

Tackling Occupational Diseases: working together to make a difference

Kären Clayton CChem FRSC

Director Long Latency Health Risks Division,
UK Health and Safety Executive

**Workshop on occupational burden of disease
Brussels**

10th October 2014

Context

- **1.1 million** working people suffering a work related illness (estimated)
- **13,000 deaths & 450,000 new cases** each year (estimated)
- Cost to society – estimated to be around ‘double figure’ billions
- Wide spread of diseases and industries
- HSE priorities: cancer and respiratory disease



Cancers and respiratory diseases



~**9** bus loads
dying **each month**
from **occupational cancer**

~**108** bus loads
dying **each year**
from **occupational cancer**

another ~**50** bus loads
dying **each year**
from **respiratory diseases**



Occupational cancer

- 2005 HSE commissioned Cancer Burden Study (<http://www.nature.com/bjc/index.html>)
- Prioritisation exercise:
 - knowledge of industry
 - strength of evidence of causal link
 - estimates of future cancer burden
 - number of workers potentially exposed
 - likelihood of successful intervention
- **HSE Board agreed priorities: Occupational Cancer and Respiratory Disease**

Cancers and Respiratory Disease

Cancers

- Asbestos
- Shift work
- Welders
- Painters
- RCS
- DEEEs
- Solar radiation
- PAHs coal tars & pitches
- Tetrachloroethylene
- Radon

Respiratory disease

- Industries / workplace activities that have high incidence and/or large number of workers potentially exposed:
 - Construction workers
 - Foundry workers
 - Welding
 - Quarry & stone workers
 - Agricultural workers
 - Vehicle paint sprayers
 - Bakeries

Intervention mix

- Changing behaviours
- Working with others
- Stakeholder event – March 2013
- Invigorating activities
- Thinking outside traditional boundaries



HSE's ambition

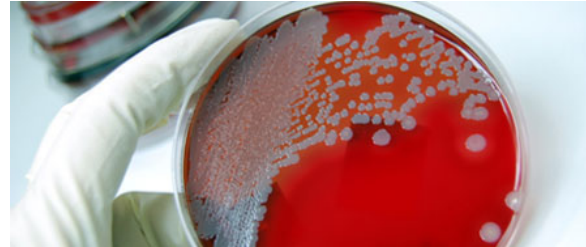
Reduce the incidence of occupational disease through:

- ✓ Prevention and control
- ✓ Sustained HSE activity
- ✓ Focus on improving compliance with the law by supporting evidence based targeted interventions in high risk areas

Work Environments - Hazards



- Toxic Compounds
- Carcinogens
- Sensitisers



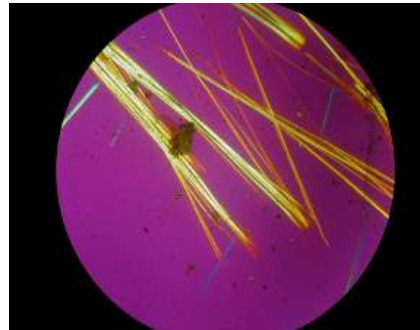
Infections



Organics



**Welding
Fume**



Asbestos



Silica dust



Case study: Isocyanates



- Isocyanates are the biggest cause of occupational asthma in the UK
- Control of exposure relies on RPE
- Is it working and/or being used properly?

