These are very interesting times to be discussing place of birth in general, and home birth in particular. The debate has been running on and off in the UK since the inception of the NHS (Davis 2013). It has been rekindled by the findings of the UK Birthplace study (Birthplace in England Collaborative Group 2011), and the responses from different professional groups to the consultation regarding the integration of the findings of the Birthplace study into the draft NICE (2014) intrapartum guidelines. This indicates that, even where good quality, whole population evidence exists, strongly held positions on both sides lead to different interpretations of the findings and the data, and especially, of the value and the significance of this information.

This is not just a local issue. In 2010, the UK media picked up on the home birth debate in the Netherlands, which has focused on its increasing and rapid loss of a traditionally strong home birth culture (Dreaper 2010). In countries as politically diverse as those in Eastern Europe (Eggermont 2012), and in Brazil, China and the United States (Hafner-Eaton & Pearce 1994, Cheung et al 2011, James et al 2011), place of birth discussions include the need for reinstatement or expansion of midwifery and maternity services and for access to a range of out of hospital birth settings. Underlying all these movements is a global recognition that the current almost universal risk-averse approach to intrapartum care in hospitals results in high rates of iatrogenic damage for mother and baby (Birthplace in England Collaborative Group 2011, Dahlen et al 2013, MicroBirth 2014, Odent 2014) along with spiraling health care costs (Conrad et al 2010, Gibbons et al 2010). Such factors demonstrate that this situation cannot, and indeed, should not continue indefinitely.

We have both actively been involved in this debate for the past 30 or 40 years. Both of us have attended home births and one has given birth at home. Both of us have worked for decades on large, busy, and technocratic hospital labour wards, and one has managed a number of large maternity services. Both of us have written about and researched the issue of place of birth over this timespan. In this commentary, we intend to draw together the situation in the UK and the relevant political developments that we have been part of and/or witnessed that have brought us to this point; how research evidence in this area has been interpreted; and the challenges we see for the (near) future.

Political evolution of the place of birth debate

In her analysis of UK maternity policy since the inception of the NHS in 1948, Davis (2013) notes that the 1959 Report of the Maternity Services Committee (the Cranbrook report), set a target for 70% hospital births. A decade later, based on very little formal data, the Peel report recommended that 100% of women should give birth in hospital (DHSSO/CHSC/SMMC 1970). It was not until the House of Commons’ select committee enquiry into the maternity services and the consequent Department of Health Changing childbirth report (DH 1993) that government policy in England called for a consideration of the scientific evidence in terms of place of birth, with an emphasis on woman-centered care. All maternity care policy in the countries of the UK since the Changing childbirth report (DH 1993) has reflected three evidence-based principles: service delivery that is centred on the woman and her individual needs and preferences, the provision of choice of place of care and of birth, and the offer of midwifery continuity of care throughout

Whose (interpretation of) evidence counts?
A commentary on the place of birth debate

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the maternity episode. Current policy continues to emphasise women’s choices, both in general, and in terms of place of birth (DH 2004, DH 2007, NCCWCH 2007, NICE 2014).

Such powerful policy support might raise questions as to why rates of home birth are not higher in the UK. At the time of the publication of Changing childbirth the home birth rate in England was 1%. The rate in England and Wales rose to a maximum of 3% in the years following the report, but in the latest (2011) data, it has dropped to 2.4% (ONS 2013). This might be to do with an increase in provision of birth centres as an alternative option, but it can also be understood, in the light of strong economic counter pressures that have led to centralisation of birth into ever larger units, rationalisation of staffing into fewer physical sites, and even, in some cases, withdrawal of home birth staffing provision. Paradoxically, this continues to be the case even when there is emerging evidence that out of hospital birth results in cost savings by normalising the birth process, and reducing routine intervention (Schroeder et al 2012).

