Some limits are used to trigger certain types of regulatory activity. If a level of work is hitting above the 0.1 fibres per millilitre, the work becomes licensed, there is a series of other safety measures like medical surveillance and so on. It is a bit like the smoke alarm going off, and there is a parallel limit, the short-term exposure limit, which is 0.6 fibres per millilitre over 10 minutes. If you have a short-term high level of exposure that triggers the smoke alarm and then you have specialists come in, have the enclosure and so on. Then when the specialists, who are the registered removers, are in place, there is a limit in place for them, which takes into account the effectiveness of RPE to get down to this 0.1 exposure. At the end of the process you need to check that you have cleaned up sufficiently—you have a four-stage clearance—and you are then seeing whether the air dust levels are below 0.01.

This assumes something that does not happen. All of these measurements are not happening all the time, so there are approved practices that would suggest that you are going to be within those measures. There is probably not as much air monitoring being done as one would hope.

In the process how do you find out whether or not these occupational exposures are being measured? Someone needs to stick the sample under the microscope and count those fibres. If you are using the cheaper, widely-used phase contrast microscopy that means you could probably get a result back the same day or in a day or two. Electron microscopy is going to take you a week and it is going to be a lot more expensive.

When we look at the microscopy elements, this is a bit like lateral flow in PCR. PCR is great stuff and so on, but the tests are going to slow you down, they are going to be more expensive, and maybe people are not going to make as much use of them—there are limitations on the labs who do it—whereas lateral flow is pretty quick. These limits are there as triggers for regulatory behaviour; triggers to move from one stage of risk management to another. Therefore, these triggers are not about what is safe; as low as reasonably practicable is the objective, trying to keep it down as low as humanly possible, so best practice all the way.

Occupational exposure limits are always problematic, because the moment you say there is a limit then people think, "That is what is safe, it is good to go". These are trigger limits, and they have a lot to do with what is practicable in terms of measurement. Professor Peto highlighted

the difficulty in measurement. To get a very, very low fibre reading you have to suck a whole lot of air through a filter to be able to count those fibres. The ability to accurately monitor this in a timely way that is going to avoid people getting exposed is problematic. If you have exposure limits that are basically impossible to meet—or very difficult to meet or incredibly expensive—you almost get the opposite effect that you want in regulatory terms. It becomes too difficult to meet the regulatory requirements in a pragmatic and cost-effective way, so people just ignore them, or the people who you want to deal with it will not abide by it or understand it. There is enough difficulty and sharp practice in the industry generally and you are going to encourage more of that.

We want to safeguard the workers who are doing the removals and so on— they are probably the people at greatest risk. If you have a limit that is too low people are simply not going to be able to measure it, they are not going to be able to check it. The occupational exposure limit, as the regulation stamp, is the trigger limit and it should be a trigger that is measurable, usable, and precautionary. We do need to see more air monitoring and more professionalism in the management of samples. The real challenge is not whether or not we are counting the right number of fibres but whether or not we are counting fibres at all, whether or not we are identifying things.

Air samples, when you have cleared an area, are very important; but the visual inspection to make sure that the asbestos has been physically removed is important. If you talk to anyone in the profession they will tell you about turning up on sites and finding bulk pieces of asbestos that have not been removed from site. It is not the mote; it is the plank that you have to look at.

Q81 **Sir Desmond Swayne:** Thank you. Mindful of what Professor Peto said a few minutes ago about measurement, this is a question for you all. What do you make of the Airtight on Asbestos campaign's contention that we are in want of an environmental limit? Are we?

Professor Peto: I think it is nonsense. There is no relationship between those limits. The 0.01 fibres by optical microscopy, or the 0.001 by electron microscopy in Germany, which they quoted, that they then go on to say that a child can legally breathe in, they calculated—but 0.01 is 10,000 fibres per cubic metre. The fact is that levels children are breathing in are orders in magnitude lower than that. It bears absolutely no relationship to the risk people are running. That document is simply a campaigning document; it is not a scientific document at all. I wrote down one amazing quote from it: "There are areas where more research would be beneficial to campaigners". As I said, there are also some areas where it would not be beneficial to campaigners. They did not cite our paper, they cited Robin Howie's statement that teachers are at five times the risk of other people. I forget where it was published, but it was not published anywhere very reputable. Our paper in the *International Journal of Epidemiology*, which is the first population-based dose-

response measurement of what people actually have in their lungs was not cited in that document. It is so selective and biased it is completely unhelpful.

Professor Cherrie: As Kevin has said, exposure limits were driving policy. In practice, there are not many situations where employers or the Health and Safety Executive go out and measure the exposures and use that in some way to decide on the controls.

In the workplace, we are supportive of having a lower limit because we feel that the risks to workers are sufficiently high that they merit a limit of more than the current 0.1 fibres per millilitre, perhaps even as low as 0.01 as in other European countries.

We do not see any point in environmental limits because the policy levers available to try to change the exposures in the environment are not there. The kinds of exposures we might measure, which would be very, very low, are due to background emission sources, which are rather diffuse. We support lower limits for workers but not an environmental limit.

Q82 **Chair:** Thank you very much indeed. Can I put a final question before we move on to the second panel? This is a question for you, Professor Peto. You made the point earlier that the real problem period was the period when asbestos was being installed in large quantities in schools and hospitals; that is the period when there is a higher incidence among teachers and people working in hospitals. If you look back at that period in the early 1970s, is the same true of people who were at school as pupils in the early 1970s, as you have said is the case for teachers who were working in those schools at that time?

