What is Normal Birth and Why Does It Matter?

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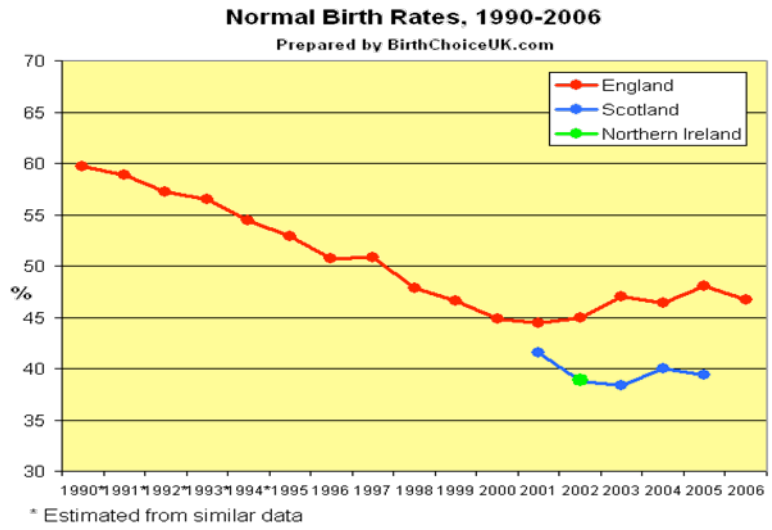
I have quite a lot of slides but I am aware there is time pressure and it is probably more important that you have a chance to talk, than that we talk at you. So: "normal" things we do to people, because you could say that caesarean is normal in Portugal. But normal birth is not about that, about what is common, it is about what is physiological. This is a graph of what is happening in the UK up until 2006, so the data are not that recent, but this is normal birth (Figure 3).

Figure 3: Normal Birth Rates in England, Scotland and Northern Ireland, 1990 – 2006



Source: www.BirthChoiceUK.com[1]

We have a definition of normal labour in the UK which is similar to the definition here:

[1] www.birthchoiceuk.com/Professionals/Frame.htm. Accessed: 28 January 2014.

> *The physiological transition from pregnancy to motherhood (which) heralds an enormous change in each woman physically and psychologically… every system in the body is affected and the experience represents a major rite de passage in the woman's life…*
> Bennett and Brown (eds), 1993: 139

Our rates of normal birth in the UK have dropped substantially. They are going up again since we realised there was a problem, which was about 2002 and we started to address it, they are slightly improving but not dramatically. So this is not just an issue for Portugal, actually it is an issue across the world, everywhere. So, now our statistics and I just want to kind of reinforce this point really, because what people often say is that some countries of the world have high rates of intervention because the women are more at risk, or make different choices, or whatever it may happen to be. These data (Figure 4) are from the UK and I want to talk about variation because our episiotomy rate in general is 8%, not bad. Very good compared to some countries. But it ranges from between 3.4 % in one hospital to 18% in another. Now, we have no idea if 3% is too low and 18% is too high, all we know is these differences cannot be physiological. It is completely impossible that women have different physiology separated by about 100 miles, so it´s more to do with philosophy of the care givers, than it is to do with what women really need.

Figure 4: UK Statistics, 2005 -06

652,377 births reported

Episiotomy: 8.3%

- George Eliot Hospital NHS Trust 18.4%
- Barnsley Hospital NHS Foundation Trust 3.4%

Caesarean: 24.8%:

- Imperial College Healthcare NHS Trust, London 31.4%,
- Shrewsbury and Telford Hospital 15.8%

