

Physical Activity during Pregnancy and Beyond: A Bitesize Behavioural Insights Report

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Report Layout



This Bitesize Behavioural Insights Report is divided into the following key sections:

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Project Overview [the why]



It is recommended that an individual going through pregnancy, or up to 12 months beyond, undertakes at least 150 minutes of moderate intensity physical activity each week (Department of Health and Social Care, 2019). Despite this guidance, and the widely acknowledged benefits of physical activity to health and wellbeing, evidence suggests that physical activity levels in fact decline during pregnancy and that this remains low into the post-natal period (Findley et al., 2020).

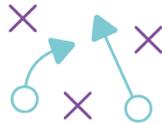
To improve knowledge and confidence in engaging in physical activity among pregnant people, Active Lincolnshire are working in partnership with Better Births Lincolnshire, One You Lincolnshire, Public Health Lincolnshire and Lincolnshire County Council to embed physical activity within the pre- and post-natal journey for Lincolnshire residents.

To better understand awareness of key guidance, perceptions of pre- and post-natal physical activity and barriers to engagement, Active Lincolnshire commissioned Social Change UK to conduct Behavioural Insight research with four key audience groups:

- **Pre- and post-natal residents** (those who are going through pregnancy and/or have given birth in the previous 12 months)
- **The general community** (residents who had not been pregnant in the previous 12 months)
- **Maternity care professionals**
- **Professionals working in the sport, physical activity and fitness sector**



Methodology [the *what*]



This research project consisted of five key stages, beginning with initial desk research and scoping and concluding with the production of this report.

1. Scoping

Reviewing national and local data on physical activity during pregnancy and up to 12 months beyond and using initial findings to inform further research.

2. Audience group surveys

Residents survey: capturing views, attitudes, behaviours and experiences relating to being physically active during pregnancy and up to 12 months following pregnancy.

Stakeholder survey: exploring the views, attitudes and behaviours of professionals relating to supporting residents to be active during pregnancy and beyond.

3. Analysis

Predominantly quantitative analysis of survey data to establish headline findings and key statistics from the dataset of each survey.

4. Presentation of research findings at event for key stakeholders

An informal and interactive workshop run by Social Change UK to present research findings and encourage cocreation of recommendations for positive change.

5. Production of summary report

Bitesize Behavioural Insights Report to summarise key findings, explore behavioural insights and outline recommendations for behaviour change and future research directions.



Key Findings and Insights [the so, what?]



Our initial scoping work highlighted a lack of awareness among pregnant individuals as to what activities are suitable to engage in during pregnancy and beyond, as well as perceived pressure on pregnant people to 'sit down and slow down' during pregnancy and lose weight following birth. Moreover, evidence suggests that pregnancy can cause individuals to experience fear due to the unfamiliarity of their changing bodies, reducing their confidence in engaging in physical activity. These findings informed the development of two surveys which collectively sought to better understand perceptions, attitudes and behaviours towards engaging in physical activity in pregnancy and beyond with view to identifying key areas of focus for behaviour change.

Participant demographics

Residents survey

Pre- and post-natal residents (n = 72)

- **Age (years):** 16-24 (2.8%); 25-34 (69.4%); 35-44 (27.8%).
- **Gender:** Female (99%); Prefer Not to Say (1%).
- **Location of residence:** North Kesteven (30.6%); West Lindsey (19.4%); Lincoln City (18.1%); South Kesteven (6.9%); East Lindsey (10%); Boston (9.7%); South Holland (1.4%).
- **Pregnancy status:** residents who had had a baby in the previous 12 months (59.7%); were currently pregnant (36.1%); or were both currently pregnant **and** had given birth to a baby in the past 12 months (4.2%).

General residents (n = 75)

- **Age (years):** 16-24 (21.3%); 25-34 (13.3%); 35-44 (12%); 45-54 (9.3%); 55-64 (26.7%).
- **Gender:** Female (86.7%); Male (10.7%); Trans-Male (1.3%); Non-Binary (1.3%).
- **Location of residence:** East Lindsey (24%); North Kesteven (17.3%); South Holland (16%); West Lindsey (16%); South Kesteven (12%); Lincoln City (6.7%); Boston (8%).

Stakeholder survey

Stakeholders (n = 13)

- **Profession:** maternity care (30.8%); sport, physical activity and fitness sector (30.8%); not specified (38.4%).
- **Location of work:** East Lindsey (50%); South Holland (37.5%); South Kesteven (37.5%); North Kesteven (15%); West Lindsey (12.5%); Lincoln City (7.5%); Boston (12.5%).



