A decorative graphic on the left side of the slide, consisting of several overlapping, semi-transparent, dark red chevron shapes pointing to the right, creating a layered, arrow-like effect.

Using biomonitoring to assess the effectiveness of an intervention strategy: Isocyanates in the motor vehicle repair sector

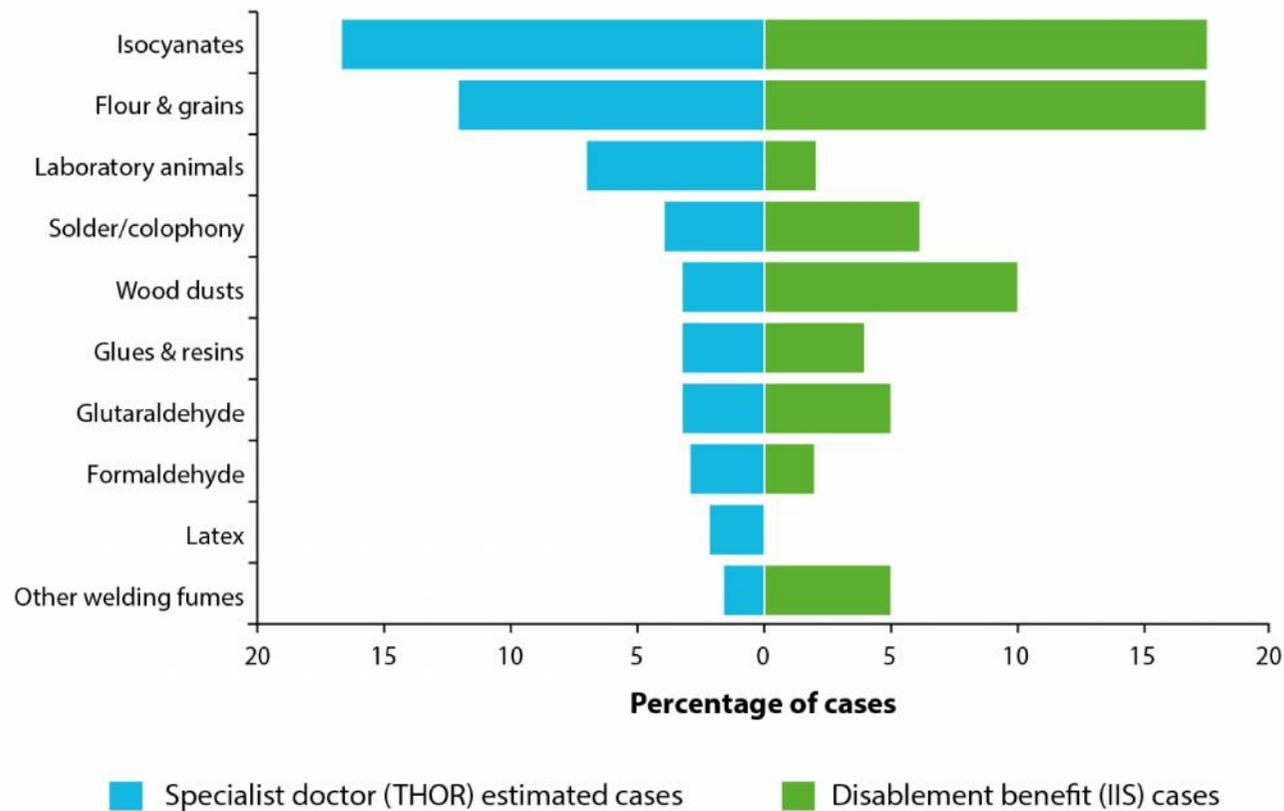
22 January 2019

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Leading causes of occupational asthma

Figure 2: Top 10 agents for occupational asthma, 2001 - 2003





Isocyanates in Motor Vehicle Repair

- Two-pack isocyanate paints are widely used in motor vehicle repair.
- Isocyanates are used because
 - Highly reactive, giving short cure times
 - Results in a high quality, enduring finish
- The reactivity of isocyanates gives rise to their potential as sensitisers (both respiratory and skin)



Motor Vehicle Repair – The Problem

- Statistics showed that:
 - “Vehicle Paint Sprayers” were the group at greatest risk of getting isocyanate-induced occupational asthma.
 - Their risk was over 80 times the average for the working population.
 - About 1 in 10 people in MVR getting occupational asthma were not sprayers

