Institution: University of Central Lancashire		
Unit of Assessment: UoA3 Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: ***Towards a universal positive childbirth experience: Changing the focus of World Health Organisation Global Maternity Guidelines and associated impacts***		
Period when the underpinning research was undertaken: 2013-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	**Role(s) (e.g. job title):**	**Period(s) employed by submitting HEI:**
Soo Downe	Professor	2000-date
Carol Kingdon	Reader	2004-date
Kenny Finlayson	Research Fellow	2005-date
Marie-Clare Balaam	Research Fellow	2010-date
Period when the claimed impact occurred: 2016-2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact (indicative maximum 100 words)

Our research on what matters most to mothers, babies, families, and maternity care providers has directly motivated changes in World Health Organisation (WHO) maternity guidance. Because of our findings, the WHO has integrated the critically important outcome of positive childbirth experience in all their recent maternity guidelines and their associated dissemination materials. Our findings have contributed to WHO implementation strategies in nine countries. During COVID-19, our research on what matters to women has underpinned WHO infographics, and guidelines produced by the Royal College of Obstetricians and Gynaecologists and the Royal College of Midwives. The 2019 WHO global framework for action for strengthening midwifery education for Universal Health Coverage 2030 cites three of our papers on positive childbirth and midwifery.

2. Underpinning research (indicative maximum 500 words)

The need to research positive childbirth experience

Birth affects everyone. Worldwide, around 130 million babies are born annually. Safety is improving, but now there are concerns about the harms of over-intervention and lack of human rights in childbirth. Since 2001, the University of Central Lancashire Research in Childbirth and Health (ReaCH) group has been examining physiological birth, respectful, compassionate care, and positive wellbeing, based on our active engagement with mothers, families, and service providers. We are the only transdisciplinary research team worldwide that has consistently explored positive childbirth programmatically over two decades.

The research pathway

In 2001, Soo Downe led a world-first study examining interventions in 'normal childbirth'. Since then, the University of Central Lancashire team have produced over 200 publications. Most of this work has been informed by service users input, either directly as co-investigators, or indirectly through consultation at various points with service user groups and networks. In 2013, we published a seminal qualitative meta-synthesis, stimulated by our years of work with service users that led us to believe that childbearing women might choose not to use services that do not take account of their views and experiences.This showed that, in low and middle-income countries, the failure to account for cultural and social norms and beliefs in the design and provision of antenatal care could explain sub-optimal uptake of services for women from some cultural groups. This is likely to result in excess mortality and morbidity in these sets of people [1]. Senior WHO staff noted the findings and the innovative methodology we used to integrate women's views and experiences with implementation considerations. They commissioned us to undertake a global qualitative meta-synthesis for their 2016 Antenatal Guidelines [2] [A]. For the first time, our evidence demonstrated that, in all cultural and socio-economic settings around the world, a positive pregnancy experience was as important for most childbearing women as clinical safety. Since then, we have provided the qualitative evidence for three more WHO guidelines [A]: 'Intrapartum', 'Optimizing Caesarean Section' and 'Uterotonics for Postpartum Haemorrhage', in research worth approximately GBP100,000. The WHO have subsequently funded reviews relating to postnatal care, instrumental birth, and physical and verbal

mistreatment in health and social care. These are currently in progress, with a total income of around GBP50,000.

Downe was co-author on two related Lancet Series, one on midwifery and one on caesarean section along with Kingdon [3, 5]. We have published nine related papers, including three qualitative systematic reviews underpinning the 2018 WHO Optimising Caesarean Section (CS) guidelines. These have emphasised the importance of positive physiological birth and that Caesarean Section can be done safely and compassionately. The WHO have subsequently funded us to undertake research in India, as part of the development of a generic protocol, to assess contexts in which their optimal CS recommendations could be implemented [6]. This protocol is informed by the contextual model of CS use, which we developed [6], and that was published in our related Lancet paper [5]. Three of our papers are cited in the 2019 *WHO Framework for Action for Midwifery Education towards Universal Health Coverage 2030* [J].

