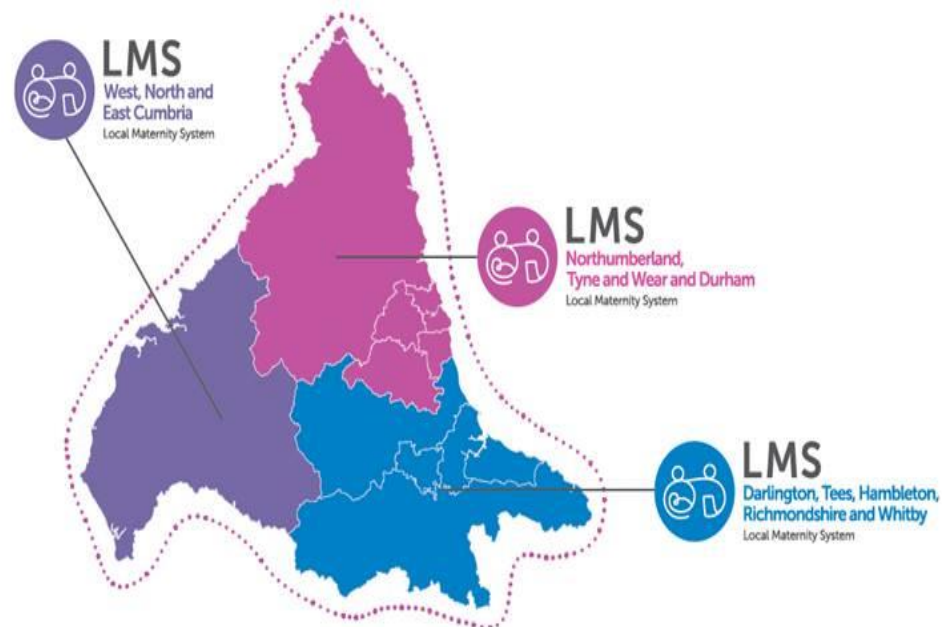


Making a difference to babies, mothers and families lives at a population level

Dr Stephen Sturgiss

*Clinical Lead for the North East & North Cumbria
Maternity Clinical Network*

The NE&NC team



Timeline

2005

Fresh (Making Smoking History) Programme



2010

Newcastle University 'insight' work



2016

Better Births



2007

First regional smoking summit



2011-2013

BabyClear training rolled out
<https://youtu.be/Ve0Oe653Bd8>



2017

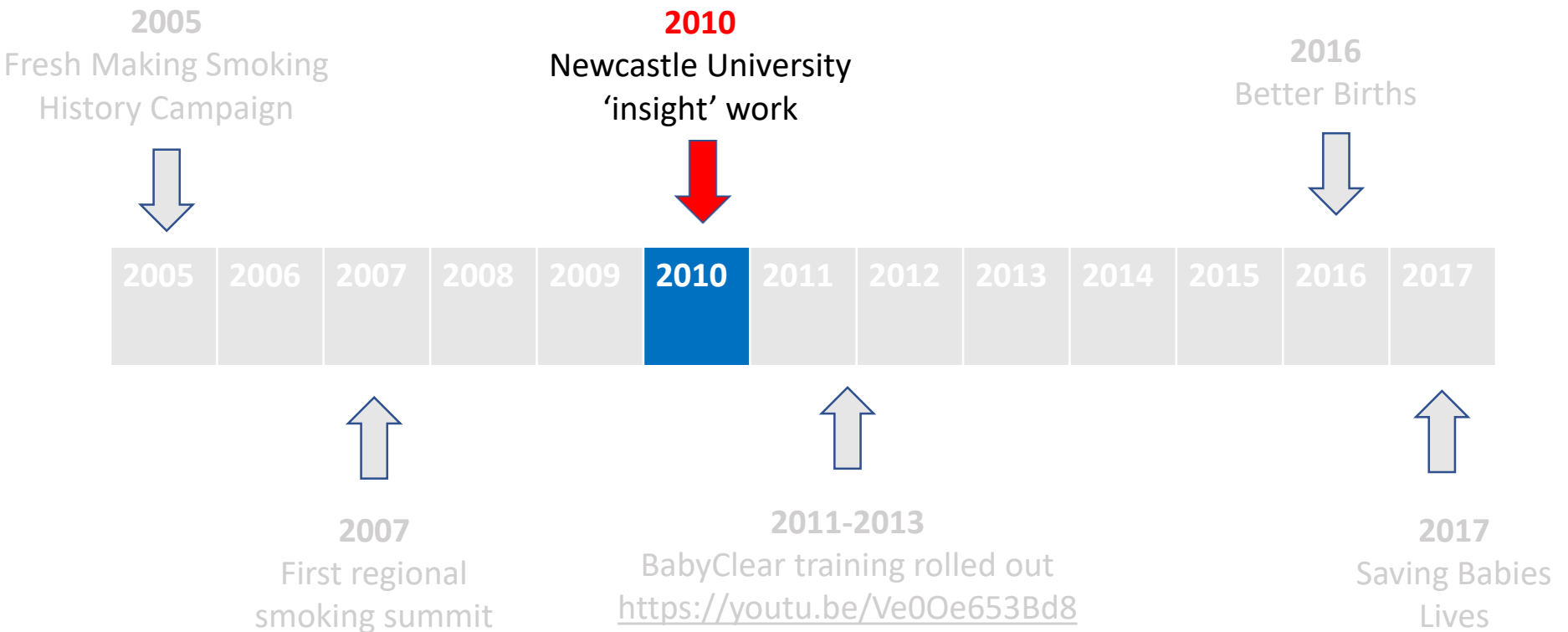
Saving Babies Lives



North East approach

