

Dr Caitlin Notley

Preventing Return to Smoking Postpartum: PReS Study

**– DEVELOPMENT OF AN EVIDENCE BASED COMPLEX INTERVENTION
FOR MAINTAINING POSITIVE BEHAVIOUR CHANGE**

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@AddictionUEA

<https://www.uea.ac.uk/medicine/research/addiction>



MRC Public Health Intervention Development funding (PHIND grant ref: MR/P016944/1)

- **University of East Anglia (MED):** CI Dr Caitlin Notley; Lead Researcher Tracey Brown
- **University of East Anglia (HSC):** Dr Felix Naughton; Dr Wendy Hardeman (Behaviour change theory, intervention development)
- **Edinburgh University:** Professor Linda Bauld (Cancer Research UK cancer prevention champion, Deputy Director of the UK Centre for Tobacco and Alcohol Studies and Co-Director of the Pregnancy Challenge group)
- **University of Leicester:** Professor Richard Holland (Public health)
- **St George's, University of London & University of Stirling:** Professor Michael Ussher (Smoking cessation in pregnancy)
- **University of Nottingham:** Dr Sophie Orton (Postpartum smoking relapse)
- **NO CONFLICTS OF INTEREST TO DECLARE**

- Health Visitors
- Midwives
- Smokefree Norfolk
- Children's Centres
- Mums



PReS Study: Background

- Cost of returning to smoking after pregnancy is estimated at £64 million (NICE, 2010)
- Most young women will be young enough to minimize long-term health damage (ASH, 2016)
- Babies have higher risks of cot death, breathing problems and ear infections
- Children of smoking mothers are twice as likely to become smokers themselves (Leonardi Bee, 2011)
- **There are no recommended interventions for preventing postpartum smoking relapse (Cochrane, 2019)**
- **There are no NICE guidelines**
- **There is no routine provision of support**



Policy

ACHIEVING WORLD-CLASS CANCER OUTCOMES

A STRATEGY FOR ENGLAND
2015-2020



 Department
of Health

Towards a Smokefree Generation

A Tobacco Control Plan for England

July 2017



Review of the Challenge

2018

 Royal College
of Physicians



Hiding in plain sight Treating tobacco dependency in the NHS

A report by the Tobacco Advisory Group
of the Royal College of Physicians

June 2018

NHS

The NHS Long Term Plan



#NHSLongTermPlan
www.longtermplan.nhs.uk

PReS Study: Background

- Approximately 26% of UK women report smoking in the 12 months before pregnancy (Infant feeding survey, Health & Social Care Information Centre, 2012)
- More women quit during pregnancy than at any other time. 45% are able to “spontaneously quit” (Lumley, 2009)
- The majority of women who quit smoking in pregnancy return to smoking within six months of the birth of the baby

Stress,
depression
or anxiety

Negative social
influences

Mistaken
beliefs

Low
confidence to
remain
abstinent

Partner/
household
smoking

Physiological
changes

Motivation,
intention to
quit only for
pregnancy

not
breastfeeding

Identify as a
smoker and as
a mother



ADDICTION **SSA** SOCIETY FOR THE STUDY OF ADDICTION

Review | Full Access

Postpartum smoking relapse—a thematic synthesis of qualitative studies

Caitlin Notley, Annie Blyth, Jean Craig, Alice Edwards, Richard Holland

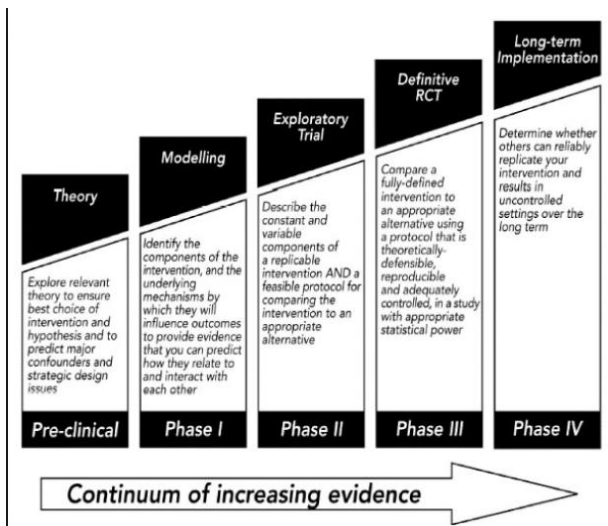
First published: 10 September 2015 | <https://doi.org/10.1111/add.13062> | Cited by: 18