Headline Findings



There were a number of key findings that were consistent across all audience groups and these, therefore, represented the collective views of both residents and stakeholders. Each headline finding is outlined below.

We know the benefits of physical activity pre and post pregnancy

- The majority of respondents across all audience groups think that there are benefits of being active, both during pregnancy and beyond, and that these include improvements in physical and mental health, preparation for labour, facilitating recovery after labour and improving the health of the baby.

We do not understand current guidelines for physical activity in pregnancy and beyond

- **Pre- and post-natal residents:** Just over half of the pre- and post-natal residents (**51%**) are aware that physical activity guidance exists for pre- and post-natal periods, but far fewer (**27%**) can state what these guidelines are.
- **General residents:** Awareness of guidance is even lower among the general community, a third (**31%**) of whom report being aware that pregnancy-specific guidelines exist, with only **11%** demonstrating awareness of what the guidelines are.
- **Stakeholders:** **75%** of stakeholders report awareness of the guidelines and can specify what these are.

We think Health Professionals are most responsible for delivering information

- Midwives, Health Visitors and GPs are considered the most responsible individuals for providing pregnant people with information about physical activity by all audience groups.
- These professionals are also the individuals who most pre- and post-natal residents report that they would listen to when it comes to talking about pregnancy (**100%** of residents) and talking about health after birth (**98.2%** of residents).

We believe knowledge of the benefits to physical and mental health and improvements in mood are key motivators to engage in physical activity in pregnancy and beyond

- Collectively, all audience groups feel that knowledge of the benefits to health, pregnancy itself and for general improved lifestyle outcomes (sleep, mood, fitness) encourage people to be active during pregnancy.



We believe that a lack of time, energy and clear information, as well as fears about hurting the baby, are significant barriers to engaging in physical activity

- **Lack of energy:** reported by **67%** of pre- and post-natal residents, **75.9%** of general residents and **37.5%** of stakeholders as (perceived) barriers to physical activity.
- **Lack of time:** reported by **32.7%** of pre- and post-natal residents, **44.8%** of general residents and **75%** of stakeholders.
- **Fears around hurting the baby:** reported by **17.3%** of pre- and post-natal residents **72.4%** of general residents, and **37.5%** of stakeholders.
- **Lack of information about what activities are safe and appropriate:** reported by **15.4%** of pre- and post-natal residents, **69%** of general residents and **75%** of stakeholders.

Behavioural Insights



To better understand why participation in physical activity appears to decline during pregnancy and in the post-natal period, the key findings were further analysed to generate more in-depth insights into the beliefs, attitudes and behaviours, of both residents and stakeholders.

At Social Change UK, our Behavioural Insight work draws upon several behavioural frameworks that help us to better understand key influences on human behaviour and, therefore, discover ways in which positive behaviour change can be achieved. In the sections that follow, key insights from this research are introduced and explained in the context of these frameworks.

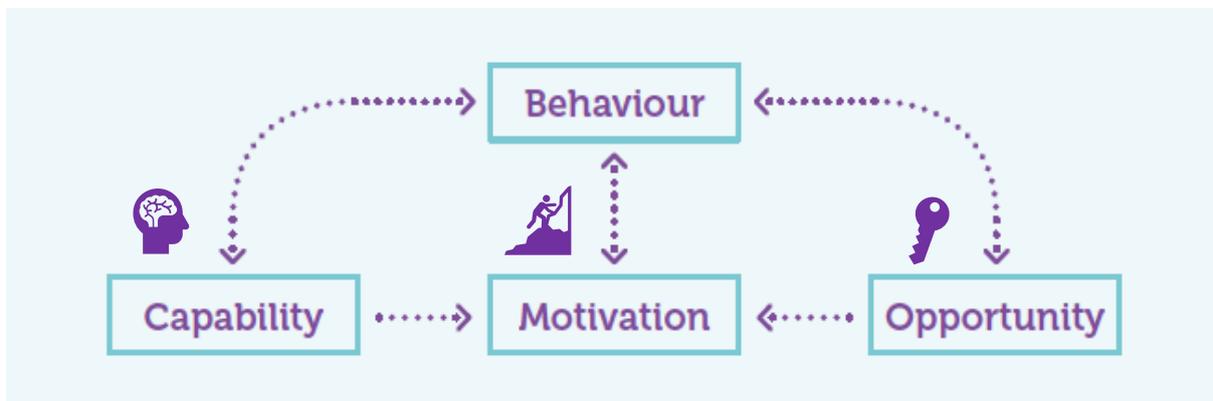
From the research findings, we generated three overarching insights:

1. **Despite knowing and being motivated by the benefits of pre- and post-natal physical activity, residents lack knowledge and understanding of current physical activity guidelines**
2. **Professionals who work closely with individuals during pregnancy and beyond lack the resources and opportunities to engage in conversations about physical activity**
3. **A perceived lack of opportunity to be active and have conversations with health professionals about physical activity are key barriers to residents engaging in it**



The COM-B Model (Michie et al., 2011)

The COM-B model of behaviour describes how an individual's Capability, Opportunity and Motivation interact to determine behaviour and, therefore, how behaviour change can be facilitated by 'investment' in these factors. To better understand the three key insights from our research, three research insights will now be discussed in the context of the COM-B model.



Insight 1: Despite knowing and being motivated by the benefits of pre- and post-natal physical activity, residents lack knowledge and understanding of current physical activity guidelines

What needs to change? Perceived Capability



Pre- and post-natal residents demonstrate good awareness of the benefits of physical activity in pregnancy and beyond, and knowledge of these appears to encourage them to be active (motivation), however, they lack the appropriate knowledge of physical what physical activities they should engage in or avoid (capability), thus may not feel confident in engaging in physical activity.

How can change be achieved?

*Make guidelines **easy** (EAST framework, Appendix B) to access, understand and implement*

- Provide guidance on small changes residents can make to become more active
- Display guidance in hospitals, GP surgeries, sports venues, on social media
- Use clear and simple messaging to communicate guidance



Make physical activity **attractive** (EAST framework, Appendix B)

- Uncertainty surrounding what activities are safe can make physical activity less desirable
- Present examples of the benefits and results that regular physical activity can have (e.g., visual images of people ‘like them’ looking happy and healthy)

Insight 2: Professionals who work closely with individuals during pregnancy and beyond lack the resources and opportunities to engage in conversations about physical activity

What needs to change? Perceived Opportunity

While midwives, Health Visitors and GPs are considered by residents and stakeholders alike as highly responsible for communicating information about physical activity during pregnancy and beyond, they do not necessarily encourage and influence people to be active due to a lack of opportunity to engage in conversations about physical activity with residents. Stakeholders do not feel they require additional training (capability), but rather, believe they would benefit from having one standardised approach to talking about physical activity during pregnancy and beyond.

How can change be achieved?

Increase Physical Opportunities (e.g., time, location, resources)

- Develop resources that can be shared among the ‘bank’ of professionals who work with residents (one consistent approach).
- Increase the offering of accessible physical activity sessions for residents.
- Make physical activity conversations more of a priority for maternity care professionals/a core part of their role (see *salience* in MINDSPACE, Appendix A)

Improve Social Opportunities (e.g., targeting social norms and social cues)

- Stakeholders want more opportunity to have conversations with residents and pre- and post-natal residents report wanting more opportunities to exercise with others.
- Make guidance available in community buildings and make more support groups and social activities available for residents.
- Further explore **social norms** (MINDSPACE, Appendix A) that might discourage physical activity among residents. If it is not currently considered ‘normal’ to engage in physical activity and pre- and post-natal residents do not see others doing it, they may be less likely to engage in it.



Insight 3: A perceived lack of opportunity to be active and have conversations with health professionals about physical activity are key barriers to residents engaging in it

What needs to change? Perceived Opportunity and Motivation

A lack of energy is reported as a significant barrier people to being active during pregnancy and beyond, as well as a perceived lack of time to engage in it. Stakeholders also recognise these barriers, but some believe these are used as excuses to not engage in activity, rather than being legitimate constraints that residents face. In turn, the findings suggest that pre- and post-natal residents do not lack physical capability to be active, but in the absence of clear guidance, a perceived lack of **opportunity** (e.g., time) may mean they are **not motivated** to change their behaviour.

How can change be achieved?

Automatic motivation (automatic processes, e.g., desires, impulses and inhibitions):

- Residents are already motivated by the benefits of physical activity, but perceived lack of time and energy stops them from engaging in the behaviour.
- Ensure guidance and physical activity conversations include educating residents about how they can make time for physical activity, and that activity in and of itself could actually improve energy levels.