Induction: 20.2 %

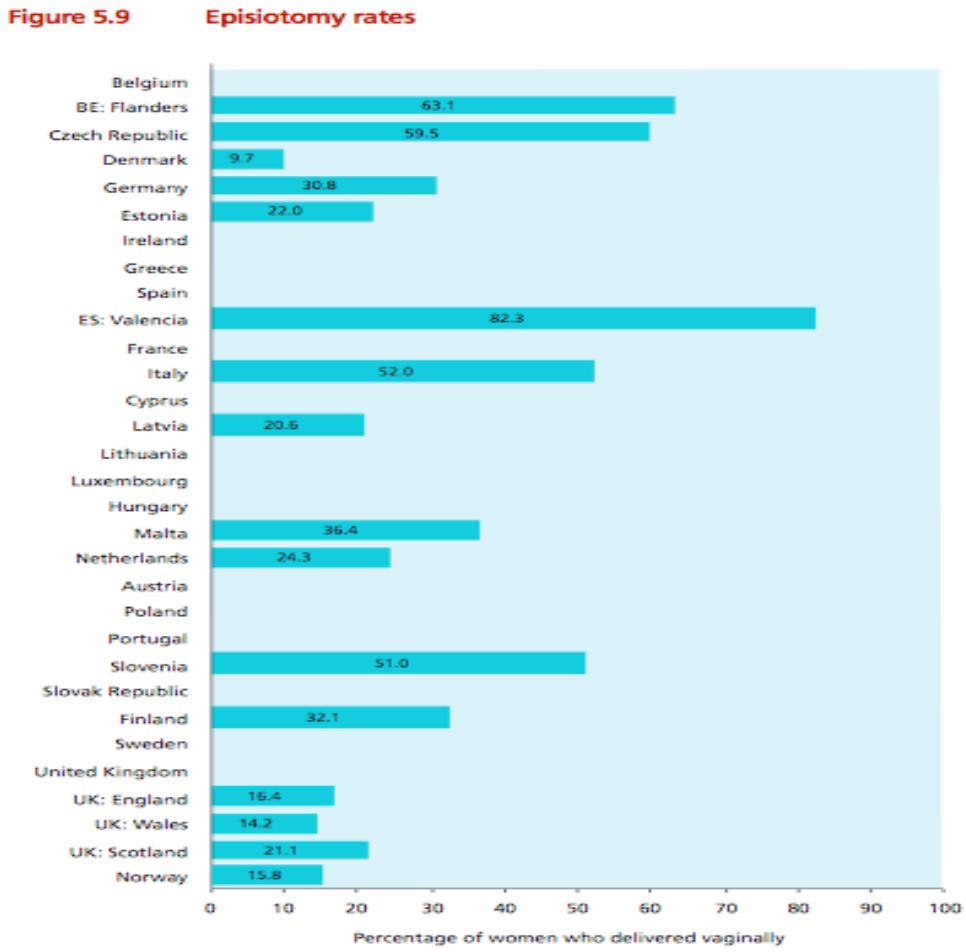
Source: The Information Centre for Health and Social Care, Maternity Statistics, England: 2005-06. Statistical Bulletin 2007.[2]

And the same for caesareans, so our overall rate is 24%/25% but it varies between 31% (all the London hospitals have high rates) and 15%. Again this can't be physiological in one country. I want to make a point about variation, so these data are from Euro-Peristat, the same source as the data that Joanna showed you. Episiotomy varies between 9.7% in Denmark and 82% in Valencia in Spain, again completely impossible to be explained, and again with caesarean sections and vaginal birth data we see other variations.

[2] Subject to copyright © 2007, re-used with the permission of The Information Centre. Available at: www.ic.nhs.uk. [Caesarean rates are taken from the Maternity Tail data in Table 33. Where this is missing, the data is taken from the procedure coded HES record core data in Table 33].

In my talk I'm going to put some emphasis on caesareans and I don't want to say that obviously caesarean is a bad thing, full stop. In some cases, in many cases, a caesarean is lifesaving and essential, clearly it needs to be there when it needs to be there. But the problem is the over-use.

Figure 5: Episiotomy rates in Europe, 2004



Source: www.europeristat.com (2004 data)

This next slide (Figure 6) is from the NICE[3] guideline, the guidelines that we use in the UK to justify our practice, and we know that the caesarean rate should be around 15%. Ours is 25%, so is already too high. These are the outcomes stated in the NICE guideline which, based on evidence, are more likely after caesarean. I´m not going to read them all but they include things like: hysterectomy, death of the mother, having no more children in the future, placenta praevia, death of the baby in the subsequent pregnancy (so stillbirth in the

[3] The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care in the UK. It is sponsored by the Department of Health but functions independently of the British government (www.nice.org.uk).

second pregnancy after a caesarean). Less likely after a caesarean: pain, perineal pain, incontinence and prolapse. I am fairly convinced that women are not given that evidence, because I think if they were given that, the balance would, one suspects, be probably much more towards not doing a caesarean than doing it.

