



**CHERISH**  
Choosing Healthy Eating for Infant Health

# CHERISH Research Overview

End-of-project research overview of the  
Choosing Healthy Eating for Infant Health (CHERISH) study

December 2020

## CHERISH update

Welcome to our final update and overview of the Choosing Healthy Eating for Infant Health (CHERISH) study. The Health Research Board (HRB) funded CHERISH study has been underway since 2016 and will finish at the end of 2020. A key impetus for the study is to help reduce the risk of childhood obesity and overweight by improving infant feeding practices among parents and primary caregivers.



Professor Patricia Kearney, project PI, and Dr Tony Heffernan, MPHIC, at CHERISH feasibility study launch in March 2019

CHERISH has achieved a range of significant outputs and has provided valuable learning to all involved. In this final update, we will provide an overview of this multi-disciplinary study, including:

- **Research outputs achieved**
- **Details of the intervention developed**
- **Information on the feasibility study**
- **An overview of our ICE fellows**
- **A list of CHERISH publications**



## Research objectives

The CHERISH study has achieved all of its research objectives, as set out in the three work packages (WPs) planned for this study:

**WP1** – Establishing the evidence base for the burden of childhood obesity in Ireland and the role of early dietary interventions

**WP2** – Developing a pilot intervention to improve and support early infant feeding practices

**WP3** – Implementing and evaluating the pilot intervention

Details of the research outputs and resulting intervention from this study are included here.



## A unique multi-disciplinary approach

CHERISH is a great example of a multi-disciplinary study, involving collaboration between researchers, primary healthcare practitioners and policy stakeholders. The cross-institutional approach, involving researchers from three universities (UCC, NUIG, TCD), has been another key strength of the project.

We would like to **thank everyone** for their contribution and commitment to CHERISH. Special thanks to our primary care partners at the Mallow Primary Healthcare Centre, to policy stakeholders in the HSE Nurture programme, to our international steering committee and to our PPI panel for their involvement in this study. Your participation is hugely appreciated.

## What did we find?

Findings from the first stage of the research – establishing the evidence base (WP1) – highlighted a number of important considerations, including:

- how maternal recognition of obesity/overweight in early childhood is a key determinant in achieving healthy weight in children (see Queally et al, 2018)
- the need for clear, consistent infant feeding advice from a perceived trusted source
- the lack of clarity/consensus on the role of HCPs in infant feeding in primary care and need for further consideration of this in intervention development
- the need for better application of behaviour change theory and a more systematic approach in developing and delivering infant feeding interventions (see Matvienko-Sikar et al, 2019; Toomey et al, 2019)

These and other findings helped to inform the second stage of the study - i.e. intervention development.



## What did we develop?

WP2 of this study sought to systematically develop an evidence-based intervention to improve parental infant feeding behaviours. A concurrent evidence-based implementation strategy was also developed, targeting HCP behaviours to support and sustain intervention delivery during routine vaccination visits (see Toomey et al, 2020, for more on this).

The Behaviour Change Wheel (BCW) intervention development framework (Michie, van Stralen and West, 2011) was used to structure this approach. The main elements of the intervention and implementation strategy for CHERIsH are shown on the right.



### CHERIsH intervention

- Brief verbal infant feeding messages given to parents by primary healthcare practitioners during routine infant vaccination visits (i.e. at 2, 4, 6 and 12-month visits)
- Supporting materials (information leaflet, fridge magnet, baby bib) for parents and signposting to online resources, e.g. [MyChild.ie](https://www.mychild.ie)



### Implementation strategy

- Incentivised training for healthcare practitioners delivering the intervention
- Supporting materials
- Technical assistance
- Local opinion leader
- Electronic delivery prompts on computer screens in GP practices



## What did we evaluate?

A feasibility study was conducted to pilot and evaluate implementation of the CHERIsH intervention and implementation strategy, in line with WP3. This study was carried out at GP practices in the **Mallow Primary Healthcare Centre (MPHC)** – a leading centre in Co. Cork. The feasibility study took place from April to December 2019. CHERIsH is immensely grateful for the support and patience of all those who took part at the MPHC.



Healthcare practitioners at MPHC attending launch of feasibility study in 2019

Methods used in the evaluation included:

- **focus groups** with primary healthcare practitioners (HCPs) delivering the intervention at GP practices in the MPHC
- **evaluation forms** assessing the training provided to participating HCPs

The focus groups sought to examine the feasibility and acceptability of implementing CHERIsH in a primary care setting. The training evaluation aimed to examine participants' views on the training, which formed a key part of the implementation strategy.



CHERIsH researchers and MPHC staff at feasibility launch in 2019

## What did the evaluation show?

Preliminary findings from the evaluation showed that:

- the intervention was considered **acceptable** and **feasible** to implement by healthcare practitioners
- healthcare practitioners recognised the **value of** implementing it
- **challenges** were faced, however, in recruiting parents to the study
- healthcare practitioners also cited **competing demands** as a challenge when implementing interventions of this kind due to the broad scope of their work
- the **training** and **resources** were considered acceptable, appropriate and feasible to use



### Knowledge translation for CHERIsH

As part of CHERIsH, funding was also provided under the HRB Knowledge Exchange and Dissemination Scheme (KEDS) to develop and promote activities in knowledge translation.