Professor Peto: It must be, yes. When you look in somebody's lung you cannot say when they breathed it in. What we tried to do was to look at the reduction that we saw for people born in 1970, 1975, 1980, 1985 because, of course, they would have been at school for anything from 15 to 10, to five to no years, during that period up to 1980. Our data show exactly the decline you would expect if being at school was a major contributor to the lung burdens we are now seeing. The numbers are so small that the trend is barely significant; it is significant but it is a decline, and quite a large decline numerically, but it is based on such tiny numbers of fibres that it is not clear cut—but it is certain to be, yes.

Of course, we have not mentioned domestic exposure because that is even harder to study, but some exposure must take place in the home. If teachers are at increased risk, which they do seem to be, it is almost certainly because they were working in schools while the asbestos was being installed, and so were the children at school. Being exposed as a child is probably about three times as dangerous as being exposed as a young adult because of the way that mesothelioma just goes on going up for the rest of your life once you have been exposed.

We are predicting that something of the order of one in 10,000 people will die of mesothelioma. We are talking about people being born since 1980, we have no data—or tiny numbers—on people born since 1990. A risk of one in 10,000, there's about 600,000 deaths a year in Britain, and it will go up as the population changes, but it probably will not go much above 800,000. A lifetime risk of one in 10,000 is 80 deaths a year in 50 years' time, compared with 2,400 deaths a year now. It is not on the scale of what we are now facing, but yes I am sure that they have to be.

Chair: Thank you all very much indeed for giving us some very helpful evidence, which we will certainly want to reflect on and consider as we move towards that recommendation. Thank you very much, all four of you, for joining us.

Examination of witnesses

Witnesses: Darren Evans, Graham O'Mahony and Ruth Wilkinson.

Chair: We move now onto the second panel, who are all joining us remotely. Welcome to you and thank you for joining us. Can I start, as I did for the first panel, by asking each of you just very briefly to tell us all who you are, starting with Darren Evans?

Darren Evans: Good morning and thank you. I am technical director of AEC up in Manchester. We are an asbestos consultancy. We provide asbestos training, laboratory analysis, air monitoring, surveying, and other occupational hygiene services. I have been in the industry for 31 years and I am on the ATAC technical committee, so I am representing the trade association today.

Ruth Wilkinson: Good morning, Chair. Thank you all. I am head of health and safety for IOSH, the Institution of Occupational Safety and Health, a chartered-membership body with over 47,000 members across 130 countries.

Personally, I am an occupational health and safety practitioner. I have worked in manufacturing and local authorities and will be bringing that experience to the duty holder, health and safety advisory perspective this morning..

Graham O'Mahony: Good morning everybody. I am the current chair of the UK Asbestos Training Association, commonly known as UKATA. I currently act as a training provider and consultant to the asbestos industry. Unlike many, my background started as a plumbing and heating engineer working work in the 1990s, so I may be one of the victims who

has been susceptible and exposed to asbestos. I have been in the industry for 20 years, and in construction since I was 17.

Q83 **Chair:** Thank you all very much. Can I start with the first question to each of you and I will do it in the order that you have just introduced yourselves?

Under the Control of Asbestos Regulations 2012, we have what is often described as management in situ of asbestos. What do you think the strengths and weaknesses of that current approach are and do you think that HSE does enough to make it effective? Starting with Mr Evans.

Darren Evans: Manage in situ is not entirely 100%, because there is clear guidance on removal where required, so in poor condition and where refurbishment works and so on are involved in that. Whether that is effective—certainly it is cheaper. We have been discussing asbestos in schools and whether we should or should not remove it and we have been listening to the other panel. It is certainly cheaper to leave it in situ than it is to remove it, which is a costly exercise.

I feel that the HSE's approach to this has been that if we enforce removal we push the situation underground—fly tipping, for example—and there is a lack of competent contractors, a lack of landfill even. I think this rests on the enforcement of the regulation. It is great to say that we manage in situ but how do we know how many people are effectively managing asbestos in situ in buildings? If there is little or no inspection and little enforcement, we are allowing people to carry on. It is a bit like a speed limit We put a speeding sign up, does everybody drive at the speed limit and how is that enforced? If nobody is enforcing the management we do not know how effective that can be.

Q84 **Chair:** Would you say that at the moment there is no real enforcement going on?

Darren Evans: I do not believe that there is much in the way of inspection and enforcement with regard to the duty to manage. For example, an environmental health officer may go round to a restaurant and talk about hygiene checks and health checks, but are they asking about asbestos management plans? I do not know about that question, but my information is that that is not the kind of thing that is asked for.

The Department for Education surveyed schools, which we have been talking about, and 11% did not respond. There is a comment that 97% said that they were complying with the regulations, but only 95% of those who responded had an asbestos management plan. They both cannot be true. That is from the Department for Education's report in 2019. What has happened since then, I do not know, I have no idea, but that was from the Department for Education themselves.

The HSE is hugely underfunded and under-resourced, as we know. There was a statistic in one of the reports about the number of inspectors having been reduced by a third over the past few years. Can they really

be going out knocking on doors? I think this is the crux of the issue, that we have got a set of regulations that we are assuming are being followed, but we do not know.

Ruth Wilkinson: Thinking about the duty to manage, if we were to step back and look at the regulation itself, the regulation follows the British proportionate-risk based approach so, for me, there are lots of controls that come together.

