HOUSE OF COMMONS

Work and Pensions Committee

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

Wednesday 17 November 2021

Ordered by the House of Commons to be published on 17 November 2021.

Watch the meeting

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

Questions 1 - 57

Witnesses

I: Charles Pickles, Asbestos campaigner, The Airtight on Asbestos Campaign; Nicolas Bessot, Head of the Office of Chemical, Physical, Biological and Occupational Diseases, Ministry of Labour, Employment and Integration, France; Professor Thomas Kuhlbusch, Head of Hazardous Substances Management, Federal Institute for Occupational Hygiene and Health (BAuA), Germany; and Professor Alex Burdorf, Head of Department of Public Health, Erasmus MC, Rotterdam, The Netherlands.

II: Liz Darlison, Chief Executive Officer, Mesothelioma UK; Gill Reed, Technical Adviser, Joint Union Asbestos Committee; Joanne Gordon, Chair, Asbestos Victims Support Groups' Forum; and Tony Hood, National Head of Asbestos Strategy, Thompsons Solicitors.

Written evidence from witnesses:

Asbestos Victims Support Groups' Forum (ASB0002)

Prof Angela Tod, Mesothelioma UK Research Centre (ASB0007)

Thompsons Solicitors (ASB0009)

Joint Union Asbestos Committee (ASB0011)

Airtight on Asbestos (ASB0016)

Communication Workers Union (ASB0032)

Examination of witnesses

Witnesses: Charles Pickles, Nicolas Bessot, Professor Thomas Kuhlbusch and Professor Alex Burdorf.

Q1 **Chair:** A warm welcome to this meeting of the Work and Pensions Select Committee and our inquiry about the handling of asbestos. I am very grateful all the witnesses who have joined us this morning. Welcome particularly to the four who are with us for this first panel.

I will start by asking each of you just very briefly to introduce yourselves and tell us who you are and where you are this morning. Charles Pickles.

Charles Pickles: Good morning, I am Charles Pickles. I am very grateful to be here. Thank you for inviting me. I have 20 years' experience as an asbestos consultant. I divested all my business interests in 2019 and no longer have anything to do with that. However, I have 20 years' practical experience and knowledge. I now campaign for the reform to the UK's asbestos regime.

Professor Burdorf: Good morning, my name is Alex Burdorf. I am a professor in public health. I have been involved in asbestos research in the Netherlands for the past 30 years. I was a member and writer of the asbestos report of the Dutch Health Council.

Professor Kuhlbusch: Good morning. Thank you for calling me as a witness to this Committee. I am a professor at the University of Duisburg-Essen. My background is in particle measurement technology. For the last six years I have been at the Federal Institute for Occupational Safety and Health, which is a higher authority related to the Ministry of Labour and Social Affairs. There I am responsible for the hazardous substances management. Along with that, came something like the asbestos dialogue we had in Germany to find a good way forward with asbestos management in Germany.

Nicolas Bessot: Good morning, everybody. I am Nicolas Bessot. I am head of the office that is working on chemical, physical, biological and occupational disease for the French Labour Ministry. Inside the chemical there is the asbestos risk, so I am head of the office that is writing the French regulation on this topic.

Q2 **Chair:** Thank you all very much indeed for being willing to help the Committee with this inquiry on our Health and Safety Executive's approach to asbestos management. I will start with the first question and it is a question to Charles Pickles. You have told us that you are campaigning on this issue currently. You founded the Airtight on Asbestos Campaign. Could you explain to us what prompted you to do that? What is your assessment of the effectiveness of current UK regulation on asbestos in non-domestic buildings? How well do you think people are complying with the current regulation?

Charles Pickles: Put simply, the current regulations do not keep us safe. The current regulations are encapsulated by the phrase "management in situ", which really means that we leave asbestos in until it is scheduled for removal. Basically, almost all of our asbestos remains in situ. While it remains in situ our buildings and the materials within them continue to age. The materials themselves are now in a dilapidated condition and are releasing their fibres. That is where the risk comes from. The more they continue to age, the more likely they are to release their fibres. The risks are, in fact, increasing with age rather than decreasing.

In the UK we have more asbestos per capita than anywhere else in Europe and that is reflected in our deaths. We have the highest mesothelioma death rate in the world. Six million tonnes of asbestos in situ is spread across approximately 1.5 million buildings. It is a particular problem in schools, 80% of which contain asbestos. The risks are reflected in the current mesothelioma rates. Mesothelioma is a cancer specific to asbestos. Female primary school teachers now have one of the highest prevalence of mesothelioma as an occupational group. This is alarming because female primary school teachers never worked with asbestos, they have merely worked in buildings containing asbestos.

These buildings remain with us today. For example, we know that teachers are five times more likely than the average citizen to contract mesothelioma. Much more alarmingly, for every teacher that catches mesothelioma somewhere between five children in the UK and nine in the US will later go on to contract mesothelioma. Teachers are very important but they are an early warning indicator of the hazards and the death toll that is yet to come.

CLASP schools. I am going to talk about CLASP schools a lot. The good news is there is a relatively small number of them, 3,000 or so. The risks are multiple. We have three specific risk factors in CLASP schools. We have the age of the children. The earlier in life you are exposed to asbestos the more of a risk, so every decade earlier in life the risk doubles. Clearly, children are a priority here. Then we have the high prevalence of brown asbestos, significantly more dangerous than the white asbestos.

These schools are now well beyond their designed life. They were put up in the 1950s, 1960s and 1970s with an approximate 40-year design life. Clearly, given the dilapidation and the unique trilogy of multiple risk factors, age of exposure, brown asbestos and disturbance—we have to accept that disturbance is going to happen in schools—the risks are really too hot to handle. Too high for a simple policy of management in situ. We need to accept that. If we do that we must move on to effective monitoring of the asbestos in the air—environmental, as the French and the Dutch have—and a policy of phased removal. That is how we can better deal with the problem.

I will now deal with the issue of compliance, and how well we comply with the system. Yes, we do comply with the system but we are not kept safe. That is because the system of compliance is ineffective. We need to reform the system of compliance.

Let me put some meat on the bones there. Within the duty to manage, asbestos materials are presumed to be safe. We have to defend ourselves an air test that is too insensitive to tell us if the asbestos is dangerous. That presumption of safety and the air test are the keystones of the system. We have a dangerous assumption compounded by a dangerous test. What are the results? We know Professor Peto told another Select Committee in 2013 that we can expect 200 to 300 of today's and tomorrow's school children to go on to die an early death from mesothelioma. That is just as a result of going to school.

Asbestosis really highlights the issue. You need a high level of asbestos exposure in order to contract asbestosis. In 2019 there were 490 asbestosis deaths. This is going to be an early warning indicator of a much higher number of mesothelioma deaths to come in future.

Chair: Thank you for setting that all out.

Q3 **Sir Desmond Swayne:** I would like to know what the difference is and what the similarities of approach are in France, Germany and the Netherlands to the approach that we are taking in the United Kingdom. To what extent are you confident that your regulations and rules are being effectively applied? Nicolas.

Nicolas Bessot: I will speak for the French Labour Ministry. Of course, some parts of the issue have already been to the Public Safety Ministry but I can explain how it is in France for the detection of asbestos. The owner of a building contracts with a licensed contractor to check out if there is asbestos in the materials that are in the building. They are asked to do this every three years and then, depending on the effect of asbestos, if there is asbestos damage or not, we have three levels of obligations. The first level is, if the asbestos is not damaged they are asked to check it out every three years. They are asked to monitor the consistency of asbestos in the building. If the asbestos is damaged you are going to the second level, so you have to check it out and improve some measurements. If the measurements are about five fibres per litre you have to remove the asbestos from the building. The third level management plan is that every owner of the building has to deal with it in France.

The first part is for the owner of the building. The second aspect is that you also have to hire a licensed contractor if you are doing some work that can expose a labourer to asbestos. That will follow an asbestos plan, which means that every company that is managing work that exposes a labourer to asbestos fibre has to check it out first. Before they do the work they have to indicate the presence of asbestos, which can expose the workers to asbestos fibres.

Professor Burdorf: In the Netherlands I think we have a strategy that reflects the French strategy. We have a risk based approach where, depending on the risk, there are measures you should take. In general, the idea is that you remove asbestos when you can and you only leave it in the building when there is absolutely no risk. You need to evaluate it every year in an asbestos management plan. It is also mandatory that you upload technical drawings showing where the asbestos is in the building to the system, so that external auditor certification companies have access to the information.

There is an active policy to remove asbestos from agricultural buildings and also from schools. Lastly, what I think is very interesting is that we have some public open access sources so that any person in the Netherlands can see where asbestos is in schools. There is an app where, as a citizen, you can notify the HSE when there is an asbestos removal activity in your neighbourhood and you do not have any information on what is going on. That is roughly the outline of the policy in the Netherlands.

Professor Kuhlbusch: The policy in Germany more or less follows a similar approach to France and the Netherlands, which is risk based and in which we state with the risk base we mainly look at the possibility of exposure. We are not only looking into loosely bound or a fixed bound asbestos but that we look at the actual work being done at the workplace or with the material. We associate certain risk management measures to certain levels of handling of asbestos material.