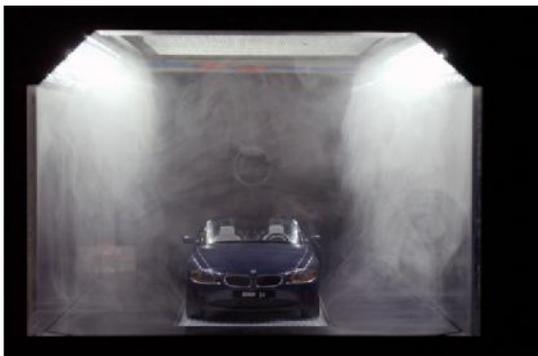


The size of the problem?

- Approximately 21,000 spray painters in the UK
 - ~60% work in MVR
 - More than half work in small or micro businesses
 - Many are the only painter

Key messages for SHAD events

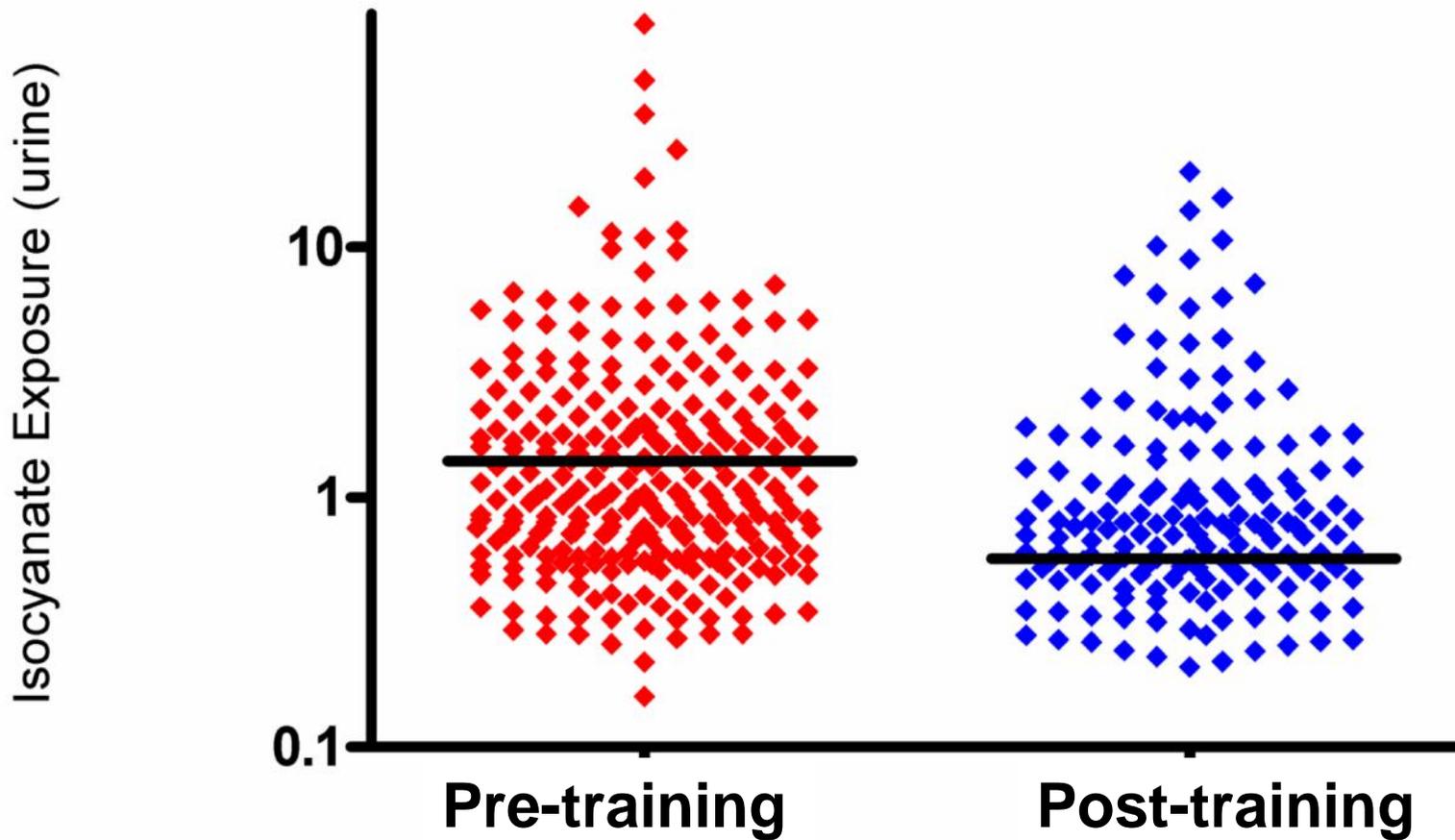
- Health effects of isocyanate exposure
- How exposures occur
- How to control exposures
- Simple ways of checking controls are working and being used appropriately