Biological Monitoring for Isocyanates



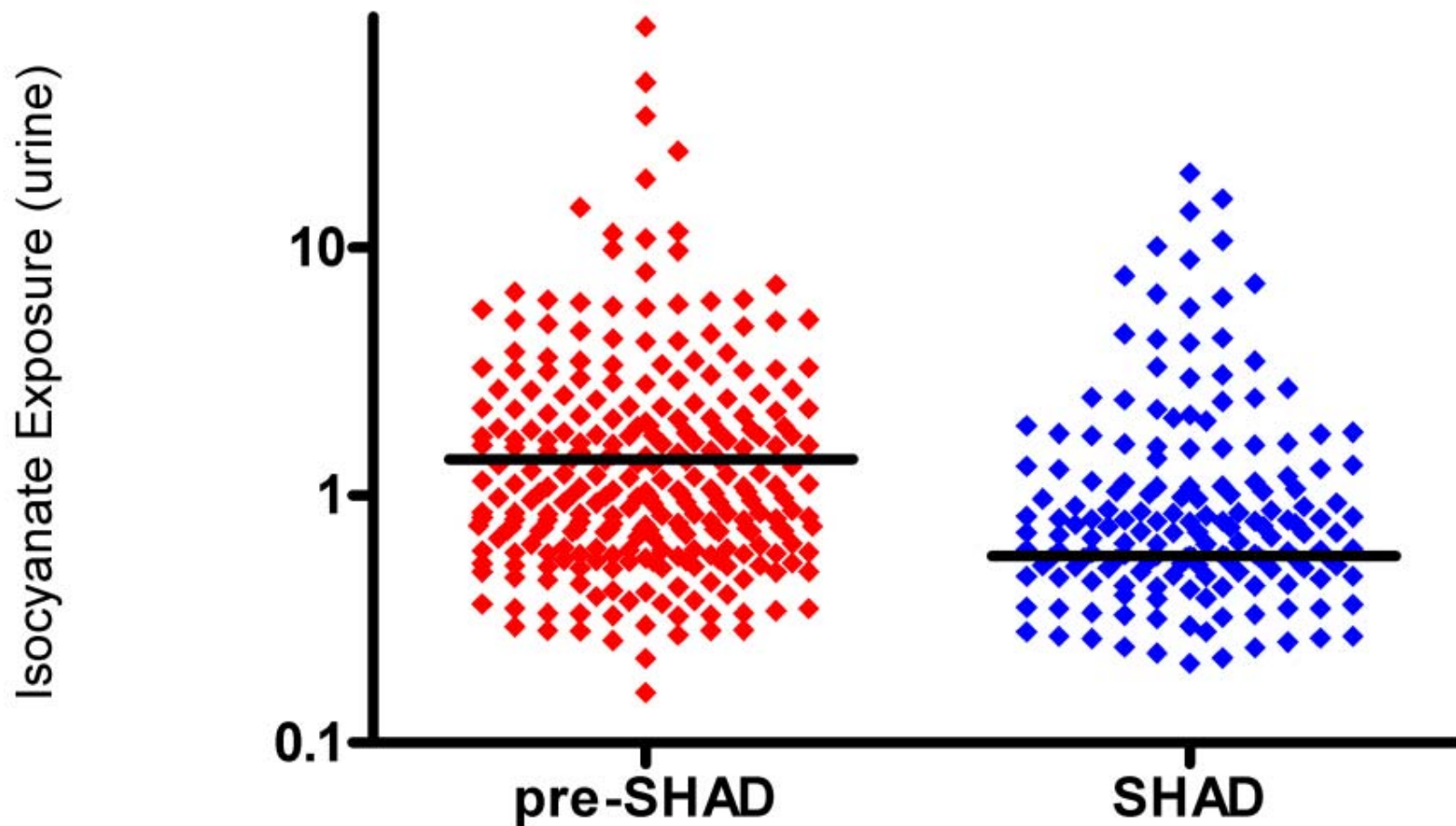
Behaviour:

- 96% sprayers knew they should not lift their visors **but** 40% admitted to doing so.
- No awareness of clearance times for spray booths

SHADs

- Hazards of isocyanates
- Concept of clearance times
- Proper use / maintenance of controls
- Using Biological Monitoring to check controls
- Need for health surveillance
- What HSE expects

Bodyshops attending SHADs have lower average isocyanate exposures



What else is happening?

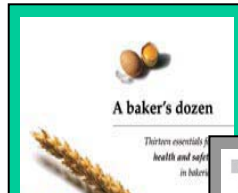
- Lots of activity already underway across range of disease areas
- Evidence based approach
- Promoting and encouraging others to take action - no matter how small