There is an obligation for an employer to ensure that the employee is informed about possible exposure to asbestos. That certainly is also the case in Germany and we recently made it more stringent that this is not only the case for the employer but also for the owner of the buildings. Pushing forward that the owner gets an obligation to assess prior to any repair or construction work, whether there is asbestos in the building. The subsequent handling of it is very similar again to the approach in France and the Netherlands. Only well educated people are allowed to work with asbestos and it has to be reported to the state authorities.

Q4 **Sir Desmond Swayne:** None of you have answered the second part of my question, which is: to what extent are you confident that the regulations are being satisfied? I will work on the presumption, unless you speak now, that you are satisfied. They are satisfied.

Professor Kuhlbusch: Fully satisfied on being responsible for employees. For example, hidden asbestos, the detection work with asbestos and the information on it can never be good enough. We are concerned and we always look to keep everybody informed. There is always room for improvement. In this way, certainly, we are confident that it is done but it can always be done better.

Q5 **Chris Stephens:** Just following on from Sir Desmond's questions, there seems to be some debate about whether asbestos-containing products

should be left in place and just managed. What are your views on that? How do you measure the long-term stability of such products?

Professor Kuhlbusch: The approach is quite similar to what was said before about the UK and the Netherlands. You have a look and manage it, so whether it is loosely bound, damaged or whether it is still intact. You have to do that on a regular basis. We look at it, and the way that we look at it from a risk assessment or risk point of view. If the asbestos is in place or behind tiles or not being touched and handled, it is fair to leave it in place because there is no exposure, no damage and no further risk associated with it.

There always has to be an assessment of: is there a possibility of release and, hence, the possibility of exposure and to which level is that possible? A decision will be made on this basis.

Professor Burdorf: In the Netherlands an asbestos management plan should be evaluated every year. In cases where you leave asbestos in the building—as in my own hospital, we have places where asbestos is kept in the building—there is an extremely strict policy about who is able to enter particular spaces. These people are well trained because, unfortunately in the Netherlands, we had some calamities where technicians went in and were uninformed.

We are quite strict and the Health and Safety Executive in the Netherlands has an A team—it is a funny name but that is the asbestos team—and it is one of the top priorities for inspections all over the Netherlands. I think we have a fairly strict policy that is compiled by the HSE.

Q6 **Chris Stephens:** It seems to me there have obviously been situations in the Netherlands that you have outlined there, Professor Alex. Do you have a view about the debate that is currently ongoing about asbestos-containing products being left in place and just managed or should there be a different approach to that, which trade unions here in the UK are arguing for?

Professor Burdorf: Yes, to give you an example, we had a huge debate in the Netherlands about asbestos cement roofs in agriculture. An active policy has been implemented to remove asbestos roofs. In the last three years €75 million has been spent on this programme and my guess is that roughly 40% of all the asbestos roofs that are, of course, 30 or 40 years old, have been actively removed. There is a discussion now on whether we should have a second tranche of this programme. Effectively, from 2024 the policy in the Netherlands has been that we do not want any asbestos cement material in any building construction, like roofing, tiling, and so on, which could create a risk to the public. That is the policy.

Q7 **Chris Stephens:** Nicolas, if stable asbestos-containing products remain in situ should that be a temporary measure and should there be a different

approach?

Nicolas Bessot: As I was saying, the management plan in France is very important. I would add that it is important that the assessment of the asbestos is done by professional licensed people, because it is not very easy to determine if the asbestos is in good shape or not or if it can produce asbestos fibres.

The point is that we have strengthened the licence conditions to be sure that the people who are doing the work, the assessment of the building, are well trained people who know the different types of buildings and can evaluate the asbestos and also take measurements when needed.

We have no generic removal plans for asbestos in France. We have a management plan but the management plan is really strict with licensed people. When you are going to hire or to sell your building you have to produce an asbestos plan for the building. To answer the previous question, that is why we say that the general management plan is well implemented in France.

Q8 **Chris Stephens:** Thanks very much. Charles, if we can turn to you, you will be aware of the debate here in the UK. Should the UK be adopting a more general programme of phased removal of asbestos from its non-domestic buildings? Tied to that, has there been a robust analysis of the cost and benefits of asbestos removal?

Charles Pickles: Yes, we should move on to a policy of phased removal because the current policy, management in situ, is not robust and rigorous enough to manage and curtail the highest of risks. Because we have so much asbestos in the UK we are going to have to live with it and, therefore, it is a question of: how best do we live with it? Prioritisation enables a pragmatic progress and we can use that risk assessment programme, which we have in situ, to guide a policy of phased removal. What we need to do here in the UK is accept that management in situ is resulting in 200 to 300 early deaths for school children, which is unacceptable.

Going forward in the 2060s, 2070s and 2080s that is going to reflect very badly on many of us sitting here today. We need to accept and move on. What we need is a strategic asbestos management plan. Phased removal is a major part of that. Phased removal will be guided by risk assessment. Again, if we tweak the risk assessment to prioritise children who are much more at risk because they have a longer time for mesothelioma and other diseases to develop, and recognise the high risk of brown asbestos, we get very clear prioritisation that would guide a phased removal. That is the key.

The second part of the question was to do with the costs. We have to accept that the buildings that we are talking about here are now well beyond their design life. The liabilities are growing. The risks from the

asbestos material are growing. They are more likely to release their fibres and they are no longer suitable for the likes of educating our children in.

The value of the asset is very much depleted and the sum of the liabilities is ever rising. They are known to be dangerous. If ever there was a Government committed to levelling up our educational attainment or even building back better the CLASP schools in areas of geographic concentration, such as Nottinghamshire, East Midlands and the north-east, these are very good places to start.

Q9 **Chris Stephens:** That is a very robust answer. It seems that you would agree that we should be looking at the clear basis of risk in terms of asbestos removal.

A final question from me. The Health and Safety Executive say that asbestos-containing material should be removed if the risks of leaving them in situ outweigh the risks of removal. What incentive should there be, Charles, to remove asbestos and should there be incentives of regulatory requirements for that that you would like to see introduced?

Charles Pickles: We have a tremendous opportunity to put a positive wrapper on the bad news, which is our asbestos legacy, with the greening agenda. The greening agenda is all about retrofitting. Asbestos is put into buildings for insulation. It is either put into our heating systems or in wall panels for insulation. Therefore, asbestos and retrofitting are very highly aligned. A greening agenda in terms of a broader policy objective, represents a great opportunity. It is also very fashionable.

Q10 **Chair:** I would like to clarify a point here. I think, if I have understood the evidence we have heard so far correctly, that it is the case in France, the Netherlands and Germany that the owners of non-domestic buildings have to check their asbestos periodically. Nicolas, I think you said at least every three years in France. Was it every year in the Netherlands and Germany?

Professor Kuhlbusch: It is not written in terms of every year but every time the building is checked, so there is no fixed date given to it.

Q11 **Chair:** Right. Whereas in the UK there is no obligation—is that right, Charles—to check periodically?

Charles Pickles: I will give you a very brief example. In 2002 all our non-domestic buildings were surveyed or a programme of surveying was started. What we now do is periodic reinspections. That is, a trained individual visiting the premises and making a visual risk assessment. We look at the condition of the buildings and see if has been damaged.

I think the point here is that we do not breathe in the materials. We breathe in the fibres. It is actually the fibres that are the problem. The Netherlands and France measure the fibres with a very sensitive air test—to be assured of the ongoing safety of these asbestos-containing buildings—to a limited sensitivity of two or three more orders of

magnitude than we do here in the UK. No system is perfect but their system assures ongoing safety to a much higher level, which is a massive improvement.

Q12 **Sir Desmond Swayne:** This question has effectively just been answered by Charles in response to a question put by Chris. I will put it to the rest of you. Moving away from a purely risk-based approach we tie in the agenda of dealing with asbestos as part of a great endeavour to upgrade our buildings for the purpose of the green agenda and cutting the buildings' emissions. That is the opportunity. Should we be grasping that opportunity or is there a danger that you lose sight of the objective? As the Masai say, you cannot chase two antelope. Let us start with Thomas.

Professor Kuhlbusch: If I understand correctly, with retrofitting and adjusting to climate change, the building construction and what is done along that line, the point is that whenever asbestos is handled it should be removed. There have to be reasons given why it should stay in place. From my point of view, when you do retrofit the question is not whether to leave it in place or not. When it is handled, touched, when you are working with it, you should remove it as much as possible and in accord with the risk assessment that was mentioned before.

That means that, as we do in Germany, if there is some glue or tile adhesive with asbestos, there would be a very long discussion about how to handle this. Do you have to remove the old tiles from the wall and do you have to remove everything, or is it allowed to drill a hole for some handle or whatever into it with specific measurements?

In the case of retrofitting, we say that to remove the whole wall and to remove all the asbestos that is behind the tiles is a much higher risk and it is not for the purpose of reducing any risk, so we leave it in place but we give specific risk measurements about how this hole can be drilled into the wall.

It is not an easy question. It can be substituted. It can be removed. It has to be removed if it is in an open place, but if it is within a retrofitted area where you have to adjust for safety purposes and it is minimal handling of asbestos that cannot be released otherwise, it has to be recorded and reported but a certain way of handling asbestos is allowed. I cannot give a clear black and white answer on removal or handling or not.