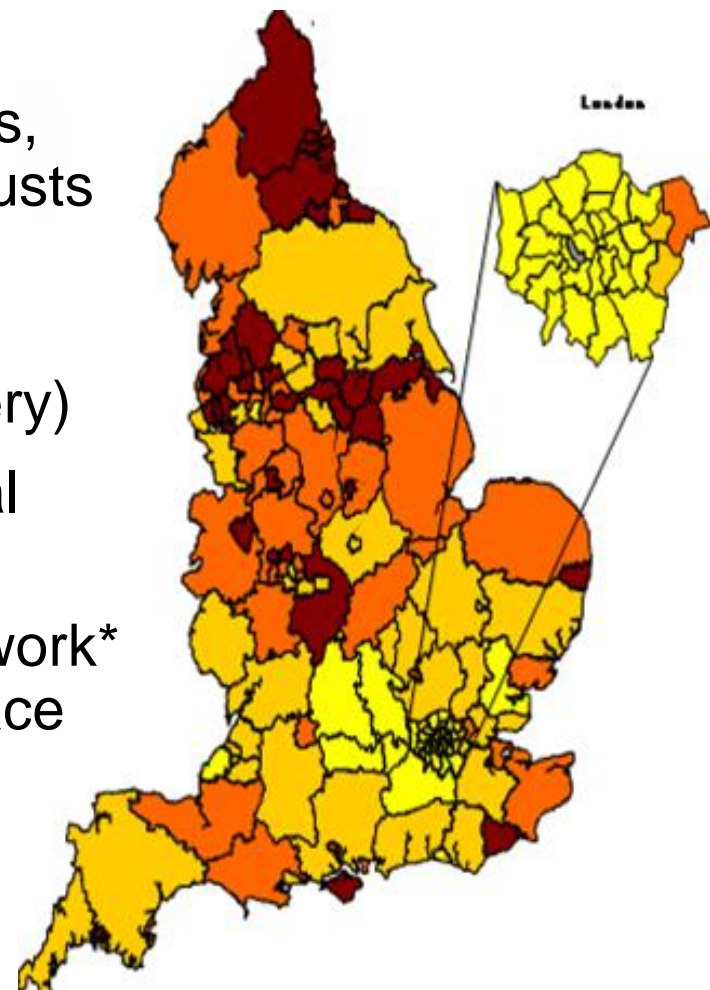


Timeline



Understanding the specific Maternal Smoking issue (2010)

- North East population of 2.1 million adults, covering 12 Local Authorities, 8 Acute Trusts and 6 SSS
- SATOD rates falling, but NE remains an outlier at 22.2% (6,500 smokers at delivery)
- NICE PH26 acts as a catalyst for regional discussions with strategic partners
- Newcastle University conducted insight work* with 589 midwives on the barriers they face in discussing smoking during pregnancy
- *<http://europepmc.org/articles/PMC3465235>



