

How do we protect from the harms of second-hand smoke [SHS]?

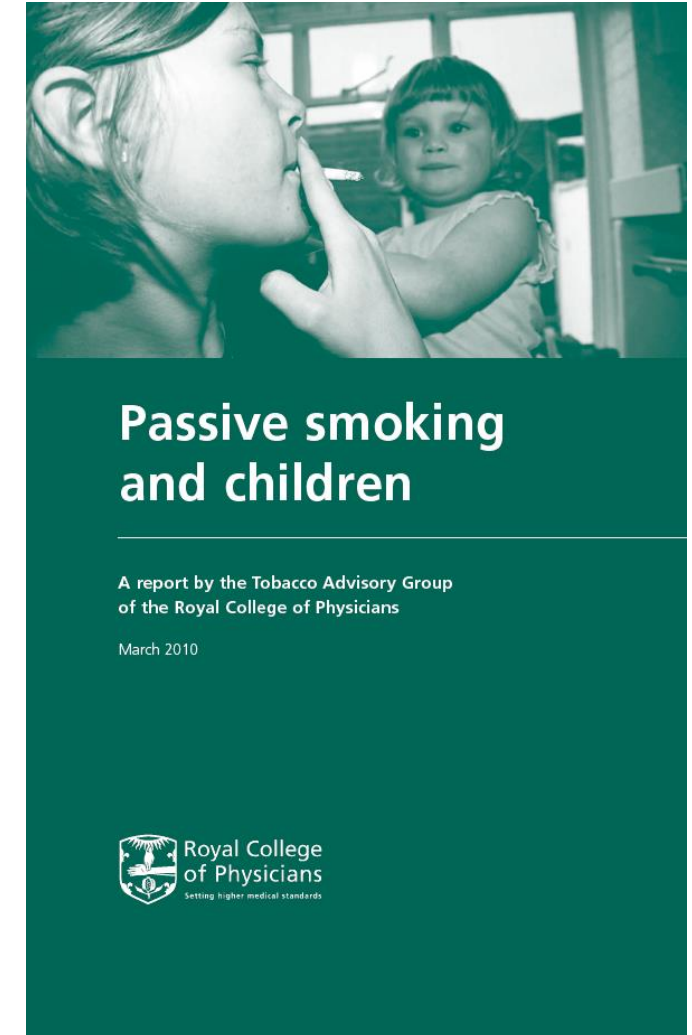
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Some quick numbers

- Globally 40% of children are exposed to SHS¹
- RCP report March 2010²
 - Range of fetal and childhood health problems
 - Birth weight, fetal and perinatal mortality
 - Increased risk of sudden infant death
 - Lower respiratory infection
 - Middle ear disease
 - Wheeze, asthma
 - Meningitis
 - Developmental and behavioural effects
- RCP estimates of SHS health burden [UK figures from 2010]
 - **25 children per day admitted to hospital**
 - **800 children per day see a doctor as a result of SHS exposure related ill-health**
- Children of smoking parents more likely to become adult smokers themselves³
- Children living in homes where both parents smoked have salivary cotinine concentrations similar to non-smoking bar workers (pre-ban)⁴



¹Oberg et al., Lancet 2011; 377:139-46.

²<https://www.rcplondon.ac.uk/news/passive-smoking-major-health-hazard-children-says-rcp>

³Mays et al., Pediatrics. 2014;133:983-91

⁴Akhtar et al. BMJ 2007;335:545-49 and Semple et al. Ann Occup Hyg. 2007;51:571-80.

Isn't SHS exposure a thing of the past?

How many non-smoking adults in Scotland would show measurable biochemical evidence of breathing second-hand smoke if we measured today?

and

How many parents self-report that their child lives in a home where smoking (indoors) occurs?

