

ASSESSMENT OF AMBIENT LEVELS OF CARBON MONOXIDE IN BARS IN LIVERPOOL AND AN ASSOCIATED CUSTOMER ATTITUDE AND BEHAVIOUR SURVEY

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I want to talk to you today about a pilot project that I have been part of back home in Liverpool. Basically, certainly in the UK, there is growing awareness in the harmful affects of environmental tobacco smoke, and from the point of view of an environmental health practitioner, there are a lot of issues around the occupational health implications of this - particularly for bar staff and restaurant staff, who are perhaps a little less protected than other workers.

I think it is fair enough to say, there is generally a change in smoking culture; certainly it is something that is noticeable here in Australia, and in New York, California and now Ireland. Part of the impetus for this presentation, and for the work that I have been doing, is a big campaign in Liverpool at the moment to try and encourage businesses in the city to go smoke-free; this is actually quite different from a smoking ban, which I think a colleague is going to be talking about later. We have heard a lot this morning about different drugs and health implications, short term, long term etc. Probably one of the main things I would like to bring over today, is that smoking, certainly in my part of the world, is the biggest cause of preventable ill health, increasing the risk of cancer and heart disease, placing extra stress on the heart, affecting the body's ability to take in oxygen, and also triggering asthma attacks, which is something to remember before we proceed.

In the UK we have a very important piece of health and safety legislation, which is now thirty years old, called the Health and Safety at Work Act (HSWA). Within the HSWA, employers have a duty to provide and maintain a working environment for employees that is, so far as it is reasonably practicable, safe and without risks to health. That appears to be quite clear-cut. There is a lot of case law around what makes 'far as is reasonably practicable'. However what is happening in the UK is certainly a move in case law, to put more emphasis on employers for preventing ill health through passive smoking. There was recently quite an important case about a casino worker who was working as a croupier and had been exposed to passive smoking, which triggered asthma, and he had not had asthma before. The case was looking very interesting, in actual fact the company ended up settling out of court, but this particular company was actually encouraging smoking by providing free cigarettes.

The good news is that fewer people are actually smoking now. The 2002 Household Survey in the UK found around 26% of people to be cigarette smokers. Certainly within public areas and within bars and clubs there are more non-smoking areas, but certainly not exclusively. We do have a charter on smoking, but all this requires businesses to do is put a little notice on the door saying that smoking is allowed. The industry are promoting ventilation of pubs and bars very heavily at the moment – I am not sure that is something you have here, but it is something that will come out later. There is a lot of discussion about ventilation and whether it works or not. It certainly

makes things more pleasant for occupants, whether it removes all the dangerous substances is a different issue.

Smoke Free Liverpool is a major campaign at the moment. What the City Council is doing is aiming for voluntary compliance – it is not a smoking ban. There is very much a feeling that without businesses being part of this, it is not going to work. It will be extremely difficult to enforce a smoking ban and certainly from my point of view as an environmental practitioner, and for my colleagues who are working with the council, for those enforcing it – they could actually be in quite a difficult position. Certainly for door staff, again it is putting them in quite a vulnerable position.

At the moment there is a high profile advertising campaign – it is very new, big billboards wherever you look and they again are focusing on employer safety, not on punters. Probably the main driver for this is that Liverpool has been awarded European Capital of Culture for the year 2008. It is seen that this will bring a lot of money into the city but will also raise the profile of the city, and it is giving us time for the smoke free campaign to sort of plan things properly and consistently. I know our local politician is very pleased at getting Capital of Culture - I would quite like to see them cheering if we get Smoke Free Liverpool.

Working with the city council, we undertook a pilot study within the city; we looked at eight licensed premises, all within the city centre. We started off being extremely methodical and sensible, and had a fantastically randomised sample, and we were like the kiss of death wherever we went. In the end we sort of gave up and we picked some premises. We had a power cut in one, we had pouring down rain and about three people in another bar – and it just did not work; so we took a logical step and said ‘okay, it is a pilot study - we want to look at different places, we want to look at different ventilation and different building designs, so we’ll be a little bit more choosy.’

We chose to monitor carbon monoxide as a marker of environmental tobacco smoke; it does have an occupational exposure limit, which environmental tobacco smoke as a substance does not have, but there are other sources of it as well; particularly, influences might be kitchens and maybe a taxi rank outside.