Timeline

2005

Fresh Making Smoking
History Campaign



2010

Newcastle University
'insight' work



2016

Better Births



2007

First regional
smoking summit



2011-2013

BabyClear training rolled out
<https://youtu.be/Ve0Oe653Bd8>



2017

Saving Babies
Lives



Babyclear approach

- Multiagency buy in
- Funded phased roll-out of babyClear training & materials
- Total number of maternity staff trained in Year One - 399
- Total number of CO monitors issued in Year One – 332
- Total number trained in Risk Perception – 39
- Refreshment or new training of Stop Smoking Advisors (SSA) based in maternity/pharmacy – 148
- Training of SSA admin staff -28

Quantitative Evaluation Summary

The intervention was acceptable to both pregnant women and staff

Implementation of the training package nearly doubled probability of quitting by delivery


Babies born to women who quit were heavier (210g at term) than smokers' babies

Intervention cost £30 per delivery

Nine pregnant smokers needed to be treated per additional quit

Published: <http://tobaccocontrol.bmj.com/content/early/2017/02/10/tobaccocontrol-2016-053476>



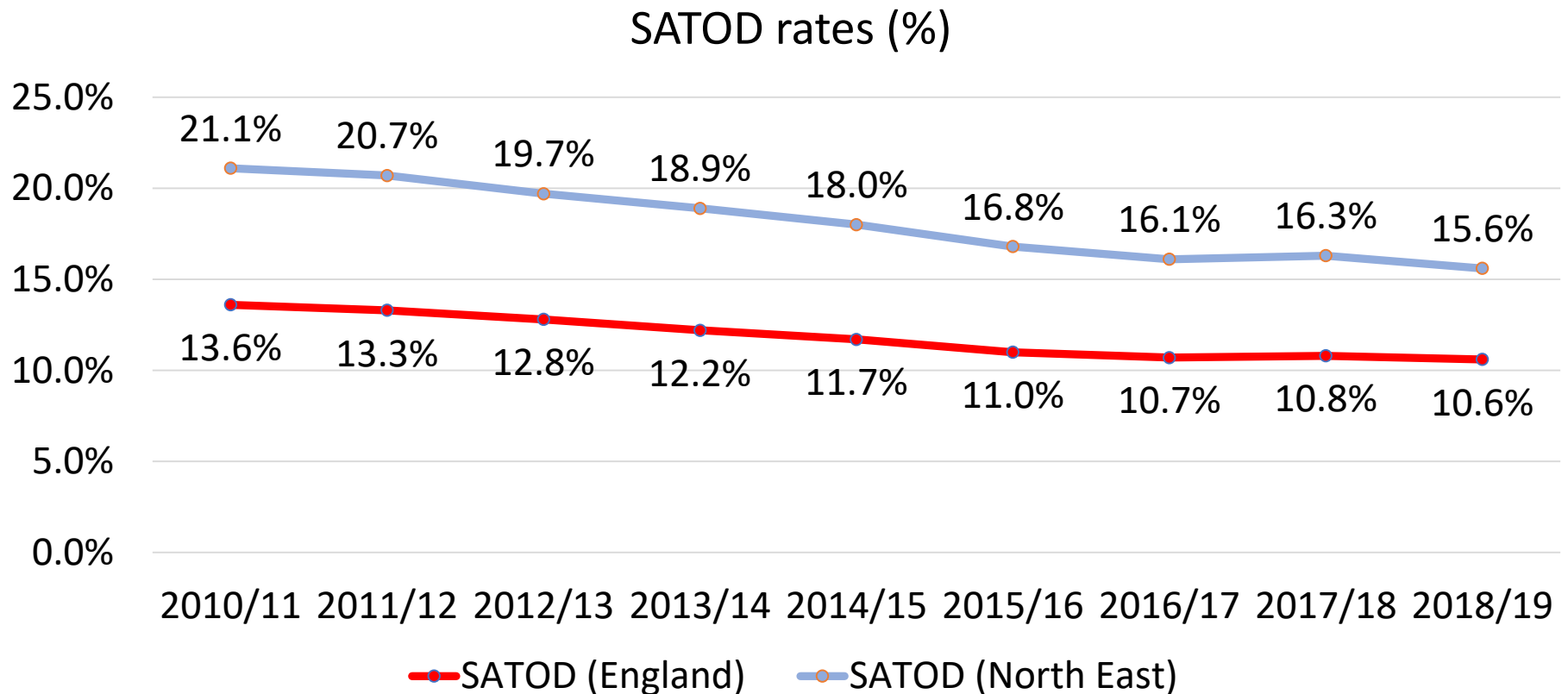
A blue speech bubble with a white outline, containing white text. It has a tail pointing towards the bottom left.