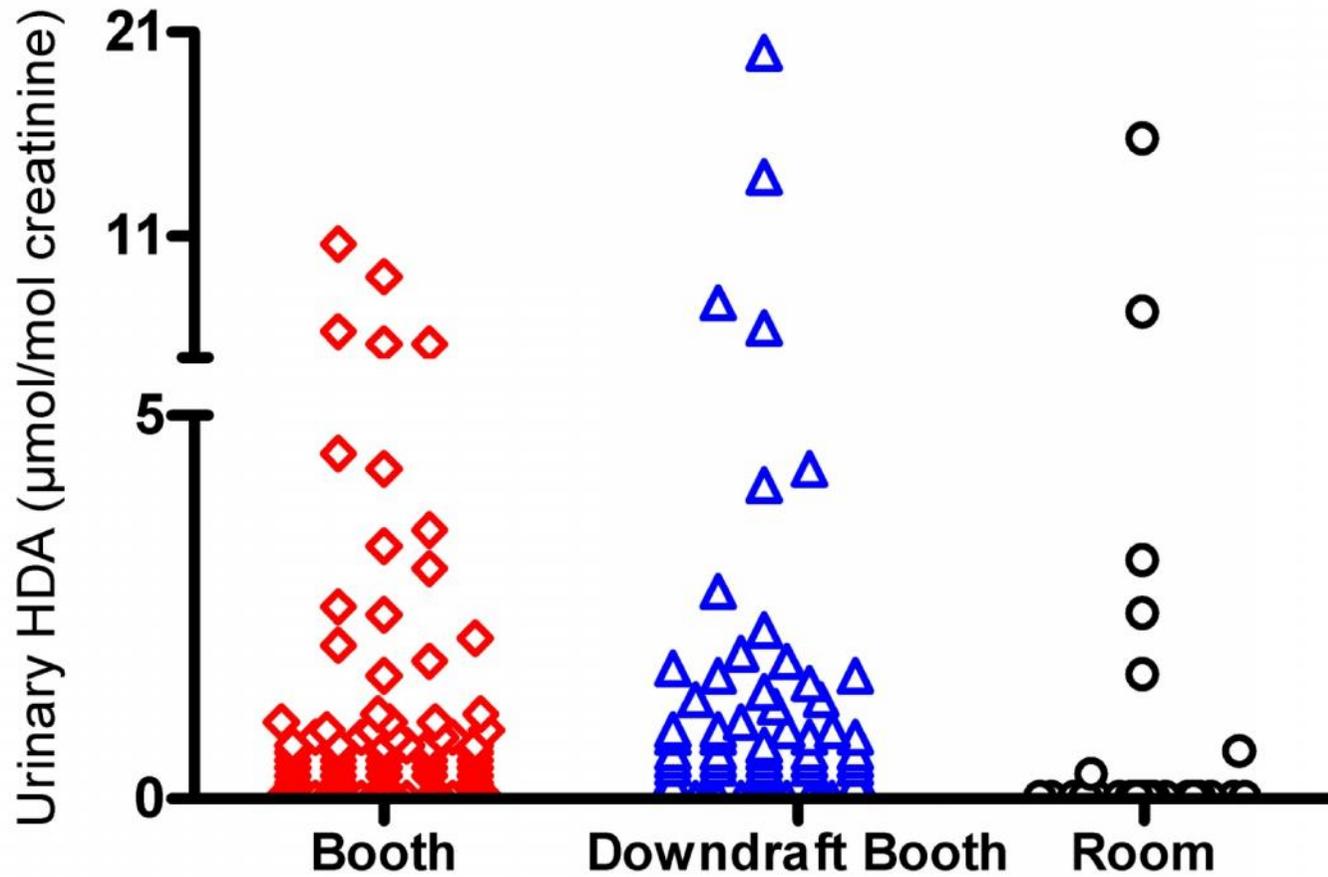
Measuring isocyanate exposure