Q13 **Sir Desmond Swayne:** Alex, do you have anything to add to that?

Professor Burdorf: No, I think we have a similar strategy in the Netherlands. However, it is important to understand that also in the Netherlands we have a risk-based approach but our occupational exposure limit, which determines whether you should take it out or not, is very low. It is 2,000 f/m^3. If I am correct, that is a 50-fold difference with the UK occupational exposure limit. Our risk-based approach is based on a very low risk. If there is any possibility that that risk will be exceeded

then the advice is removal; with renovation and retrofitting you remove the asbestos. That is the general rule, as in Germany.

Nicolas Bessot: The retrofitting of buildings is an opportunity but there is also a danger. That is why we strengthened our regulations on asbestos detection in 2017. Every company and enterprise that has to do work that could release some fibres must first be checked out by a licensed contractor to see if there is some asbestos fibre in the material. Then they can do the work on the recommendation of the company. It is a new regulation. In 2007 we got authorities on those topics and then it came into force in 2020, so it is quite new and we strengthened the regulation on detection before.

Q14 **Nigel Mills:** It strikes me that one of the issues we have in the UK is that nobody knows exactly what asbestos is in what non-domestic buildings. Is there any advantage to having a full register of exactly what asbestos is where so everybody can see and check it? Does the panel have any experience of that in their countries? Alex, in your earlier evidence I think you mentioned a clever app that people could use. Is a national register something that you have in the Netherlands?

Professor Burdorf: Quite interestingly, for schools we have a national inventory of asbestos that was conducted by the Government and school boards and so on. They have published a map so you can go to your city, you can go to the primary or secondary school building, you can click on the building and you get information on the asbestos management of that particular school.

However, there is not such a publicly available register for other buildings. That is because other buildings are under the legislation of the health and safety law, and that is managed by the employer and the owner of the building. For schools we have a public register that anyone can access with public information about the management of asbestos.

Q15 **Nigel Mills:** Thomas, do you have a public register in Germany or would you like one?

Professor Kuhlbusch: No, we do not have a public register in Germany. There was quite a debate on a registry within the asbestos dialogue with all stakeholders and certainly points were made for increased transparency, to allow everybody to see what is happening, including tenants and rental people, so that who are renting a house or some living area can be kept informed. As I said, there was quite a debate on the pros and cons, who would finance it, how we could keep it up-to-date and what was the real asset and winning part of it in the end.

The debate is still ongoing and quite diverse. You will find people saying it is important for public buildings, for example, and others who say it does not make any sense and that we will always run behind with updating the information.

Nicolas Bessot: We have no general database on asbestos. We are working on an asbestos removal plan, which will be available in 2022, and we are thinking about a general database which could have all the records of the licensed contractor who is doing the assessment of the building, but the decision is not made because the number of buildings are really important—as it is in the UK—and the cost of this database will be enormous. It will be tricky. The only assured database that we have is the one with the removal plan. There was a second one with the records of the licensed contractor but it has not been finalised yet.

Q16 **Nigel Mills:** Charles, probably not much evidence that this is taking place in these other three countries. Do you think it is something that we need in the UK?

Charles Pickles: Yes. Do not forget we have more asbestos in situ, more brown asbestos, and the highest number of deaths. We also have the weakest tools. Databases are really one of the fundamental tools. It is the HSE's job to enforce. It is not their job to maintain a database, but the database would greatly enable that enforcement effort. Asbestos is in public buildings. It is the UK's number one occupational killer. It is a public hazard and it is in the public interest. A database greatly enables accountability.

Do not forget, we have done the hard bit now. We have done all the surveying and these records are already in databases. I would estimate that the top 10 asbestos databases contain 80% or thereabouts of the UK's records, so it would be a question of getting these 10 databases to talk to one another. The hard bit is done. The technology has moved on massively since 2002. With databases you can walk up to the door of a property and zap the QR code, then you have an exact picture of where the asbestos is within that building. This is a very doable project. We have first-hand experience of this because we used to have access to a database. You cannot manage large portfolios of property without a central database.

Anybody having a paper survey under the caretaker's desk is totally untransparent and it is a major flaw in the existing regime. In terms of value for the public purse, a database would be a very good investment.

Can you imagine managing Covid if everybody kept their status personal and we did not have QR codes? The technology is there now and so we can do it. It is a very doable project.

Q17 **Nigel Mills:** Just a couple more questions, Charles. Like the Netherlands, do you think we should at least start with schools? CLASP schools were quite prevalent in my constituency, so I can absolutely see the risk. If we cannot do a full register would one of all schools at least be a good place to start?

Charles Pickles: Yes. I think schools would be a good place to start. At the moment in the UK asbestos is kind of a secret. It is a furtive area of

secrecy, and because of that there is not much movement in policy. We know it is a risk; there would be greater accountability. The experience from the Netherlands is that if people know that if the number one occupational killer in their buildings is being properly addressed they are much more at ease. We discussed this at a European conference a couple of years ago. Yes, I do believe databases do help. They shine the light upon the problem and with that we can drive policy forward. If there is no visibility there is no driver for policy.

Q18 **Nigel Mills:** Finally from me, Charles, you said you did not think it was HSE's job to run a database but, presumably, somebody has to run it and somebody has to find people who do not make returns or update their information or put the information on there in the first place. Who do you think would be the appropriate authority to effectively build, control and enforce the database?

Charles Pickles: Somebody competent in database management. Do not forget now we have the BIM, the Building Information Modelling program for UK public buildings, which is up and running. It would be very easy to within these building information models have asbestos as a segment or a layer there. I have direct experience of this; it can be done. The framework is there with BIM. It would be another layer.

Q19 **Steve McCabe:** Good morning. Charles, we have these complicated different exposure limits in Britain around volumes of fibres per cubic centimetre of air. Can you explain to the Committee in very simple terms what exactly these exposure limits mean?

Charles Pickles: I would love to elucidate this whole area. I will keep this as simple as I can. The clearance indicator is set at 0.1 f/ml, which sounds nice and small, it is 10,000 f/ml[3], so every breath you breathe in, that is six or seven fibres. The clearance indicator is described by the HSE as not being a permanent acceptable environmental level. It is a dangerous level. It is two orders of magnitude above the level known to raise the risk of mesothelioma. It is 20 times greater than the level of asbestos fibres known to be in schools.

I feel strongly about this one, because I used to hand out what we called "reassurance air test certificates" to factory owners and office managers and school headteachers, entitled "reassurance", knowing full well that the limit of sensibility is not at a safe level—it is set at a dangerous level and ought to offer no reassurance whatsoever. It is clearly dangerous and misleading.

Others have now moved on and have an environmental level, which because we are managing asbestos in situ we need to know what our fibre levels are in the buildings at all times and it is set at a very much more sensitive level. Our level, the clearance indicator, is acknowledged not to be a safe level. In order to know that our buildings are safe, in order to manage asbestos in situ to a much more enhanced level what we need is an environmental level, so that is my argument there.

Q20 **Steve McCabe:** As I understand it, Airtight on Asbestos has said that we need tighter regulation and better monitoring, particularly of asbestos fibres in the air. I think it suggested that we might look at what happens in France, for example, but the British Occupational Hygiene Society says that would be very costly and time-consuming for business, and the Health and Safety Executive says that it has no evidence of benefits attached to the French approach and, in fact, asbestos fibres that are disturbed as a result of physical damage settle down quite quickly—within about an hour— and so it makes airborne monitoring a bit pointless. What is your response to that?

Charles Pickles: The approach in the UK is to keep fibres as low as is practicable. Whether the fibre levels are as low as practicable is irrelevant. The test is: are our buildings safe? There is clear theoretical and practical evidence that the levels in schools, for example, and other public buildings are not safe. We need to accept that, in certain situations, management in situ is just not a strong enough regime and accept that and embrace a pragmatic policy of phased removal. We need to move on and accept that management in situ is not keeping us safe.

Q21 **Steve McCabe:** Nicolas, this is a fairly strong statement from the HSE that it is not really sure about the value of the French approach in terms of airborne monitoring. What is your response to that?

Nicolas Bessot: It is not exactly my response, but the French agency, the French health and safety agency, has done some work on that topic and there are many things on this topic. That is why we have made this regulation, which is an occupational limit and an environmental limit. One important point is to look at the technology that is involved in the measurement. For us, it is very important to do the measurement with transmission electron microscopy, which is much more precise than the other technology.

Depending on the reading of the French national agency, we think that the air measurement is important because, of course, the asbestos fibres cannot be seen. If you do not measure the presence of asbestos in the air, you cannot be sure and you cannot evaluate and assess the amount of asbestos fibre in the air. The measurement is a key part of the war against asbestos. You have to do it if you want to be sure of what you are doing, whether it is in terms of occupational limits or environmental limits. There is no other way to know the exposure level.

Q22 **Steve McCabe:** Finally, the Trades Union Congress in this country has said that the answer is to take asbestos out, because it believes there is no such thing as safe asbestos or, indeed, safe levels of exposure. I think this is probably to everyone. Are the Trades Union Congress right?