Figure 6: Managed labour is better…? The evidence around caesarean section

Summary of the effects of caesarean section for women

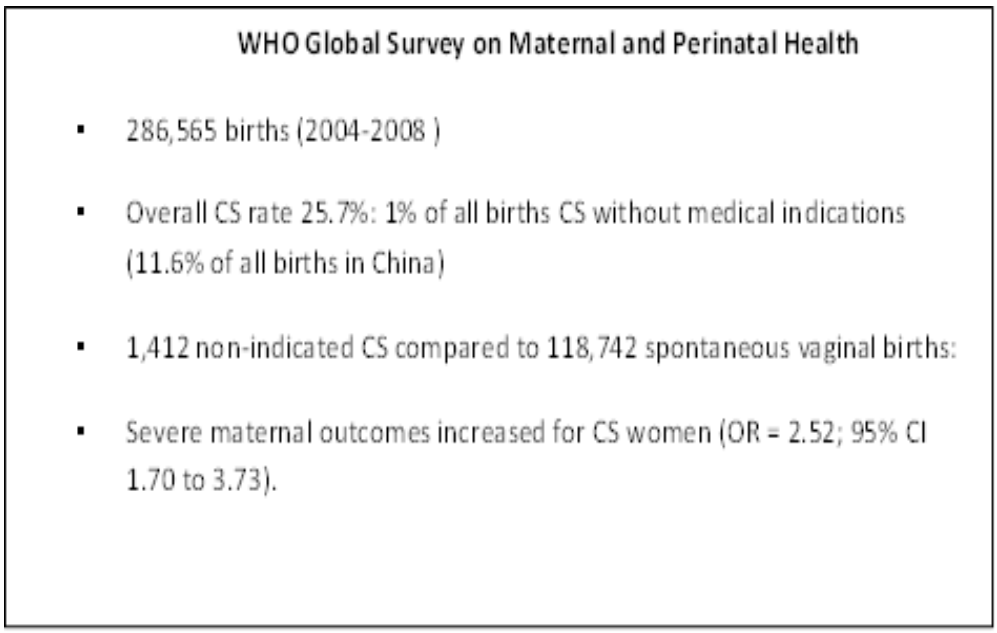
More likely after caesarean section	No difference after caesarean section	Less likely after caesarean section
• Pain in the abdomen (tummy) • Bladder injury • Injury to the tube that connects the kidney and bladder (ureter) • Needing further surgery • Hysterectomy (removal of the womb) • Admission to intensive care unit • Developing a blood clot • Longer hospital stay • Returning to hospital afterwards • Death of the mother • Having no more children • In a future pregnancy, the placenta covers the entrance to the womb (placenta praevia) • Tearing of the womb in a future pregnancy • In a future pregnancy, death of the baby before labour starts	• Losing more than 1 litre of blood (haemorrhage) before or after the birth • Infection of the wound or lining of the womb • Injuries to the womb or genital organs, such as tearing around the neck of the womb • Bowel incontinence (no control of bowel actions) • Postnatal depression • Back pain • Pain during sexual intercourse	• Pain in the area between the vagina and anus (the perineum) • Bladder incontinence 3 months after the birth • Sagging of the womb (prolapse) through the vaginal wall

Source: NICE 2004 Cesarean section: Quick reference guide[4]

And there is some other evidence from the World Health Organization (WHO) in terms of what is happening internationally because we know that this is an international problem (Figure 7). So overall, about 1% of all births are caesarean sections without medical indication. In China it is 11.6% of all births - very, very high, including high rates of elective caesarean rate, so in some places it´s 80-100% caesarean, for various reasons. And what they found looking at non-indicated caesarean, compared to spontaneous vaginal birth was that severe maternal outcomes were increased for non-indicated caesarean women, by a factor of 2.5. So women having caesareans without indication had a two and a half times higher risk of severe maternal outcomes. So caesarean is not a benign procedure necessarily, above a certain level.

[4] Available at: www.nice.org.uk/nicemedia/live/10940/29333/29333.pdf. Accessed 18 December 2013.

Figure 7: Emerging Evidence: Caesarean Section



Source: Souza *et al.*, 2010[5]

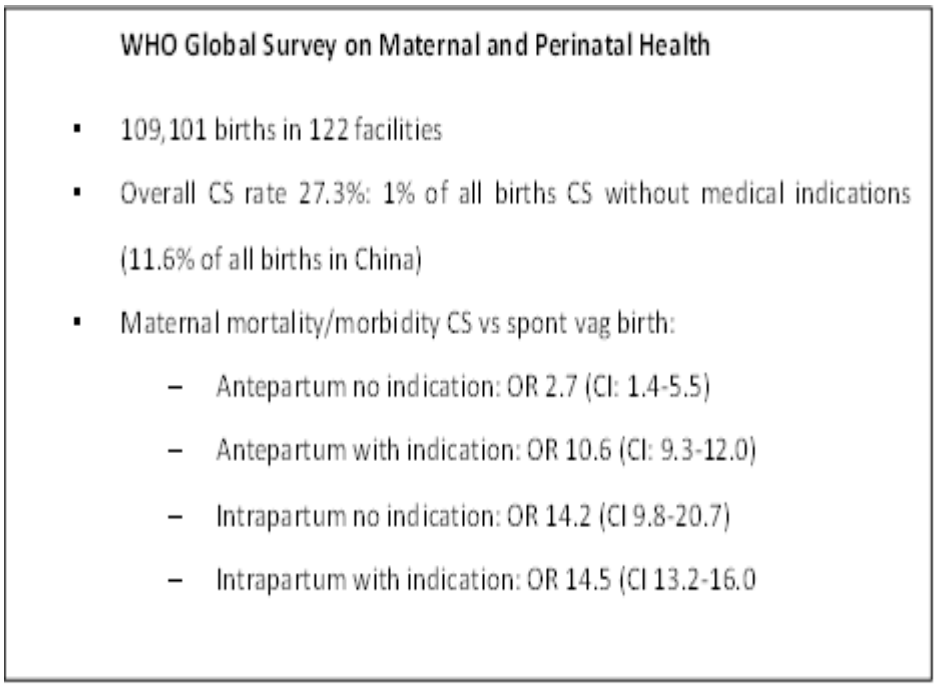
The following data are from a similar data set, and are also interesting (Figure 8). They compared a wide range of births and looked at three specific things around maternal mortality and morbidity:

- So they looked at caesarean section and antepartum no indication, so elective caesarean section with no medical indication prior to delivery and they found the increase, odds ratio, the risk increase for the women in those circumstances, mortality and morbidity was 2.7, so that is **not** no risk.
- Antepartum with a risk, so pre-eclampsia for women or the baby was severely growth restricted, the odds ratio was 10.6. Fair enough, you are going to expect a higher rate of maternal mortality and the caesarean is clearly necessary in those circumstances.
- However, what I found really shocking was intrapartum no-indication caesareans, so caesareans undertaken intrapartum with no reason. Here the odds ratio of severe mortality and morbidity was higher, 14.2, than it was for the antepartum with indication. So for the sick women ante-natally they did better than the healthy women intrapartum having caesareans. These data show that without indication there is no justification for

[5] www.biomedcentral.com/1741-7015/8/71. Accessed 28 January 2014.

the caesarean, because mother and baby are being put at risk, the mother particularly is being put at risk under these circumstances, according to those data.

Figure 8: Emerging Evidence: Caesarean section in Asia 2007-2008



Source: Lumbiganon *et al*., 2010[6]

So the question is: does this matter to women? Because what people often say is: women are choosing caesarean, it´s a consumerist society, women want what they want, we can't argue with that because women's choice is the most important thing.

Participant: Can I ask you something? Sorry, about the former slide (Figure 8), when you say antepartum no indication, that´s elective?

Soo Downe: Yes elective, purely elective caesarean. What it is saying is, if you compare women who chose a caesarean ante-natally, if they were otherwise to have a spontaneous birth they would have been 2.7 times less likely to have that risk.

Now the following information is from Brazil. And the reason I have chosen that is because we know that in Brazil the caesarean section rate has been historically high for at least one generation, probably two generations, and that is often put down to women's choice, because it´s said that Brazilian women like to look very beautiful and to have very neat little scars and not to go through labour. OK. So a qualitative study was done in 2001 (Faúndes *et al*., 2004)[7] and they looked at a large number of women – 656 in seven

[6] www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2961870-5/abstract. Accessed 28 January 2014.

[7] www.ncbi.nlm.nih.gov/pubmed/15311287. Accessed 18 December 2013. Full text only available in Portuguese: www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-89102004000400002. See also Osis *et al,*. 2001, www.ncbi.nlm.nih.gov/pubmed/11742644 accessed 11 February 2014.

hospitals - and the majority of women reported that they preferred vaginal birth. What was more interesting really was, when they asked women who had had both a vaginal birth and a caesarean their preference, 90.4% said they would still prefer a vaginal birth.

So having had the experience of both, in a country where caesarean is very common, where you would imagine women are making choices about this, still the vast majority preferred a vaginal birth. Which puts a whole question mark over the women's choice argument I think. Even those who only had caesareans, still three out of four (75.9%) said they would prefer a vaginal birth next time. So even when they didn't have the comparison of a vaginal birth and even in a society where their mothers probably had caesareans, if they were given the choice, most of them would go for a vaginal birth. Now obviously, this is just one country and just one set of data, who knows how generalisable it is, but I think it's a particularly interesting example because it is in a country with a long-standing history of caesareans.

One of the things we're trying to look at in COST Action is this idea of salutogenesis. We are not interested in what goes wrong, in pathology, but in what goes right. What happens when things go really well? That´s what we're interested in. We're also particularly interested in how we measure that, because we think what we tend to measure in obstetrics and maternity care is pathology - where things go wrong - and satisfaction. And it is well known to most social scientists that if you ask any population if they are satisfied then 80% will say yes, no matter what it is, because of expectations. So expectations and experiences tend to equate at around the 80% mark. However, what happens in maternity care is that if you deliver a particularly fantastic service to somebody, you can't measure it, because all you can measure is if the client was satisfied or not.

So we started to think about what if we were to measure beyond satisfaction. We did this study, looking at women who had traumatic births (Thomson and Downe, 2010). We talked to them about their experiences, and then followed them through to their next labour and birth, which was usually much better. We know that women tend to have better births second time around, particularly if they are prepared. After the first birth - these were particularly traumatised women - they used language like rape, horror, abuse, trauma, terror, those were the words they used. After the second birth they used words such as joy, euphoria, fantastic, positive, amazing, in love, incredible, and these are not words that we usually collect when we measure maternity care. I will read a quote from one woman:

> *"It wasn't just not negative, it was wow, you know? Isn't the human body just amazing? And that kind of positive pain, you know? Something good is going to come out of it. And it was just fantastic, it really was".*

We don't measure that kind of thing, and I think in not measuring it we miss a huge amount. This slide (Figure 9) is another example, actually from the *New York City Times*, a father talking about his wife's very positive birth.

Figure 9: Salutogenetic effects of good quality care

And the point of that is that it´s not only about how the woman feels, it´s about how her partner feels. That is important for parenting in the future, actually it always makes me want to cry this phrase, "I was just amazed by her", it relates to women being able to express their womanhood in labour and that being evident to the partner. Which is taken from people if there is a high use of technocratic intervention in labour – it is something that is missed I think, and it´s a shame.