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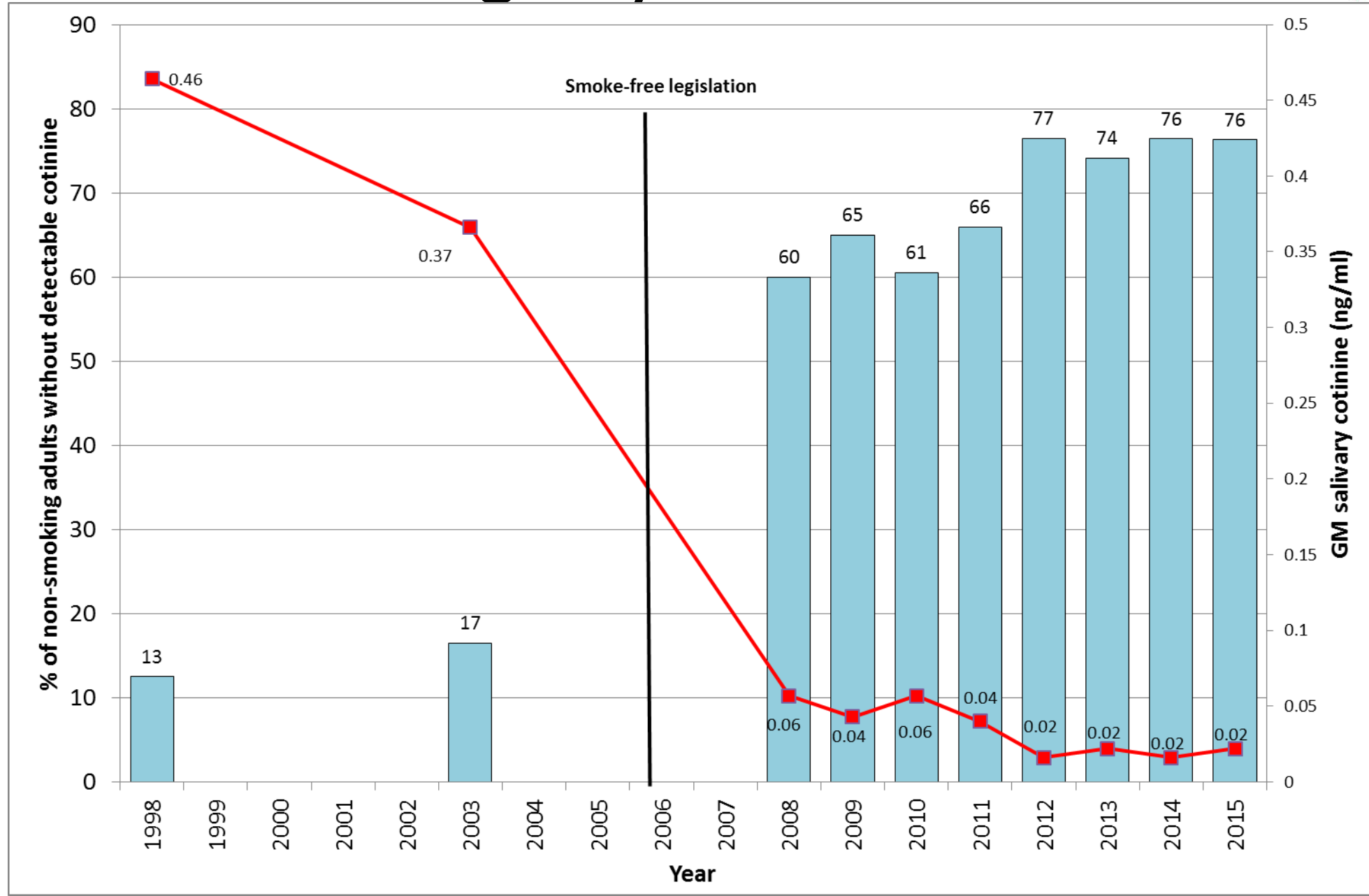
- Approximately 850,000 of those over 16 in Scotland right now...
- That's 1 in 4 of all non-smoking adults in Scotland¹
- (equivalent to every non-smoking adult in Glasgow, Edinburgh and Aberdeen combined)

How many parents self-report that their child lives in a home where smoking (indoors) occurs?

- Approximately 6% of children¹— that's 55,000 under 16.

¹Scottish Health Survey 2015 data

We've come a long way...



Success, but have we stalled?

Smoke-free legislation - a huge public health success

Imagine introducing a measure that achieved a 95% reduction in exposure to outdoor air pollution from diesel fume...

But in the past 5 years the proportion of adult non-smokers with detectable cotinine

- Has not changed from 76.5% in 2012 to 76.3% in 2015

The Geometric Mean salivary cotinine in adult non-smokers

- Is flat-lining between 0.016 to 0.022 ng/ml between 2012-5

How can we protect the 1 in 4 still exposed to SHS?

