

Written evidence from Airtight on Asbestos (ASB0039)

Supplementary comments from the 'Airtight on Asbestos' Campaign

We have concerns about some of the evidence presented by Professor Peto to the Work and Pensions Committee Inquiry into asbestos (15th December 2021). Professor Peto is a highly respected epidemiologist and leader in his field. Consequently, his testimony carries an authority that might weigh more heavily with the committee and which we believe if left uncontested could potentially mislead.

We acknowledge and accept that the UK is not looking at the same epidemic levels of asbestos related disease across society in the future. The problem is much reduced, due to the earlier work of Professor Peto and others. But the risk is still present, in certain locations. Are we currently looking at safe levels of exposure with deaths below one in a million, in all workplaces and public buildings? Are schools safe? Are we confident future teacher deaths will be less than 1/ 1,000,000? Currently they are more than 40 times this level. Given that asbestos is 'in-situ', are we sure fibre levels now are more than 40 times lower than they were in the 1970's?

The need for sensitive air monitoring in buildings

Professor Peto stated that air measurements will not make a difference to understanding the cumulative risks of exposure for occupants of buildings. This directly contradicts his evidence given to the [Education Select Committee](#) in 2013,

"I think there should be measurements to see what people are breathing in. I do not think that property surveys answer the question. I really do not. I am not sure that they are well done or whether or not they capture what matters. What matters is what people are breathing in, and there are two ways of measuring that: one is to measure it in their lungs and one is to measure it in the air." Professor Peto (2013)

It would be helpful to know what has informed this change of opinion.

The second session included witnesses who are experts in asbestos related disease (e.g. asbestos in the lung) and others who are experts in the management of asbestos (e.g. asbestos in buildings). Expertise in one area does not confer expertise in the other. In our view lung tissue analysis is not an aid to preventative measures. It can inform whether we have a continuing problem, although as Professor Peto stated there is very little evidence (a very small sample of lung tissue) for younger people born in the 1990s – so data and forecasts about future death rates are quantitatively uncertain. However, analysis of lung tissue cannot tell us if our buildings are safe. It is too late once fibres have been inhaled. The only way to assess if potentially dangerous levels of airborne asbestos are present in building is to undertake air monitoring, as other nations do.

If the committee is interested in the feasibility of air monitoring it should take evidence from appropriate experts in this field.

We agree with other witnesses who suggested that air monitoring is less necessary in buildings where a visual inspection and assessment of condition is possible. Especially for the more common chrysotile (white asbestos) which is less friable. However, as we and others (e.g. JUAC) have previously stated it is not possible to visually inspect asbestos in some buildings (e.g. CLASP-type schools) where the most dangerous forms of asbestos (amosite – brown asbestos) are contained in the fabric of buildings (e.g. lagging steel frames) and concealed by panels preventing a visual check. In such buildings it is not always possible to visually identify if asbestos has been disturbed. Only air monitoring can detect this.

Teachers and nurses at greater risk

Professor Peto stated that *“there is no current evidence that teachers are more heavily exposed than anybody else.”* We would agree that more and better evidence is needed to assess the risk of exposure to teachers. This is why we are calling for sensitive air monitoring, where high risk materials are present (e.g. amosite).

There is a need to improve the evidence base, however, the [latest HSE data](#) does identify primary school teachers, teaching assistants, nurses and nursing auxiliaries among the highest ranked mesothelioma death rates across all female occupations. These rankings are much higher than would be expected in the general female population and cannot be explained by Professor Peto’s statement that, *“an awful lot of people will do other things and then teach afterwards, so they will finish up with ‘teacher’ on their death certificate.”* The reality is that the average age of teachers in the UK (39yrs) is younger than all OECD nations¹, and teachers are more likely to teach first and then do other things.² So, ‘teacher’ is less likely to appear on the death certificate as the last occupation.

The view that teachers and nurses have ‘probably been exposed during the installation of asbestos’ is also not credible. Teachers will not, for example, have been present during the construction of CLASP-type schools.

Note: In his written evidence to the committee Professor Peto states that, "The very low mean lung burden for men and women born 1985-92 shown in table 1 (0.4 fibre/mg) is unreliable, and a larger sample in which a few heavily exposed people were seen might give a substantially higher average. Higher lung burdens were seen in a few construction workers born in 1975-84" (Written evidence from Prof Julian Peto FMedSci FRS (ASB0036), Dec, 2021)

All the epidemiological studies deal with ‘cohorts’ or groups, who have had known exposure and are therefore worthy of study, e.g. the [Wittenoon Cohort](#). Our argument concerns those people who work in or occupy buildings containing large amounts of amosite – e.g. CLASP schools. This is a small fraction of the total population. This is where people are at elevated risk. Of course, the ‘average’ risk is much lower. There are no studies dealing with the CLASP school cohort.