Volume 110, Issue 11
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Pages 1712-1723

Journal Recommendation

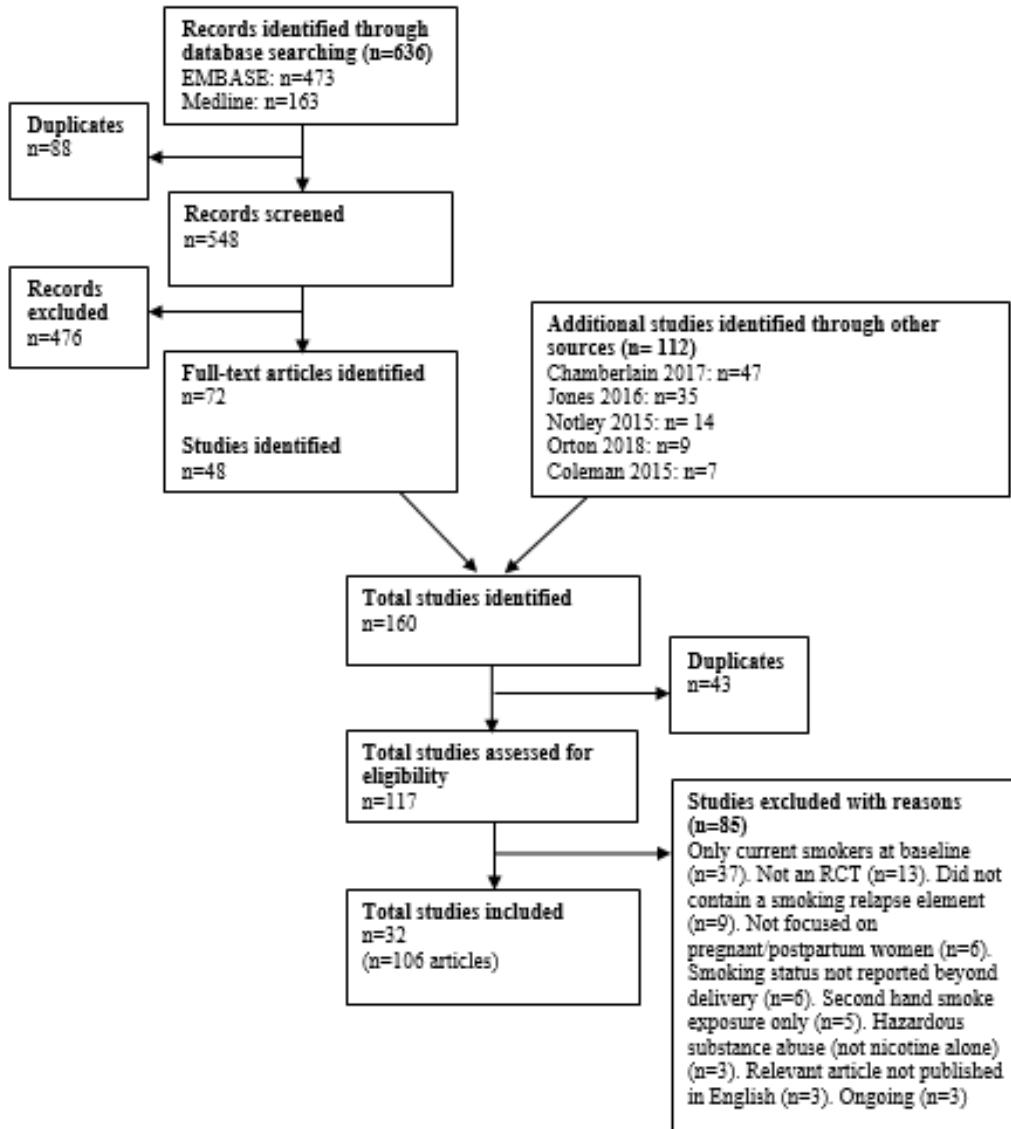
PReS Study: Aims & Methods

- Map literature to identify determinants and specify promising behavioural change techniques
- Refine a prototype intervention through focus groups and interviews with women, partners and health professionals
- Model the prototype intervention with postpartum ex-smokers
- Define an intervention suitable for testing in a phase II randomised feasibility trial