We talk about management in situ, but before you get to that point you need to look at identifying whether you have got asbestos. If you are not sure, you presume that you do and that risk-assessment based approach is what you manage in situ. If you have asbestos in an area that is likely to be disturbed, it is in poor condition and might not be disturbed now but you think about a corridor where you have lots of footfall or trolleys going back and forth, it is obvious you are likely to disturb asbestos in that area and you will come up with the appropriate controls, probably to remove it in that instance. When we talk about management in situ there is a risk-based approach to what is kept in situ, and then you manage disturbance and condition at that point. I just wanted to mention that point.

What is left, essentially, is asbestos that is in good condition—none of the fibres being released into the air or the breathing space. It could be in the ceilings, it could be in the floors, or you could have kept it somewhere where it is sealed, encapsulated. To get to that point you have already had to go through an assessment of risk. That is one clarity that I wanted to mention with regard to management in situ.

I am very respectful of the work that HSE has done on this matter, and I am reflecting back to the 2000s when I was working in a local authority and HSE was inspecting the CLASP buildings across the school building stock at that time. I am also aware, as mentioned by Darren a moment ago, that there has been a reduction in the resource available to the HSE, so they do prioritise their area of work and I am aware, therefore, they prioritise work such as construction.

Having worked in a local authority, I know they have also looked at those areas. Some areas are probably more under the gaze or the inspection of HSE or local authorities than others. For me, the concern would be in those areas of small and medium enterprises. How are we monitoring and checking what is going on there—looking through the proportionality of risk?

Graham O'Mahony: I can echo what Darren has already mentioned. The regulations are reasonably effective, but how can we measure their effectiveness? One of the big problems I find with people complying with the regulations is obviously the cost of that regulation, the cost of the removal and, of course, the management. There are a few gaps where clients and duty holders are probably not compliant enough. I regularly

find a lack of information and understanding about how we need to do that.

The ultimate control is what it is going to cost. With asbestos, it is a double-edged sword; it is a double cost for a lot of organisations. We can talk about the public sector in the sense that public-sector buildings, schools and hospitals, will be funded by taxpayers. Some organisations and businesses in the private sector have inherited a legacy that, of course, they now have to deal with but there is no saving for the building owner in removing asbestos. If a building owner decided to put new low LED lighting into their building, they are obviously going to reduce their energy costs, but with asbestos there is a massive cost in management and a lot of duty holders will face the double cost of removal and reinstatement.

I believe it is a fair approach for businesses to follow the management in situ mantra from the HSE, on the proviso that they are managing it in a safe way and managing it in a situation where there is no risk, or limited, minimal risk to building workers and occupants of that building. Buildings have a certain lifespan, and over that time of 20, 30, 40 years that building will need to be either demolished or will be renovated in some way, shape or form. At that point, the asbestos can then be dealt with, rather than going to the private and public sectors and, saying, "We have to remove all the asbestos from the UK". As we have heard from previous panels, there is a lot of asbestos in this country. We were prolific users of this product because of its useful properties We now understand a lot more about asbestos, certainly over the last two decades.

One of the strengths I find from the regulations is they have created the fear of possible litigation and criminal prosecution. I echo Darren's point that HSE probably is a little under-resourced and they probably could do with a little bit more enforcement action in certain buildings—certainly in the private sector and possibly even in public-sector buildings as well.

Q85 **Chair:** It sounds from what you are saying that you do not think we should be embarking on some kind of long-term asbestos removal programme. I wonder whether the other two witnesses on the panel agree with that, that we ought not to be saying, "Now it is time to start removing it". Mr Evans?

Darren Evans: Echoing again what Graham said, the asbestos in the building fulfils a function, typically insulation, fire protection and so on. The age of the building, the use, the deterioration, leaks, repairs, things like that are relevant, but once the function of the asbestos has been removed, it has to be replaced. The way the way people go about this now is that they will replace it as they come along. It is clear in the regulation that should there be a refurbishment or demolition plan, there should be an additional survey and the asbestos should be identified so it can be removed to facilitate that work.

There does not appear to be any long-term plan, particularly for public buildings, where the school or the hospital has reached the end of its life. Professor Kevin Bampton was talking about joining up the different agencies planning the replacement of these things. Asbestos is an inconvenience and a very costly one in many instances, and long-term planning for its removal could be included in other long-term projects, absolutely definitely.

Q86 **Steve McCabe:** Good morning. We seem to put quite a lot of emphasis on the duty holder for managing and controlling the regulations. As I understand it, the duty holder is either the person who owns the premises or an employee of that person who has a delegated responsibility. Is that right?

Darren Evans: Yes.

Steve McCabe: So that is how it works. Do we know how many owners themselves who are directly the duty complier, the person who has to carry out the responsibility?

Graham O'Mahony: The way the regulations are written, is that the duty holder, the person or organisation who is responsible for the maintenance of the fabric of the building—and going back to Professor Peto's comment previously about the construction industry, the plumbers, the carpenters, the electricians who are more likely to go in and disturb the fabric of the building? Obviously, that differs depending on the size of the organisation. For example, in my offices, I would be defined as the duty holder, so I will commission any maintenance work to the fabric of the building and share any information.

On larger-scale properties it becomes very much diluted. Take, say, NHS properties, for example; the NHS across the board tends to have an ideology that the duty holder is the chief executive, and the chief executive is not necessarily the person who is directly in control of said maintenance works because of their hierarchy, shall we say. They disseminate the information down to nominated individuals. If we use the NHS as a good example, it may be the estates department. Of course, from there they would be—not necessarily the duty holder but what we sometimes refer to as the appointed person, with similar responsibilities for fire and legionella and so on, so people at the top who will be ultimately responsible. They disseminate that work down the chain to the employees but the liability—the legal responsibility—does fall on the duty holder as defined.