This situation is more complex than at first sight it seems to be. Although there are indeed commercial pressures that work against minimal technology/intervention in birth, the creation of a marketised ‘any qualified provider’ opportunity in the NHS (DH 2010) has also created opportunities for out of hospital birth provision. For example, a team of independent midwives in the north west of England has agreed a contract with the local service commissioners to provide one-to-one care to women in their area, as autonomous practitioners, with their own evidence-based guidelines, insurance scheme, and supervisory/governance systems. They report their home birth rate as being 31% in their first year of operation, 2011–2012 (Collins & Kingdon 2014).

In a new development, human rights have also begun to feature in the place of birth arena. This movement links the moral and ethical requirement for safe, respectful, dignified and personal care with women’s choices for, and experiences of, different places of birth (Eggermont 2012, Birthrights 2014). As Davis (2013) notes, following an analysis of the views of women who have given birth over a period of time (1938–1996) that spans various relevant, but sometimes contrasting, policy initiatives:

‘Empowering women, maintaining safety and pursuing cost effectiveness need not be seen in opposition to one another. The history of post-war maternity care and mothers’ own past experiences indicate that investing in the maternity services in the short-term, and directing resources to provide genuinely personal care will ensure the long-term wellbeing of mothers and babies, ultimately a cost effective strategy...’

‘...current, controversial moves to reconfigure maternity services, closing smaller units and consolidating provision into a smaller number of large centres, is unlikely either to meet mothers’ needs, promote safety or prove cost effective.’

Research evidence (and the powerful role of belief)

Attempts to set up randomised trials of home versus hospital birth have largely failed (Olsen & Clausen 2012), mostly due to strong prior beliefs among women, their families, and maternity staff about the best place for a labour and birth to occur, which limits the number of women who will agree to be randomised to birth place. Indeed, as others have noted previously, the place of birth debate generally tends to be more ideological than scientific. Those advising (near) universal hospital birth prioritise the risk of perinatal mortality, and those advocating maximum out of hospital birth focus on iatrogenic damage (to mother and baby) caused by routine interventions. They also emphasise the positive benefits, including the increased opportunities for optimal interpersonal relationships, authentically woman-centred care, and an increased sense of mutual trust and well-being between the woman and her midwifery care providers.

To explore the consequences of this polarised debate, we examine two high profile publications in this area: the review published by Wax et al (2010) which was a specific meta-summary of existing research evidence on place of birth; and the Birthplace study (Birthplace in England Collaborative Group 2011), that is the only large scale population based inception study to date to have examined place of birth. Although there have been critiques of the methods used in both studies, we are interested in how the authors interpreted the data they generated, rather than the quality of the studies themselves.

Examples of interpretation of evidence on place of birth

Extrapolation from the data given in Wax et al (2010) using a numbers needed to treat approach reveals that, assuming the case mix in both groups was equal, for every 1000 women booking for hospital births when compared to 1000 similar women booking for home births, the following might occur:

- 1 less neonatal death
- 40 more preterm babies
- 9 more low birth weight babies
- 67 more operative vaginal births
- 43 more cesarean sections
- 30 more episiotomies
- 13 more third degree tears
- 19 more maternal infections.
The primary outcome measure for Birthplace (Birthplace in England Collaborative Group 2011) was a combination of mortality and severe morbidity so exact comparisons with the Wax et al review (2010) can’t be made, but the following sentence suggests that the magnitude of effect for death/serious morbidity for women having their first baby was probably similar in both:

‘For women having a first baby, a planned home birth increases the risk for the baby (9.3 adverse perinatal outcome events per 1000 planned home births compared with 5.3 per 1000 births for births planned in obstetric units)’ (Birthplace in England Collaborative Group 2011).