Reflective motivation (reflective processes e.g., making plans and evaluating past events):

- A perceived lack of energy in the future (post-pregnancy) decreases motivation to engage in physical activity. Many pre- and post-natal residents report having a lack of time to dedicate to engaging in physical activity and to have conversations with professionals about it.
- Improving awareness of how to make small changes in physical activity could encourage residents to reflect on their progress and maintain the habit.



Recommendations for Positive Change [the *how*]



At the Stakeholder event, maternity care and physical activity professionals developed a number of recommendations for implementing behaviour change, using the frameworks described previously. Three overarching recommendations are presented in the following section, each of which relates to one of the key Insights from the research findings.

1. Provide clear and consistent communication of guidance

Stakeholders do not feel they have the resources and opportunities to engage with residents. If they do not have the resources to hand, or a consistent message to communicate, they are less likely to start conversations about physical activity.

WHAT should be done?

- Communication of guidance should provide one clear message, without complex terminology.
- Training and education of professionals to ensure the same consistent message is repeated.
- Demonstrate how individuals can meet the guidelines by making small and realistic changes to their behaviour.
- Increase exposure to guidelines (e.g., in children's centres, sports venues, GP surgeries).
- Guidance should be delivered at the point of pregnancy or even when planning for a pregnancy. Physical activity guidance should communicate and demonstrate that physical activity can be incorporated into a busy lifestyle.

WHO is responsible?

- Policy Makers, Governing Bodies, NHS, Public Health, Sporting Organisations.
- Co-creation: Involve residents in discussions about improving messaging to understand how they want to be communicated with.

HOW can others support this?

- Improve awareness of key messaging among family and friends who spend most time with the individual going through pregnancy and beyond.



2. Prioritise physical activity conversations among Health Professionals and pre- and post-natal residents

Collectively, the majority of participants considered Midwives, Health Visitors and GPs to be most responsible for communicating information about pre- and post-natal physical activity and report these are the individuals they would listen to the most when it comes to talking about pregnancy, however, these professionals currently lack adequate resources to provide clear and consistent information.

WHAT should be done?

- Make physical activity guidance part of the normal 'process' for professionals who work closely with pre- and post-natal residents.
- Introduce 'accredited providers' (e.g., gyms, community centres) to improve residents' confidence in the messaging being provided.
- Increase opportunities for training of professionals on Making Every Contact Count and Brief Interventions.
- Create safe spaces (such as those currently available in some Children's Centres) to enable residents to have more conversations with professionals.
- Create additional resources such as webinars (provided by physical activity or health professionals) to educate residents and others who engage with them.
- Introduce incentives for professionals who deliver additional training or education.

WHO is responsible?

- Funders, Public Health, Commissioners, Government and Governing Bodies

HOW can others support this?

- Establish positive communication and relationships between Healthcare Professionals and other stakeholders to facilitate dissemination of one clear message and to enable signposting.
- Training and ongoing CPD opportunities for relevant stakeholders on physical activity and brief interventions to improve perceived capability in communicating information.



3. Break down barriers to being active among pre- and post-natal residents

A perceived lack of time, energy and knowledge of what activities are safe to engage in discourage pre- and post-natal residents from engaging in physical activity during pregnancy and beyond. There is a need to change perceptions of what constitutes 'physical activity' and clearly communicate that it does not need to be time-consuming to be beneficial and effective in improving overall physical and mental health.

WHAT should be done?

- Signpost residents to the 'Let's Move Lincolnshire' website and 'This Mum Moves' project, to improve opportunity and accessibility of information and physical activity sessions that are in a convenient location for them.
- Reduce financial barriers by increasing provision of free exercise classes and sessions and advertise these as inclusive, safe spaces that cater for all abilities.
- Decrease the volume of current messaging and instead ensure physical activity is presented as something **easy** and **attractive** to engage in (images to demonstrate the benefits, or to show activities they can complete at home).
- Provide more opportunities for residents to revisit physical activity conversations with professionals throughout their pregnancy journey

WHO is responsible?

- GPs and Healthcare Professionals
- Others who are endorsed by HCPs to communicate guidance but have more time for conversations (e.g., professionals in the sport, physical activity, and fitness sector)

HOW can others support this?