Q87 **Steve McCabe:** Thank you. I am not entirely clear how it works, so this may be fairly obvious. Does the duty holder have any automatic requirement to receive training? Does anyone nominated by the duty holder to carry out these responsibilities have any requirement to receive any kind of training for the duties they are required to carry out?

Graham O'Mahony: Again, the regulations and the way they are written, any person who is acting as a duty holder or an appointed person

would need to be competent to do so. We can define competency by experience, knowledge and skills, but of course training does play a huge part in that. I am sure Darren does this as well, but we offer asbestos training courses for duty holders. My experience with duty holders is that when they come into our training centre, they have some idea of what they need to know, but they don't fully understand what they have to put in place.

A good example of this is that when we have an asbestos survey—and I am sure you have heard in previous Committee hearings about asbestos surveys—it is sufficient to share that data and information, but the survey does not necessarily tell the whole story, because the duty holders are responsible for managing the data. The survey could become out of date within a matter of weeks if asbestos has been removed, repaired or encapsulated, shall we say.

Rather than using the survey as an example, we generally try to steer duty holders down the path of understanding asbestos registers and management plans, understanding communication plans and action plans and making sure that they don't just take the data, put it on a shelf and leave it there for the next 12 to 18 months but that they then use the data, manage the data and they protect people, both employees working on the premises or contractors, and share that data effectively.

Darren Evans: The competency element is written into the regulations. You asked whether there was any data on compliance and the answer to that is not to my knowledge. I referred to the Department for Education report that came out two years ago, but that work was done by the Department for Education. What we tend to find when we are doing these courses is that as a consultant I understand what the regulations say and we can advise and train our clients, but we are often in some ways preaching to the converted. They have at least some knowledge of regulation 4 and its requirements in order to come to you to get the training, but we do not know how many are utterly unaware of the regulations or are aware and ignore them. That is what we don't know.

We have a set of regulations, but who is policing them? We are talking about schools and hospitals and there is more to it. As Graham mentioned, once the survey is in place, the survey should give guidance on actions. Often it is just placed on a shelf—it is a tick box, "We have this survey. That is all we need to do". There is a lack of understanding and real awareness of the crux of that management plan and the requirement to prevent disturbance by anybody visiting your premises, contractors, your maintenance staff et cetera. We don't know the answer; we don't know the numbers.

Steve McCabe: Ruth Wilkinson, did you have something you wanted to add?

Ruth Wilkinson: Just to come back on a previous point and to conclude on this item, the duty holder, depending on the size of the organisation,

will have processes in place to delegate formally those responsibilities. As Darren just mentioned, the legislation is clear on the information, instruction, training and competency requirements, but because they are managed locally within that building, there isn't that transparency and oversight to ensure that we have this number of duty holders, they have this training and it is in place. As Graham mentioned, competency is a collection of skills, knowledge and experience being brought into play.

For me, the training is part of that system and duties assigned to the duty holder, who has to fulfil them. They will obviously need to discharge and delegate those responsibilities down the line and also ensure that training, sufficient information, instruction and awareness relevant to either occupants or people who are likely to disturb asbestos will be carried out. It is a complete chain and a complete system, but it will vary according to the size of the organisation and the number of buildings.

If I think back to my local authority days, the local authority was the duty holder in schools responsible for the management of the fabric of the building, but obviously we had head teachers, for whom we were the employer. There would also be schools where we were not the employer, but they contracted our services, so we had to be very clear on who had what responsibilities in those circumstances. Who has the ultimate responsibility for the maintenance and the building will differ depending on the nature of the employer and the organisation.

Q88 **Steve McCabe:** So the duty holder could be the owner of the premises, but it might not be, it might be someone else. In a large public institution like the NHS, it could be someone quite far down the management chain. It is, in theory, a total system, but the accuracy of the checks or the adequacy of the checks and how each part of that system operates might be debatable. Is that a reasonable summary of what you have told me? If that is the case, what do you think could be done to strengthen compliance and to make sure that people are fulfilling their duties properly and that we are not leaving gaps that are creating risk?

Graham O'Mahony: Back in 2006, the regulations changed and one of the big steps forward for the industry was to make it mandatory throughout the UK for trade persons to undertake a level of asbestos awareness training. That would include everyone, carpenters, electricians and so on. This was a big step forward, but this all comes down to Professor Peto's research back in 1995. That made a huge difference, I believe, in the construction sector for individuals understanding the risks associated with asbestos. I appreciate it is in legislation and that will not capture every individual, but it is certainly enforced by clients and larger organisations as part of that prequalification.

That said, there is no specific regulation to force or impose upon duty holders that they must hold a level of knowledge or awareness. It literally comes to, as Ruth mentioned, that definition of competency. I would like to see some sort of campaign or guidance from the HSE to make sure

people are competent, rather than just believing they are competent based on their own individual assessments.

Darren Evans: Could I make a comment on that, Mr McCabe? I totally support what Graham says about campaigns. The last HSE public campaign was Hidden Killer in 2008, which focused on tradespeople, plumbers, carpenters, electricians et cetera.

You asked what we could do. We talked about inspections. There has been mention of national registers, certainly for public buildings, but just as an example, on the HSE's website in November/December there were some asbestos prosecutions. There was one last week. A contractor was removing asbestos from a community centre in Essex and he was fined, as an individual, £200 for a breach of the regulations. A school and a contractor were both fined for disturbing asbestos in that premises. It was AIB, a licensed material. The school was fined £3,000 as the duty holder and the contractor was fined £2,000. There was another one in November where a builder refurbishing a pub was fined £300.