And again a different quote from that same study I just told you about: "Oh you can't get that feeling with anything on earth, drugs, alcohol, anything. I just wanted to bottle it and keep it for ever, that feeling. And I still get it". And again the point about that quote is that women who experience these kinds of labour and birth, it resonates into the future for them. It isn't something that just happens, and is a day, and it´s gone. It´s something that acts for the future, in their parenting with their baby, themselves and their partner, in ways which we are only beginning to understand, and we really must not lose.

So does this matter to midwives? The study I want to tell you about now, very briefly, is one undertaken by Mavis Kirkham[8], who some of you may know about as a very good researcher. She was commissioned by the British government to find out why midwives leave service, because we have a huge problem in the UK. We have very high numbers of registered midwives, most of whom are not practicing, and the dominant reason people gave for leaving was dissatisfaction with the way they were required to practice. It wasn't the money, it wasn't particularly the hours, it was because they couldn't do the kind of midwifery they really wanted to do, that´s why they left, because of all the "technocracy". So they were upset with the low standard of care they could provide, they were upset with the lack of relationships they were able to provide and to establish with their clients, they were unhappy with the low staffing levels, which was part of that same problem, and they were dissatisfied with unsupportive managers (Curtis, Ball and Kirkham, 2006).

[8] Emeritus Professor of Midwifery, Sheffield Hallam University, UK.

Doctors, obstetricians are also leaving, and nobody has done the research to look at obstetricians, but my guess is, apart from litigation, some of these same issues are also going to come into play. And I certainly have obstetric colleagues who are very upset that they are not able to make relationships with women anymore, it´s an issue for them as well as much as it is for midwives. So I think this is not just a midwifery phenomenon, and I'm sure nurses working in obstetrics might feel the same way. We set up the campaign for normal birth in the UK as a consequence of some of these problems. It was set up for midwives, although others can use it. It is based on story-telling, midwives telling stories, and we use this as way to unpack the elements underneath the story, the research and the policy issues and the practice issues, and it is a freely available website so you can have a look at that if you want to[9].

Figure 10: Homepage of the Campaign for Normal Birth

Source: www.rcmnormalbirth.org.uk/

[9] www.rcmnormalbirth.org.uk/

The next question, which really touches a bit on what Joanna was saying, matters to tax payers and funders. This is a very interesting study, published quite recently (Figure 11) which was looking at unnecessary medicalization, I don't like the word medicalization actually, because I think it is not just doctors who do these things in fact. That´s why I prefer to use the term "technocratic intervention", but anyway they called it medicalization in this study and they looked at a whole range of different things, to see what the cost was of unnecessary medicalization in the USA. As you can see the category with the biggest spend - unnecessary intervention in normal pregnancy and delivery - worked out costing the US economy $ 18 billion per year. That begins to be meaningful in an economic crisis.

Figure 11: Caesarean section: Does it matter to funders and taxpayers?

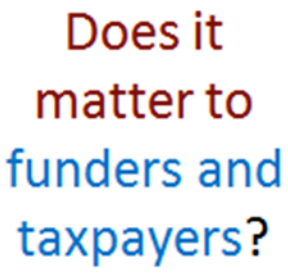


Table 3
Estimated direct cost for select medicalized conditions in 2005.

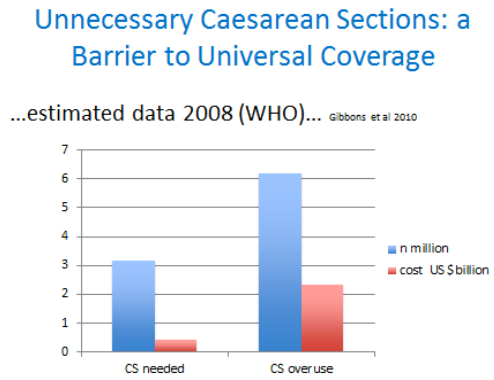
Medical condition (citation)	Estimated direct medical cost 2005 (in millions)	Year of original data source
Anxiety Disorders (AHRQ, 2008)	10,878.3	2005
Behavioral Disorders (AHRQ, 2008)	4657.5	2005
Body Image (Cosmetic procedures and surgery) (American Society for Aesthetic Plastic Surgery, 2008)	12,376.0	2005
Erectile Dysfunction (Berenson, 2007; Eli Lilly and Company, 2006; Glaxo Smith Kline, 2005; Pfizer, 2005)	1112.1	2005; 2006
Infertility (AHRQ, 2008; Machlin & Rohde, 2007)	1104.2	2005; 2000
Male Pattern Baldness (Anonymous, 1998)	1055.1	1999
Menopause (Wyeth, 2007)	914.3	2006
Normal Pregnancy and/or Delivery (AHRQ, 2008)	18,290.5	2005
Normal sadness (Greenberg et al., 2003)	6204.0	2000; 1990
Obesity (Bariatric surgery and weight loss medication) (American Society for Aesthetic Plastic Surgery, 2008; Encinosa et al., 2005)	1341.1	2005; 2002
Sleep Disorders (Walsh & Engelhardt, 1999)	1,7684.5	1995
Substance Related Disorders (AHRQ, 2008)	1468.7	2005
Total	77,086.30	

Table 3 provides the final estimation cost for all medicalized conditions in 2005 dollars, disaggregated by condition. All data originally collected in a year other than 2005 have been adjusted for inflation the 2005 Consumer Price Index, issued by the Bureau of Labor Statistics (Bureau of Labor Statistics, 2008).