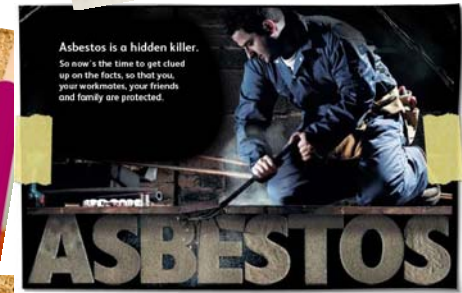
1. High activity / well understood



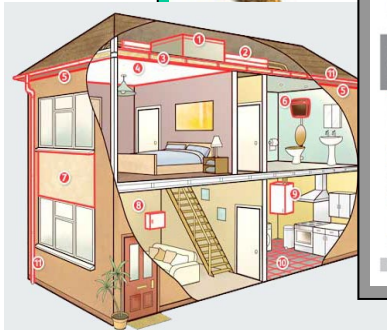
Stakeholder Group:
Federation of Bakers
National Association of Bakers
Bakers, Food Allied Workers Union
Sainsburys
Local Authorities
Sector Skills Council



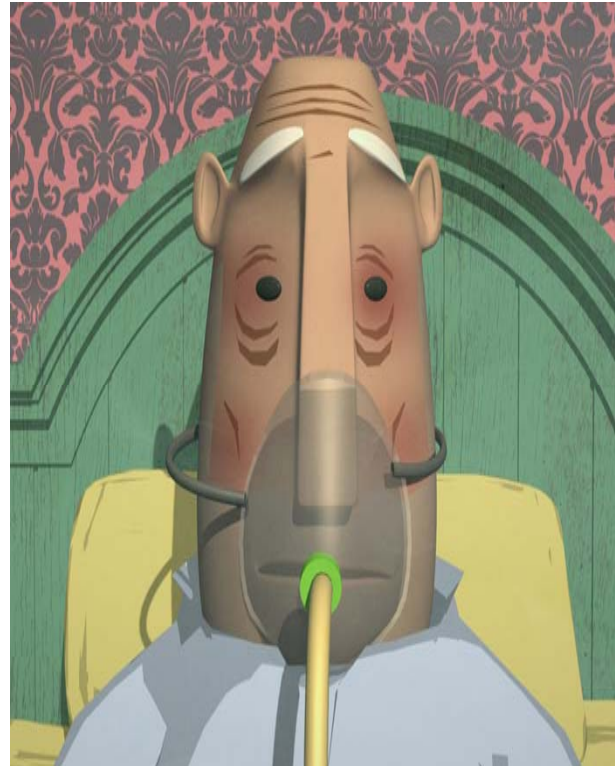
On-tool
extraction
Hire Association
Europe



Glove trial - Headline results
62% said they will wear gloves in the future
LA visits had a very positive impact
80% found gloves comfortable to wear
Getting the right glove fit is important

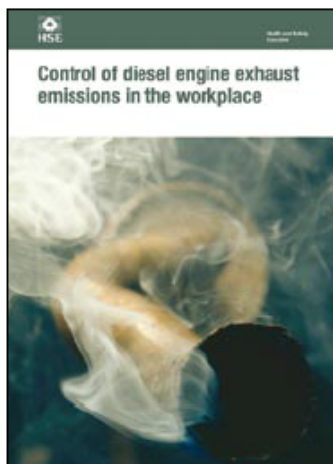


‘Stop dust before it stops you’



www.safequarry.com/qpt

2. High activity / develop understanding



Diesel engine exhaust emissions

✓ Research

- The likely impact that developments in fuel and engine technology could have on the perceived trajectory of the problem
- Identification and chemistry of the disease-causing components
- Developments in quantitative and qualitative analytical techniques and equipment

✓ EU – Carcinogens and Mutagens Directive

✓ Stakeholder activity - workplace exposure

✓ Guidance

3. Well understood / steady activity



Tetrachloroethylene / PAHs

- Research and horizon scanning



Nanotechnology

- Strategic activity and facilitation



4. Develop understanding / steady activity

Shift work

- ✓ Oxford EPIC/Million Women Study

Painters

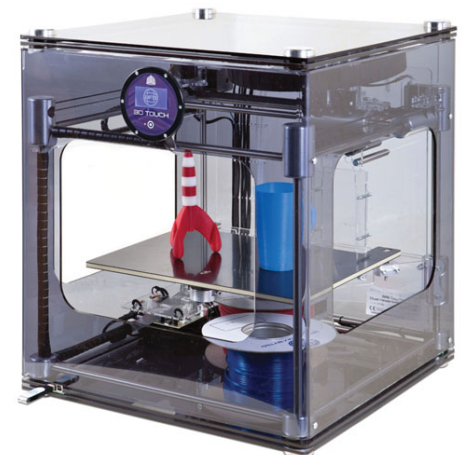
- ✓ Current exposures/working practices
- ✓ Awareness - good general working practice

Strategic research programmes

- ✓ Advanced manufacturing/ novel materials
- ✓ 3-D printing - plus others



You can get more than paint from a tin...