- Friends and family could encourage pregnant people to make **commitments** (MINDSPACE, Appendix A) by engaging in activity together with them
- If physical activity conversations become integrated within the professional 'process' for support individuals in their pregnancy journey, maternity care professionals could support residents to set realistic and achievable goals for physical activity



Future Research Questions [*what we need to know*]



The findings from this research project have posed a number of additional questions that would be beneficial to explore in future research, to gain a deeper understanding of the lived experiences of individuals going through pre- and post-natal periods and their attitudes towards engaging in physical activity. Qualitative research (e.g., focus groups, interviews) would enable more in-depth insights into factors influencing people's thoughts, feelings and behaviours towards pre- and post-natal physical activity, including:

- What activities are deemed normal/safe/acceptable to engage in during pregnancy and beyond? (**social norms**)
- Is the **default** (see MINDSPACE, Appendix A) behaviour to 'rest and put your feet up' during pregnancy?
- Do residents stay sedentary/inactive because it is the 'safer' option in the absence of clear and consistent guidance?
- Does fear of judgement from others encourage or discourage engagement in physical activity?
- Some professionals may not perceive giving information about physical activity to be relevant to their role (see *saliency* in MINDSPACE, Appendix A) - what conversations are currently prioritised and why is physical activity guidance not one of them?



A Cup of Wisdom from the Changemakers



This Behavioural Insight research has highlighted that **knowledge of physical activity guidance** and **perceived time and energy available** are significant factors that contribute to a decline in physical activity during pregnancy and beyond. To overcome these barriers, there is a clear need for a **standardised approach** to delivering key messaging to residents and **improved collaboration** among all stakeholders who engage with pregnant people.

We have condensed the findings into five key recommendations that, if implemented, could promote and maintain positive behaviour change:

Clear and consistent messaging among professionals that it communicated to residents

Health Professionals to endorse and support others to provide information on guidance

Awareness raising of what activities are safe to engage in could increase confidence and motivation to participate in physical activity

Norms surrounding engagement in physical activity during pregnancy and after birth and perceived judgement from others need further research

Guidance and information relating to physical activity during pregnancy and after birth should be made more accessible and easier to understand

Everyone who engages with pre- and post-natal residents can and should take a role in promoting physical activity



References

- The COM-B Model: Michie, S., van Stralen, M.M. & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Sci* 6, 42 <https://doi.org/10.1186/1748-5908-6-42>
- **MINDSPACE:** <https://www.bi.team/publications/mindspace/>
- **EAST:** <https://www.bi.team/publications/east-four-simple-ways-to-apply-behavioural-insights/>
- **Department of Health and Social Care (2019): UK Chief Medical Officers' physical activity guidelines.** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/829894/5-physical-activity-for-pregnant-women.pdf
- Findley, A., Smith, D. M., Hesketh, K., & Keyworth, C. (2020). **Exploring womens' experiences and decision making about physical activity during pregnancy and following birth: A qualitative study.** *BMC pregnancy and childbirth*, 20(1), 1-10. <https://doi.org/10.1186/s12884-019-2707-7>



Appendices



Appendix A: MINDSPACE (The Behavioural Insights Team, 2010)

The mnemonic *MINDSPACE* outlines 9 of the most robust influences on human behaviour:

<i>Messenger</i>	<i>We are heavily influenced by who communicates information</i>
<i>Incentive</i>	<i>Our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses</i>
<i>Norms</i>	<i>We are strongly influenced by what others do</i>
<i>Default</i>	<i>We 'go with the flow' or pre-set options</i>
<i>Saliency</i>	<i>Our attention is drawn to what is novel and seems relevant to us</i>
<i>Priming</i>	<i>Our acts are often influenced by sub-conscious cues</i>
<i>Affect</i>	<i>Our emotional associations can powerfully shape our actions</i>
<i>Commitment</i>	<i>We seek to be consistent with our public promises, and we reciprocate acts</i>
<i>Ego</i>	<i>We act in ways that make us feel better about ourselves</i>

Appendix B: The EAST Framework: The Behavioural Insights Team, 2014

Four Simple Ways to apply Behavioural Insights:

<i>E</i>	<i>Easy</i>	<i>Make the desired behaviour easy to implement</i>
<i>A</i>	<i>Attractive</i>	<i>Attract attention towards the behaviour and make it desirable</i>
<i>S</i>	<i>Social</i>	<i>People are influenced by others and are more likely to engage in a behaviour if many others are too or if they've made a public commitment</i>
<i>T</i>	<i>Timely</i>	<i>People are influenced by the timing of prompts and more likely to change their habits if costs and benefits are felt immediately rather than later</i>





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