Source: Conrad *et al.,* 2010: 1946. Calculation based on data of the Bureau of Labor Statistics, USA (2005 data)

And if we look at another study undertaken again, quite recently, published by WHO in 2010 (Figure 12), they looked at the number of caesareans that were not done and should be done, and what the cost would be of making that happen. And the number of caesareans that should not have been done, and were carried out and what the extra cost of that was. Does that make sense?

Figure 12: Comparison of Numbers and Costs of Unavailable and Unnecessary C-Sections Internationally



Source: Gibbons *et al*., 2010[10]

So first the number of caesareans that should be done and are not being done. So countries where you can't get a caesarean, where women and babies are dying because caesarean section is not available. This was just over 3 million across the world. And they estimated that in order to institute that facility for women and babies would cost about half a billion US dollars. Then when they looked at the over-use of caesarean (this is globally, across the world), they found that just over 6 million caesareans were being done unnecessarily, when they shouldn't be done. At a cost of about 2 and a quarter billion dollars. So obviously it´s not this easy but you could say: if you didn't do this, you could do that. So actually the over-use of medicalization, technocratic intervention, is arguably not only an economic issue, but also a moral and ethical issue, if we are arriving at these circumstances. Then beyond that there is also the question of just can we afford it? Simply can we afford it in this day and age?

Does normal birth matter to public health? There is some work we have been doing as a team, a hypothesis we have been developing with a group from Yale, the University of Western Sydney and a number of other places. We've been looking at implications, the outcomes of various kinds of interventions in labour and birth. These studies are tentative; they are not prospective, but retrospective studies. So we don't know how "true", if you like, the findings are. But they seem to be accumulating in one direction and most studies seem to being going in the same direction, which is extremely interesting. So the hypothesis is that there are feedback loops between the hormonal and physical effects of birth, and these phenomena can be demonstrated with data (Schlinzig *et al*., 2009)[11]. Type 1 diabetes in the neonate, eczema, asthma, multiple sclerosis in the adult following the birth, bronchiolitis, and so on. And the hypothesis is that this is to do with changes in the white blood cell DNA mutation, which affects epigenetics. I'm not going to go into that in too much detail, those who want to discuss it can come and talk to me. But I am going to show you some of the

[10] www.who.int/healthsystems/topics/financing/healthreport/30C-sectioncosts.pdf. Accessed 28 January 2014.

[11] www.ncbi.nlm.nih.gov/pubmed/19638013. Accessed 19 February 2014.

studies that contribute to this. These are not our studies, these are studies that we put together. A fairly recent one: caesarean linked to infant bronchiolitis (Hitt, 2011)[12], caesarean and multiple sclerosis, was a study which looked again at a multiple sclerosis register and looked back at a number of different potential influential factors and found that caesarean was one of the strongest ones. So an increased risk of multiple sclerosis after caesarean of 2.5, and odds of 2.51, particularly in females, girls. And in this cohort those who got multiple sclerosis, in whom it became apparent, were more likely to get it younger, a mean age of 24.58 verses 27.59 for those who had not had caesareans (Maqhzi *et al*., 2011)[13]. A very interesting phenomenon. Of course this is not to say that this is a directly causative effect. The instance is extremely low: this isn't going to happen to everyone.

This is a type 1 diabetes studies, which looked at 20 databases of children with type 1 diabetes and they looked back retrospectively and they found the odds ratio of having a caesarean 1.19, and again that was significant, all of these are significant, so a 20% increase in the risk, again from a very low base. We are not saying 20% of children are going to get type 1 diabetes, what we are saying is that the risk is increased by a ratio of 1.19 (Cardwell *et al*., 2008)[14]. There has been a plethora of studies, mostly coming from physiologists actually, not from obstetricians and midwives, but coming from animal science as well, but also those who are interested in the physiology of the neonate, and some paediatricians are looking at this too. I would say over the last five years there have been probably at least 20 studies, and the number is increasing dramatically, because of the interest. The theory is that we know there is epigenetic plasticity in early life, and we think there is something going on which is interrupting that.