Most SHS exposure now occurs in home settings

Increasing the number of smoke-free homes can help:

- Protect children
- Protect non-smoking adults
- Provide a stepping stone to quitting¹
- Reduce the visibility and acceptability of smoking

Education and increasing awareness is key to empowering smokers to make their homes smoke-free

- SHS lingers in the air for up to 5 hours after you've smoked²
- 85% of SHS is invisible³
- Mass media campaigns like Rightoutside⁴ should be repeated

¹Vijayaraghavan et al. Am J Public Health. 2013;103:2276–83.

²Semple & Latif .Nicotine Tob Res. 2014;16:1365-70.

³Gee et al. Tob Control. 2013;22:429.

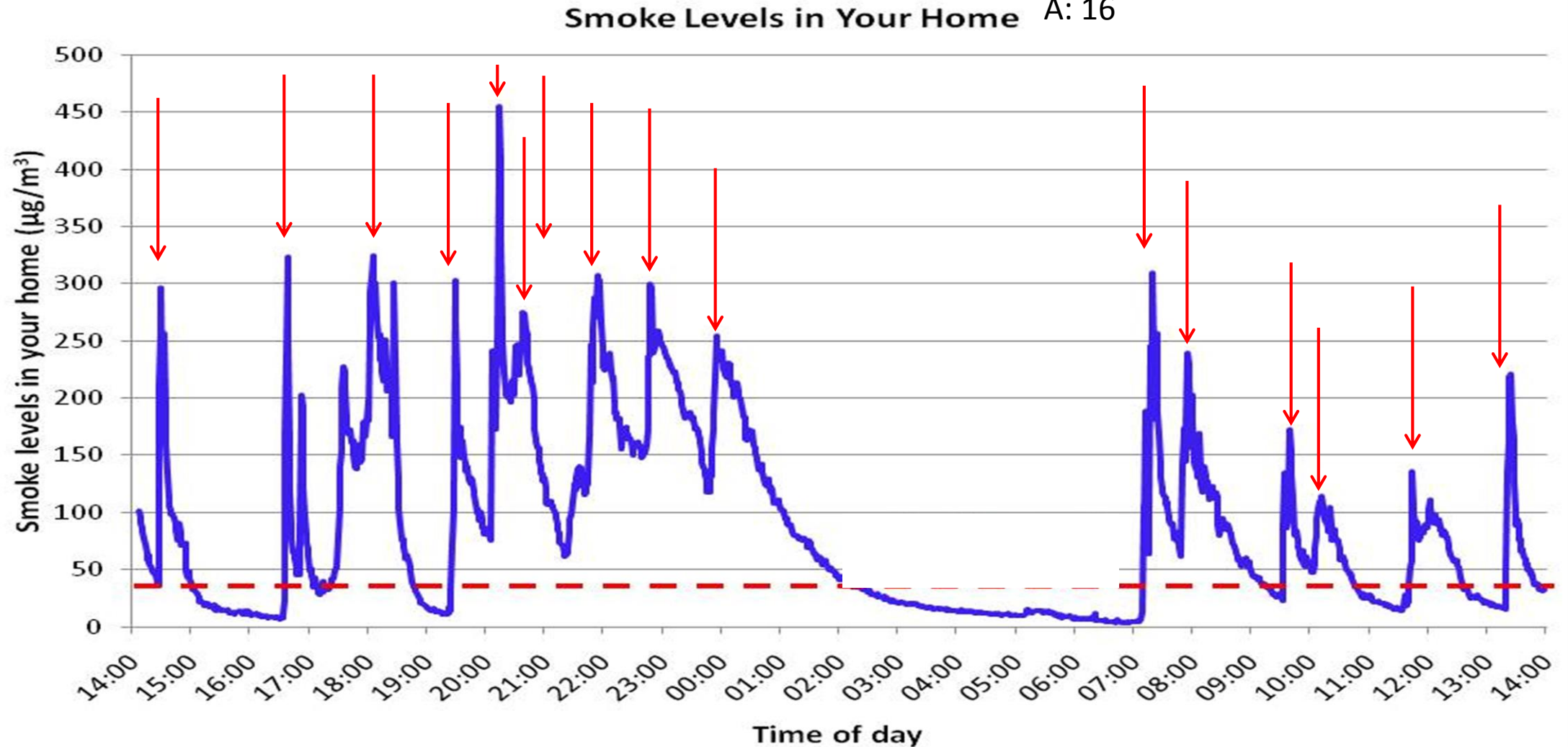
⁴ www.rightoutside.org



What does SHS in a home do to air quality?