Charles Pickles: Yes, it is right. We have three main tools for managing asbestos. We have measurement, management and policy. Many other countries have now accepted the efficiencies of management in situ and progressed all three main tools, the measurement, management and the

policy. On the measurement, they have gone down the route of an environmental air test at a much greater limit sensitivity. On the management, they have adopted databases to enable us to scrutinise and manage highly disjointed data sets, embracing new technology, and on the policy they have accepted there is exposure from asbestos in situ and that our citizens are at risk and they have moved on to a strategic national asbestos plan embracing phased removal.

Do not forget that the UK is unique in the amount of asbestos we have in situ and the current deaths, and the amount of high-risk asbestos we have in situ. Clearly, we are behind. In all three areas we are behind and it is time we caught up. Do not forget, for every year that we delay here another 200 to 300 schoolchildren will go on and contract mesothelioma and die earlier than they should. There is a way forward—prioritisation enables pragmatic progression—and the more you prioritise the more doable the project becomes, because the scale comes down and the costs come down and the timescale comes down. Prioritisation is key here.

Q23 **Steve McCabe:** Thomas, I think you have a view?

Professor Kuhlbusch: Certainly, it is correct that asbestos is not a threshold carcinogen, which means there is not something like a safe level possible if you define "safe" as zero risk. That is the point I would like to raise here. What do you define as a safe level? This is something we in the community always must define. What we think is a safe level, is a level we can accept within a community. Otherwise, from the worker's side—and if you drive a car, and everything like that—you will know the type of discussion, there is a certain risk attached to what we do. The question here is: what is the safe level?

You were asking about limit values and exposure values. I fully agree that the exposure, what we can measure, is the part that we can uptake by breathing, which leads to a dose in the body and that is a risk that you may get cancer. The question here is: what level of concentration do you accept?

Adding to what Nicolas was saying, for workers the limit value concentration being calculated is attached with a risk for a lifetime of 40 years, working for eight hours a day. It is a limited amount of time for working and so on, from which you then calculate the risk and where you then have the discussion on a risk of 4:100,000 or 4:10,000, depending on which level of fibre concentration you allow per cubic centimetre.

For the public, you may use a different way of calculating the risk. I think this is where you get different values for workplace and environmental cases, because you associate different times spent in the different areas. The exposure way of looking at it is good but, when we talk about safe levels, we should define what we understand as a safe level because we will never reach a zero risk.

Q24 **Steve McCabe:** Alex, going back to the Trades Union Congress, it says

there is no such thing as a safe level and just to take it out. What is your view of that?

Professor Burdorf: In the Netherlands, overall, we have a very stringent occupational and environmental exposure limit based on the societal decision that we do not want to accept the risk. With regard to in situ, the general agreement is that in any public building you will change something that is in the building probably every five or 10 years, because you have new glass fibres for your computer, things like that. Therefore, the idea here is that if you do any renovation or retrofitting you take it out. If there is any risk associated with the material you take it out.

To give an example, my faculty of medicine is an old building, which was built in the 1960s. It used to be full of asbestos. There are now only four or five places where there is still asbestos. They are going to renovate the building and they have made the decision to remove all asbestos, because we can never be sure that no one is entering the particular spaces where there is asbestos as we are continuously doing stuff in the building. That is the kind of overall policy. There is a strong support to remove it but it is not that we have a law that we should remove it.

Q25 **Steve McCabe:** Nicolas, do you have anything you want to add?

Nicolas Bessot: Just one thing. I would like to say that you have to prioritise the removal of asbestos, of course. What we said in France is that we have a general plan that says we have 40 years in which to remove asbestos from every building. Of course, it all cannot be done in one day and you have to prioritise. That is why we have a management plan in France. We hope that we will be free from asbestos in about 40 years because we have written a national safety at work plan. Of course, the unions are part of this plan.

Q26 **Dr Ben Spencer:** My questions are building on from the ones we have just had around exposure limits. My understanding is that there is a debate in the European Union around exposure limits. Could you flesh out a bit what that debate looks like at the moment, in terms of the differences between EU countries and exposure limits? How is that being measured when your domestic policies are being applied in terms of non-workplace and home places? What are the knock-on effects of that, in terms of the infrastructure that you have had to put in to do the testing and ensure compliance? You have whatever levels you deem are safe or perhaps unsafe but still, nevertheless, what you have set as your levels. What are the knock-on effects, in terms of the infrastructure and testing that you have rolled out to ensure that people meet those expectations? Who wants to go first? I am going to have to volunteer somebody, I am sorry. Professor Burdorf? Nicolas, you have volunteered.

Nicolas Bessot: Yes. We lowered our national exposure limit from 0.1 f/cm^3 to 0.01 f/cm^3 in 2015. As I said, this limit has to be measured with transmission electron microscopy, which for us is important. Like you said, there is currently discussion at a European level about the European

OEL on asbestos. Of course, we think that the French limit is a good one because it is quite a low level and there are some measures with good micrology technology and the two aspects are very important. The level of the limit is not the only issue. You need to know how to measure the limits. The European Commission is working on this and we are currently discussing lowering the European level.

Professor Burdorf: I think in the Netherlands we have a large similarity to France, although the number is five times lower. It is still acceptable to use the old phase contrast microscopy. If you use the technique that my colleague from France is mentioning, effectively, the figure would be five-fold higher, so I think we are completely in line with what the French have adopted, which we have also adopted.

Q27 **Dr Ben Spencer:** Just on that, so it is not just necessarily the levels of detection. It is also the ability of the detector and the degree of variability in terms of how it is picking up on the things so you cannot just look at flat fibres per environment rate. Thank you. That is very helpful.

Professor Kuhlbusch: Just adding to that, in Germany we have the same acceptance level, which is 0.01 f/cm^3, as was mentioned by Nicolas for France. We are currently negotiating and discussing on a national level to reduce it to 0.001 f/cm^3, which is also a level being discussed on the European side in general.

With regard to the measurement technology, both darkfield contrast microscopy, as well as scanning electron microscopy and transmission electron microscopy is used and they are possible measurement methods allowed within our standards to be used for the detection.

There is one point that we have not yet discussed. It is the detection of fibres along with a lot of other dust material. Whenever you are going to detect fibres, it is preferable if there is not a lot of other material along with it. If you are in construction with a lot of dust around and you are at dust levels that are the limit values, it hinders to a certain degree to come down to a level of 0.001 fibres along with other dust. If it is in a background measurement that is possible, so in some cases you have to look at the possibilities and the limits of detection depending on where and how you are measuring.

Q28 **Dr Ben Spencer:** Thank you. You have prompted my next question. What are the detection limits? Let's say, in ideal conditions what are the detection limits of the three different measures that you are using: phase contrast microscopy, transmission electron microscopy, and scanning electron microscopy? The measures that you mentioned, 0.1 per cubic centimetre, are they quite close to the limits of detection by these technologies or are they a big way off?

Professor Kuhlbusch: The limit of detection is not only limited by the measurement methods if it is darkfield or electron microscopy, but as explained before it is also on the sampling itself. The sampling is very

important. If I only have fibres I can go down very, very low. If I have a lot of other materials, I may have difficulty to come as low as 0.001 f/cm^3.

There are standards on the European side and ISO, as well as the German standards available. You will see that the limits of detection under ideal circumstances are well below the 0.001 f/cm^3. In real life, it is sometimes at the edge that this is really at the limit of detection because of other materials being there.

The second part of it that we also have to consider is that fibres detection is also limited differently for a darkfield contrast and the electron microscopy. Electron microscopy can go down as 100 nanometres or even smaller in diameters of the fibres if they are longer than 5 micrometres, which is less detectible within the darkfield. The fibre diameters are slightly different in the detection range for the electron microscopy compared to the darkfield.

Q29 **Dr Ben Spencer:** In terms of all these methods that you are using, how much infrastructure is required to provide this in your country? Is it the case that these microscopes are two-a-penny in different research organisations or are there only one or two centres that can do it nationally? What does the infrastructure look like in terms of setting up a testing programme like this?

Professor Kuhlbusch: Darkfield microscopy is cheaper, faster, and has a lower demand on resources. Electron microscopy is certainly more expensive and has a higher demand of resources. In general, electron microscopy is quite widely available all over Europe as is darkfield.

Chair: That concludes the questions we wanted to put to you all. Thank you very much, indeed, for joining us today. We are very grateful to you for being willing to give us your time and answering our questions so fully.

Examination of witnesses

Witnesses: Liz Darlison, Gill Reed, Joanne Gordon and Tony Hood.

Q30 **Chair:** I welcome now our second panel joining us online. If I may ask, as I did with the first panel, for each of you to very briefly tell us who you are, starting with Liz Darlison?

Liz Darlison: Morning, everybody. My name is Liz Darlison. I am the chief executive of Mesothelioma UK but I am also a consultant nurse working in the NHS exclusively in mesothelioma.

Gill Reed: Good morning, everyone. My name is Gill Reed. I am technical adviser to the Joint Union Asbestos Committee and a former union health and safety adviser. Currently, I have a special interest in CLASP schools because a former pupil at one of my schools did develop mesothelioma

and I had to become aware of the particular problems from asbestos in those schools.