In that instance, the pub would have had a duty holder who should have known where the asbestos was. They should have had an asbestos survey. Again, whoever owned the community centre should have commissioned a survey if it was being demolished. The school should have had an asbestos management plan—the Department for Education says 97% of schools are compliant—and the Department knows that there is AIB in there and the total fines were £5,000. The removal cost for the school, for example, could have been £25,000 to £30,000, so the fines are paltry and the deterrent is not there.

I appreciate there are sentencing guidelines out there for HSE prosecutions, but what do we want to see? We want to see that people who flagrantly breach the regulations, either through ignorance or design, are held to account for it. That would act as a real deterrent, but a £200 fine seems to me to be a benefit when the cost of removal could be 10 or 20 times that. It doesn't seem to make sense to me.

Steve McCabe: Go ahead, Ms Wilkinson.

Ruth Wilkinson: Thank you. I have a couple of points on the question, but just picking up on Darren's point about the level of fines, there is a lot behind the scenes. Thinking of the public buildings, particularly the schools and their investment, the level of fine is assigned according to the sentencing guidelines and different factors behind a situation and not wanting to remove funding that could be used elsewhere. There is a lot behind the scenes, and although I do support in principle the direction of travel of fines as a deterrent, there is also the other factor of money that can go around and how it can be proportioned.

Going back to the question about strengthening compliance, in 2018 IOSH commissioned a survey of 500 UK construction workers on asbestos awareness and what they knew about the hazard. The survey found that

while the majority of workers are familiar with the risks posed, a third of those surveyed had never checked the asbestos register before starting work on site, with nearly half of those not even knowing if there was a register. Almost one in five respondents said if they discovered asbestos, they would not be clear about what to do anyway.

I want to highlight the awareness and competency piece. Although the duty to manage in the legislation is there, is quite straightforward and has been out for a long time, something is not happening. Awareness is not reaching down to those who are fulfilling those roles, coming into contact with the hazards and those who are placed at risk. The findings of this survey were obviously a cause of concern for IOSH and raise the fact that awareness requirements are not being successfully cascaded down. It is very worrying.

I would like to mention something else as we are talking about the HSE and what more could be done. I know HSE chairs what is now called the Asbestos Network. IOSH is represented in that network, but this is where the HSE chairs and engages with lots of stakeholders. Going back to collective action, yes, HSE could probably do more, but so could everybody else, through the network. We all have a piece of that puzzle, which we can disseminate and get guidance out to support the end goal. Those are my points. Thank you, Chair.

Q89 **Steve McCabe:** One last point. We took some written evidence from a trade union, which said that there is not universal compliance with the regulations. The TUC said that the regulations are simply not being complied with. Thompsons Solicitors, which is a legal firm specialising in this work, said that the regulations are not being complied with. That is damning, isn't it?

Darren Evans: I don't think we have any statistics on levels of compliance. That is the question you are asking. I have no idea. The clients we work for obviously are compliant, but we just don't know about the rest.

Chair: Let's take the next question and then come to the other panellists after that. Nigel Mills.

Q90 **Nigel Mills:** It seems pretty clear to me that working with asbestos is quite dangerous, not only for those doing the work, but for the people who may be around the works. I am not sure why we have unlicensed work. It would seem to me that all the work should be done by a licensed operative. Is that a fair comment or is there some justification for why some work can be done by unlicensed people?

Darren Evans: The licensing regime is fairly clear within the regulation. Historically it has been based on risk. Certain products are more friable, more likely to release fibres and therefore are more dangerous, and HSE has made a distinction between the two types. For example, pipe insulation on a boiler is dry and crumbly and could release fibres with

quite a high percentage of asbestos, but a toilet cistern made out of Bakelite with a low percentage of asbestos very tightly bonded doesn't present the same type of risk. That is the rationale.

What is lost—and I think this is the point you want to make—is that the licensed work is much more tightly controlled, but it does not mean that the regulations do not apply to non-licensed work; it should be done by competent contractors and they should have a risk assessment and controls in place. The issue, from my point of view, from my side of the industry, is we are not obligated to go and check those non-licensed sites and do any monitoring. While you are saying some products are very low-risk and could quite reasonably be removed safely with basic controls, the checks on that work are much less.

Q91 **Nigel Mills:** How do we get non-licensed work that ends up being notifiable—that is slightly confusing—where the work is not quite sufficiently low-risk?

Darren Evans: The history to this is there was a challenge to the HSE that it was not properly complying with the guidance, so it introduced a new level that said if a non-licensed product is degraded and in poor condition or has to be degraded in order to remove it, the work becomes notifiable. What happens is that the person doing the work notifies HSE and starts work, but I don't know what happens with that notification. Anecdotal evidence suggests that HSE compiles statistics, but it is clear that is not their priority, compared with removing sprayed coating or insulation. While it can be notified, I don't know of any statistics that are held, apart from the actual bare numbers that HSE releases, so whether or not HSE checks on those people and their competency and visits the sites, I have no clue.

Ruth Wilkinson: Bringing in the practical perspective, I have been involved in conversations and I know others in the health and safety profession have had conversations about this. Sometimes, in navigating through the licensable and non-licensable, you might tend to err on the side of caution. Knowing that it might not be short-duration work, that it might come against some challenges, might overrun, we go against what was intended by the risk-based approach, err on the side of caution and get licensed contractors in place just to ensure that that activity does happen.