Associated Research

In parallel, we were funded by the EU Horizon 2020 funded European Cooperation in Science and Technology (COST) programme to run two consecutive research networks between 2010 and 2018, worth around EUR900,000. Both were focused on the nature, implementation, and outcomes of positive, salutogenic (wellbeing-focused), physiological childbirth, involving over 120 network members - researchers, activists, service users, and policy makers - from 33 countries. The 2014-2018 network has been acknowledged as **'world class'** by the EU, and, in 2020, was selected to showcase as one of their successful Actions. Collaborative publications include a longitudinal analysis of around 500,000 Australian mothers and babies from birth up to the age of five, demonstrating, for the first time, the long-term benefits of physiological childbirth when compared to labour induction and/or Caesarean Section [4]. The article concluded that children born by spontaneous vaginal birth had fewer short and longer-term health problems, compared with those born after birth interventions [I]. In 2020 we were funded by the ESRC under the UKRI COVID research programme (GBP494,000) to find out which maternity care organisations managed to balance personalised maternity care with safe care during the pandemic. It will also yield positive lessons to be learned from these successes for future maternity care crises, as well as for routine provision.

3. References to the research (indicative maximum of six references)

All the following papers are peer reviewed

[1]. Finlayson K, Downe S, 2013, 'Why Do Women Not Use Antenatal Services in Low- and Middle-Income Countries? A Meta-Synthesis of Qualitative Studies.' *PLoS Med* 10(1): e1001373. doi:10.1371/journal.pmed.1001373

[2]. Downe S, Finlayson K, Tunçalp Ö, Metin Gülmezoglu A., 2016, 'What matters to women: a systematic scoping review to identify the processes and outcomes of antenatal care provision that are important to healthy pregnant women.' *BJOG*.;123(4):529-39 (Parallel review for what matters to women intrapartum published 2018, PLOS One) DOI: 10.1111/1471-0528.13819

[3]. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF, Delage D, Downe SM, Kennedy HP, Malata A, McCormick F, Wick L, Declercq E. 2014, 'Midwifery and quality care: findings from a new evidence-informed maternity care framework.' *The Lancet*, 384: 9948,1129–1145 DOI: 10.1016/S0140-6736(14)60789-3

[4]. Peters LL Thornton C de Jonge A, Khashan A, Tracy M, Downe S, Feijen-de Jong EI, Dahlen HG., 2018, 'The effect of medical and operative birth interventions on child health outcomes in the first 28 days and up to 5 years of age: A linked data population-based cohort study.' *Birth*. 45(4):347-357. DOI: 10.1111/birt.12348

[5]. Betrán AP, Temmerman M, Kingdon C, Mohiddin A, Opiyo N, Torloni MR, Zhang J, Musana O, Wanyonyi SZ, Gülmezoglu AM, Downe S, 2018, 'C-Section Pandemic Series. Interventions to reduce unnecessary caesarean sections in healthy women and babies.' *The Lancet*,13;392:1358-1368 DOI: 10.1016/S0140-6736(18)31927-5

[6]. Bohren MA, Opiyo N, Kingdon C, Downe S, Betrán AP, 2019. 'Optimising the use of caesarean section: a generic formative research protocol for implementation preparation.' *Reproductive Health*. 19;16(1):170. DOI: 10.1186/s12978-019-0827-1

4. Details of the impact (indicative maximum 750 words)

The critical importance of the positive experience of pregnancy and childbirth

In 2016, the UN acknowledged that mothers, babies, and families need to thrive as well as survive. Our research has been a significant agent of change in this field, enabling positive childbirth experience to be integrated into global guidelines and practice [A]. Our research has brought the voices of mothers, maternity care providers and healthcare policy makers worldwide into the heart of maternity care decision-making processes. This has enabled them to shape and implement policy and practice. Together, we have shifted the international conversation about what is best practice for maternity care and what recommendations should be made. Consequently, the findings of our research are directly reflected in the full titles of the WHO antenatal and intrapartum guidelines: *WHO Antenatal care for a positive pregnancy experience* and *WHO intrapartum guidelines for a positive childbirth experience* [A3, A4]. This is the first time that WHO guidelines have explicitly taken account of the needs of mothers, families and healthcare professionals, and their requests for compassionate and respectful care. The public WHO media site for the antenatal guidelines makes it clear that this is now a central concern: **'Service providers across all levels and whether working in hospitals or local communities should embrace these concepts and consider how they can work with women, families and communities to provide positive antenatal care experience and ensure optimal uptake of ANC (ante-natal-care) services'** [B]. The importance of this new approach was endorsed by Ban Ki-moon, then United Nations Secretary-General: **'I welcome these guidelines, which aim to put women at the centre of care, enhancing their experience of pregnancy and ensuring that babies have the best possible start in life'** [A1].