Real time measurement



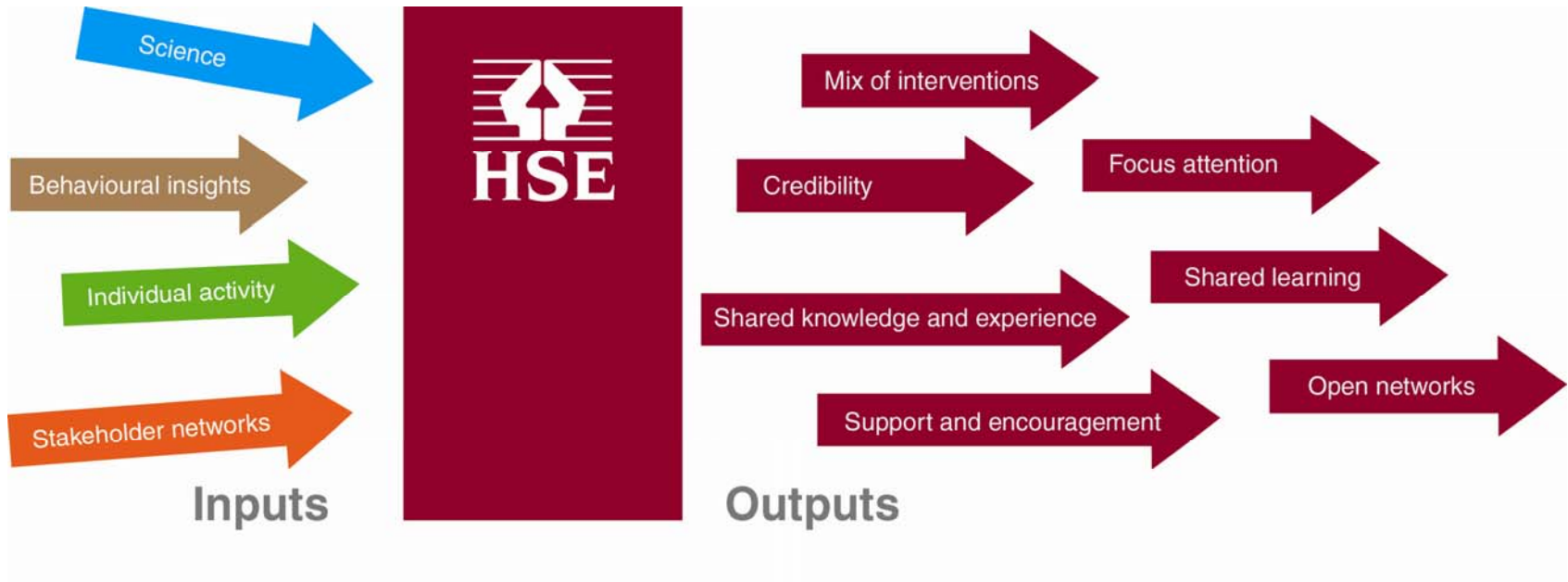
Airborne Exposure



- Organic and inorganic gases and vapours
- Real time detection
- Video visualisation
- Peak exposures
- Identify tasks requiring control
- Risk communication



Maximising impact



Work streams for 2014/15



Tackling occupational disease - developing new approaches



Developing new approaches: Tackling occupational disease - Windows Internet Explorer

http://www.hse.gov.uk/aboutus/occupational-disease/index.htm

File Edit View Favorites Tools Help

★ Favorites | ☆ Archive for March...

Developing new approaches: Tack...

This website uses non-intrusive cookies to improve your user experience. You can visit our [cookie privacy page](#) for more information.

