

Smoking in pregnancy: what next?



Declarations of interest

- I have received no funding from the tobacco or pharmaceutical industries or e-cigarette manufacturers
- My research is funded by government and charitable bodies
- My salary is paid by the University of Stirling and Cancer Research UK
- I receive modest honoraria for journal editorship and peer reviewing for some funders
- I am a Trustee of two registered charities (SRNT Europe and the Institute of Alcohol Studies)
- I chair several policy and research funding committees in Scotland and England

Outline

- The context
- What works
- Challenges
- Why we need a plan



Cessation in pregnancy

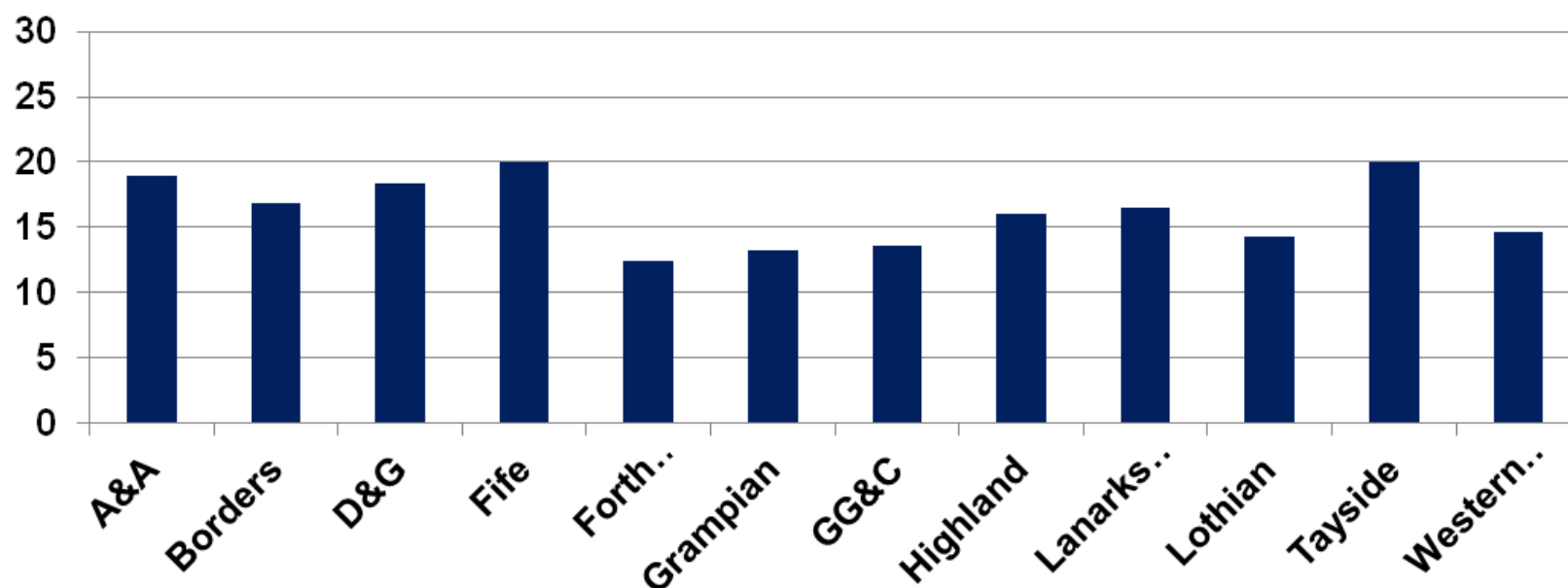
- Most changes in smoking behaviour typically within 2 days of learning about pregnancy

Heil et al (2014) *Preventive Medicine*

- Few quit more than one week after learning about pregnancy
 - 14.6% self-reported abstinence in Nottingham cohort between 15 weeks to end of pregnancy - Cooper et al (2017) *BMJ Open*
 - RCT control arms typically show lower rates
- Important health impact for any abstinence from smoking