Joanne Gordon: Hello. I am Joanne Gordon. I am the co-ordinator for the Derbyshire Asbestos Support Team that has been running for nearly 20 years, and more recently the chair of the Asbestos Victims Support Groups Forum and we support people who have diagnosed with asbestos-related diseases.

Tony Hood: Good morning. I am Tony Hood. I am a partner at Thompsons Solicitors. I have a role as the national head of Asbestos Strategy but perhaps more importantly for the purpose of this inquiry, I have had the privilege of representing victims of asbestos-related disease for the last 20 years.

Q31 **Chair:** Thank you all very much for being with us. Can I ask each of you to give us a brief assessment of what you see as the risks posed by asbestos in the workplace today?

Liz Darlison: What I would say is that, given the widespread use of asbestos in the UK, I think it is acceptable to accept that no workplace that was built or maintained before we banned asbestos is spared the risk of exposing employees to asbestos. It is not just a case of better management; that is just one part of the puzzle. As an example, we believe 94% of hospitals still contain asbestos.

Now I said I am an NHS nurse. I have worked for 38 years in the NHS and I hope you can see this. You are not meant to read it. This is a copy of my mandatory and statutory training record that I printed off yesterday. I have to complete 27 statutory and mandatory training modules in order to practice in the NHS. The red ones are the ones that I need to do. The others are all green, all done and up-to-date. Not one of them mentions the dangers of asbestos. Not one of them mentions that each of the hospitals I work in contain asbestos, and not one of them mentions asbestos-related disease.

I have never been told about the presence of asbestos or that the offices I have worked in contain asbestos. A senior HR manager that I work with, who did not know what my area of clinical expertise was, recently said to me she was glad to be moving site because it was easier to park on the new hospital site, and also she said, "My old office had stickers around the room saying 'danger asbestos'" and she said to me, "But I guess it must be the safe asbestos because they would not let me work in a room that had asbestos in it, surely". That begs the question, if we have senior NHS managers thinking that there is a safe asbestos, we have to do something to educate everybody, particularly people working in our public buildings.

I have a pretty unique career. I have worked exclusively with mesothelioma for almost 20 years now. Sadly, I have looked after hundreds of people but what is even more devastating is I have looked

after my colleagues—doctors, nurses, ancillary workers—from the hospitals that I have practiced in. What I would say is there is a sinister risk of exposure to asbestos that is grossly underestimated in our country.

Q32 **Chair:** Gill Reed, what is your assessment of the risks in schools?

Gill Reed: This is my particular interest. The Joint Union Asbestos Committee has just published a report of the results of our findings about the risks. As Liz says about other workplaces, schools are presumed to have safe asbestos and so I have been looking at this issue. The current mesothelioma statistics, however, only provide a measure of the occupations most at risk that were exposed about 30 to 50 years ago because of the long agency.

The risk assessments in schools are designed to help duty holders prioritise what asbestos should be removed, but they have no measure of the risk of staff or pupils developing mesothelioma in the future. The investigation that we have recently published has used the very limited and available data to estimate the risk for staff and pupils in system-built schools that are known to have substantial asbestos throughout, including integrated into the structure.

I should say at this point that the risk of asbestos cannot be judged by one asbestos measurement. The risk of asbestos is due to the accumulation of asbestos fibres in your body over time, so the longer you are exposed the more likely you are to have a higher risk. A measure has been developed for this. More recently, the HSE had developed a retrospective risk analysis that measures cumulative exposure. I applied this to staff levels from the HSL research. It has a whole list of data about exposure levels in CLASP schools. I used that data to find out the risk of the staff in CLASP schools developing mesothelioma.

I found that for the staff the risks varied from medium to high and, basically, the schools with the medium risk were those that had remediation done to stop asbestos passing into the classrooms. However, even those had a medium risk, and that level was also 10 times higher than that found in schools with asbestos in a good condition. According to the courts in 2009, occupants with buildings with that sort of level would have an alleviated risk of developing mesothelioma in future. Therefore, even CLASP schools that have all been remediated are unsafe.

The frightening thing is that un-remediated schools had a very high risk of exposure. Our investigation of asbestos management in 60 CLASP schools found that two-thirds of them did not provide evidence of having complied with the remediation tasks. That is a really big risk.

I would also like to say that occupational histories and asbestos lung burns of mesothelioma victims have suggested that a minority of the general population may have unusually high environmental exposure to asbestos in buildings like schools, and more work is currently planned to

identify buildings where exposure is occurring. That is where this research came in and I hope that is of help.

Joanne Gordon: What we do know is that any building built before 2000 may contain asbestos. As forum groups, we have helped different people from all sorts of organisations. We have helped teachers, nurses, office staff, people who have lower-level exposure to asbestos. The risk is still for any occupation because, as people have said, there is so much asbestos in our public buildings.

I will give you an example of somebody who rang me a couple of years ago. It was somebody who worked for a cleaning contract company and they had been informed that they had been exposed to asbestos. They had gone into the company and asbestos had been damaged by builders or contractors, whoever, in that company. They had tried to clear it up but it had not been cleared up properly, so when the cleaning contractors came in they cleaned up the rest of that asbestos. They then had to empty the hoovers. This is just one example. This is happening all the time: people are damaging the asbestos that is still in situ.

I think it would be remiss of me not to mention social housing as well. I know this is about non-domestic buildings, but I think social housing needs mentioning. The fact is that this is fresh in my mind because only on Monday did a woman phone up who had builders into her rented accommodation. They said that they did not know if there was any asbestos but they were going to do the job anyway. After the builders had gone in, they themselves tested the dust and they found that it was asbestos. Those builders probably do not even know. That was their workplace for a duration of time. They have been exposed to asbestos and do not know about it. The risk is still there; it is still happening and the policy of leaving it in situ is just not enough.

Tony Hood: I think I would start by saying that asbestos is still as dangerous now as it was more than 100 years ago when it was first established that it could lead to premature death. What we have seen—as confirmed by other people today—is that the use of asbestos has declined with the import ban in 1984 and then the banning of asbestos in 1999. What we are still seeing is the legacy of the widespread use of asbestos prior to that time. The decades of use means that it is present in many of our buildings. As a result of that, it is not only a problem now but the fact is that people are not necessarily aware of the fact they may be liable to be exposed to asbestos, or to expose other people to asbestos.

We have seen from some of the written evidence submitted to this inquiry that, in particular, women and younger men are less aware of the dangers of asbestos. By implication, they are far less likely to recognise asbestos materials when they come across them or even suspect material to contain asbestos. Not only does that present a real and serious risk but it increases the risk of asbestos being disturbed and continues to present a future danger.

Chair: Thank you all very much.

Q33 **Steve McCabe:** Good morning. I want to start with Joanne on this. Could you tell me, Joanne, have you seen a significant change over time in the type of people and occupations that are affected by asbestos-related illnesses?

Joanne Gordon: Yes, most definitely. DAST set up in 2002. When we first established, the people that were ringing were generally those that had had direct contact with asbestos but over time this has changed. We see more people with low-level exposure to asbestos. We see changing occupations, as we have mentioned. We are seeing more women diagnosed with mesothelioma. From our own statistics in the last two years, we have supported 50 women diagnosed with mesothelioma. The greater Manchester support group also has a similar figure of 44 women diagnosed with mesothelioma over the last two years, so we are definitely seeing a change.

Sadly, we are also seeing a change in the ages of people diagnosed with mesothelioma. The Manchester group gave me an example of a 27 year-old man who was diagnosed with mesothelioma. He started work years after the ban on asbestos, so his exposure would have either been from school or more recently. We are definitely seeing a change in the people that have been exposed to asbestos since we began in 2002.

Q34 **Steve McCabe:** Thank you. Tony, from your perspective, are you noticing a significant change?

Tony Hood: Yes. I would certainly echo the comments that Joanne made. I think the point that is worth making is that the latent period between when someone is exposed to asbestos and when they first present with symptoms or are subsequently diagnosed with an asbestos-related condition, means it is not possible to scientifically establish the changing nature of occupations in the people affected. What we are probably starting to see now is, as Joanne said, younger people and more women diagnosed with mesothelioma, which is just the start of the legacy of what has happened over the past 20 or 30 years.

The difficulty in terms of calculating those numbers is, from our point of view, we are still being contacted right now by people who have been exposed to asbestos in the traditional heavy industry in the 1960s and the 1970s. We are also being contacted by people who have been exposed in less traditional settings, so there has definitely been a change, particularly, over my 20 years of representing asbestos victims. I have seen an increasing number of people who were exposed in what we would have described as being non-traditional circumstances.

I think the big characteristic of that exposure is that it is often more indirect, in that they were not required to work with asbestos but were either present while that was being disturbed or, in many cases, they

were not even aware that others were working near them, or working with, or disturbing asbestos.

As outlined in our inquiry response, we maintain asbestos exposure registers with many trade unions and it is clear that people continue to be exposed despite the asbestos ban, despite the asbestos regulations. Certainly, the submissions to the asbestos registers support the contention that there is a changing landscape of exposure moving away from that heavy industry to all areas, including offices, clerical, schools, hospitals—predominately indirect exposure.