I am aware that the approach does leave itself open to interpretation, where some will just default to using licensed contractors and some might not. Obviously HSE's asbestos essential guidance is there to be used, but the definition of licensable work states that in most cases only those with a licence should carry out work on these materials. However, licensing will not apply to short-duration work where the risk assessment shows the work will only produce sporadic and low-intensity exposure and will not exceed the limit.

Although we do get definitions of "sporadic" and "low intensity" it is quite hard to say what is short-duration work and what is not. We also find that the definition of short-duration work and low-intensity conflicts with the notion that any exposure can potentially lead to somebody getting occupational cancer. Those were a few observations I wanted to share.

Nigel Mills: Graham, you wanted to come in.

Graham O'Mahony: The issue with notifiable non-licensed works came about when, as Darren mentioned earlier, the asbestos workers protection directive came out from the EU in 2005. I think what we all fail to remember is that the EU models that directive on what we were doing in the UK and we have had a permissioning regime in this country since 1983. It works and it has been working since then. Within that permissioning regime was a requirement for notification. In 2006, when we aligned ourselves more with the European Union and we reduced our control limit, we excluded that notifiable aspect of non-licensed works. It was not until, as Darren mentioned earlier, the European Union wrote to the UK expressing that we were non-compliant with that directive that things changed.

From my point of view, from a practical point of view, the notifiable aspect of it—it is not just the notifiable, there is the medical requirement, there is also a recordkeeping requirement for that type of work, the same as it is for licensable works—is as we have been doing since 1983. I think there was a little bit of a confusion there, in that we were already doing that in this country. Going forward, that does put a burden on contractors with regard to having medicals—not medicals in the sense that a licensed contractor would have to visit the GP, but contractors pay GPs to provide them with t certification. As Darren mentioned, it is all determined by those terms, "degrading" or "degraded".

Changing the regulations in 2012, I think confused things even more. Now we have a three-tier categorisation of work: licensed, non-licensed and notifiable non-licensed works, when—as mentioned previously—there is a two-week notification window for licensable works. The notification for non-licensed works is before the work starts, and I cannot tell you what the HSE will do with that information because they certainly do not have the resources to go and visit non-licensed works being undertaken.

Q92 **Chris Stephens:** Good morning, panel. The first question is in two parts. Ruth, I will start with you because I think you touched on some of this.

Is HSE's enforcement of asbestos regulations in line with the level of risk? Given what was said to Mr McCabe earlier, and we touched on it in the first panel, is it the case that the risk-based approach to enforcement by HSE results in the market taking a risk-based approach to compliance? Could you give us your views on that?

Ruth Wilkinson: Thinking about HSE's approach, everyone targets those priority risk areas with the resources they have. Construction is up there,

and I know HSE will go out and will have looked across that line of sight. I am also aware that the HSE has a fee-for-intervention scheme. My understanding of that scheme is that the licensable bit for the contractors is exempt, but if HSE is inspecting and sees a failing that could put people's health at risk, ie asbestos, that would be identified as well.

Going back to the question of HSE's enforcement, there will be a plan. HSE will be looking at risk areas and, to my knowledge, construction has been in there a for good number of years now. There is also the avenue that lets HSE go down the route of a fee for interventions—unless I am mistaken; that is purely my interpretation of the HSE's information about the fee for intervention. So HSE will take action. I do not have the data as to what that equates to in numbers of asbestos incidents, but we are aware of the HSE's resource reducing over that period of time and we do see 5,000 asbestos-related deaths every year.

Moving forward, we would look at the approach as it relates to building stock. We touched earlier on whether we should remove it or not. From my perspective, asbestos is everywhere in buildings and in the case of some of the public building stock, to remove it would mean removing the entire building because it is so embedded. For me, there is an element of duty to manage that proportionate risk-based approach. I am thinking about when we look at the future use of these buildings as we move towards net zero goals and climate resilience and there might be further work that we can do that will proportion some of this responsibility of how we manage our buildings in other areas across the public policy remit, in addition to the HSE oversight.

Apologies, because I cannot give you the true data on enforcement, but I am aware that the HSE is out there. I also mentioned the Asbestos Network, which the HSE chairs. IOSH sits on the network. We have a campaign running, No Time to Lose, for which one of our phases is occupational cancer and asbestos. There is more that we can all be doing in support. I hope that answers it. If not, I will happily come back.

Graham O'Mahony: I echo Ruth's point that the HSE does enforce on a risk-based approach. Of course, the licensing regime covers the areas of highest risk. One of the things we lost many years ago since the HSE has become purely an enforcement authority is an information line that they used to run. Contractors or employers who were a little bit unaware of regulations could contact the information line and get the necessary information. Moving from the advisory role to more active enforcement, HSE does tend to concentrate more on the licensing side. I would like to see a little bit more enforcement on the management side, because that is top-level and from that top level information is disseminated downwards, ensuring that message is sent to the right people, the people on the ground who are potentially at risk, whether they are employees or contractors.

Darren Evans: Mr Stephens, I think the answer to your question is yes,

I do think the risk-based approach to enforcement by HSE results in the market taking a risk-based approach to compliance. The prioritisation of risk probably means that there are lots of people out there taking an informed view that they are unlikely to be visited and therefore corners are cut. I would say that is absolutely true. I agree with Graham there should be enforcement of management, but I don't see that happening.

As we know, the HSE's permissioning regime licenses the licensed contractors, who pay a fee, which is a three-year licence for in excess of £3,000, which equates to about £1,000 a year. I know that the licensed contractors association would not be averse to an increase in those fees and would support it if it was felt that higher fees would increase inspections and standards.