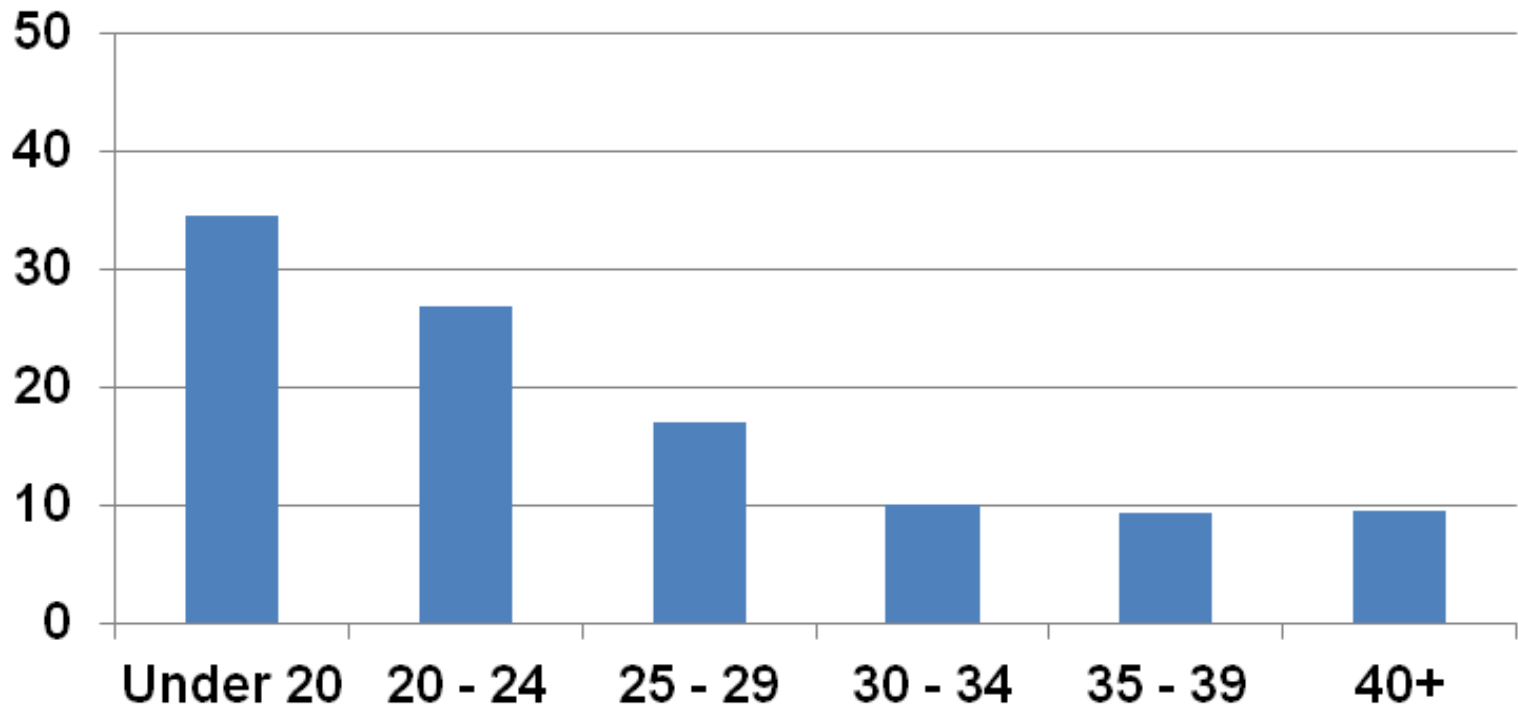
Smoking at Booking Prevalence

SMR02 ISD Scotland 2015-16

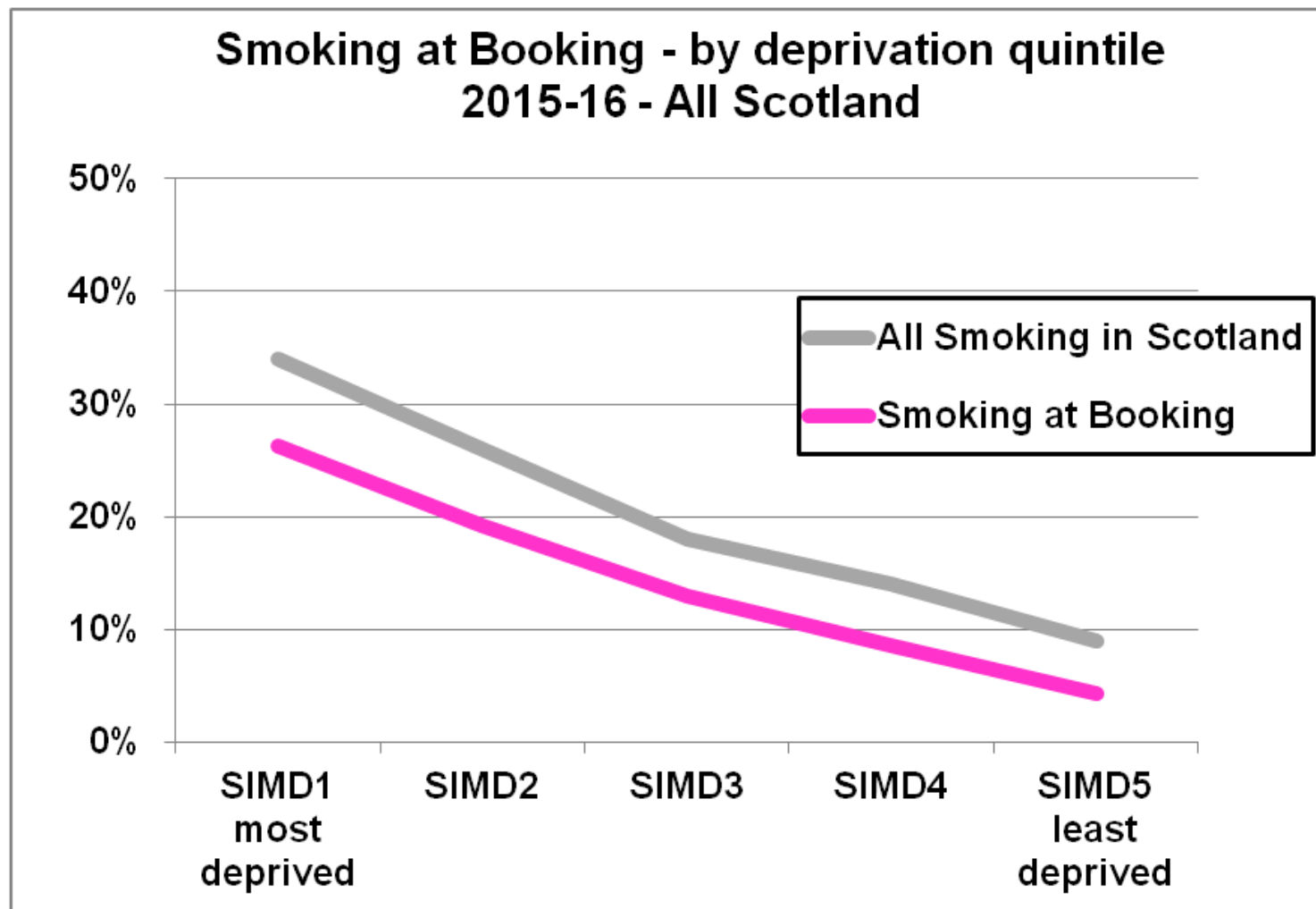


Source: ISD Scotland (2016) Births in Scottish Hospitals: Smoking history at booking,
<http://www.isdscotland.org/Health-topics/Maternity-and-births/Births/>

Smoking at Booking - by age group Scotland 2016



Source: ISD Scotland (2016) Births in Scottish Hospitals: Smoking history at booking, by maternal age and deprivation <http://www.isdscotland.org/Health-topics/Maternity-and-births/Births/>



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Evidence from well conducted studies

Good evidence of effectiveness

- Counselling
- Opt-out CO breath test referral pathways
- £ incentives
- Self-help / digital interventions
- What may work
 - Nicotine Replacement Therapy
 - Bupropion
- What doesn't work
 - Motivational interviewing
 - Physical activity interventions