Creating a new
conversation for
tackling 'smoking
in pregnancy'

Dr David Hambleton,
Chief Executive Officer,
South Tyneside CCG



Progress in NE SATOD rates



LMS Regional Prevention Work


- **Regional audit and key recommendations**
- **Smoking in pregnancy event, table discussions and maternity focus group**
- **Regional Tobacco Dependency Commissioners**
- **Regional Programme Development Group and LMS Governance Group**
- **Regional Multiagency Pathway Working group**
 - Consistent pathway and practices
 - RAG rating of current service provision

RAG Rating of Exposure to CO support

RAG Rating of North East Maternity Units: Exposure of carbon monoxide in pregnancy – December 2018

Unit	Number of SSS Quit attempts	Risk perception	CO Monitoring	Opting out of service	Script	Ppm referral	Regular CO monitoring	CO in settings	Referral to SSS	Validated quit rate 17-18	Electronic documentation	Audit
Northumberland										28% (78% CO validated)		
North Tyneside				Drop in						22% (unknown)		
South Tyneside												
Gateshead										25% (unknown)		
Newcastle										34% (48% CO validated)		
Sunderland										30% (82% CO validated)		
County Durham												
Darlington										22% (unknown)		
Stockton										30% (18% CO validated)		
Hartlepool				Drop in						32% (15% CO validated)		
Middlesbrough		Not in Friarage			Not in pathway					25% (30% CO validated)		
Redcar & Cleveland		Not in Friarage			Not in pathway					33% (unknown)		

Initial CO Monitoring	Ask about smoking and CO	CO only	Co reading first and VBA/refer
Opting out of service	Opt in service	Opt out service	Refer electronically within 24 hours
Script	No script	Script off message	Evidence based script used
Ppm referral	No consistency on ppm		Referring on 4ppm
Regular CO monitoring	Not using CO monitoring regularly	Using CO monitoring at booking	<ul style="list-style-type: none"> - CO monitoring at booking, 36 weeks/delivery every woman - CO monitoring at every contact for smokers