HSE Health and Safety Executive

Google Custom Search

Home News Guidance About you About HSE Contact HSE

Accessibility Text size: A A A

HSE > About us > Occupational disease

Rate this page ☆☆☆☆☆ Share Free updates Bookmark Follow HSE on Twitter: Follow

Occupational disease

- The facts
- Occupational cancer
- ✚ Cancer priority areas
- Respiratory diseases
- ✚ Respiratory priority areas
- Subscribe

Related content


- Publications

Tackling occupational disease

Occupational disease is a big issue - a life-altering experience for some, a life-ending illness for others. But by working together, we can create healthier efficient workplaces.


Organisations are already taking steps to reduce the burden of occupational disease. We want you to get involved and share your approaches.

[More about the occupational disease burden](#)



How to control risks at work

[Health and safety toolbox](#)



Get involved

Join our online community and take action on occupational disease.

The community site acts as a forum for you to promote your work and successful interventions, share ideas and insight, learn from others and discover new approaches to tackling occupational disease.

Together, we can all make a real difference - so don't delay, register today!

Cancer priority areas

- Asbestos
- Diesel engine exhaust emissions
- Painters
- Polycyclic aromatic hydrocarbons
- Radon
- Respirable crystalline silica (RCS)
- Shift work
- Solar radiation
- Tetrachloroethylene
- Welding

Respiratory priority areas

- Agricultural workers
- Bakery workers
- Construction workers
- Foundry workers
- Quarry and stone workers
- Vehicle paint sprayers
- Welders

Done

Internet

75%

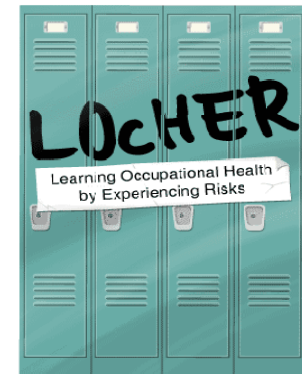
One example of a 'new approach'



The LOcHER Project

- aims to engage with young people in innovative ways to get their attention about occupational health risks:

- Tackling Occupational Disease
- Developing New Approaches
- Learning Occupational Health by Experiencing Risks (LOcHER)



IIRSM International Institute of
Risk and Safety Management



Others getting involved

IDI201? Industrial Disease Initiative



- **Construction Respiratory Disease initiative**
- **BOHS Worker Health Protection Conference (WHPC 2014)**, to take place in Abu Dhabi, United Arab Emirates, from 20 to 23 October 2014.

Asbestos Behaviour Change Campaign Autumn 2014

www.beware-asbestos.com

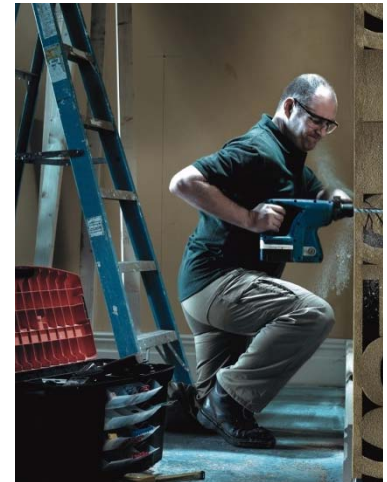
Campaign Audience

Primary:

- The most at risk workers – trades people working on small sites and projects in the construction and maintenance industries.

Secondary:

- Workers employed by larger businesses in the construction and maintenance industries.