Addiction

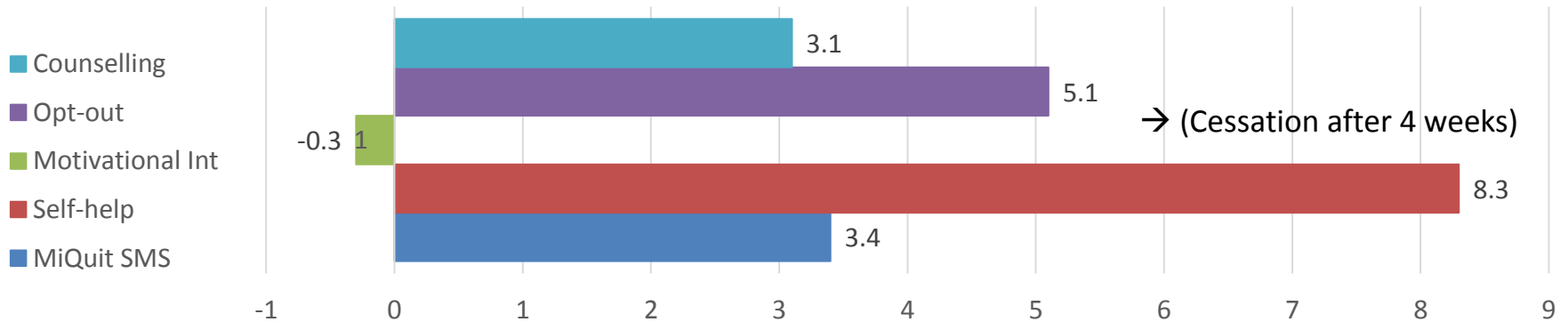


**Cochrane
Library**

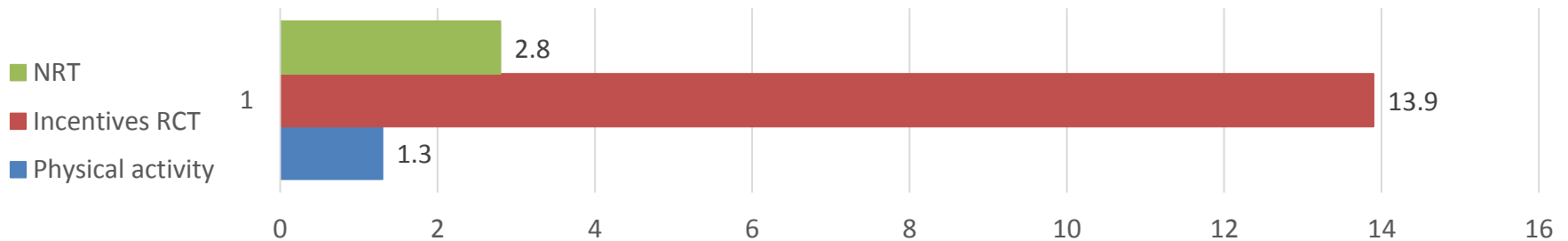
Cochrane Database of Systematic Reviews

Comparison of interventions

% absolute increase in abstinence (vs. brief advice, materials etc.)

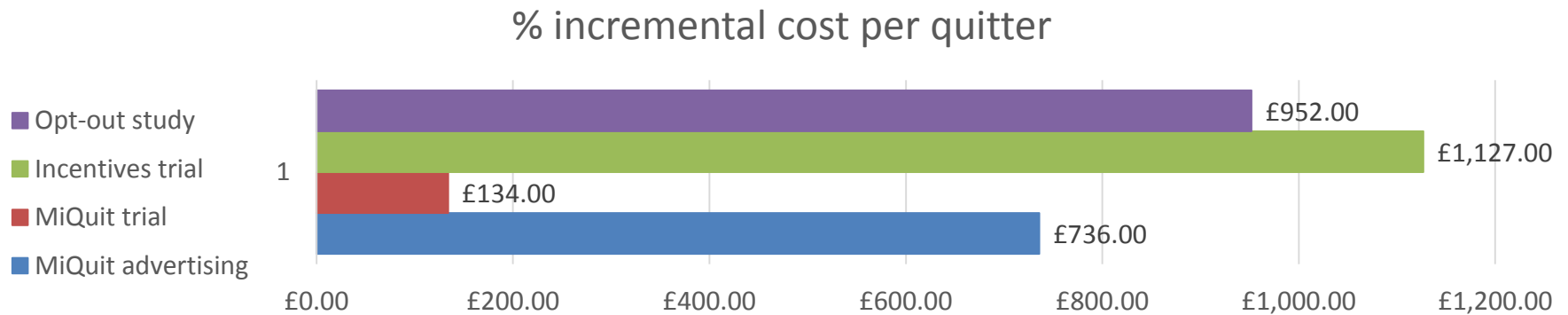


% absolute increase in abstinence (vs. cessation programme)