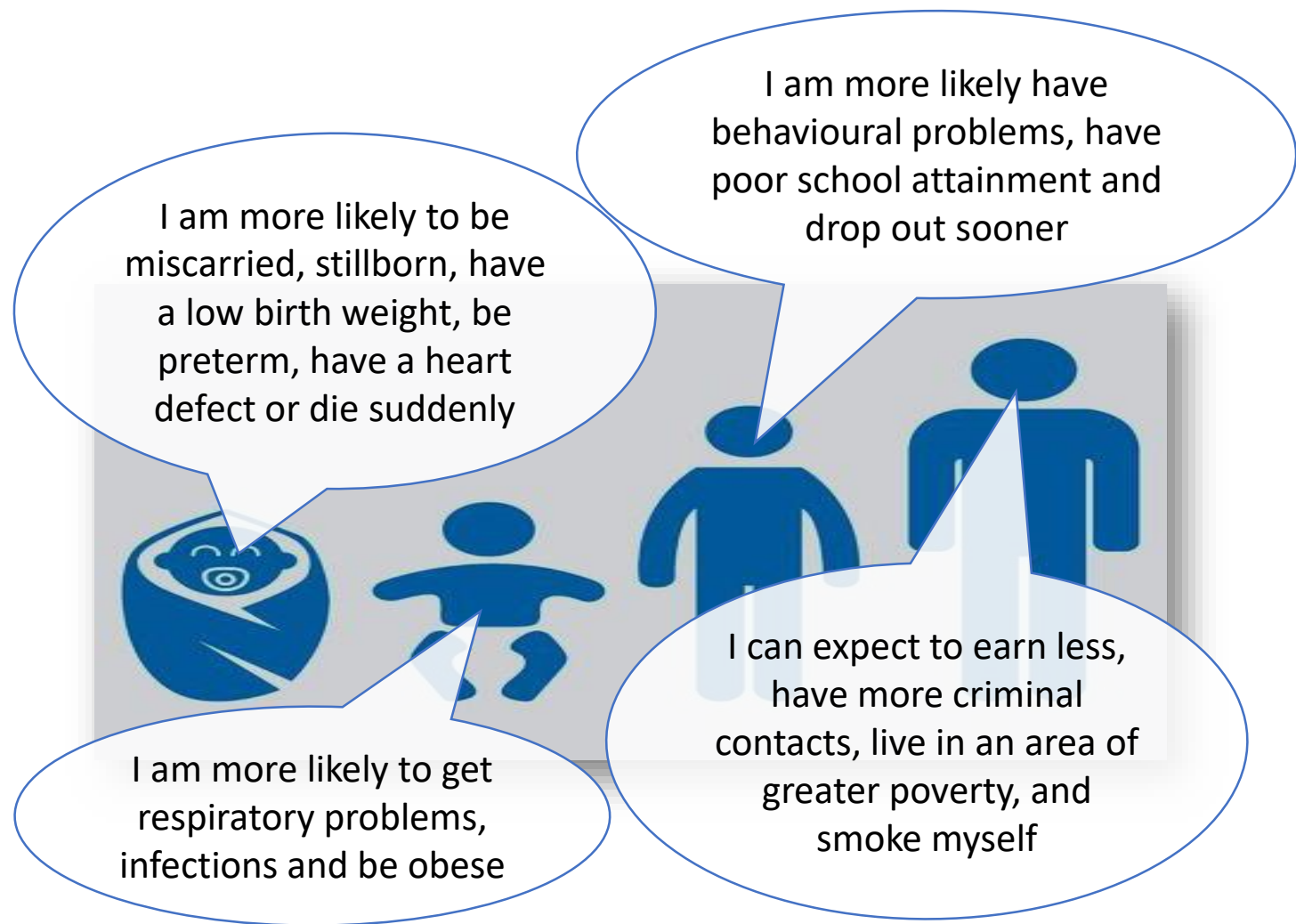
Smoking is the single most modifiable
risk factor in pregnancy

Smoking in pregnancy not only causes
inequalities, it also exacerbates existing
inequalities

Formation of the Yale Group: Smoking in pregnancy

Aspirant for Babies in the North East and North Cumbria





Scale of the problem nationally

Smoking during pregnancy leads to expensive obstetric healthcare and long-term health problems

The aim nationally is to reduce smoking in pregnancy to less than 6%

65,000

The number of babies born to mothers who smoke every year in England

10%

Percentage of women in England who smoke at delivery in England



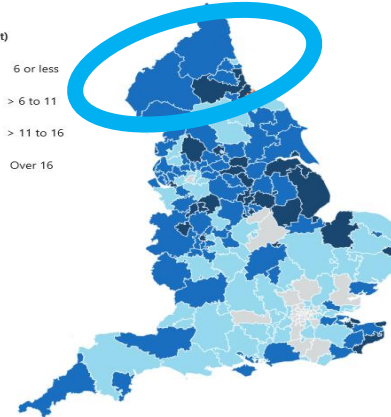
Scale of the problem: the local challenge