Again, that is the legacy of leaving asbestos in situ is that it comes back to haunt those affected. As referenced previously, the indirect exposure can provide a greater risk to those individuals in occupations because they are less likely to be aware of what is asbestos and what the dangers are.

Q35 **Steve McCabe:** Gill, if I can just follow on from that. I recognise that it is difficult sometimes. There are disputes about the data and how to interpret it but, if I have understood it correctly, the latest Health and Safety Executive data seems to indicate a higher-than-average mortality from mesothelioma for teachers and education workers. I think that is data covering the period 2011 to 2019. Is that your view? Are teachers and education workers a group who seem to be particularly at higher risk now and, if that is the case, why do you think that is happening?

Gill Reed: I think the HSE recognises that schools are a particular problem because they have more system-built schools, built in the 1960s and 1970s, with amosite asbestos and the UK has the highest incidence in the world for mesothelioma. It is believed to be due to the high amount of amosite—the brown asbestos—that was used in construction in the 1960s and 1970s.

School buildings at that time had more system buildings built with amosite than anywhere else. It is very significant that, if you look at the occupational statistics, and the teachers from 1980 to 2019, there is a steep rise in the number of teachers from about three between 1980 to 1985 to about 17 between 2011 to 2015. That increase is likely due to exposure to asbestos in their buildings 30 to 50 years earlier.

I think what could be happening with the mortality ratios is that a lot of occupations are starting to level off, like people who work with asbestos. There is a sort of levelling off because the occupations are less used or perhaps the controls are better. For teaching, we have just had a steady rise in mesothelioma deaths each year. I think that is probably what that mortality ratio reflects because mortality ratio for the whole population includes all the occupations that are at the highest risk, as well as the ones of people in buildings that are considered a much lower risk. I think the construction of buildings with asbestos in the 1960s and 1970s was a key factor in this raised mortality ratio now.

Q36 **Steve McCabe:** Liz, what is your experience? Is it teachers who are now developing mesothelioma as a result of exposure some years back as Gill suggests?

Liz Darlison: I would like to draw some parallels between education and healthcare workers, because Mesothelioma UK has funded research into healthcare workers. We have also funded research into our armed forces and we have a study about to launch in education workers that mirrors the methodology.

Mesothelioma UK has over 30 nurses working at the front door of the NHS; all experts and specialists in mesothelioma. That has meant that we have a greater insight into patterns across the country, coupled with the increase in incidents of mesothelioma. Forgive me for giving a couple of facts about Meso—it is avoidable with the highest incidence. Only 40% of people once diagnosed will live beyond a year and we only have one licenced treatment for this disease in the country, so we are absolutely at the sharp end of this disease globally. It is shameful what is happening with Meso.

Just to draw those parallels between education and NHS, I want to show you this photo. This is Mags Portman. Mags died in February 2019. She was 44 years old, a mother of two young sons and an award-winning doctor. She was diagnosed with Meso and was exposed in the NHS. This is Helen Bone. It is difficult to pick her out because she is so young and beautiful. She is 39 and spent 21 years working in the NHS. She was diagnosed in April this year with mesothelioma and is currently receiving chemotherapy. She has been at the sharp end of the Covid pandemic because she is a critical care nurse.

What we have found from our studies of education workers is that the ONS data on mesothelioma deaths by profession greatly underestimates the number of deaths due to asbestos exposure in NHS premises. How do we know? Because of a freedom of information request that was made to NHS Resolution, which covers England only. I have to apologise for that. We asked how many claims had been made against the NHS by former NHS workers who had developed mesothelioma due to—according to their claim—exposure in NHS hospitals. Between 2002 and 2015, the ONS recorded 177 deaths in NHS workers due to mesothelioma. However, in a similar time period, NHS Resolution had 961 claims against it. Just over half were successful. Remember, some of these claims are people who would have attempted a claim but not got through to the point of the claim because there was insufficient evidence and so on.

In addition, many workers will not have been able to make that claim. This is only professional staff as well because ancillary workers were not captured. Why is there a difference? Because we do not capture the occupation at death of people who die over the age of 75 years. As Tony has said, there is a latency period between exposure and developing mesothelioma. You may have been exposed 40 or 50 years ago and now be 76. Your occupation is not even registered. It is also your last

employment that is registered and, as I said, ancillary workers are not covered by ONS data. There will be parallels in education workers which, hopefully, the study we are about to embark on will demonstrate.

Q37 **Steve McCabe:** I have one curious question. I will come to you in a second, Tony. I wanted to ask about this school thing. I accept that it is difficult to prove and to monitor this because of how deaths are recorded with the last workplace. Should we do any kind of monitoring exercise on schoolchildren? Presumably, if they were at school over the same period that these teachers were being exposed, they must have suffered some risk as well. Is any work being undertaken to look at how many people might have been exposed during their school years?

Liz Darlison: We have to accept, as we heard in the previous session, asbestos is everywhere. We have to accept, if you live in the UK, you will have been exposed to asbestos and there is no safe level, so nobody is spared the risk. From a clinical perspective, no monitoring is available for asbestos-related disease that is evidence-based or adequate, unfortunately. We have national campaigns for lung health that cover all manner of lung-related diseases and we tend to place our energies there because many of the symptoms of asbestos-related diseases mirror symptoms of other lung conditions.

No, we should not do that. We should minimise the risk and listen to the experts and what we have learned from other countries, as we heard in the first session. We have to do something for the next generation. We heard from the gentleman in France that they have a 40-year plan. We have, as Charles said as well, an opportunity here. On our heads be it if we do not do the right thing today because, for every generation to come, for our children, for your children and for their children, we have to do something to change the current status quo.

I have shown you. People are dying through very low levels of exposure. It is like two Titanics going down every year, with 5,000 people dying every year due to avoidable exposure to a carcinogen. There would be a public outcry if 5,000 people died tomorrow due to a toxic substance causing ill health, but it is a slow trickle, a few cases every day, thought to be elderly men who worked in industry with other health problems. That is not the case. We have children with mesothelioma in this country. That is a scandal. There is no other known cause. We have to have a taskforce that addresses the whole issue. It is not just about HSE regulations.

Q38 **Steve McCabe:** If we have children with it, where are they contracting this or developing this from? Is it from their housing conditions or their schools? What is happening?

Liz Darlison: Asbestos is the only known cause. Who can say? They may be in social housing. Joanne brought up the issue of social housing. We had a call to our information line at the charity this week from a lady who

had asbestos dust left on her six year-old son's bed by people who went into her house to do renovation work.

It is ubiquitous in our country because we have done nothing to change the status quo. People like me who spend their working days caring for people with mesothelioma are exhausted. Like I said, if 5,000 people died tomorrow because we released a substance that killed them, there would be a public outcry for centuries.

Steve McCabe: Thanks for that. Tony, you wanted to add something when I was asking about the claims and the—

Chair: Steve, sorry, can I just cut across you, if I may? Can I just bring in Debbie's questions as time is getting on and then perhaps, Tony, if you can pick up the point you wanted to make when you come in on that? Thank you, Steve. Debbie Abrahams.

Q39 **Debbie Abrahams:** Thank you and good morning, everyone. My questions relate to the 2012 Control of Asbestos Regulations. Following on from Steve's questions, I wondered if you could tell us what you think are the strengths and weakness of those particular regulations. I was struck by what both Joanne and Gill said in terms of what is happening in schools and hospitals. Is it, for example, on the risk register of any of these organisations? Let us start with Liz—I hope you can hear me okay—first of all about the Control of Asbestos Regulations 2012. What do you think are the strengths and weaknesses?

Liz Darlison: We have heard from other countries today that have less of a problem with asbestos-related diseases. Charles Pickles and the ResPublica campaign have opened our eyes to what is going on in other countries. The weakness that we have in this country is that we have not taken on board technical breakthroughs and breakthroughs in science that give us the opportunity to manage asbestos and rid us of asbestos more efficiently. Until we do something about that, we will continue to have people die unnecessarily.

Q40 **Debbie Abrahams:** Who wants to follow up on that? Sorry, I cannot see very well who is indicating.

Gill Reed: There are strengths in the Control of Asbestos Regulations in that in their broad framework they ensure duty-holders and occupants of buildings, if they comply with them, are aware of the location of asbestos and the risk from asbestos in the various areas. They enable duty-holders to prioritise the removal encapsulated by unsafe asbestos that is likely to be disturbed. Unfortunately, the regulations do not measure the risk of developing asbestosis[1] from any asbestos that is in the air, especially in system buildings.

[1] Witness correction: Gill Reed advised the Committee after the hearing that she meant to say: "risk of developing mesothelioma" and not "risk of developing asbestosis"

In 2006, some asbestos contractors found that the level in a school they were doing some repairs at was above a control level of 100,000 f/m^3, so you would breathe in 1 million fibres in a day. They found that asbestos was coming from within the structure into the school, the classrooms and the corridors. They found that it was coming from within columns and ceiling voids. They required the sealing of columns and replacement of damaged and missing ceiling tiles and reduced the level down manyfold. The HSE then wrote to all duty-holders telling them to do the same to all their buildings at the same time, which were system buildings with asbestos-clad columns,

Q41 **Debbie Abrahams:** Sorry for interrupting. Are you saying that they reacted to an exposure rather than as part of their ongoing monitoring as duty-holders? They reacted to the particular incident and the HSE responded to that, so it was all reactive. In between times—

Gill Reed: It was proactive, but the problem is that they reduced the level down to 5,000 fibres per cubic metre, which is 10 times higher than asbestos in good condition, so it places the occupants at risk. Although they[2] were proactive and dealt with that, they assumed that 5,000 was a safe level for a school. But it is not and the courts recognise, as I said before, that it is likely to elevate the risk of developing mesothelioma.