To go with the carbon monoxide monitoring, we did a short attitude and behaviour study; asked a few questions about alcohol, mainly to disguise the smoking questions, but mostly we were interested in knowing: how many people were smoking, how much they were smoking, and what their attitudes would be towards smoke free bars.

We did have problems with the carbon monoxide monitoring; we put two monitors in - one behind the bar, and one out in the public area. We then had to guard them with our lives all night - these things are very small, they are only about the size of a mobile phone - but we had to make sure they were secure, that nobody was going to run off with them, and that they were not being unduly influenced just because of their location.

This is a picture of one of the bars that we went to (referring to the screen), we put one about here, which is underestimating probably, any load that the bar staff were likely to get – but again, we knew it was safe and secure. It also highlighted a

problem, which is part of the point of a pilot study - it was very difficult to compare one bar to another; bars are designed very differently, their ventilation systems were very different, and the number of occupants were very different.

Much more straight forward, a basic questionnaire, administered to customers between eight and eleven at night. The idea of that was that we were trying to get them before they were too influenced by other substances - which did not always work out; and as I said, this was designed to assess attitude and behaviour.

They were the four areas we looked at (referring to screen). Not surprisingly, all bar five people - and one of them I suspect was drunk when they answered the question - were out to drink. The sample was reasonably balanced, although more men than women. The mean number of cigarettes smoked on a night out was very different to the mean number of cigarettes on a night in; people reported smoking around about eighteen to twenty cigarettes on a night out, whereas at home they smoked between five and ten. We are going to examine that a little bit more closely now.

Four categories of smoker we looked at. Our smoking rates are quite interesting - we are looking at 25.6 % which is bang on the UK Household Survey figure; but we had, within the group, 60% of the regular smokers were male, 40% were female, and that pattern followed right the way through really. We did have 49 % of the sample had never smoked. Age and smoking behaviour – again, none of this is rocket science, but helps to bring a picture together so that when the campaign starts, we can target it properly. Regular smokers were older, ex-smokers were older, none of this, however, was actually significant (refers to the screen).

I started off by wanting to know whether people drinking more were smoking more; not surprisingly they were, but what this graph shows (refers to the screen) is that actually, maybe the smoking more is causing them to drink more, but I think maybe not. One of the things that did occur to me when I was putting this together - in environmental health, one of the issues is that often by removing one hazard you can create another hazard - you always have to keep your eyes open to some extent. In Dublin, which has a smoking ban now, what is happening is that smokers are going outside to smoke; some of the discussions we had this morning, it is then begging questions that if people are going outside to smoke, they are leaving drinks unattended or they are taking glasses and bottles with them outside, so again we have to look at the bigger picture all the time.

Ventilation systems varied completely in the premises we looked at; some had absolutely nothing, they just relied on the doors opening and closing. Some just had inlets; some had extract ventilations; some had proper air conditioning. The carbon monoxide results, to be honest, were not very exciting; 30 parts per million is the occupational exposure limit - and we were nowhere near that. The highest premises we had (refers to screen) got as high as nine, which again is not that high. However, here is a picture from inside that venue (refers to screen). This is actually the famous Cavern Club – home of the Beatles - as you can see it has very low ceilings, very poor ventilation, and it was reasonably busy that night. The actual monitor, if you can see that yellow notice at the back, that is where the bar is and the monitor is tucked behind there (refers to screen).

Asking about passive smoking, people were generally concerned about passive smoking. Not surprisingly, those who were unconcerned were significantly more likely to be smokers. However - and this is the good news from my point of view - when we looked at how behaviour would be affected, if the bars and clubs were smoke free the majority of people would either not change their going out behaviour or go out more; about 17% of people said they would go out less – and again that was significantly associated with them being smokers.

Carbon monoxide occupational levels - the occupational exposure levels were four times higher than our maximum reading, so that's good news. However, six parts per million was exceeded on a number of occasions, and there is evidence that coronary artery flow is basically disrupted at six parts per million, and on a just more basic level 30% of the population will report respiratory affects from carbon monoxide levels of 2.5 parts per million.

As far as smoking goes, basically we had quite clear evidence of binge smoking and certainly from a public health point of view, not relating to bar staff but from everyone else's point of view, that is quite an important issue. Certainly the occasional smokers were not smoking at home, but were smoking when they were out. Smoke free bars then, may actually discourage these occasional smokers, and hopefully this is the sort of evidence that we will start to get from Dublin and New York as time goes on. However, at the end of the day there may be reluctance from some smokers to attend venues that are smoke free.

Thank you very much for your time.