Aspirant for Babies in the North East and North Cumbria

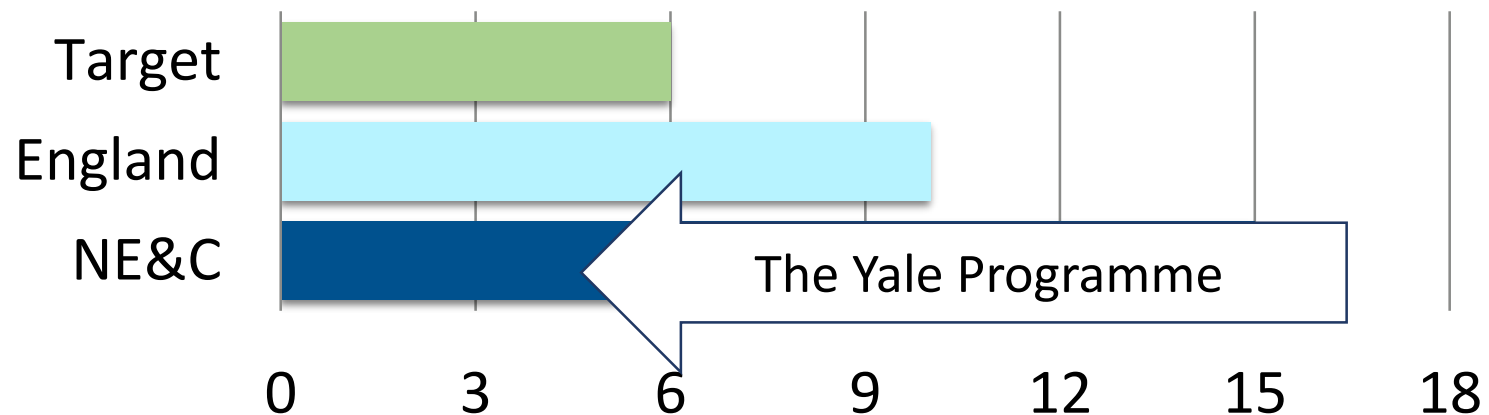
NE&C have a particularly long way to go to achieve the ambition

CCG Map

Key (percent)



% women smoking at delivery



The local cost of smoking in pregnancy

Aspirant for Babies in the North East and North Cumbria



£2.7m

Annual obstetric costs in North East of managing women who smoke

£4.8m

Healthcare cost savings across the lifetime of Mother & baby unit

Our annual human savings by reducing to 6% SATOD

9 babies stillborn

74 miscarriages and neonatal deaths

1 sudden infant deaths

29 preterm babies

131 babies born at a low birth weight

8 Steps of Strategic Problem Solving



Aspirant for Babies in the North East and North Cumbria

1. Define the problem
2. Set a SMART objective
3. Conduct a root cause analysis

Develop a shared understanding of the problem

4. Develop alternative strategies
5. Compare possible strategies...
6. ...and select one!

Move systematically toward a solution

7. Create an implementation plan
8. Create an evaluation plan

Execute

Problem statement



**Over 4300 women
in the North East are
smoking at the time of giving birth**

**To reduce the number of women in the North East smoking
at the time of delivery from 4300 (15%) to less than 1700
(6%) by 2022, thereby exceeding the national target**

Process

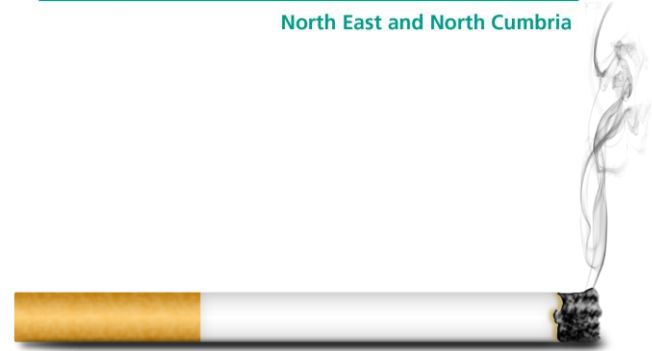
Stakeholders

- ICS Health Strategy Group
- Smoking project team
- Guiding coalition

Root Cause Analysis

Light bulb moment

Selecting the strategy



"No try not.
Do or Do Not.
There is no Try."

Building the products

Developed a new script

- Can be used by all professionals in the North East
- Co-produced

New clinical pathway for smoking dependency

- CO 'monitor first, ask after' approach
- Automatic referral to smoking cessation clinics (opt-out)
- On-going support to prevent relapse post-delivery
- By also supporting partners who smoke, we support the mother and unborn child.

The economic argument

- Individualised

North East England

Tobacco Dependency in Pregnancy Script

All pregnant women and household members (optional) are routinely screened for carbon monoxide (CO) at very first booking appointment – this should be done before asking smoking status:

"I now need to test your baby's exposure to carbon monoxide, a poisonous gas that can come from a variety of sources including car exhausts, faulty boilers, and tobacco smoke."

Smoking status should then be verified using multiple choice questions such as:
Which of the following best describes you?