Up to December 2020, the antenatal guidelines had been downloaded more than 380,000 times from the WHO Institutional Repository for Information Sharing [A5]. The WHO has undertaken an active implementation programme, with materials based directly on our findings [B]. For example, around 50 government officials, NGOs and senior clinical midwives and doctors attended a two-day WHO workshop in The Gambia in 2018 to design a policymaker toolkit. This includes our 'Positive Pregnancy Experience' concept and our logic models on how the guidelines should be implemented [A2]. This programme is being rolled out in Burkino Faso, Rwanda, Zambia and India. There are around 150 key stakeholders per country, totalling around 600, and the programme is being cascaded to other regions and countries around the world. Findings from our review are included in the title and content of a WHO paper setting out an implementation framework for the ANC guidelines [A2].

For the WHO intrapartum guidelines there was a similar chain of influence, from the initial framing of the guidelines themselves, to the impact on the ground, in a range of countries, as related WHO consultative workshops. By December 2020, they had been downloaded more than 300,000 times [A5]. Demonstrating the reach of our work, Duncan Fisher OBE from the Family Institute witnessed a gathering of midwifery leaders in Trinidad in 2016. He later wrote: **'It was a really powerful meeting - such strong feelings about the role of the midwife in championing a woman centred and family inclusive approach. [Soo Downes'] … idea that social/emotional support should be given as much weight as clinical summed it all up'** [C1].

Getting the practice of birth right under all conditions

Following our input to the WHO Optimizing Caesarean Section guidelines, our findings have been used in an additional WHO implementation programme, starting in Beirut in 2018 with 20 professional stakeholders and government agencies from across the Middle East. We provided the evidence on what would facilitate the use of nonclinical interventions to reduce unnecessary Caesarean Section and what would provide barriers to such interventions. The implementation protocol, including our model, is being rolled out in China, Argentina, Burkina

Faso, Thailand and Vietnam. In October 2018 the WHO conducted a technical consultation in Madrid, attended by influential policy makers, journalists, clinicians and media experts, to explore the feasibility of mass media campaigns for informed women, families and societies and to identify opportunities to engage with policy makers to advocate, legislate and implement strategies [C2].

Our positive pregnancy and birth focus has been included in infographics produced by the WHO in relation to maternity care during the ongoing COVID-19 pandemic. These infographics have been cited by organisations and NGOs to critique and change restrictions on women's rights in childbirth during the pandemic around the world. Soo Downe also initiated a professorial advisory group that has co-authored rapid reviews for the joint Royal College of Obstetricians and Gynaecologists/ Royal College of Midwives COVID guidelines throughout the pandemic, taking a positive health and wellbeing approach [L].

Catalysing change: optimal mode of birth and positive outcomes

Our EU COST Actions programme has generated practice change symposia for researchers, policy makers, service users, activists and clinical staff in Switzerland, Bulgaria, Spain, and Portugal with the total attendance being approximately 500. The contacts, research, and mentoring available to Yoanna Stanchova, a Bulgarian student midwife who joined our EU COST network, enabled her, along with her colleague Ilona Neshkova, to set up for the first time ever, a midwife-led maternity service and a birth centre in Bulgaria. Photographs and testimonials on their 'Zebra' midwifery website demonstrate the profound impact this has had on local childbearing women and their partners [E2]. EU COST Director Dr Ronald de Bruin noted: **"Today we heard about how a scientist from the UK working with Bulgarian midwives led to positive changes…the midwives became better educated and established a community of midwifery professionals in Bulgaria. This clearly demonstrates the power and potential of connecting researchers from across Europe"** [E1].

In Spain, the Midwives' Contribution to Normal Childbirth Care (MidconBirth) Study notes that: **'As a direct impact from the Action, a recommendation has been included in the Catalan Health Plan to review the normal birth model of care. One birth center has been recently opened, and some more are planned…'** Currently, 45 public hospitals are involved, from different regions of Spain [F].