As in the Wax et al review (2010), Birthplace found significant advantages for women choosing out of hospital birth, including home birth:

‘The odds of receiving individual interventions (augmentation, epidural or spinal analgesia, general anaesthesia, ventouse or forceps delivery, intrapartum caesarean section, episiotomy, active management of the third stage) were lower in all three non-obstetric unit settings, with the greatest reductions seen for planned home and freestanding midwifery unit births…. The proportion of women with a “normal birth”… varied from 58% for planned obstetric unit births to 76% in alongside midwifery units, 83% in freestanding midwifery units, and 88% for planned home births…’ (Birthplace in England Collaborative Group 2011).

Although both studies found very similar findings, the conclusion in each study abstract is rather different. Wax et al (2010) stated:

‘Less medical intervention during planned home birth is associated with a tripling of the neonatal mortality rate.’

In contrast, the Birthplace authors state in the conclusion to their abstract:

‘The results support a policy of offering healthy women with low risk pregnancies a choice of birth setting. Women planning birth in a midwifery unit and multiparous women planning birth at home experience fewer interventions than those planning birth in an obstetric unit with no impact on perinatal outcomes. For multiparous women, planned home births also have fewer interventions but have poorer perinatal outcomes’ (Birthplace in England Collaborative Group 2011).

The authors of the Wax et al (2010) review are completely open in their introduction, stating that the American College of Obstetrics and Gynecology (ACOG) is opposed to home birth. The Birthplace data were collected in a very different political climate, where the UK government supports choice of place of birth for pregnant women. But this still raises the question: who decides what interpretation of the formal evidence matters the most? What does ‘evidence-based’ mean, when the ‘evidence’ can be interpreted so differently? The case studies reveal that evidence alone is not what informs decision making — in fact, it may even be a minor player in this process. The interpretations suggest that the primary question in the home birth debate, certainly at the level of mortality/morbidity, could be framed in at least two opposing ways:

1. Managed birth must be better, so what can we do to limit the adverse effects of hospital, and reduce women’s desire to birth at home?

or

2. Physiological birth must be better, so why did deaths occur? Could they be avoided, to maximise the positive effects of home birth?

An extreme example of the first response would be the paper by Chervenak et al (2013:184) which concludes that:

‘Attending planned home birth, no matter one’s training or experience, is not acting in a professional capacity, because this role preventably results in clinically unnecessary and therefore clinically unacceptable perinatal risk. It is therefore not consistent with the ethical concept of medicine as a profession for any attendant to planned home birth to represent himself or herself as a ‘professional’. Obstetric healthcare associations should neither sanction nor endorse planned home birth. Instead, these associations should recommend against planned home birth. Obstetric healthcare professionals should respond to expressions of interest in planned home birth by pregnant women by informing them that it incurs significantly increased, preventable perinatal risks, by recommending strongly against planned home birth, and by recommending strongly for planned hospital birth…’.

This view is clearly based on a very particular reading of the data, with the only measure of risk being the outcome of death, no matter how rare.

At the other extreme are home birth advocates who believe that the only possible solution to the current crisis of iatrogenic damage and spiralling costs in maternity care is for all women, except those at the very highest risk, to have their babies at home.

Both of these positions are undoubtedly honestly and sincerely held by their advocates. However, neither offers the opportunity for the evidence to be presented in a way that allows for it to be judged by the women and families who will have to deal with the consequences (positive and negative) of their place of birth for the rest of their lives.

**Challenges for the (near) future**

We declare our position here: our reading of the evidence is more aligned with those of the Birthplace...
in England Collaborative Group and the UK government than with the interpretations offered by those who are in sympathy with the ACOG position on home birth. On that basis, if the benefits of home and birth centre birth are to be realised, the focus of the whole maternity system needs to be reoriented with this option at the centre, but with the full range of other options (including hospital) authentically available to women who are healthy as well as those experiencing complications. To achieve this, maternity services need to prioritise the creation of collaborative processes that maximise the opportunities for women to choose to give birth at home or in birth centres, including: effective systems for smooth, positive transfer between birth places; and support and encouragement of care providers to ensure they are skilled, experienced, motivated, confident and competent in managing childbirth at home, in birth centres, and across a dynamic system of provision into and out of hospital. An unquestioning assumption that resources are available for such provision are an absolutely essential part of the maternity health care economy.