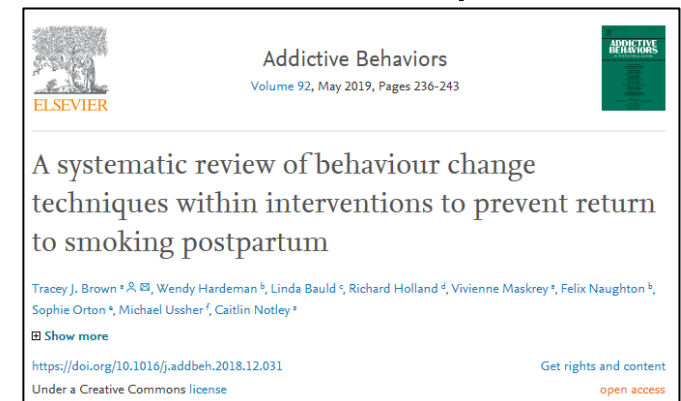


Following MRC framework for the development of complex interventions

Phase 1: BCT Review findings



- 32 included studies
- 6 deemed to be ‘long-term effective’.
- Used self-help, mainly in conjunction with counselling, and were largely delivered remotely.
- 6 ‘promising’ BCTs i.e. both frequently occurring and present in trials which demonstrated long-term effectiveness:
- ‘problem solving’, ‘information about health consequences’, ‘information about social & environmental consequences’, ‘social support’, ‘reduce negative emotions’ and ‘instruction on how to perform a behaviour’.



Phase 2 – Qualitative study

	Interviewees completed	Online/email feedback
Postpartum relapsers	7	2
Postpartum ex-smokers	16	6
Pregnant relapsers	5	0
Pregnant ex-smokers	9	4
Partners	7	2
Did not specify	0	4
Health professionals (Midwives, Health visitors, Stop Smoking advisors)	12	0
	56	18
TOTAL		74

PReS intervention – becoming more defined...

Intervention start - pregnancy



FOREVER
FREE...for Baby and Me
A Guide To Remaining Smoke Free



Tobacco cessation: relapse prevention

Comments

A few months ago, you started something that you are extremely proud of: you quit smoking. However, recently it seems that the temptation to smoke again has increased and you feel more at risk. How can you avoid a relapse?



Postpartum follow up



Ongoing support



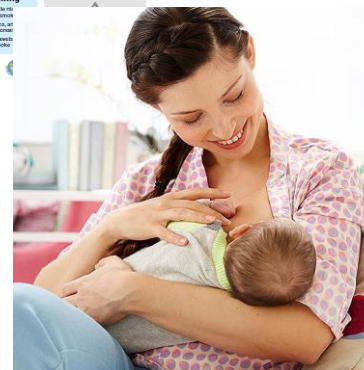
Adapted from MiQuit Naughton 2017

Tailored options



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 smoke-free, it is much safer for you and your baby than smoking.
- 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 smoke-free.
- 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 safer than continuing to smoke.
- 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.
- 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.
- Using an e-cigarette is far safer than smoking**
 - E-cigarettes allow you to breathe in through a vapour rather than smoke.
 - E-cigarettes aren't like tobacco, so don't produce tar or carbon monoxide.
 - Vapour contains much lower levels of harmful chemicals than smoke.