- | | |
|----------------------------------|----------------------------------|
| a) Daily Smoker | b) Infrequent / Social Smoker |
| c) Ex-Smoker – more than 2 weeks | d) Ex-smoker – less than 2 weeks |
| e) Non Smoker | f) vape/e-cigarette |

CO reading 4ppm or more who advise that they do not smoke

Clearly inform: "I am concerned about the level of carbon monoxide in your blood and the risks that this poses for you and for your baby. It's standard for me to refer you for treatment to eliminate these risks. You will be contacted with an appointment in the next 48 working hours. Please also contact the Health and Safety Executives Gas Safety line 0800 300 363 to have your home reviewed for faulty appliances leaking carbon monoxide".

Current tobacco dependant

All smokers are advised as to the risks of continuing to smoke and the benefits of quitting and are referred to a stop smoking advisor/service within 24 hours.

Smokers are clearly informed: "I am concerned about the level of carbon monoxide in your blood and the risks that this poses for you and for your baby. Tobacco contains nicotine which causes the release of relaxing, calming and feel good hormones in the brain. After smoking nicotine leaves the body quickly and without regular nicotine a smoker suffers negative feelings like agitation, anger & anxiety and which causes an intense craving for nicotine. These cravings and addiction becomes very powerful over years of smoking. Whilst tobacco satisfies the addiction to nicotine (a harmless drug), it also exposes you to 5000, poisonous and fatal chemicals in tobacco smoke. It's standard for me to refer you for treatment to eliminate these risks. You will be contacted with an appointment in the next 48 working hours".

NOTE: Do not ask 'Is this okay?' or 'Are you happy for me to refer you?' otherwise this then becomes an opt-in and weakens the intervention.

Smokers can only opt out at the point of contact from the stop smoking service therefore every identified smoker should be referred.

Ex-Smoker quit less than 2 weeks

Congratulate woman and advise that the all women who have recently quit that the stop smoking service/advisor will contact her to provide support to help her stay smoke free.

Building the products

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- Can be used by all professionals in the North East
- Co-produced

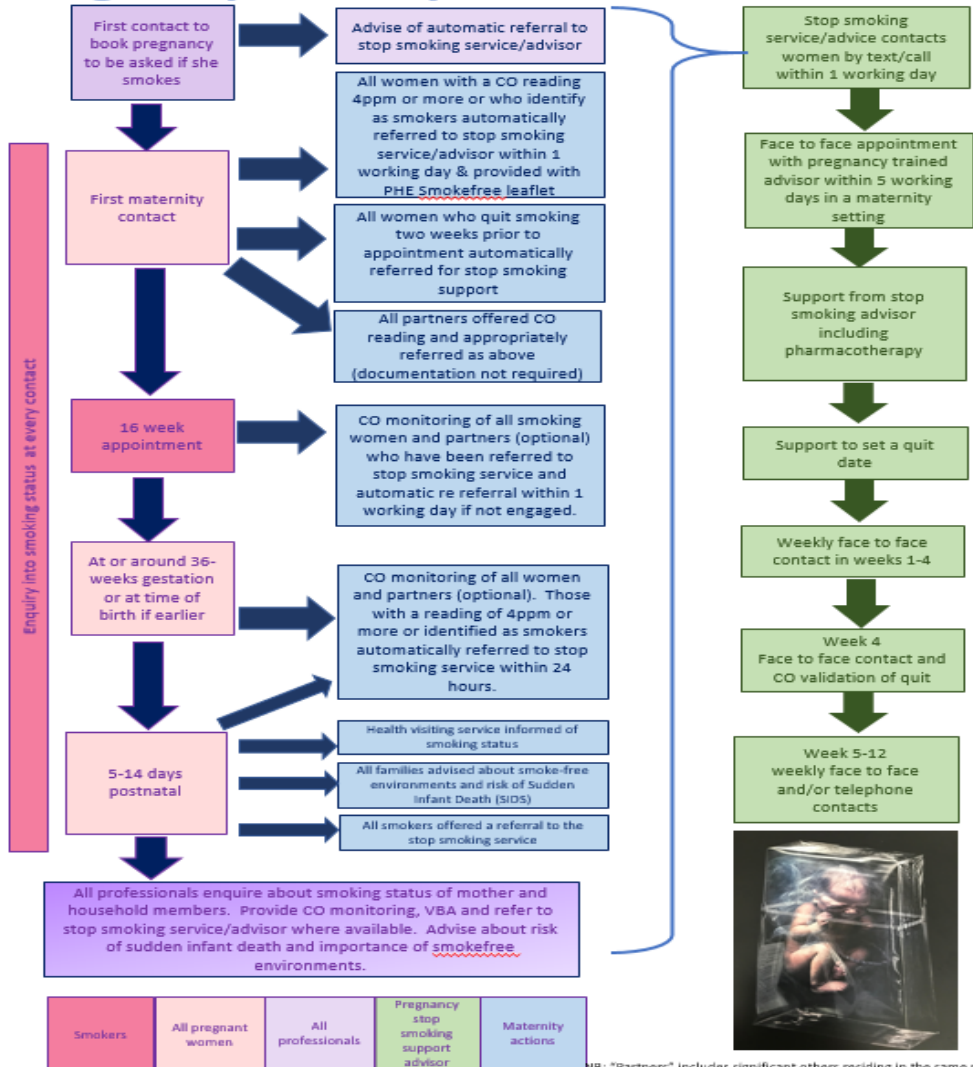
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The economic argument