Now I´d like to explore the question what difference does it make? What is the value of doing something differently? I'm telling you that maybe we should stop doing some of these interventions, but what do we do as an alternative? There are a couple of projects I want to tell you about. On salutogenic maternity care, there is a study that was undertaken in Bolivia and they did a very simple thing: they just trained health workers that women's views and feelings should be at the centre of their health care provision. That is all they did. And part of that was things like women should be able to kneel for birth (as they did traditionally), they should be attended by their male partners and the traditional midwife should be integrated into the hospital. So they did nothing fancy, no extra drugs, no extra anything else, just basically being nice to people and doing things they like. And what they found before the project was that the maternal mortality rate was 600 per 100,000 women, and during the project they had only one death. Of course we don't know, was that in 100 women, in 1,000 women or in 10,000 women, the denominator is not given, but it still seems to be an interesting finding related to that particular group and project.

[12] www.medscape.org/viewarticle/753175. See also Moore *et al.*, 2011. adc.bmj.com/content/early/2011/10/28/archdischild-2011-300607.abstract. Both accessed 18 December 2013.

[13] www.ncbi.nlm.nih.gov/pubmed/21982872?dopt=Abstract. Accessed 19 February 2014.

[14] www. ncbi.nlm.nih.gov/pubmed/18292986. Accessed 18 December 2013.

And the next one project is one in Ecuador about which we have a bit more information. Which was about women standing for birth in the traditional way. In this case they did something very similar, they just built mutual trust and respect in the same way, again by being nice to people. The infant mortality in that particular area became less than half the national average following the project[15]. Again, this research might not be generalizable, it might be anecdotal, but what I found fascinating is that their caesarean section rate was less than half. So they reduced their C-section rate and also their mortality rates. One of the things that these two projects seem to have in common is that women started to trust the hospital. So because the hospital was nice to them, they went to the hospital. Which is like obvious, you know?

There are three studies that were published, one in the *Lancet* and a couple of others in very good, high quality medical journals and these were just about getting women talking (Manandhar *et al*., 2004; Azad *et al*., 2010; Rath *et al.,* 2010)[16]. What they did was they took villages in a range of countries and they randomised half of the villages to have groups, set up on routine occasions where women just talk to each other, about neonatal care and they had a facilitator there, but they weren't necessarily very active, mostly it was the women talking. And in India they reduced the neonatal mortality rate by 32%, which is the highest reduction they have ever found even introducing drugs and everything else. In Nepal they had the same effect: a 30% reduction in neonatal mortality rate. In Bangladesh, interestingly they had a reduction but it wasn't statistically significant and what they hypothesised was that the groups they set up were too big. They were bigger groups and they were further apart from each other. So they hypothesised there is a point beyond which this approach becomes ineffective; you have to have small groups so that people know each other – this way it is more effective.

Ok so just to quote finally. This is from Sheila Kitzinger[17]:

> *"To anyone who thinks about it long enough birth cannot simply be a matter of techniques for getting a baby out of one´s body. It involves our relationship to life as a whole and the part we play in the order of things". It´s much more of a phenomenon than just getting a baby out."*

And this is a quote from Gandhi: "Be the change you want to see in the world". And the reason I put it there is because I think it is very easy for us all to go away and think: the government, it´s the government's problem - they have to go and sort it out. Or midwives often say it´s all the doctors´ fault; if doctors sort themselves out then everything will be fine – it´s nothing to do with us. But actually it´s up to all of us, women, everybody. The decisions that women make, the choices they make and the way those choices are supported by doctors and midwives and nurses and policy makers, we all have a part to play in this.

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[15] womensenews.org/story/health/090215/gravity-birth-pulls-women-ecuador-hospital#.UwVlNvl_tZt. Accessed 19 February 2014.

[16] www.ncbi.nlm.nih.gov/pubmed/15364188;
www.ncbi.nlm.nih.gov/pubmed/20207412; www.ncbi.nlm.nih.gov/pmc/articles/PMC2987759/. Accessed 19 February 2014.

[17] Sheila Kitzinger is an activist for natural childbirth and author of several influential books on pregnancy, childbirth and the postpartum period.

Screening of film: **Hannah´s Story** (https://www.youtube.com/watch?v=h9oP7OTiXXQ).

Plenary Discussion

Maria Schouten: I think this was a beautiful finish to this talk by Professor Soo Downe which had a lot of information and at the same time was a statement. And I think there will be questions and perhaps there are ideas which have arisen and I would like to invite the audience to raise their hands if you have a question or something to say.

Participant: Homebirth is not registered in Portugal, and if you see the 600% increase in out-of-hospital births, the first thing that the *bombeiros*[18] said is that it is not in their ambulances that these babies are born, so could it be that this is an increase in homebirths? Chosen homebirth?

Joanna White: I can´t really answer that question as the figures I have do not breakdown the type of birth.

Participant: I know those figures as last year I asked INE (the Portuguese National Institute of Statistics) to give me all the figures for birth and in fact, as you mention, births in transit have a big, big rise, after 2005 and nobody talks about this and it is not only the birth, also the death, of the babies. These are important figures to show what is happening, because it is not homebirth at all. They sent me very complete data, some of that detailed by region, and in fact I felt concerned about those figures because something is happening. Usually we used to say that women are really satisfied with birth in transit, with that experience but in fact in the end there are a lot of deaths of babies within those figures of INE, so I think it´s important to see what is happening. It´s not homebirth at all.