Postpartum and the future



SUPPORT

Phase 2: PReS Study focus group feedback

-  **Women like the idea of a face to face appointment at the end of pregnancy talking about relapse risk. Midwife or Health Visitor?**
-  **Booklet – variable reaction. Possibly an app or interactive resource instead - website (or choice?)**
-  **Postpartum birth visit should revisit booklet/resource**
-  **Strong support for text message support (tailored)**
-  **Mixed response to incentives**
-  **Information about e cigs critical, but not for everyone as an option**
-  **Support for cessation support for partners**
-  **Follow up relapse session important – probably as a virtual group**

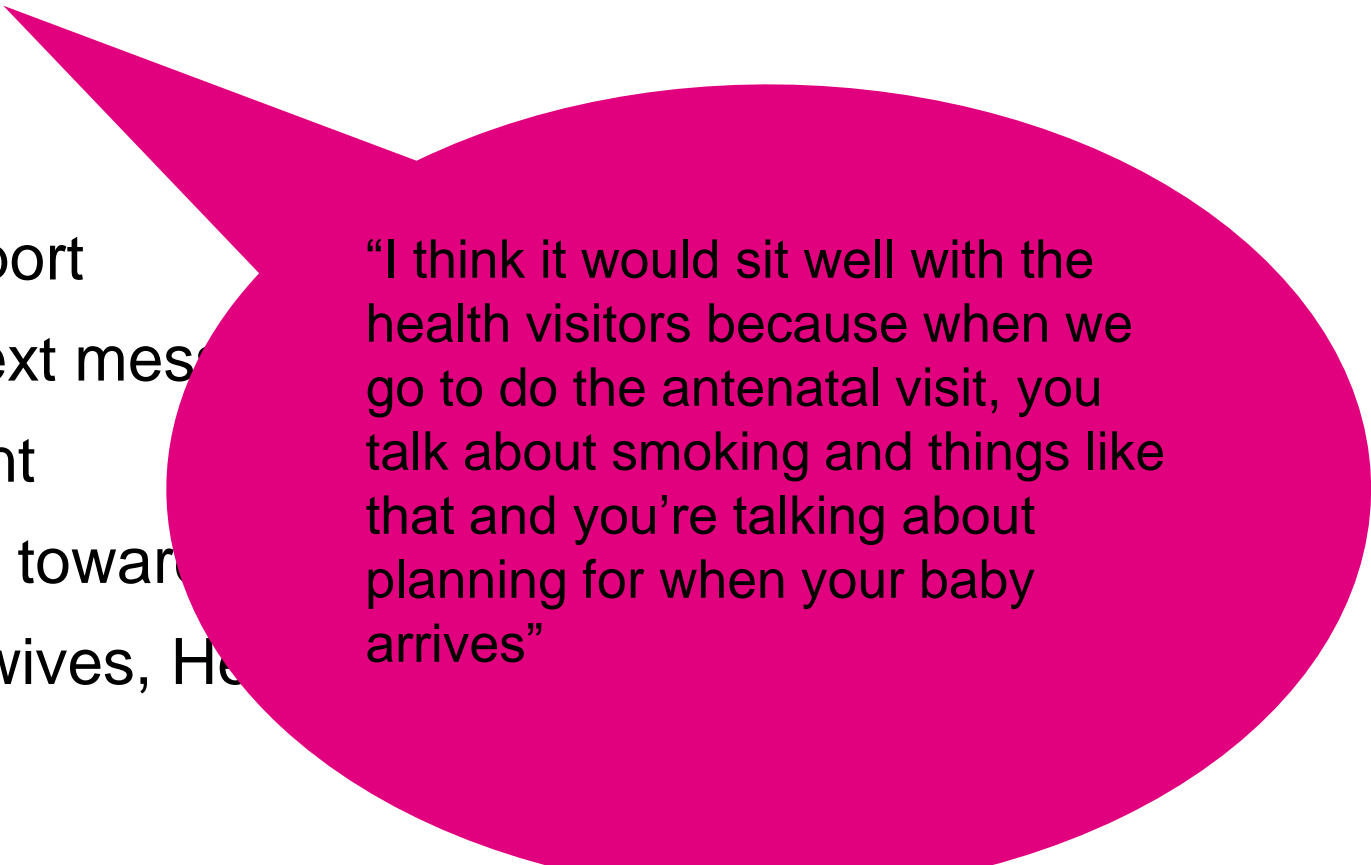
Phase 2: Focus groups – Health Visitor feedback

‘When and who’ should deliver support

- Smoking discussed by HVs, but limited information resources
- Ante-natal and new birth visits key times to focus intervention

‘What’ support might look like

- Enthusiasm for text message support
- Concern about administration of text messages
- Tailoring / personalisation important
- Service moving away from leaflets towards digital
- Need for joined up approach: Midwives, Health Visitors



“I think it would sit well with the health visitors because when we go to do the antenatal visit, you talk about smoking and things like that and you’re talking about planning for when your baby arrives”

'What' support might look like cont/d...