- Individualised for trusts

Regional Tobacco Dependency in Pregnancy Pathway



Building the products

Developed a new script

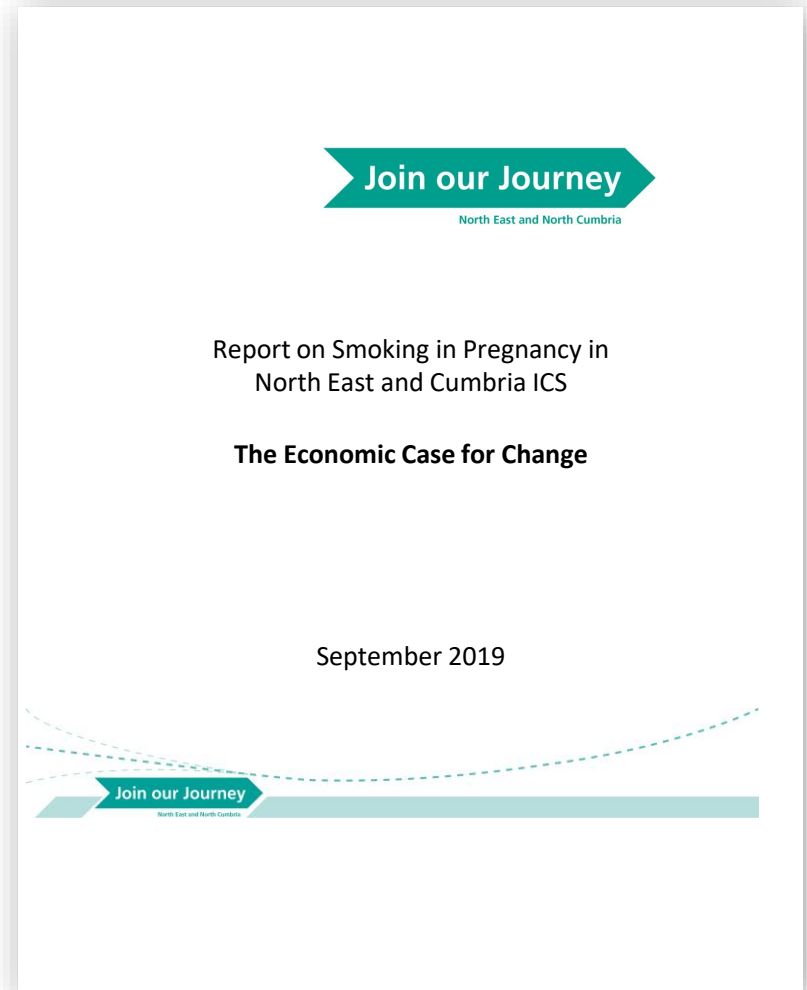
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New clinical pathway for smoking dependency

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The economic argument

- Individualised to Trusts



Evaluation

The key metric is Smoking at Time of Delivery (SATOD) for the different CCGs.

This will be monitored on a quarterly basis and the ICS HSG updated.

Success will be to get to less than 6% SATOD by 2022



Mid-way evaluation Sept 2021

If it appears that the trajectory will not hit the target, a fresh RCA will be undertaken