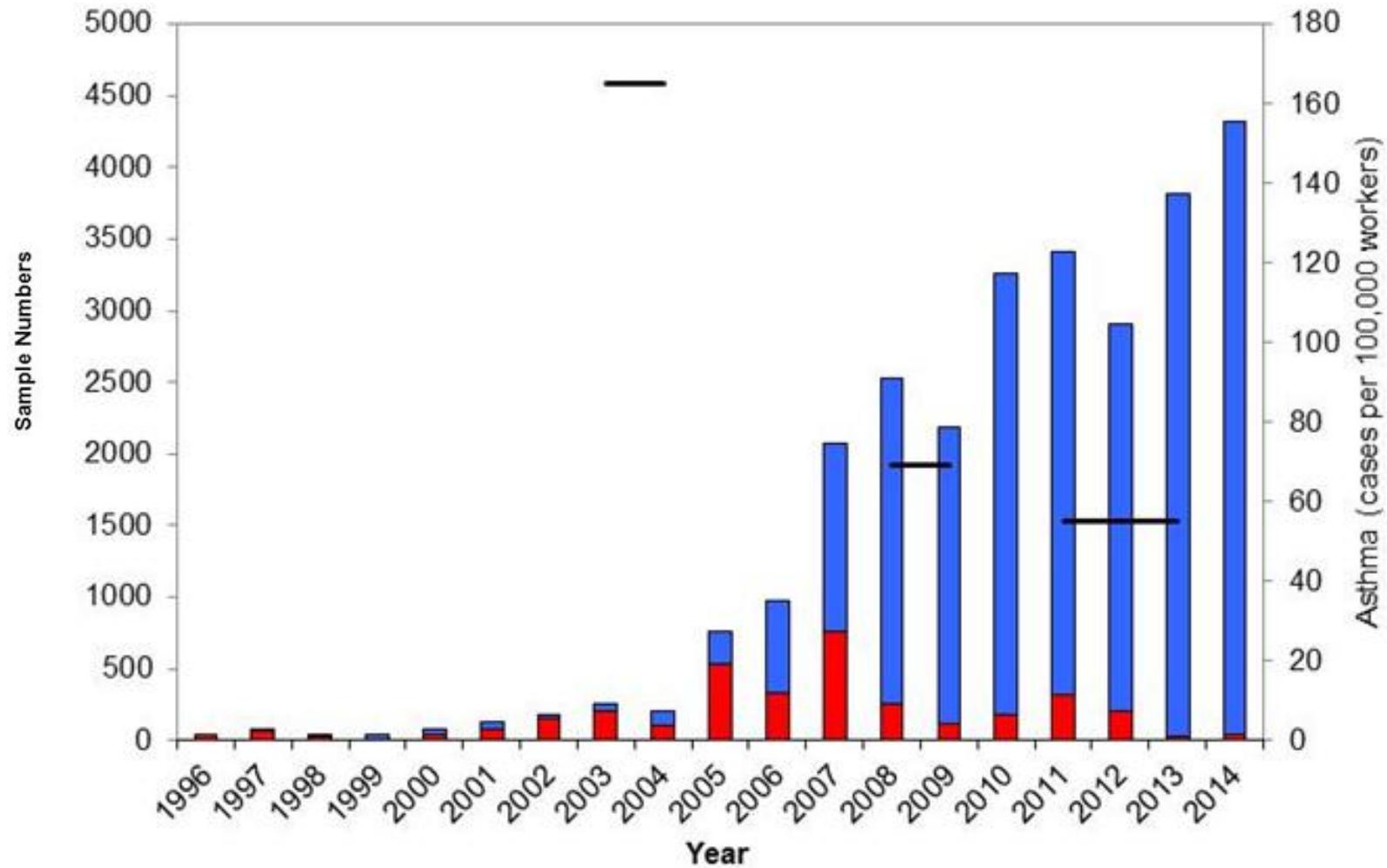
Training works!!