Activities to date have included:

- holding knowledge exchange meetings between participating researchers and practitioners
- compiling a knowledge exchange strategy for CHERIsH
- providing training in knowledge translation and sharing lessons learnt in this area
- disseminating findings through more user-friendly formats and increasing the profile of CHERIsH via media and social media

## ICE fellowships

CHERISH has not only yielded significant research outputs, but has also formed an important part of the career trajectory of researchers involved in this study. This section provides a profile of the researchers who received a **HRB Interdisciplinary Capacity Enhancement (ICE) post-doctoral fellowship** as part of the CHERISH study and where they have progressed since their work with CHERISH.



**Dr Karen Matvienko-Sikar**

Dr Karen Matvienko-Sikar is a health psychologist with research interests and expertise in maternal and child health. She played a key role in designing the CHERISH intervention and researching the evidence base from 2016-2019. She has since been awarded a HRB Applying Research into Policy and Practice (ARPP) fellowship to conduct research on the issue of maternal stress. Karen is also currently a lecturer in the School of Public Health, UCC.



**Dr Elaine Toomey**

Dr Elaine Toomey co-led the development of the CHERISH intervention in 2016-2019. Her primary research interests include the development, evaluation and implementation of behaviour change interventions. Elaine was appointed as a Lecturer in the School of Allied Health, University of Limerick, earlier this year. She has also recently been awarded a HRB Applying Research into Policy and Practice (ARPP) award.



**Dr Michelle Queally**

Dr Michelle Queally led on the health economic components of the CHERISH study as well as overseeing the PPI parent group. She also undertook a placement at Cornell University in the US during her time on CHERISH. Her research interests include obesity economics and PPI in health economics research. Michelle has since been appointed as a Lecturer in the Department of Economics at NUI Galway.



**Dr Caragh Flannery and Dr Kate O'Neill**

Dr Caragh Flannery and Dr Kate O'Neill were appointed as HRB ICE post-doctoral fellows on CHERISH in 2018-2019. They both led on the management, implementation and evaluation of the CHERISH feasibility study. Since CHERISH, they have taken up senior post-doctoral research positions within the School of Public Health, UCC, where they are engaged in health services and epidemiological research.



## Lessons learnt

The CHERISH study has provided valuable learning regarding intervention development and implementation in the area of infant feeding and within a primary care setting.

Among the key lessons learnt from the study are the following:

- the need for greater consideration of psychological theory and behavioural science to inform infant feeding intervention development
- the value of adopting a multi-disciplinary approach in studies of this kind, leveraging the expertise of healthcare practitioners, infant feeding experts as well as academic health researchers
- the benefits of incorporating public and patient participation (PPI) to inform the research and the need to consider how best to manage the PPI component in evolving projects of this nature
- the need to develop clear and practical training resources and support materials that outline clearly to healthcare practitioners how to do the intervention

## What next?

The research and development work undertaken in the CHERISH study will pave the way for future research in the area of infant feeding. It makes a significant contribution to research on the development and implementation of behaviour change interventions and highlights the importance of infant feeding as a critical window in improving health outcomes for children.

### Thank you

We would like to thank all the stakeholders, healthcare practitioners, parents, researchers and host institutions who have been involved in this important study. We are proud of the achievements reached and relationships forged during this project and look forward to hearing more about the exciting research underway in this area.



### Recent publications:

Toomey, E. et al (2020) A collaborative approach to developing sustainable behaviour change interventions for childhood obesity prevention: Development of the Choosing Healthy Eating for Infant Health (CHERISH) intervention and implementation strategy, *British Journal of Health Psychology*.

Matvienko-Sikar, K., et al (2019) Choosing Healthy Eating for Infant Health (CHERISH) study: Protocol for a feasibility study, *BMJ Open*, 9.

Matvienko-Sikar, K. et al (2020) A core outcome set for trials of infant-feeding interventions to prevent childhood obesity, *International Journal of Obesity*.

Calnan, S. et al (2019) Role of integrated knowledge translation in developing and implementing a multi-component infant feeding intervention: Insights from the CHERISH study, *European Health Psychologist Bulletin*, Vol.21(1).

Matvienko-Sikar, K. et al (2019) Behaviour change techniques and theory use in healthcare professional-delivered infant feeding interventions to prevent childhood obesity: A systematic review, *Health Psychology Review*, Vol. 13(3).

Queally, M. et al (2018) Do mothers accurately identify their child's overweight/obesity status during early childhood? Evidence from a nationally representative cohort study, *International Journal of Behavioral Nutrition*, 15:56.

**Note:** Further publications are due. A full list of published papers will be available on the [ESPRIT](#) webpage for the CHERISH project.