*Not direct comparisons: comparators, outcomes etc. may differ, data reviewed by Dr Felix Naughton

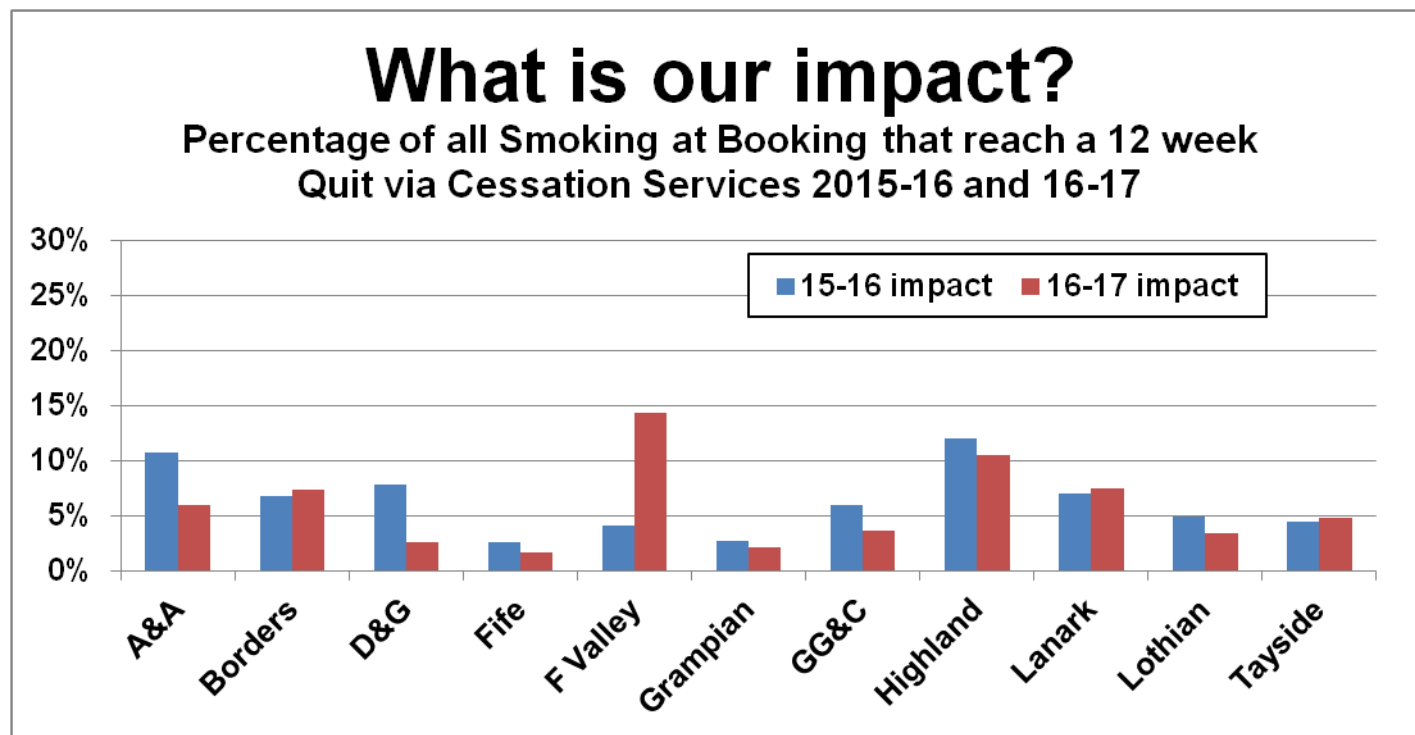
Comparison of cost per quitter*



* Samples, outcomes etc. may differ. Data from studies reviewed by Dr Felix Naughton