If you look at it from our point of view, as our trade association, our members, we are the ones who do the verification at the end of the removal, the four-stage clearance. We have to follow regulations, of course, regulation 17 principally, but we are accredited by UKAS. If you compare the licence fee, which equates to about £1,000 a year, compared with our members paying about £10,000 annually as well as having an enforced number of audits of quality managers and auditors onsite, there seems to be a big difference in the fees and numbers of inspections on our side of the industry and the licensed contractors' side.

You are right; the fewer inspections you have, the more people realise and the more chance you have to get away with it. I used a couple of examples of fines that are probably in the region of 10% to get a proper removal job. There is even an incentive to cut corners, I feel, and that is why we need much more enforcement and inspection.

Q93 **Chris Stephens:** That brings me nicely to my next question, Darren, about the fee-for-intervention model. How is that influencing HSE's programme? Isn't it counterproductive that there is no additional fee for enforcement action regarding licensable work?

Darren Evans: Yes. It also seems peculiar that since the fee for intervention came in, HSE seems to have reduced the number of inspections. It seems counter-intuitive, but as Ruth described before, the licensing, the permissioning regime, means that the licensed contractors have already paid the money and therefore should they be in breach of any asbestos breaches, they are not charged a fee for intervention, but as you rightly said, should there be any other health and safety breaches, they would be subject to a fee. I do feel that occasionally the analyst onsite is targeted by HSE if the job is poor. They have a responsibility obviously, but they can be subject to fees for intervention. In a simple answer, I am not quite sure how it has affected practices. Certainly within the licensing regime, it does not appear to have done much.

Q94 **Chris Stephens:** Thanks, Darren. A final question. I think you touched on this in terms of HSE's former information role. We have had some evidence and suggestions from trade unions and others that previous

campaigns, such as the Hidden Killer campaign, effectively ceased due to a lack of funding. How important are such campaigns and is there a sufficient level of worker representation on HSE's engagement forums?

Graham O'Mahony: The campaigns that HSE ran in the past have been very successful. It is a shame. Maybe it is down to resources, but the message that the Hidden Killer campaign sent went to the source of the problem, the source of the exposure, if you like, down to the trade industries, the plumbers, carpenters and electricians. I think it was very well received. There were videos and there was lots of information, documents et cetera. It is a little bit disappointing that the campaign is not continuing.

As I mentioned earlier, if we could start at the top and maybe advertise or generate a campaign aimed at the duty holders, that would disseminate down to the foot soldiers, for want of a better phrase.

Q95 **Debbie Abrahams:** Good morning, everyone. A quick question, because I am conscious of time. Should we have a national digital register of asbestos in non-domestic buildings We have heard evidence from others in the past about the national register of asbestos in schools in Holland. What do you think about whether we should have one here?

Darren Evans: As a trade association, we would support that, but I think we are a long way away from it. We don't know how many people have registers. Maybe a national register would highlight the omissions. Again, we don't know the standard of information, but we would broadly support the concept. You mentioned public buildings. I think you would have to start somewhere like schools.

Another issue is I think we exclude from these regulations social housing, which Professor Peto mentioned is a workplace for maintenance people and that should be the next kind of step, to be honest. We would support it, but I think we are a long way away from it.

Debbie Abrahams: Ruth, do you want to go next?

Ruth Wilkinson: Likewise, we would also support a register for transparency purposes, but we also recognise there would need to be a clear process in place—the number of samples and the locations— so you would have good information. We do recognise that the HSE probably would not hold the register. That information probably sits with the duty holders, the surveyors and the analysts, is quite disparate at the moment and, having seen some myself, I can say that the quality will probably be uneven as well, depending on who has undertaken the survey.

We do recognise that the quality and usefulness of that register will depend on the quality, capacity and knowledge of those who will be putting it together. I would also be cautious about how it is disseminated and used. Having worked in school settings, I know that the fact you have an asbestos policy has also caused a level of anxiety among parents and members of the community, knowing that there is asbestos in that

building. We need to think about the level of information registers contain and how we communicate, disseminate and use it. Essentially, as we have all said today, we do not know what is out there, who is complying with the regulations or not. Our information is based on something having gone to the HSE through someone raising a concern or there having been an incident or an inspection that identified a problem and we do not have all the pieces of the puzzle. But to come back to your question, we would support it.

Graham O'Mahony: Who would be able to access a national register of asbestos in public buildings? I am all for a national register in the sense of data collection, but it could possibly have a negative effect on the public, especially where school buildings are concerned. We understand that there is a risk that parents who hear there is asbestos in a school building will remove their children from that school and people may be reluctant to go into a hospital where there is asbestos.

As a member of the public, as we all are, I understand asbestos and I understand the risks posed by it. Unfortunately, there are many members of the public who will not understand the risks and the true risks from asbestos in the sense that they may just see a national register that shows there is asbestos within a particular building, a school or a hospital, and they may be very concerned about that.

I can relate some experience about that. A number of years ago, I was contacted by a national radio station to do a telephone interview. The question I was asked was to do with parents in a particular region of the UK threatening to take their children out of the school. I asked why that was and it was because they had found out that the school contained asbestos. Again, this is subjective. The duty to manage is about management—is it being done properly?—and a school, in theory, is a managed environment, in the sense that the asbestos should be being managed so that it is isolated, it is sealed, it is encapsulated and the risk is minimal. However, people may take their children out of the school and move them into an unmanaged environment back home, where the parents might be doing DIY at the weekend, disturbing ceilings and walls et cetera.

Debbie Abrahams: I understand.