Joanna White: Thank you. Officially, according to Euro-Peristat data, there is 0.5% rate of homebirth in Portugal which is official. I am assuming that must be births at home – so that also happens.

Participant: I asked them, and what is happening is not planned homebirth, because on the form they use to take the figures they do not ask if it was a planned homebirth if it wasn´t. So right now, with the figures we have on Portugal, we cannot tell if it was a planned homebirth or not, because some of the births just happened and were in transit.

Joanna White: So these are two very hidden things here: a number of planned homebirths and a number of births in transit.

Participant: I think it´s important. I know there are some professors here from the universities and I think it´s important to speak with INE about changing the form because it

[18] In Portugal, the responsibilities of the *bombeiros* (fire brigade) usually include providing assistance to and transporting people requiring medical assistance to and from hospital, health centres and the like in ambulances.

is really important to realize out of those homebirths which are planned and assisted and which are not.

Maria Schouten: As a matter of fact I have observed data from several sources and they give very different figures. So that means: these tables are constructed for whose benefit?

Participant: I received the form they use from INE and in my opinion it´s a good form. It just needs to be finalized properly.

Maria Schouten: Ok. That´s a good idea. Are there more questions?

*Participan*t: I am Jacqueline, an IBLCE[19] intern. I´m just wondering if these midwives are all leaving England, where are they going? Because so many Portuguese midwives are looking to go to England.

Soo Downe: Unfortunately in England there are many places that have vacancies they can´t fill. There are jobs available but some people have left because they are not happy with what they are doing.

Participant: Another question - do the caesarean rates in Asia correlate at all to the age of the mothers?

Soo Downe: One of the arguments for why there´s a high rate of elective caesareans in China specifically is because of the one-child policy. And also superstitions about the timing of childbirth so people prefer to have their babies at a particular time. Beyond that, if you are asking whether maternal morbidity is related to age, I don´t know.

Participant: I was very interested in the idea that having a positive birth experience resonates into the future, because I think one of the problems about wanting a positive birth experience is that it is often put in contrast with the idea of risk, and a homebirth in particular, but even a hospital birth without all the technocratic intervention is often seen as something risky and there is almost a kind of guilt put onto the mother - "it´s not just you, it´s the baby" – and the idea that one might be being selfish, so it was just to say that I think that research into this part of it is very important, to be able to show that actually intervention does have long-term effects, it affects the parenting, especially immediately after the birth. I was also thinking of the epidural, the idea of a birth without pain, how the side effects of an epidural are not made clear: that women may have terrible headaches afterwards and this may affect the care of the baby. Just a comment.

Soo Downe: Obviously we agree that those things need to be looked at. I know what you mean: it´s a balance between the woman feeling good about herself, and her health. If

[19] International Board of Lactation Consultant Examiners. See www.iblce.org/

you look at the Birthplace study[20] which took place in England, and is now taking place in the Netherlands and Australia, and it will be interesting to see how generalizable the results are, this very prestigious study undertaken by the Department of Health by some very high-profile people across the UK looking at birth in hospital, in birth centres alongside the hospital, in "freestanding" birth centres away from the hospital (both type of birth centres run by midwives), and at home. The Birthplace study found that for every single group of women except first-time mothers delivering at home, the babies did as well and it was cheaper if the birth took place out of hospital – either at a birth centre or at home - and the mothers did much better. So except in the case of first-time mothers at home where the rate of perinatal mortality was slightly higher – and they are looking into why that may be - for primagravida women in freestanding hospital birth centres and "alongside" birth centres run by midwives, and multigravida women at these birth centres and home, it was better for low-risk women to give birth out of hospital than in hospital. So it´s not even actually that you set the women´s life experience against the well-being of the baby: all things being equal, apart from the case of first-time mothers having their baby at home, it was better for both mother and baby to have the baby out of hospital for low-risk healthy women, and it was cheaper. As I said, that study is now being repeated in Holland and Australia to see if the results can be generalized but I think the mother-baby dichotomy is in fact a false one.

Participant: I was wondering if in your study you have any difference related to immigrants and ethnic minorities. Were there differences in the data between white mothers and ethnic minorities? Do they have the same choices?

Soo Downe: We haven´t yet specifically looked at migrant women in the COST project, but we are going to. But the answer to your question is yes, there are differences. It is generally well known that second-generation migrants and often economic migrants tend to do fine, but asylum-seekers, for example, tend to do far worse. Women of West African nationality do far worse and have less choices. Women of South Asian origin have far higher rates of perinatal mortality than white women in the UK.

[20] The Birthplace cohort study compared the safety of births planned in four settings: home, freestanding midwifery units (FMUs), alongside midwifery units (AMUs) and obstetric units (OUs). See www.rcm.org.uk/college/policy-practice/midwifery-research/birthplace/