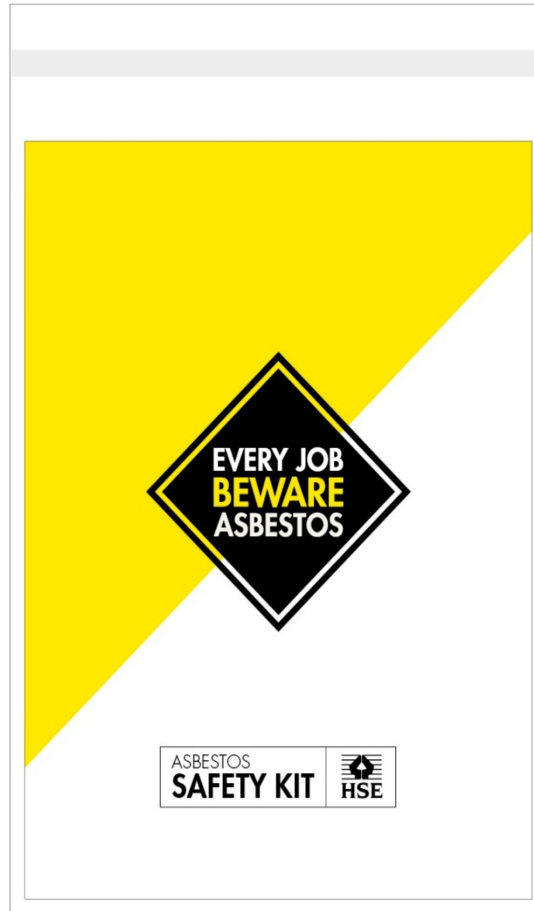


The Asbestos Safety Kit
What's in it?



01

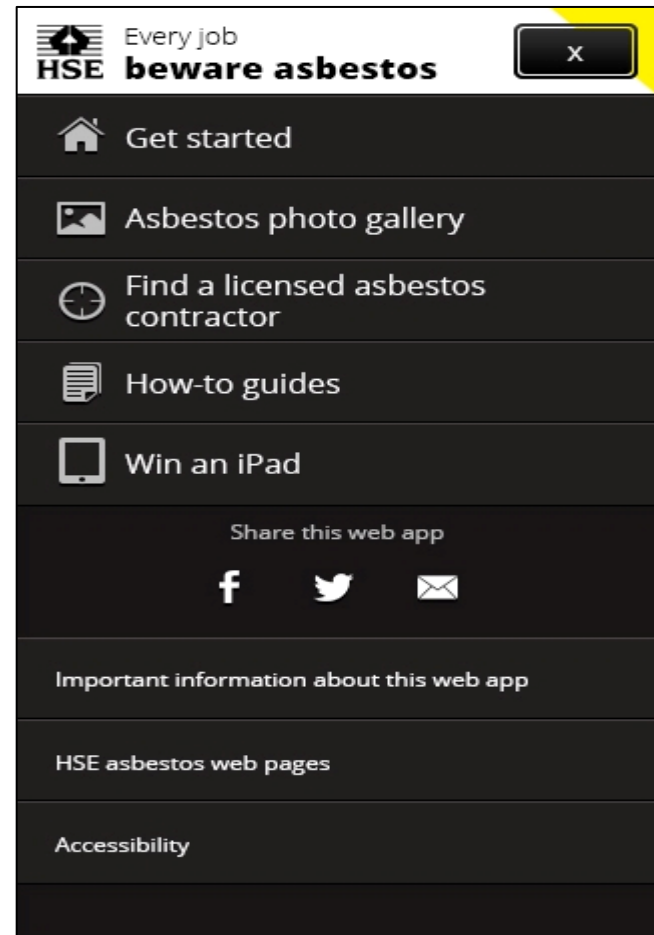
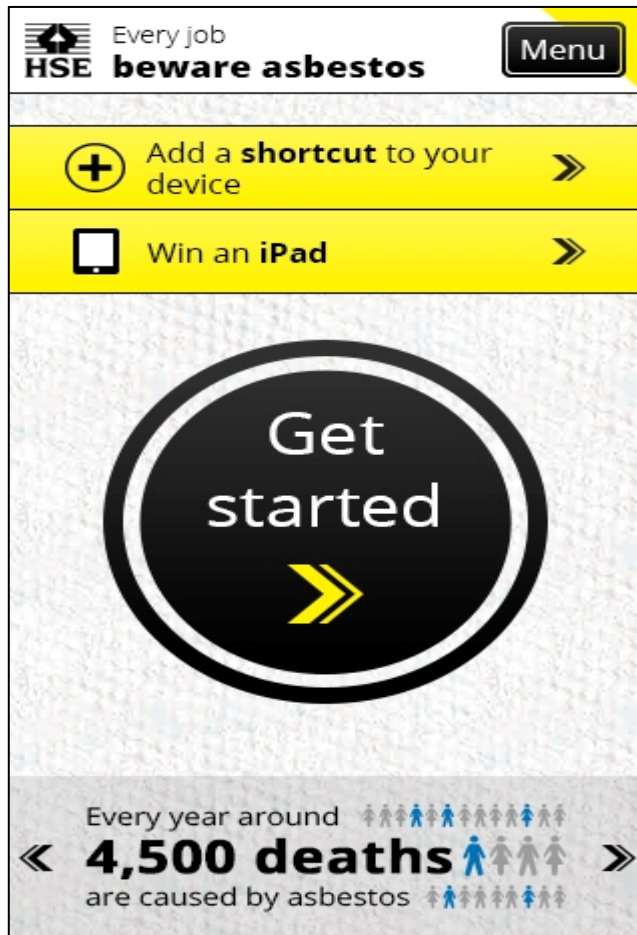
*Note cards explaining
where asbestos hides and
what it looks like*