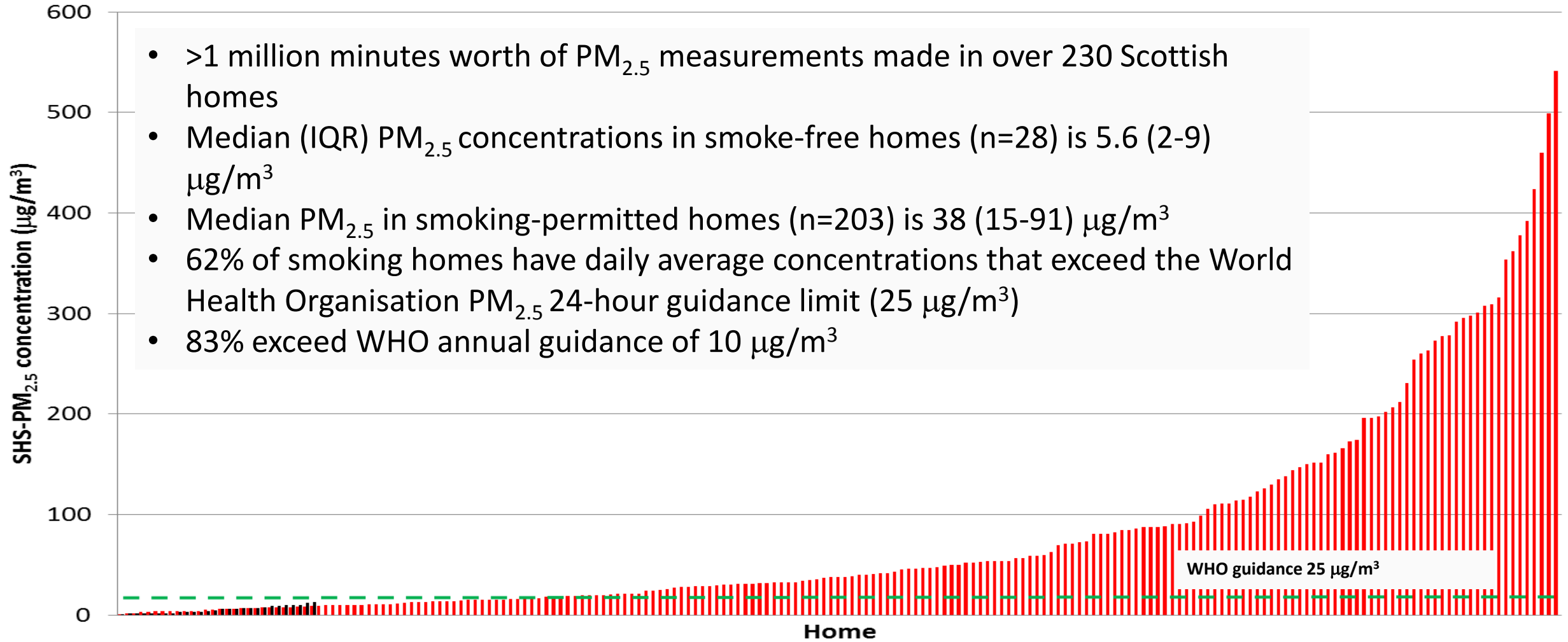
Q: How many cigarettes did they smoke?