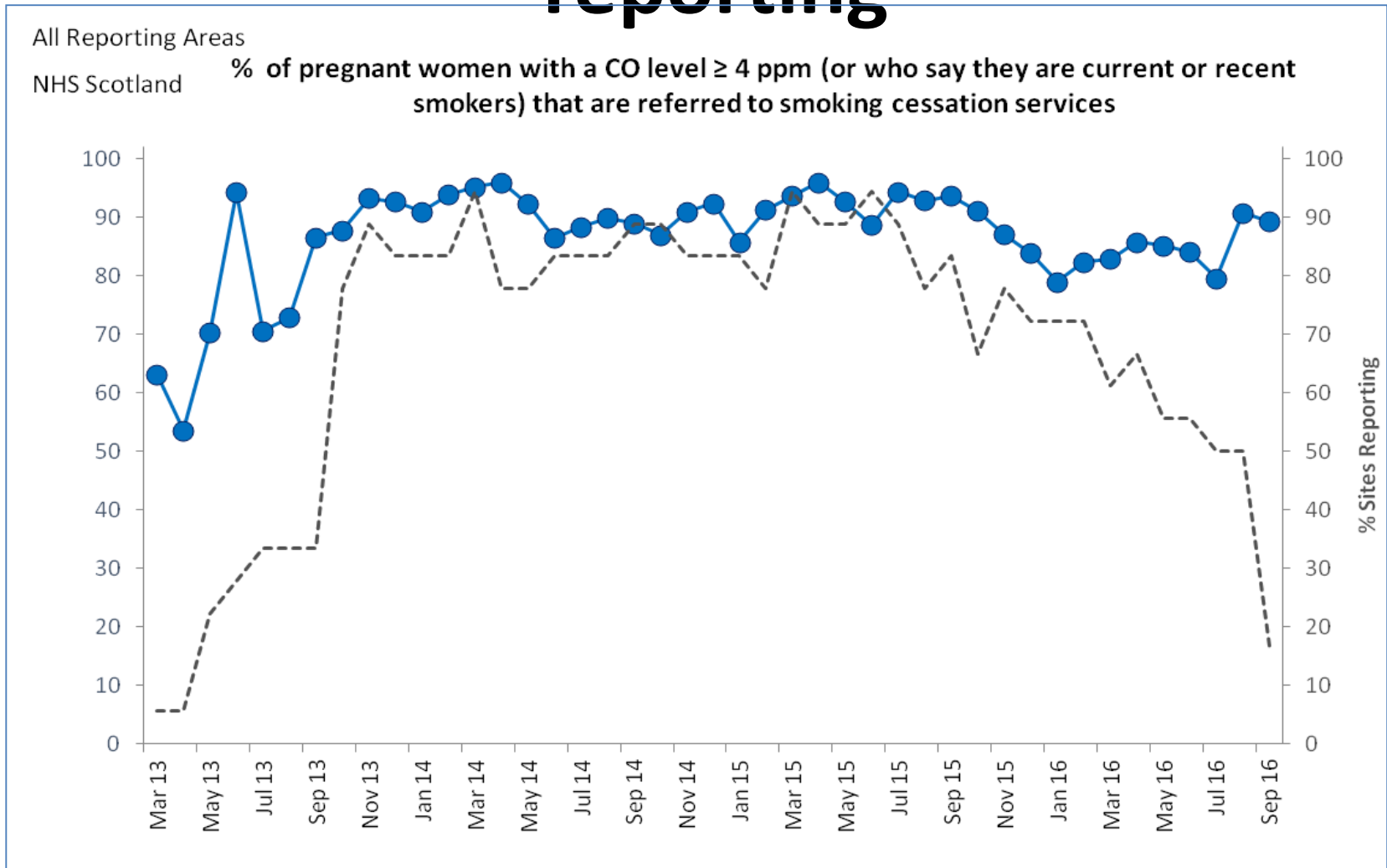


Most pregnant smokers not using stop smoking services and significant differences between Boards



Source: ISD Scotland (2017) NHS Smoking Cessation Service, data tables available at:
<http://www.isdscotland.org/health-topics/Public-Health/publications/2017-10-24/visualisation.asp>

CO monitoring & opt out referral reporting



Big drop off in sites reporting, but not required nationally any more – but is it really happening in all areas?

E-cigarettes

- National (UK) survey, funded by CRUK, dataset complete, analysis underway (PI Sue Cooper)
- 16% of pregnant women who are current or recent ex smokers are using e-cigarettes
- This is **not that different from prevalence (around 20%) in the general adult population of smokers and recent ex-smokers**

E-cigarettes in pregnancy

Are e-cigarettes safe to use?

- E-cigarettes aren't risk free, but they are much less harmful than smoking
- If using an e-cigarette helps you stay smokefree, it is much safer for you and your baby than smoking

Can I use an e-cigarette to help me quit smoking?