Given that CLASP schools account for roughly 10% of all schools, and anecdotal evidence suggests the majority of teachers killed by mesothelioma worked in CLASP school, the probability is that ongoing exposure from these structures is much worse than suggested by reported deaths from all schools.

In addition, the fact that high lung burdens occur in a few construction workers born in 1975-84, tells us that exposure is still occurring. It is therefore logical to apply the argument offered by Professor Peto et al, that this exposure will extend to others who occupy the same buildings for work, shortly after ongoing and contemporary building and maintenance work.

Acceptable risk

In discussing the risk of exposure to asbestos in buildings Professor Peto stated that exposure is, *“very much less than it was but it is still going on, so the risk looks as though it is of the order of one*

¹ OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/1d0bc92a-en>

² Since 2011, the leavers rate has been approximately 10% per year. Retention weakens with each passing year. With 83% of new teachers remaining after one year and 67% remaining after 5 years, fewer teachers are making it to retirement. The proportion of teachers aged 50 or over was just 17 per cent in 2017. <https://www.gov.uk/government/statistics/school-workforce-in-england-november-2018#full-publication-update-history>

in 20,000.” The acceptable level of risk as defined by HSE is one in 1,000,000.³ So this estimate of 1/20,000 is 50 times greater than the acceptable risk. We may avoid a future epidemic on the scale of the current situation, but are we certain that future deaths to teachers, children, and others, will be below the acceptable level? Deaths among teachers are currently more than 40 times over the HSE’s defined acceptable level. 1/20,000 is neither a safe nor acceptable risk. We have argued that since the highest risk comes from a relatively small number of buildings. There is a strong case to prioritise and abate this risk. As Professor Kevin Bampton stated, *“the risk is not just about the epidemiology, it is also about the effectiveness, the regulation and management.”*

Removal of asbestos is more dangerous than management in situ

Professor Peto commented that fibre levels are high after asbestos is disturbed, and during installation: this is true. He also stated that the removal of asbestos could be as dangerous as installation proved to be, increasing exposure to the general population. This is an argument, based on conjecture with little to no evidence. Asbestos is already being removed from buildings across the UK on a daily basis due to demolition and renovation (e.g. The Palace of Westminster). This has been an ongoing programme of work over the past 40 years. Fibre levels are already getting ‘a regular top-up’ and shall continue to do so.

Professor Peto’s admits that we really do not know the level of environmental exposure or concentration of fibre levels. He states that, *“risk is determined by what you breathe-in in total. A brief exposure to a higher level does not cause a large risk. It is the total number of fibres that you breathe in, particularly before the age of 30 or so. The younger you breathe it in, the bigger the risk is, and that is quite clear.”* This is why we are calling for the introduction of sensitive air monitoring. The precautionary principle ought to be adopted unless there is evidence to refute it.

Phased removal

To clarify - the Airtight on Asbestos campaign is advocating phased, prioritised removal - not general removal. ‘Phased’ means different things to different people. For us the immediate priority is to remove amosite from CLASP schools. The risk of boisterous children disturbing amosite cannot be adequately managed in-situ. A point of note with ‘phased removal’, is that it may well be phased demolition and replacement, in which case, the argument of elevated risk following reoccupation is negated. This is worth stressing for dilapidated pre-fabricated 1960-70s’ schools.

The costs of air testing

There was some discussion about the general costs of asbestos removal, management, and air monitoring. It is worth pointing out that the cost of air sample analysis using TEM in France is estimated at 80 Euros (quote provided by asbestos consultants ITGA). This is an order of magnitude lower than the £800 mentioned in the second evidence session for lung sample analysis using TEM.

We have argued that the current use of PCM is too insensitive (like setting the drink driving limit to 10 units of alcohol rather than one) and that we need to bring air sampling techniques and practices up to date using TEM technology – in line with best international practice.

In the UK we currently spend approximately £120 million / year on asbestos air monitoring, but it is too insensitive to offer little more than mis-placed “reassurance”. Sensitive air monitoring would provide much enhanced reassurance, drive up standards of asbestos removal and reduce exposures following asbestos removal.

Compliance with the law

³ <https://www.hse.gov.uk/risk/theory/r2p2.pdf>

The law states that buildings must be safe, be demonstrably safe and that we should use the best practical techniques to demonstrate that buildings are safe. It is worth noting that the Airtight on Asbestos Campaign is asking for no more than compliance, with the best techniques as demonstrated in several other countries.

We expect HSE and Government to present a robust defence of the status quo. The HSE and associated research parties, have continually failed to adequately address the actual issue of ongoing low-level exposure to potent amosite or the fundamental question, about whether UK Guidance is fulfilling the law.

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