The fault with the whole regulations is that they do not provide a measure of what you are exposed to. No one in a system building knows if asbestos is coming out from the skirting boards, the ceilings, the corridors or gaps between panels. It is a big problem. It is only if you are like us and you go to schools, you see deteriorating buildings, gaps where particles can come out everywhere and deteriorating asbestos. We have to measure the risk in buildings, perhaps by measuring airborne asbestos levels. That is a severe limitation of the current regulations.

Debbie Abrahams: Thank you. Gill, I understand you want to come in?

Gill Reed: That was me. I have come in.

Q42 **Debbie Abrahams:** Tony, do you want to add to it?

Tony Hood: I agree with everything that has been said. The biggest concern that has been raised on numerous occasions today is the presumption that asbestos is safe if left alone. That is the biggest concern for all of us.

The one point I wanted to add was that this is not a time-limited issue. The dangers of asbestos will not decline over time, quite the contrary. The older the asbestos materials are, the more likely they are to be damaged or to be disturbed and to present a risk. It is not that if we

[2] Witness correction: Gill Reed clarified to the Committee after the hearing that she was referring to the Health and Safety Executive as being proactive in its approach, once the school's contractor had discovered fibre levels above the control level.

leave it alone, in a number of years this will no longer be a problem. It will be a problem that gets worse for future generations.

Q43 **Debbie Abrahams:** Is compliance an issue, by any chance? Are people doing the monitoring? I absolutely take the point in terms of the guidelines and the level of risk needing to be clearly defined, but as it stands are people complying with the existing regulations?

Tony Hood: The thing with the regulations, as with all regulations, is there will be responsible duty-holders who comply with the regulations and there will be those who do not for a variety of reasons, whether it is a lack of awareness, a lack of understanding or a conscious decision to not follow those regulations. We know that it is abundantly clear from the submissions to the inquiry and also supported by the reporting of incidents of ongoing exposure that we see through the trade union registers that the regulations are not being complied with, it is still a problem and people are still being exposed to asbestos, and it will be a problem for future decades.

Q44 **Debbie Abrahams:** My final question: is asbestos within buildings, hospitals and so on included in your risk registers? That is an indication of whether organisations take this seriously as duty-holders.

Liz Darlison: I cannot answer that with regard to hospitals but I can a little bit about schools because we have already done research, all available on our website. The MAGS study looked at hospitals. The MIMES study looked at our armed forces. We have done the scoping work ready for MEWS, which is a study on mesothelioma in education workers.

We found from looking at the literature that teachers and relatives of pupils repeatedly expressed concerns that pupils have been and are still being exposed to asbestos. This point is backed up by the number of freedom of information requests that are made to look at the level of asbestos in schools. Schools have a level of wear and tear, including vandalism, which is higher than other public buildings. This makes management in situ difficult. Pupils may damage panels covering asbestos, for example, and management plans are reported as being haphazard and inadequate in some situations. That is from the literature.

Also, we have found that the ONS data probably greatly underestimates the number of deaths due to asbestos. We believe this because the same happens in hospitals. We do not record people's occupations if they die over the age of 75.

Secondly, schools are filled with pupils and they will be exposed to asbestos day in and day out. Pupils do not have the same respect for buildings as adults do. We know that children do not. The ONS does not record mesothelioma deaths by exposure as pupils, either.

In addition, there are no official UK estimates of how many pupils will develop mesothelioma for each education worker. A US study estimated that for every one teacher that dies of mesothelioma, there would be nine

pupils. Julian Peto in some evidence to an Education Committee in 2013 estimated that between one in four and one in three female deaths due to mesothelioma was as a result of exposure as a pupil in school.

The evidence is sketchy, but all we can say is that we know that there are parallels between hospitals and schools, a high throughput of people in these buildings, riddled with asbestos, and management of that asbestos is haphazard.

Q45 **Chris Stephens:** Let me first start off by welcoming the panel and to thank them for all the work that they have done because, as someone who lost a trade union colleague through asbestos-related cancer, I know how devastating that can be. I want to thank you all for the work that you are doing.

My question follows Debbie's question. We can have the best regulations in the world but they have to be enforced. Is the Health and Safety Executive's enforcement of the regulations in line with the level of risk? Let me start with you, Tony, because I am looking at the figures that say between 2011 and 2019 the number of enforcement notices under the Control of Asbestos Regulations fell by 60%.

Tony Hood: The most straightforward answer is, no, the enforcement is not in line with the risk. I cannot think of any other area that is covered by the HSE where we know that this will be responsible for 5,000 deaths every year over such a prolonged period. You cannot underestimate the risk and how high up the HSE's list of priorities it should be.

The reason behind that is that too much emphasis has been placed on the incorrect assumption that asbestos is a historic problem. It is clear, despite the asbestos ban and the regulations coming into force, that people continue to die and people continue to be exposed to asbestos. I referenced before the register of the trade union members who are exposed to asbestos and it is clear that they continue to be exposed in all manner of occupations and different workplaces.

I have made this point before as well. Not only is the enforcement of the asbestos regulations not in line currently, but there is a risk that as the asbestos that is in situ continues to deteriorate, it filters out and it becomes a bigger problem. The reality is that without the safe removal of asbestos, the evidence confirms that it will remain at least as much of a risk as it is now and that will be a problem for future generations.

Q46 **Chris Stephens:** Joanne, do you have a similar view to Tony about the lack of enforcement?

Joanne Gordon: I agree with everything that Tony said. Those 5,000 deaths cannot possibly be in line with the level of enforcement. I did have a quick look at the convictions for 2019-20 and we have 19 convictions, total fines of £58,200 and average fine of £3,063. That is not in line with the number of deaths due to asbestos. It is certainly not in line. Yes, I

agree with everything that has been said so far regarding the level of risk.

Q47 **Chris Stephens:** Thanks. Sorry, I will come to you in a second, Gill. Liz, with a 60% drop in enforcement, it seems that more work needs to be done because the commensurate reduction in the risk to the public would not justify that, would it?

Liz Darlison: Everything that we hear brings everything related to asbestos in our country into question and regulation and enforcement is just a part of that. I am not into a blame game at all. I am sure that the HSE has been doing everything in its power to keep people safe in this country. However, I am sure there is a complex reason why we continue to see unnecessary exposure to asbestos.

As I have said before, it is multifaceted. We need a national taskforce that includes experts from across the whole mesothelioma/asbestos community to have a long-term plan, as other countries like France have said to us today, and a 40-year vision for ridding our country of this carcinogen that is ubiquitous throughout the fabric of all our buildings. Regulation is part of that. The HSE will be central to that, of course it will. It has the expertise and the nuts and bolts to deliver this. However, it is much broader than that and we need a taskforce with representatives from across the whole community.

Q48 **Chris Stephens:** Thanks. Gill, I know you want to come in.

Gill Reed: I want to discuss the issue of HSE funding and lack of enforcement. The Young report in 2010 regarded schools—and probably hospitals as well—as low-risk buildings. The HSE has had a tremendous 50% real-term cut in funding since 2010 and it has reformed its health and safety culture. Basically, it has a new policy and is probably driven by a shrinking budget, but the effect has been that Young has made a decision that buildings like schools and hospitals have a low risk with no evidence to support it. We have all talked about the risk in these buildings today. We know it is real.

It seems that the HSE will only enforce in occupations that it thinks are high-risk. What it calls high-risk occupations are things like construction, where people work with asbestos and produce a lot of asbestos in a short period of time. However, we are talking about, in hospitals and schools, a long-term exposure to asbestos—often at lower levels but still not safe levels—and in the end by cumulative exposure, the person working in the short-term with high levels could have the same cumulative exposure as a teacher or a hospital worker working with lower levels for longer periods. We have to challenge this mantra.

We also need to demand adequate funding to ensure that the HSE can fulfil its role. To be quite honest, the HSE in 2008 said that asbestos management in system-built schools with substantial asbestos was a top priority because of the high proportion of children, the amount of

asbestos, the state of the buildings. Then for two years the Young report said low risk and we had a reduction in school inspections—and I am sure you had a reduction in hospital inspections—and a lack of enforcement. Fundamentally, we have to challenge this issue of funding.

We also have to make sure that the HSE is able to recruit and pay for asbestos experts because, currently, it is losing its experts and is having more generalists. We need to make sure that the HSE is equipped to deal with the asbestos problem and deal with the Government to ensure that the Government are aware of the real risks and hopefully make a good job on that today.

Chris Stephens: Thanks, Gill. That was powerful evidence. I have one quick question to Tony.

Chair: Quickly, if you would, Chris.

Q49 **Chris Stephens:** Yes, I am conscious of time. Tony, if at all, how is the HSE's fee for intervention model influencing HSE's programme and is it appropriate as a model?