Graham O'Mahony: For me, the point of a national register is it is a fantastic opportunity to collect data, but we need to be very careful who sees the information because it can be misinterpreted and which could have negative effects.

Debbie Abrahams: Thank you so much. Over to you, Chair.

Chair: Thank you very much. The final question comes from Dr Ben Spencer.

Q96 **Dr Spencer:** I want to ask a few questions about duty holders'

responsibilities for routinely monitoring asbestos exposure to building users and employees. What are your thoughts about air sampling versus visual inspection of in situ asbestos?

The other question is about your thoughts on the surveys that are being taken. What do you think about the reliability of the surveys, the standards and the independence of the inspections by analysts?

One question is about quality control and your thoughts around that, then what is your take on visual sampling versus air sampling. I understand that it is HSE's position that it should be visual inspection.

Darren Evans: There are a few questions on that and I will try to be as succinct as I can. First, there is no requirement to do air exposure monitoring. I agree that visual inspection is the most important element because it is when asbestos is disturbed that fibres are released. Earlier, you spoke to the epidemiologist, who kind of pooh-poohed this a little bit, but perhaps it has a value in reassuring people about levels of airborne fibre within schools. Certainly the levels have been described as being almost too low to be measured without a very specific, expensive and time-consuming process, so I think inspection of the condition, and the frequency of the inspections, is the key thing and the guidance states "periodically" on that. That is one point.

The second thing you mentioned was surveys. In our industry, we are accredited by UKAS—and must be—to do air monitoring under regulation 20 and for sample analysis under regulation 21. We are accredited by UKAS to HSE guidance, so HSE guidance becomes de facto legislation by another party. At the moment, we are going through a transition for the bulk ID and air monitoring in HSG248. However, HSG264, the survey guide, which is not mandatory to be UKAS accredited, is the thing that we use to comply with regulation 4. Regulation 4 is the key regulation in the management of asbestos, but there is no legal requirement for us to be accredited.

Our members are accredited to do surveys, but anybody could go and do an asbestos survey. You could do a three-day course, call yourself an asbestos surveyor and go and do a survey. We, on the other hand, have to pay UKAS, we have to be audited, we have to have QC, we have to have experience et cetera, so the playing field is not level at all. That is one of the things that needs to be put right, so that not any old Joe can go out and do a survey. There needs to be a level of standards, as there is for air monitoring and bulk ID.

The third point you make is about the visual inspections. Everybody who does a visual inspection must be accredited by UKAS to regulation 20, so they are subject to audit. For every poor visual inspection, there has been a very poor asbestos abatement job prior to that, obviously. The new HSG248 has put measures in place to try to improve those standards, based on some HSE evidence. There was no evidence for the changes it made for bulk ID, unfortunately.

One of the key issues in this country—I used to work in Hong Kong and Cyprus and I know where it is different—is that HSE allows the licensed removal contractor to directly employ the analysts to check their work, so we are getting to paid to mark their homework and there is an obvious conflict of interest there. The analyst subsequently can be put under pressure by their own organisation, by time factors or by the contractors. It is in their guidance documents, in ACOP, that they are advised not to, but until we separate the appointment of the analyst to quality check the work under regulation 17, there will always be a perceived, if not real, conflict of interest.

Dr Ben Spencer: Thanks, Darren. That is very clear. I am just conscious of time. Graham, I know you want to come in and then Ruth, you have indicated you want to come in.

Graham O'Mahony: I will be very quick. We need to take a pragmatic approach to this. Looking at it in two parts, we have air testing and visual inspection. I have watched the Committee over the last few weeks and read a lot of the transcripts. I can't see any benefit in doing air testing in a building or in a room where the asbestos is in good condition. The pragmatic approach is that if the asbestos is not in good condition, then by all means we do need to do some sort of monitoring to generate some data about the levels of exposure for record keeping and to determine what needs to be done. I am a big fan of visual inspection, and that visual inspection is the catalyst, if you like, to determine whether we need to do any air testing. If it is in poor condition, then of course air testing will be triggered.

You mentioned the quality of surveys and I totally echo Darren's thoughts about that. There are some very good asbestos surveyors in the country. Some are UKAS accredited; some are non-UKAS accredited. However, what UKAS accreditation does bring to the party is quality control, the quality management systems that UKAS accredited surveyors and technical managers and quality managers have to meet. It is currently strongly recommended to use UKAS accreditation. Going back to the early 2000s and late 1990s, air testing was not accredited in this country. Accreditation came into play in the 1999 changes, and in 2000 accreditation was mandated; any analyst undertaking air testing was to be UKAS accredited. I cannot see why accreditation has been held back from surveys, but that is just my opinion.

Ruth Wilkinson: Darren and Graham have covered the quality assurance piece. From our perspective, we would support any independence of the analyst. I am also in the same place on visual inspection versus air sampling. You can't move away from that visual inspection—the duty to manage, the periodic inspections, the duty-holder piece of seeing if it is damaged. We do this for other hazards and risk factors in the workplace. We will look at equipment to see if it has been damaged or not. It is important we have visual inspections and use air sampling where there is a need to do so, where there might have been

disturbance and there might need to be an assurance to re-enter a place where you had removal, for example, but we do need to keep that visual piece while it is still in good condition. I concur with colleagues on that point.

Chair: That concludes our questions to you. Thank you all very much for the expertise you have shared with us. If there is anything that occurs to you afterwards that you think we should have picked up or that you would have liked to have told us, please do e-mail us. We would be keen to pick up any further information that you have. That concludes our meeting. Thanks to everyone who has taken part.