The network also generated the rolling citizen-science based Babies Born Better (B3) survey [D], led by the ReaCH team. It has a database of responses from nearly 80,000 women in 22 languages, from 66 countries, with 26 relevant outputs currently on the website, from 16 countries, including publications, presentations, press releases, media coverage, undergraduate and masters dissertations, and activist campaigns [D]. In line with our unique focus, the B3 survey is designed to find out where women have the best experience of maternity care, around the world, what shapes their positive experiences, and what they would like to change.

The Rapporteur summarised the success of the COST Action **"…in several countries the Action managed to get policy makers and other stakeholders involved in order to change the way care is provided to mothers and their newborns. Overall, the Action has a significant positive and long-lasting effect on maternity care."** [G]

Building on our concept of positive experiences, we edited an accessible book called *The Roar Behind the Silence* which has sold over 7000 copies around the world [H]. Readers' comments show that they see the book as a catalyst for change. **"I want every commissioner and CQC inspector to read this book. Every Health Minister, every NHS manager. Heads of midwifery, consultants, registrars, midwives, health care assistants, read this book too! I want doulas and mothers to read it as well. THIS is where we can find common ground and work towards admitting our mistakes and making birth better, kinder, healthier and more fun, for parents and staff"** [H].

The book has generated eleven spontaneous requests for what have become called 'Roar Tours' from groups in India, Australia, New Zealand (twice), Norway, Ireland (four times), Canada and Germany. Over 1,000 obstetricians, midwives, service users and other stakeholders have attended these events. Local movements for change have continued following our tour dates. As one of many examples of spontaneous feedback: **"It has taken me this long to process our day in Portiuncula. Words cannot express how wonderful the day was from every perspective. It was like having my 'midwifery passion bag' being refilled with inspiration, positivity and as you say yourselves, love…. I was at the National Director of Midwifery forum and spoke about the day and the benefits for the unit"** [K].

Our commitment to research that will directly catalyse positive change in maternity care practice, experiences and outcomes around the world underpins our on-going and expanding programme. Our recent ESRC/UKRI award that will examine what has worked in the UK for maternal and neonatal services for both safe and personalised care throughout the pandemic is an example of this continuing endeavour. The end product will be a model and a toolkit for optimum care provision, co-designed throughout with stakeholders from provider groups, organisations, funding and management, and with service users, partners, families, and activist organisations.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[A]. Links to WHO guidelines and download figures

A1. WHO recommendations on antenatal care for a positive pregnancy experience;
A2. Lattof SR, Moran AC, Kidula N, et al. Implementation of the new WHO antenatal care model for a positive pregnancy experience: a monitoring framework. BMJ Global Health 2020;5:e002605. doi:10.1136/ bmjgh-2020-002605
A3. WHO recommendations: intrapartum care for a positive childbirth experience
A4. WHO recommendations on non-clinical interventions to reduce unnecessary caesarean sections
A5. Download figures from WHO Institutional Repository for Information Sharing

[B]. WHO implementation and media activity relating to published guidelines

[C]. Corroborating contacts and testimonials:

C1. Email testimonial from Duncan Fisher of Family Included
C2. Dr Ana Pilar Betran and Dr Ozge Tuncalp Senior Scientific Officers, World Health Organisation
C3. Dr Olufemi Oladapou, Unit Head, Maternal and Perinatal Health, World Health Organisation

[D].Babies Born Better (B3) survey website (including outputs and impacts from the project): http://www.babiesbornbetter.org/about/ Retrieved 7th January 2021

[E]. COST Action impact: Bulgaria

E1. News article from COST website "COST in Bulgaria for inspiring Info Day"
E2. Facebook page of Zebra Midwives (in Bulgarian)

[F]. COST Action impact: Spain https://llevadora.eu/:

[G]. COST Action Final Assessment Review for ISO1405: Building Intrapartum Research Through Health

[H]. Reviews and events related to the 'Roar Behind the Silence'

[I]. Examples of media coverage of overuse of intervention research from BBC Radio 4, ABC and Daily Mail

[J]. WHO 2019, Strengthening Quality Midwifery Education for Universal Health Coverage 2030
https://apps.who.int/iris/bitstream/handle/10665/324738/9789241515849-eng.pdf?ua=1

[K] Email feedback from training session at Portiuncula University Hospital, County Galway, Ireland

[L] Examples of contribution to COVID-19 response and guidance from WHO and The Royal College of Midwives