



## Applications now open

# Commissioned research: Baby Check App

The Lullaby Trust is inviting applications from research institutions to improve the Baby Check app, which helps carers who are worried their baby is unwell

**DEADLINE: 5pm Monday 17th January 2022**

### **The Baby Check app**

Many of the symptoms seen in seriously ill babies are also common in babies who are well or mildly ill. Early identification of seriously ill babies can ensure proper management of the condition and avoidance of adverse outcomes. According to the 2021 NICE Postnatal Care Guidance, parents' concerns about 'something being not quite right' are sometimes overlooked, even when there are important signs of serious illness that should be investigated. Early recognition of serious illness in babies might reduce both morbidity and mortality.<sup>1</sup>

Accurate assessments of illness in babies within the community, by parents and carers, can also reduce unnecessary visits to hospital and GP surgeries for babies that don't need medical attention, especially when used in conjunction with health visitors' assessments.

The Baby Check App is designed to be used in the difficult assessment of babies with non-specific illnesses. It consists of 19 simple questions about signs and symptoms of illness which parents check for. Each check has a score, and the scores are added up. The higher the total score the sicker the baby is likely to be.

The widespread use of the Baby Check App by parents and carers of babies aged 6 months and under can contribute to:

- reduced morbidity and mortality of babies;
- earlier identification of babies who are severely ill;
- prevention of unnecessary emergency attendance to hospital and GPs of babies that are mildly ill;
- improved communication between families and healthcare professionals when discussing the health of their babies.

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<sup>1</sup> Morley, CJ et al (1991) 'Field trials of the Baby Check score card in general practice,' Archives of Disease in Childhood, 1991; 66: 111-114.

The Baby Check app was developed by the Lullaby Trust and Birmingham Community Healthcare NHS Foundation Trust. The Baby Check scoring was previously used in a leaflet form, and the app made the same checks more accessible and user-friendly.

### **Why Baby Check needs investment**

Baby check is based on research that was undertaken in 1991. Whilst the symptoms of illness may not have changed since that time, we know that the understanding of carers, particularly the most vulnerable, needs considering against the app. There has also not been research into the use of the app by families and the difference it may make to their behaviour and confidence.

Additionally, over the years the Lullaby Trust has taken on board comments from professionals and its advisers and made some minor changes to text, and to the way temperature is taken (moving from rectal to ear thermometers).

The NICE Postnatal Guidelines were updated in 2021 and recommended:

Healthcare professionals should consider using the Baby Check scoring system:

- to supplement the clinical assessment of babies for possible illness, particularly as part of a remote assessment **and**
- as a communication aid in conversations with parents to help them describe the baby's condition.

However, the guidelines also noted the limitations in validation of the app with parents, and noted that the changes that had been made had not been validated. We therefore sought funding to check the app and validate its use through the collection of data from users. At the moment the app does not collect any data from users.

The funding is available to a) revise and update the Baby Check App, b) validate its use by parents in the community and c) promote updated version of the App with parents during antenatal, childbirth and postnatal care.

### **Research questions**

We wish to find out how the design and wording of the Baby Check App can be developed and improved by addressing the following 3 key questions:

1. **Does the Baby Check app help parents and carers to feel reassured and more comfortable with their decision-making when their baby's symptoms indicate minor health problems in situations that do not require medical/health advice.**

Indicators:

- The proportion of all parents and carers who use the app and feel reassured about their decision regarding their baby's health.
- The proportion of parents and carers whose baby scored under 8 who express trust in the scoring system within the Baby Check App

- The proportion of parents and carers who agree to monitor at home for a minor problem after using the app, rather than immediately seeking medical/health advice.
2. **Are parents and carers more likely to seek timely medical attention if their baby's symptoms score intermediate (8-19) or high (20+) on the Baby Check app, indicating moderate or severe illness?**

**Indicators:**

- The proportion of parents and carers whose baby scored over 7 who report seeking medical attention more quickly than they would have done without the app.
- The proportion of parents and carers whose baby scored over 7 who express trust in the scoring system within the Baby Check App

3. **Do parents and carers feel more confident in communicating with healthcare professionals about their baby's health having used the Baby Check App?**

**Indicators:**

- The proportion of parents and carers and carers who feel more confident in communicating with healthcare professionals about their baby's health after having used the Baby Check App

**Work we expect to be undertaken**

- (1) Set up a stakeholder group of clinicians and parents and carers to review the Baby Check app, consisting of both current and new users;
- (2) Work with the app developers to make changes to the app where agreed;
- (3) Analysis of usage of Baby Check App by parents using new data collection via the App;
- (4) In-depth interviews with 25-50 parents and an online survey with 500 app users to measure impact on confidence and anxiety, and to assess the user-friendliness of the App;
- (5) Final report to be disseminated in 2x papers via open access journals and with NHS partners nationwide.

Technical updates to the app to allow the collection of results and optional opt-in for contact from users are funded separately by the app developer, who the project team will need to work with closely. The charity has additional support to promote the app widely, and the project team would be expected to support this throughout the project period through connections and partnerships to ensure an increased number of families in the UK are using the app.

**Anticipated timeframes and milestones**

Project to be carried out between January 2022-September 2023. Data collection from the app will take place between mid-2022 and mid-2023. In-depth interviews with families from September 2022, and final report from all the above activities on the impact of the app to be disseminated from mid-2023.

**Cost/funding limit**

Up to £82,911 is available to complete the project. This can be used for staffing costs, university consumables and travel where required.

## **ELIGIBILITY**

Applicants must be resident in the UK and affiliated to an academic institution in the UK.

## **How to apply**

Use the application form provided and send to: [office@lullabytrust.org.uk](mailto:office@lullabytrust.org.uk).

## **APPLICATION PROCESS – TIMELINE**

### **December 2021 –**

Grant round opens for applications

**17<sup>th</sup> January 2022, 17.00 – CLOSING DATE** – for applicants to submit their full application.

Full applications are then sent externally for independent peer review.

### **January 2022**

Project grant applicants will have the opportunity to respond to the peer review comments.

Following peer review, the Scientific Committee meet to review the applications and make recommendations to the Lullaby Trust Board of Trustees for funding.

**By February 2022** – Applicants are notified of the outcome of their application.

The Scientific Committee comprises a panel of experts covering research, paediatrics, statistics and other areas. The current membership can be found on our website.

During this grant round the Lullaby Trust will be involving its Lay Panel of bereaved family members to ensure their involvement in our research.

## Further information

Lullaby Trust information on the app:

<https://www.lullabytrust.org.uk/safer-sleep-advice/baby-check-app/>

## NICE Postnatal Guidelines:

<https://www.nice.org.uk/guidance/ng194/chapter/Recommendations#symptoms-and-signs-of-illness-in-babies>

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