- The safest products to use are nicotine replacements such as patches and gum
- If you find an e-cigarette helpful, it is far safer than continuing to smoke

Can I still smoke a bit of tobacco?

- NO - Every cigarette harms you and your baby
- The only way to stop this is to stop smoking tobacco completely
- You can use your e-cigarette as often as you need to stay smokefree

Is it OK for others to use e-cigarettes around me?

- It is far safer than allowing smoking
- Secondhand tobacco smoke is very harmful to you and your baby
- There is no evidence of harm to others from e-cigarette vapour

Is nicotine harmful for my baby?

- Nicotine alone is relatively harmless
- The main harm from smoking comes from the thousands of chemicals in tobacco smoke

Using an e-cigarette is far safer than smoking

- E-cigarettes allow you to inhale nicotine through a vapour rather than smoke
- E-cigarettes don't burn tobacco, and don't produce tar or carbon monoxide
- Vapour contains much lower levels of harmful chemicals than smoke

For more information on quitting smoking ask your midwife, GP or pharmacy team or search NHS Smokefree.

Always keep e-cigarettes and e-liquids out of the reach of children to avoid accidental poisoning. Always use the correct charger.

Tommy's

Challenges

- Uptake and engagement with services remains a huge challenge, but are we doing all we can, in all areas?
- If many women still won't access services despite efforts, how can we embed other (self-help, digital) options?
- Arguably most effective intervention (incentives + support) still not acceptable/used in many areas
- Many pregnant smokers are choosing to use e-cigarettes, are we ignoring this reality and waiting for more evidence?