E cigarettes – some entrenched confusion:

“it just comes back to that point of are they then going to become addicted to the e-cigarette rather than actual cigarettes

“we still don't know how it would affect other people that don't smoke.”

“I don't particularly feel that I would feel comfortable promoting the e-cigarettes just because I don't know enough about them really”

Enthusiasm for information on e cigarettes that can give to women

Need to engage partners, but fear alienating them:

“It's a huge possibility for change at that point, not only for the mum but for the dad...it's probably for them an even more key time after the birth.”

Concerns with incentives;

“I begrudge having to reward people for stopping smoking. Personally I don't agree with it.”

But in favour of self incentives (e.g. savings calculator)

Phase 2: Focus groups – Health Visitor feedback

Issues for Health Visitors

- Difficulty of supporting women, offering advice, yet maintaining therapeutic relationship:
- Links with post
- Making every

“For us, as I was saying earlier, it’s that balance of trying to build a therapeutic relationship with a woman and not alienating her. So I would be wary about how I approach this and how the staff approach this because we want that woman to be able to open up to us about domestic violence, drugs, alcohol, you know there’s that bigger picture isn’t it. We don’t want to push them away and think ‘actually I just want us to stop smoking, I’m going to shut off’ you know, it’s so so tricky.”

Phase 2: Focus groups – Health Visitor feedback

Links with breastfeeding:

“And quite often as health visiting service when we get there, they’ve already quit at that new birth point, so the intention to breastfeed was there in the hospital or the lip service for the breastfeeding intention was there. Our statistics are horrific really for that.”

Further issues / barriers to support

Concern / confusion about ‘third hand’ smoke

Inconsistent service delivery:

“not all women get a health visitor visit...especially with second baby”

PReS Intervention – introducing ‘BabyBreathe’™

- Information leaflet to introduce the intervention
- Positive support
- Avoiding negative images associated with smoking cessation literature
- Underpinned by BCTs
- Designed to facilitate a conversation with the health visitor
- Introduces the package of support, giving access to website/app and text message support
- Key top tips, advice and support

PReS Intervention – BabyBreathe™ website *(in development)*



Welcome to BabyBreathe!

Help to stay smoke free after your baby is born

Congratulations on quitting smoking for pregnancy! You've got this far, you know you can do it.

By staying smoke free after the birth of your baby you will help them have a healthy start. You can also protect your baby from SIDS (sudden infant death syndrome), ear infections, asthma and chest infections.

"first time around I was so adamant I was never going back and wouldn't"



Things can be difficult after a baby is born. It's easy to get back to smoking after birth of a baby.

Use this site for help and calculators to see how well you are doing!



Not yet tested – in development

Did you know...

Stay smoke free

Hints and tips to support your smokefree journey.

MORE

Health Timeline

Find out how much your health has improved.

MORE

Your savings

Look at all the money you are saving!

MORE

Phase 3 emergent findings – Person centred feedback

Leaflet for women

'BabyBreathe' name was liked; positivity important; **lack of information on staying smoke free currently**. Keen to have this type of leaflet.



Leaflet for partners

Important to involve partners, who are **often overlooked**, however, engagement raised as a difficulty; potentially more hard-hitting leaflet for partners.



Text message support

Well received. **Personalisation important**. At the end of the programme, some women missed the texts and suggested an option to re-sign up



Website

Some would use as an app, some a website. Evidence based approach important, quotes liked. Favoured content: parents forum, 'my page', tips, facts and stats, **cost calculator, health timeline**, freebies and quizzes. Information on e-cigarettes useful. Further information e.g. about different strengths, breastfeeding implications, was wanted. Adding more information on weight, mood (postpartum depression) and the psychology of smoking were suggested.



Phase 3 emergent findings – Person centred feedback



Relapse prevention kit - 'BabyBreathe Box'TM

Generally liked, although some concern about smoking reminders.

Treats e.g. tea bags and bath salts well received.