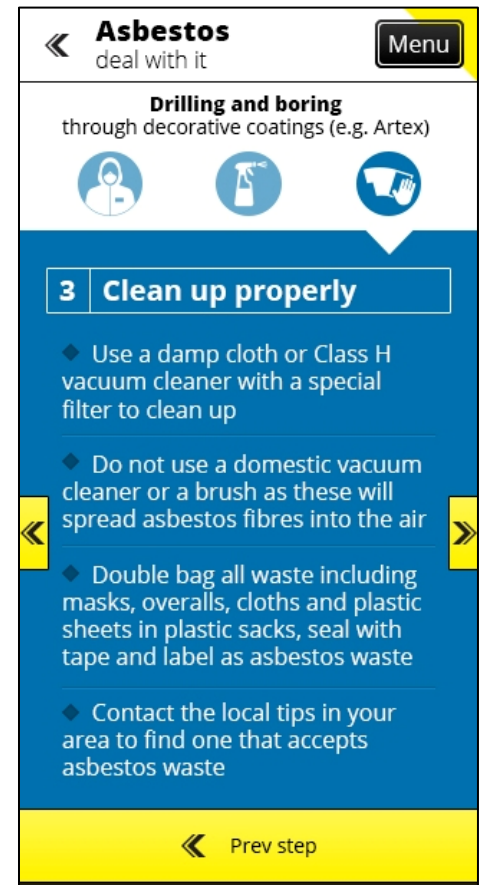
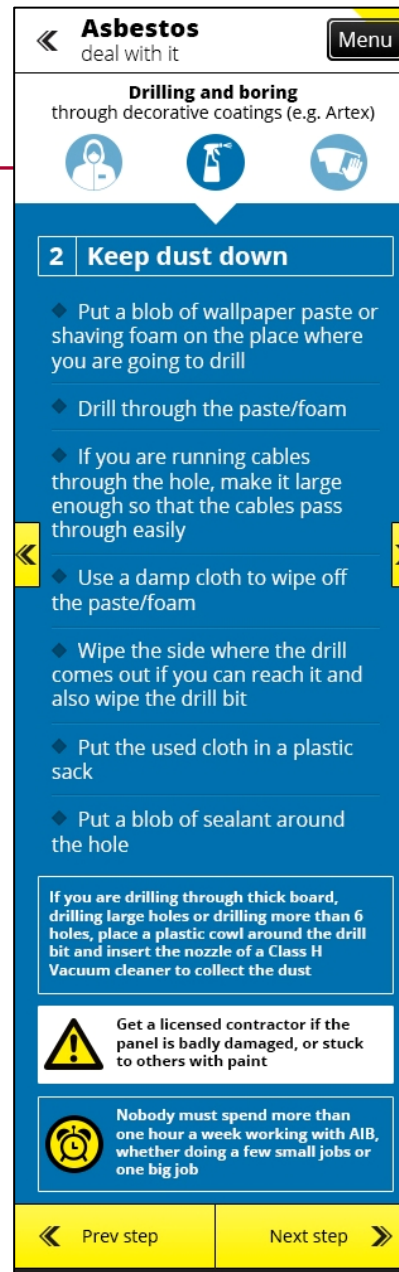
03

*Type 5 disposable
overalls - vacuum
packed*

www.beware-asbestos.com



Asbestos web app



HSE's ambition



....is to reduce the incidence of occupational disease through:

- ✓ Emphasis on prevention and control of exposure
 - ✓ Sustained HSE activity
 - ✓ Focus on improving compliance with the law by supporting evidence based targeted interventions in high risk areas.
-
- To lead and harness the actions of others toward achieving this ambition