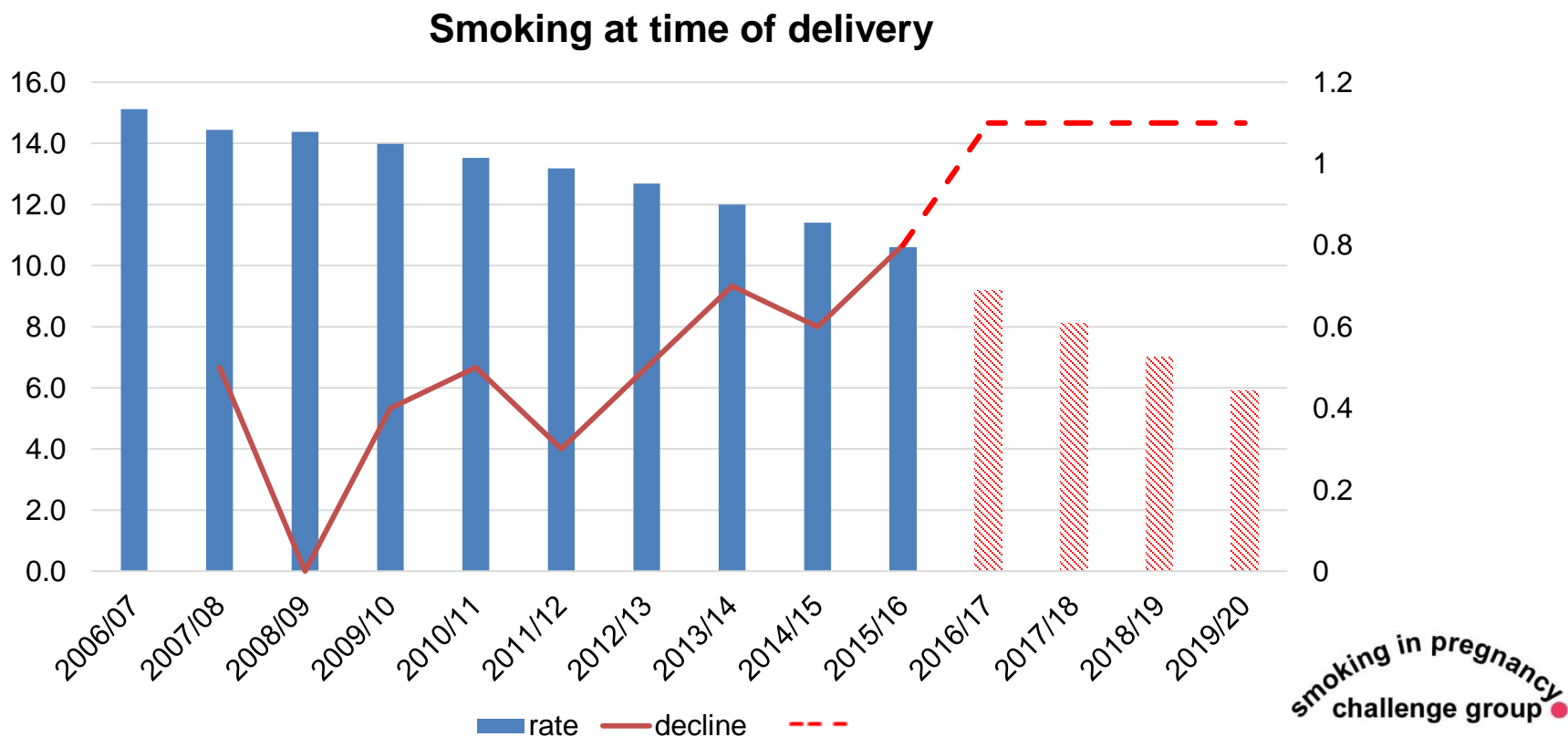


Tobacco Control Strategy

- Refreshed strategy under development and may appear around Spring 2018
- Priority likely to be reducing prevalence in key populations of high prevalence/clear need
- Pregnancy will be one of these
- What should we hope for in a new strategy and what further work will be needed to achieve progress?

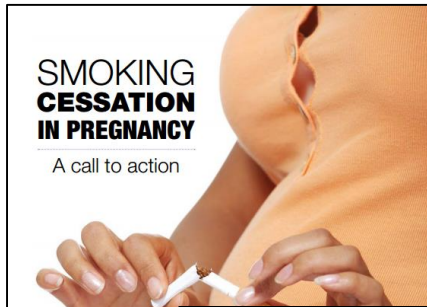
What is the target in England?

A new national ambition to reduce smoking in pregnancy to **less than 6%** by 2020



The Challenge Group

smoking in pregnancy
challenge group



Test your breath

Why Carbon Monoxide screening matters

Carbon Monoxide (CO) is a poisonous gas which you can't see or smell but which is dangerous to you and your baby. Exposure can prevent oxygen reaching your baby, slow its growth and development, and can result in miscarriage, stillbirth and sudden infant death.

Exposure can be measured through a quick and simple breath test provided by your midwife during a routine antenatal appointment. Feel free to ask your midwife about Carbon Monoxide screening. The test will give you a number which measures the amount of Carbon Monoxide in parts per million (PPM).

0-3	Your recent level of exposure to Carbon Monoxide is low.	0-3 PPM shows little exposure to Carbon Monoxide over 24-48 hours.
4+	You have had some recent exposure to Carbon Monoxide.	4+ PPM suggests you have had recent exposure to Carbon Monoxide.

Exposure

Exposure to Carbon Monoxide is usually from one of the following:

- Cigarette smoke
- Faulty or poorly ventilated cooking or heating appliances (this includes gas, coal, wood and paraffin appliances)
- Faulty car exhausts

Carbon Monoxide Screening: advice for health professionals



Carbon monoxide (CO) is a colourless, odourless and tasteless poisonous gas which can kill people. It is present in exhaust fumes, faulty gas appliances, coal/wood fires, oil burning appliances and cigarette smoke. It is especially dangerous during pregnancy because it deprives the baby of oxygen, slows its growth and development, and increases the risk of miscarriage, stillbirth and sudden infant death. This is why it is important to offer and encourage pregnant women to have the CO screening.



Resources available from:

<http://www.smokefreeaction.org.uk/SIP/index.html>

Aspirations in Scotland

- We should aim for targets or ambitions as a driver to reduce smoking in pregnancy rates further
- Early work via a specialist group needs revisiting
- Engagement with MCQIC will be key – and we can't assume that early signs that routine CO and opt out referral were embedded is actually the case in practice

Aspirations in Scotland

- Specialist group/committee needs to examine the whole system and make recommendations for practice
- Focus shouldn't just be on stop smoking services
- Better connections also needed between wider TC efforts and focus on pregnancy
- We need to take e-cigarette use in pregnancy SERIOUSLY. It's not going to go away, and we must not stigmatise use. The risk is continued smoking.

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