Prophylactic NRT or E cigarette voucher

Intervention overall

Support reiterated by health visitors

Ability to tailor and personalise the intervention is crucial.

Smoke free motivators included thinking of the baby, concerns of second and third hand smoke, information on statistics, praise and support.

Partner support important: tailor more to a smokefree family/ home?

Stress, guilt, judgement, isolation and identity were important factors.

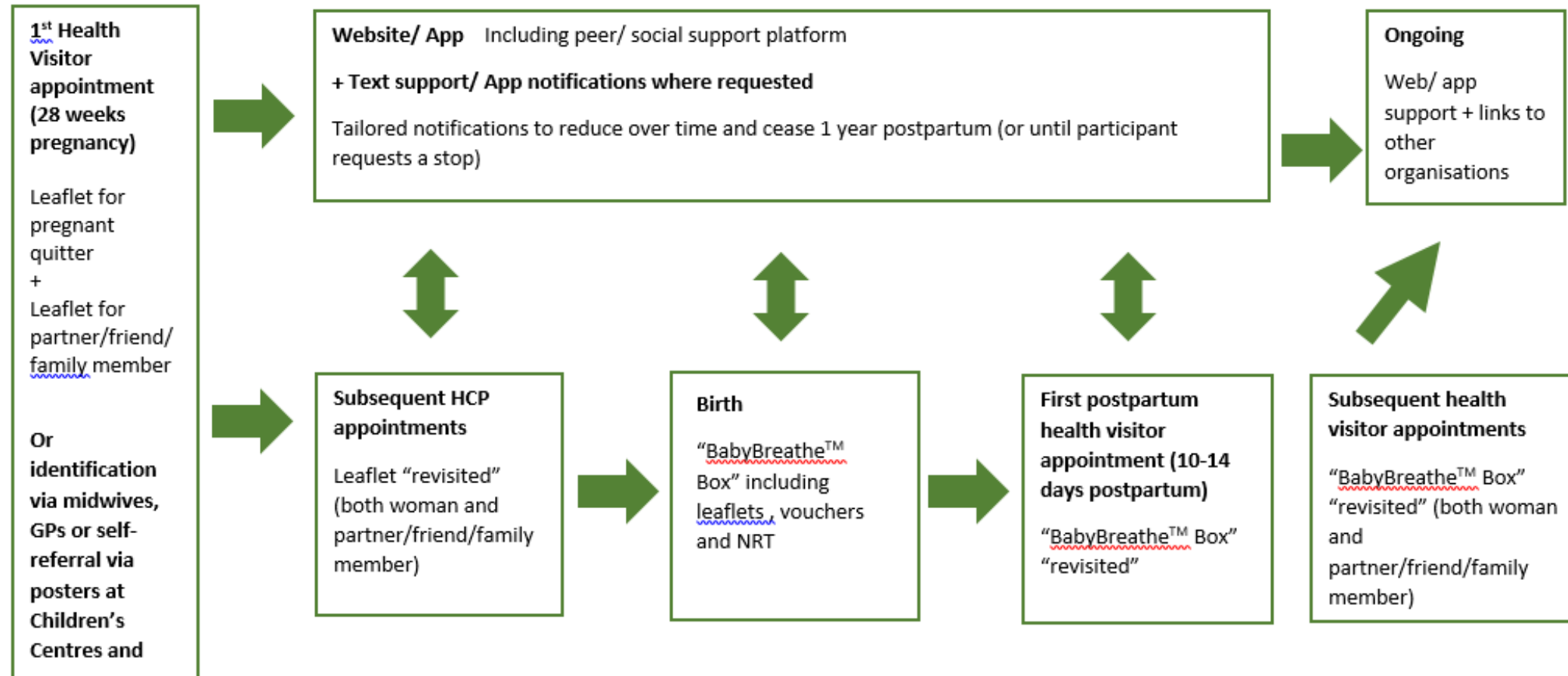
Desire for more information to address confusion around the evidence on e cigarettes

Recognition that returning to work and social situations were risky and more support may be needed for such periods.



New Intervention pathway

Defined intervention pathway for **BabyBreathe™** trial



BabyBreathe trial



Overall outcome is an intervention suitable for testing in a randomised controlled trial