We would maintain that this is the minimum that needs to be done by health care providers to meet the requirements of current maternity care policy, and to maximise the well-being of mothers and babies based on the entirety of the current evidence (and not just the mortality and/or morbidity data). Indeed, the new Lancet series on midwifery has launched a Quality Maternal and Newborn Care (QMNC) framework that calls for a change towards this kind of thinking across the board, for all professional groups delivering maternity care. This represents recognition of its importance in optimising well-being for mother and baby, and in ensuring the sustainability and appropriate targeting of scarce maternity care resources (Renfrew et al 2014).

**Into the future: a theory and a warning**

It is intriguing that, when comparing healthy women and babies with similar socio-demographics, the further away from the centralised hospital that birth takes place geographically, the less likely it is that women and/or babies will be subject to iatrogenic intervention, with similar or equal rates of death or serious morbidity, with the exception of the small increased risk to babies of primigravid women having home births (Birthplace in England Collaborative Group 2011). So, at the population level, women who are otherwise healthy, with healthy babies, do worse if they are booked into a centralised unit; a bit better in an alongside unit; better again in a free-standing unit; and best of all if they are at home.

We suggest that one of the reasons for this might be the increasing ‘invisibility’ of labouring women and caregivers with increasing distance. That is, the rigid application of rules, protocols and guidelines becomes less and less possible the further away the labour is from a central unit. The effect might be particularly marked where the central unit uses monitoring technologies that divorce the embodied experience of the mother/baby/midwife/caregiver from their ‘data’. Remote central monitoring using decision alert systems would be a primary example of this kind of technology.

At home, or in places at a distance from this technology, it may be that decisions are more likely to be made on the experiences and physiological/psychological/emotional responses of this particular woman/baby, labouring in this particular circumstance, with these particular views, experiences, values, thoughts, hopes and dreams. The opportunity is also there for caregivers to spend time in physical contact with the woman, observing subtle signs, like skin tone, pupil dilation, body aroma, and behavioural cues.

If these kinds of phenomena are indeed the underpinning mechanisms for the positive effects of birthing remote from a centralised, monitoring-driven unit, it is vital to capture and to understand this sooner rather than later. Remote monitoring of the fetal heart can now be undertaken via a smartphone. It will not be long before Trusts are tempted to impose some kind of remote monitoring of out of hospital births, at which point the relative invisibility of the interpersonal dynamic labour dance that takes place between labouring women, their babies, their birth companions and their care providers at home and in birth centres will become visible, and, potentially, subject to external objective decision rules based on population evidence, and not on individual variation.

We may be wrong in these assumptions. Even so, the main point stands — we believe that there is an urgent need to understand ‘what works’ about home and birth centre births, both so that this can be preserved for out of hospital birth in the future, and to allow for transfer of some or all of these mechanisms of effect into hospital settings for those women who need, or want to have their babies there.

**Conclusion: place of birth; a necessary but not sufficient debate**

Ultimately, the aim for those on all sides of the place of birth debate, whatever their standpoint, must be the optimum health and well-being for mother and baby both in terms of reducing mortality and morbidity, and equally importantly, increasing self-fulfillment, and human flourishing. We believe it is vital to preserve the full choice of place of birth for childbearing women as part of achieving this aim. We also believe that it is now urgently important for us to focus our efforts on understanding the mechanisms of effect for the success of home birth, and on building a model of maternity care which does not depend on
the interpretation of evidence by those with strong prior beliefs and vested opinions, but which leads to the following kind of experience for all women, babies, families and service providers:

‘Oooh you couldn’t get that feeling with anything on earth, drugs, alcohol, anything, I just wanted to bottle it and keep it forever that feeling; and I still get it.’

(Thomson & Downe 2010)

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Original article. © MIDIRS 2014.