A: 16



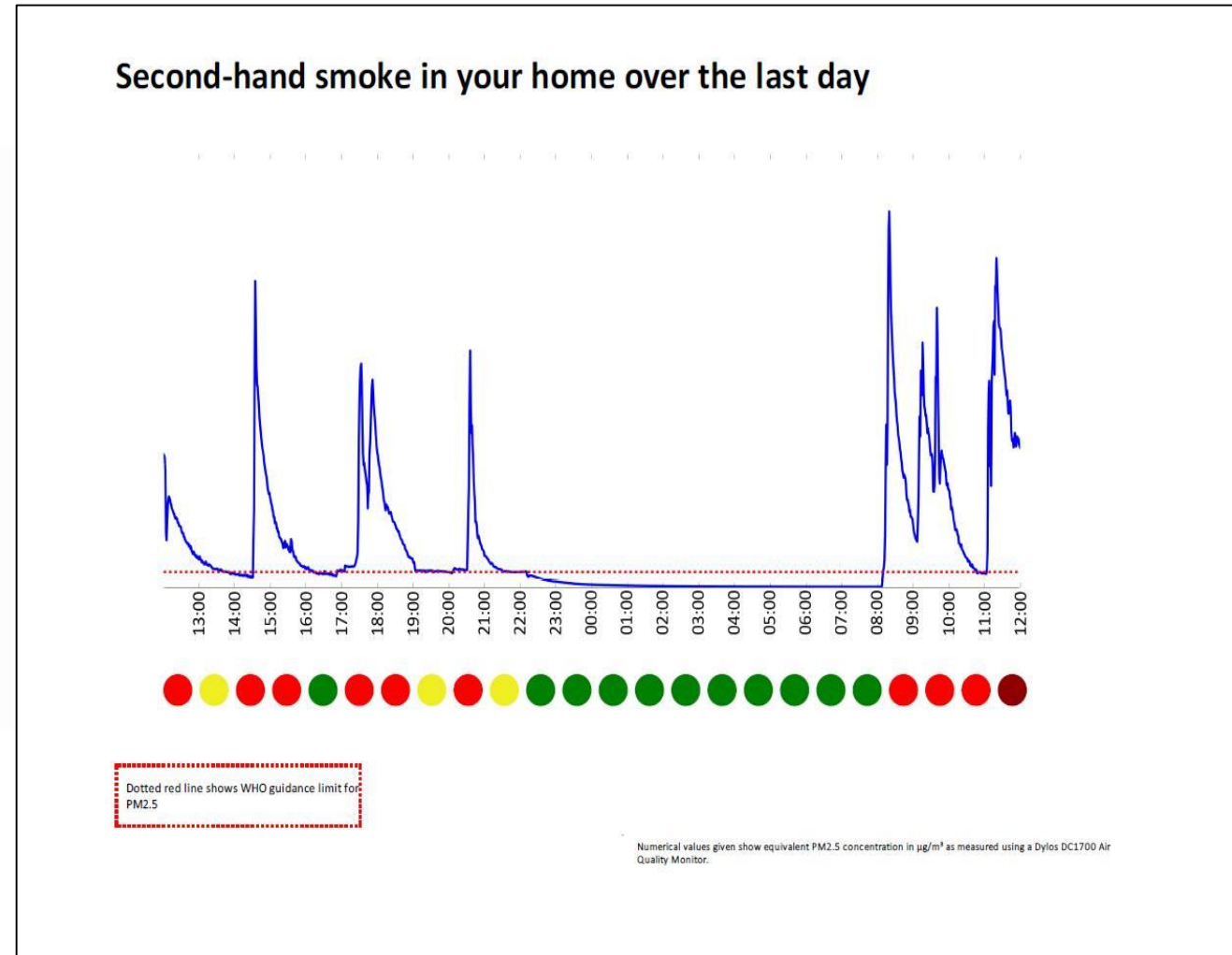
Fine particles x7 higher in smoking homes¹

- >1 million minutes worth of PM_{2.5} measurements made in over 230 Scottish homes
- Median (IQR) PM_{2.5} concentrations in smoke-free homes (n=28) is 5.6 (2-9) µg/m³
- Median PM_{2.5} in smoking-permitted homes (n=203) is 38 (15-91) µg/m³
- 62% of smoking homes have daily average concentrations that exceed the World Health Organisation PM_{2.5} 24-hour guidance limit (25 µg/m³)
- 83% exceed WHO annual guidance of 10 µg/m³