Tony Hood: I do not know. That is the honest answer. All I can point to is the evidence that we have seen with the number of investigations dropping against a background of budget cuts. I do not know whether that is linked into the fee for intervention model. That was introduced, presumably, in response to those austerity cuts in 2010, but I would not be able to say what impact that has had.

Q50 **Nigel Mills:** The question I put to the first panel was around the problem that probably nobody knows exactly what asbestos is in exactly what buildings. Does the panel think that a national register of the buildings that contain asbestos and where would be a useful addition or do you think it would be an expensive waste of time?

Liz Darlison: It is an essential part of a much wider programme of activity that we need to address the tragic asbestos legacy in our country. We have to assume that every building contains asbestos, unless it was built after 2000, of course.

For every building built before then, there should be an asbestos register that is accessible before anybody enters the building. I am thinking of white-van workers and tradesmen using—as Charles Pickles said in the first session—mobile phones to zap a unique identifying code straight through to the asbestos register for that building so that, before they enter, they know where the areas of danger are and can either manage them or avoid them and go into that building equipped with the protection they need to complete the work in hand.

We heard Joanne talk about somebody going into social housing knowing, probably, there was asbestos there but carrying out that work. Does a white-van worker going in to do a day's work stop work and lose a day's pay or do they continue, cross their fingers and hope?

We need to have those registers accessible before they go in and unique identifiers. A register is one part of an essential whole programme of work.

Q51 **Nigel Mills:** Do the other three witnesses agree with that? Does anybody have a different view? Joanne, you have your hand up.

Joanne Gordon: It is not a different view at all. As a forum, we have discussed this and we think as well that a register is absolutely vital for all the reasons that Liz has mentioned. Yes, if maintenance workers go into a building and do not know where it is, they are not going to turn away and lose a day's pay. Liz is absolutely right. We discussed that. It would help the HSE prioritise its work. We have talked a lot about asbestos in schools as well, again, transparency and, like we have heard from the other countries, parents knowing where asbestos is in their child's school. I agree. A register is absolutely vital.

Q52 **Chair:** I wonder if in the interests of time I could ask the other witnesses to comment only if they disagree because time is getting on. Gill?

Gill Reed: Just one thing. The data going into the register should be compliant with the asbestos regulations—if you do not have that going in, then it will not be worth the paper it is written on. You need to have information that shows a school is being compliant or a hospital is being compliant with the regulations.

Q53 **Shaun Bailey:** I want to briefly ask some questions around HSE's engagement strategy and its campaigning strategy.

I am curious to understand. We have had some evidence that suggested that the HSE, predominantly speaking, has now ceded a lot of its campaigning capacity elsewhere. We do know, for example, some of the statistics from the Hidden Killer campaign. Of the group that was targeted, 85% reported seeing campaign material and 76% said they would take planned precautions. What do you think the impact will now be of the HSE reportedly stepping back from being proactive in its campaigning?

Also, if I may, Chair, to pick up on the point we have made around enforcement as well, given the criticisms around the lack of proactive enforcement, does it make any future campaigning by the HSE a little bit hollow given that on the one hand we see a lot of these words but it is not followed through by action?

Tony Hood: To answer that question, first, a lot of the questions today are about how effective the HSE is in enforcing the regulations. The real question should be how effective a fully funded HSE would be in enforcing the regulations. There has been universal agreement that the impact of these budget cuts means that the HSE has not been able to fulfil its responsibilities. That is probably a good caveat with regard to this question.

In terms of the campaigning work, I absolutely agree with the comment that you made about the Hidden Killer campaign. There was an almost universally positive reaction to that. It helped to raise awareness within important groups. Then the campaign was discontinued and the HSE appears to have lost its voice.

There are lots of incredible voices within the UK asbestos campaigning from trade unions to the people I am privileged to share the panel with today, JUAC, the asbestos support groups and Mesothelioma UK, but I personally believe that there is a role for the HSE to play, working alongside these organisations to raise awareness and to bring about what we need, which is a change in behaviour and a change in appreciation of risk.

Liz Darlison: I have not had any engagement from the HSE. The Hidden Killer campaign was excellent and focused on the general view that this is a tradesman's disease and it is not. Previous campaigns had great reach. They reached the counters of trade suppliers. Unfortunately, they did not cover doctors, nurses, teachers or admin workers and we hear that nobody is spared the risk. We would love to engage and work with a well-funded HSE as part of a big programme of work.

Joanne Gordon: It was important that the forum and support groups did engage with the Hidden Killer campaign. For any campaigning like that, it was important that we were able to provide—not that it is easy to provide—case studies. The human interest in the actual people who have, sadly, been diagnosed with mesothelioma is important, so any campaigning should involve all interest groups.

Q54 **Shaun Bailey:** One slight criticism perhaps is around the licensing regime for contractors tasked with removing asbestos. A comment was made in some evidence to us that perhaps this has somewhat muzzled criticism of HSE's enforcement and management of asbestos risk. I am curious to get your view on whether you think that is a fair comment to make in terms of the current licensing regime for the removal of asbestos and any critique of HSE or lack of as a result.

Liz Darlison: This is completely outside my area of expertise, so I will pass on that one.

Chair: Tony, can you help on this one?

Tony Hood: I have to say the same as Liz, unfortunately. It is outside my area of expertise.

Q55 **Selaine Saxby:** Good morning, everyone. A lot of the questions that I was going to ask have already been covered, so these are quite specific points coming through afterwards with regards to schools and asbestos removal, probably specifically to Gill but others might want to come in.

The All-Party Parliamentary Group on occupational safety and health, the TUC and others have all called for the phased removal of asbestos from

public buildings, including schools, by 2035. Do you feel that is proportionate to the risk and is practical given the scale of the challenge?

Gill Reed: Yes, it is proportionate to the risk because manifestly, as we have heard today from everyone, we do not seem to be able to control asbestos in situ. Even the World Health Organization is saying that we cannot control asbestos in situ and countries should have a plan to move towards removing asbestos that is still in buildings.

We have to have a big campaign to make sure that that happens here. There should be a review of the current plan to manage asbestos in situ and there should be a review of the methods by which we evaluate the safety of schools. The only way scientifically to measure the risk is to measure cumulative exposure. The Government should consult with the HSE, which developed the retrospective risk analysis method for measuring cumulative exposure, to see if it can be adapted for measuring the risks to children and staff in schools because we have no data on it.

I know the risk for measuring asbestos at very low levels, and I know that pupils in schools are vulnerable if they spend more than five years with a level of 100 f/m^3. That is a fifth of the level in schools with asbestos in a good condition. Asbestos in any school is not safe for pupils if they are there for five years and we need to seriously evaluate the risk, investigate it, set up a procedure for phasing the removal of asbestos from schools and measuring the real risk in each workplace—hospitals, schools or whatever—and replacing or removing asbestos as we can in those buildings as necessary.

I would like to make a point. Up to half of schools are system built and, according to responses to the Health and Safety Executive, 6,000 of those alone in England have a lot of asbestos. We need to seriously look at this. Nottinghamshire County Council investigated system-built schools and found out that it was more cost-effective to demolish them than to remove the asbestos because the asbestos was integrated into the structure. We need to know how many schools have asbestos integrated into their structure that we know that cannot be managed safely and have a plan and a budget to remove those buildings and replace them with other buildings and the same for all buildings in other sectors. Unless we scientifically approach this problem, our children today in schools will still die from mesothelioma.

I would like to make one point. Based on the United States assessment for the risk to children in schools, which says that for every member of staff there would be nine pupils, I estimated that that would mean that nearly 20% of the annual mesothelioma deaths today are due to former pupils in school being exposed to asbestos. That is a lot. A fifth of all the people who die each year were exposed in their former schools in the 1960s and 1970s. We cannot wait for tomorrow to make these decisions. We have to start acting now.

Q56 **Selaine Saxby:** Thank you. I do not know if anyone else had anything to

add. Liz?

Liz Darlison: I have one comment. Absolutely, like in all manner of areas of policy, we have to have a hard deadline. We have to have a target date in mind. We have no choice. We have to address asbestos because it is killing too many people unnecessarily. I cannot help but feel that 2035 is an ambitious deadline given the amount of asbestos that we have in our country. I would hate to see a deadline that creates corner-cutting and a rushed approach. As Charles said in the first session, we need a pragmatic multifaceted approach to this. Absolutely, yes, have a hard deadline for ridding our country of asbestos, but 2035 may be a little bit ambitious.

Q57 **Chair:** I have seen Tony put his hand up, so a final comment?

Tony Hood: Yes. The call for the removal by 2035 was made in 2015, so it probably is that point that Liz said. It is less about the timescale and more about the commitment to doing it. It is clear that it is still a problem. People are still being exposed and people are still dying in numbers that are not acceptable. The problem is not going away. The only way to address it is a commitment to the safe removal and the timeline needs to be achievable for everybody.

Chair: Thank you all very much. Our time is up. Thank you for joining us and for contributing online. Thank you for the thoughtful answers you have given to all our questions. As you will have gathered, we will have further evidence sessions on this subject and will want to make some firm recommendations to the Government in due course. Thank you all very much indeed. That concludes our meeting.