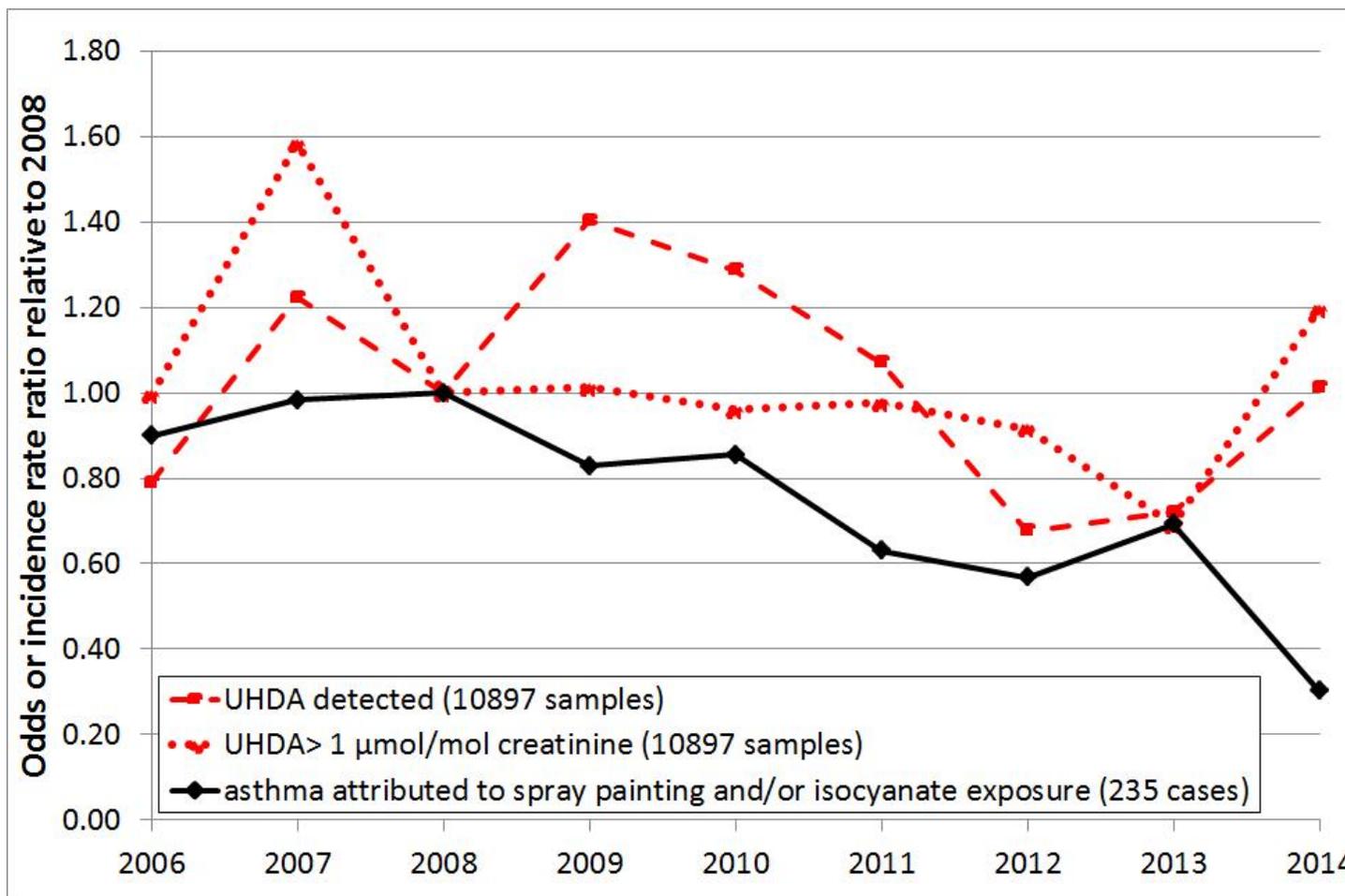
Booths



BM helps to reduce ill-health



Maintaining the impact...



With thanks to Jill Stocks, Manchester University

Lessons learned

- Biomonitoring can be a simple means of:
 - Exposure assessment
 - Targeting improvements
 - Demonstrating progress
- Interventions that require human behaviour changes need to be reinforced regularly as the population renews.
- Monitoring may increase without the intervention's accompanying messages.



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