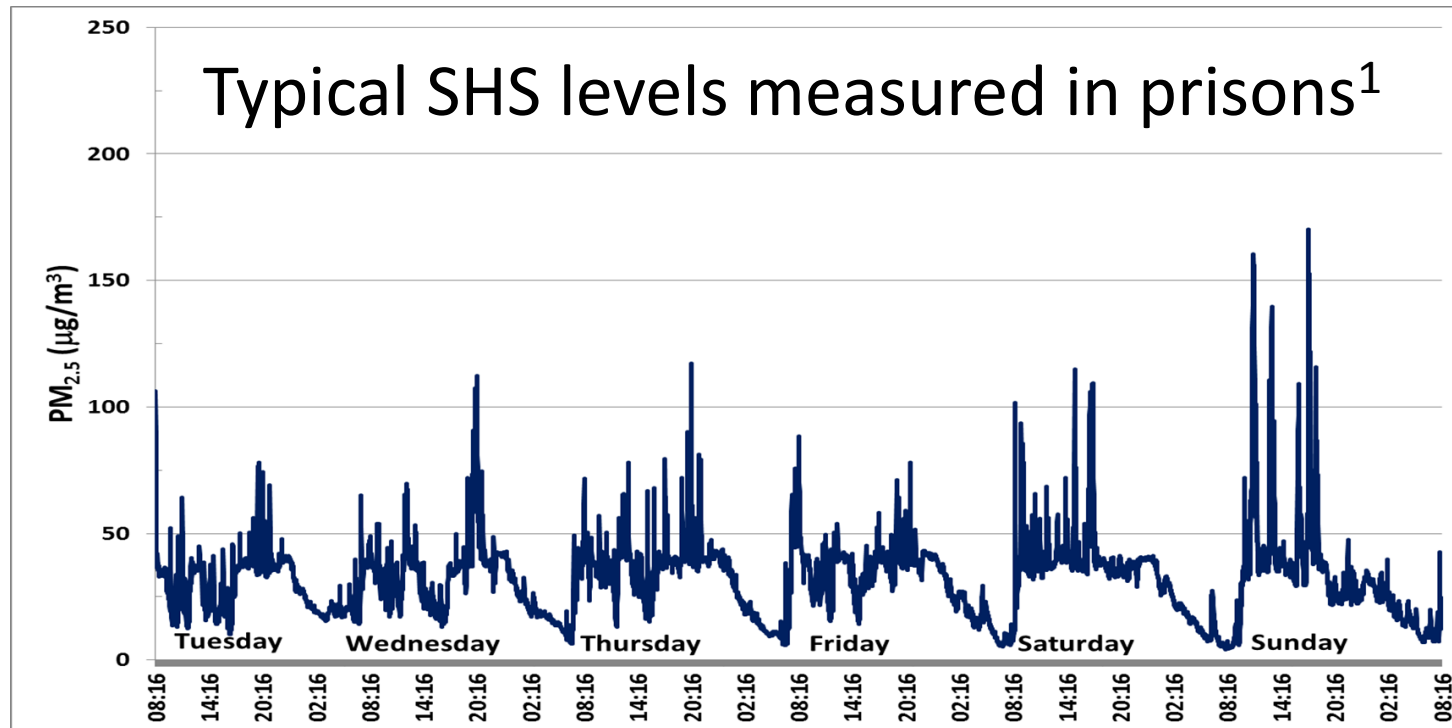


¹Semple et al. Tob Control. 2015;24(e3):e205-11..

Projects to empower parents to make their homes smoke-free



Other places where SHS exposure occurs



Care/health workers entering domestic premises – one of the last worker groups still breathing in SHS. We need to find solutions...

¹Semple et al. Ann Work Expo Health. 2017;61:809-21.

What are the other options?

Is education and raising awareness enough?

Is it right that a worker in a bar has been protected from the harms of SHS for >10 years and yet a child has no legal protection from exposure to the same carcinogen in their own home?

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Ban smoking at home, say Scots campaigners

Move to save kids from second-hand exposure

Mark Macaskill
October 15 2017, 12:01am,
The Sunday Times



Children's exposure to SHS to end by 2026?



Let's be the first nation in the world to set a target that 20 years after smoke-free in public spaces....

“No child (or worker) in Scotland should have to breathe second-hand smoke in ANY indoor environment by 2026”



Questions for discussion

- How can we encourage people to make their home smoke-free?
- Over the next 5 years, how do we ensure services are designed to protect from the harms of second-hand smoke?
- How do we provide a holistic /service-user centred approach?
- How can we listen to the needs of service users, in order to improve engagement and increase understanding of the harms of second-hand smoke?
- What partnerships could be developed / enhanced to deliver services to increase smoke-free homes?
- How can we better support staff training on SHS/smoke-free homes?
- What other measures do we need to consider?