

# Childbirth Cultures, Concerns and Consequences:

## *Lessons from a successful EU COST network: Where next?*

*Soo Downe*

*Action Chair*

*On behalf of members of COST Action*

*IS0907/iR4B/IS1405*

*Glasgow Nov 19<sup>th</sup> 2014*

With thanks to all who gave permission for  
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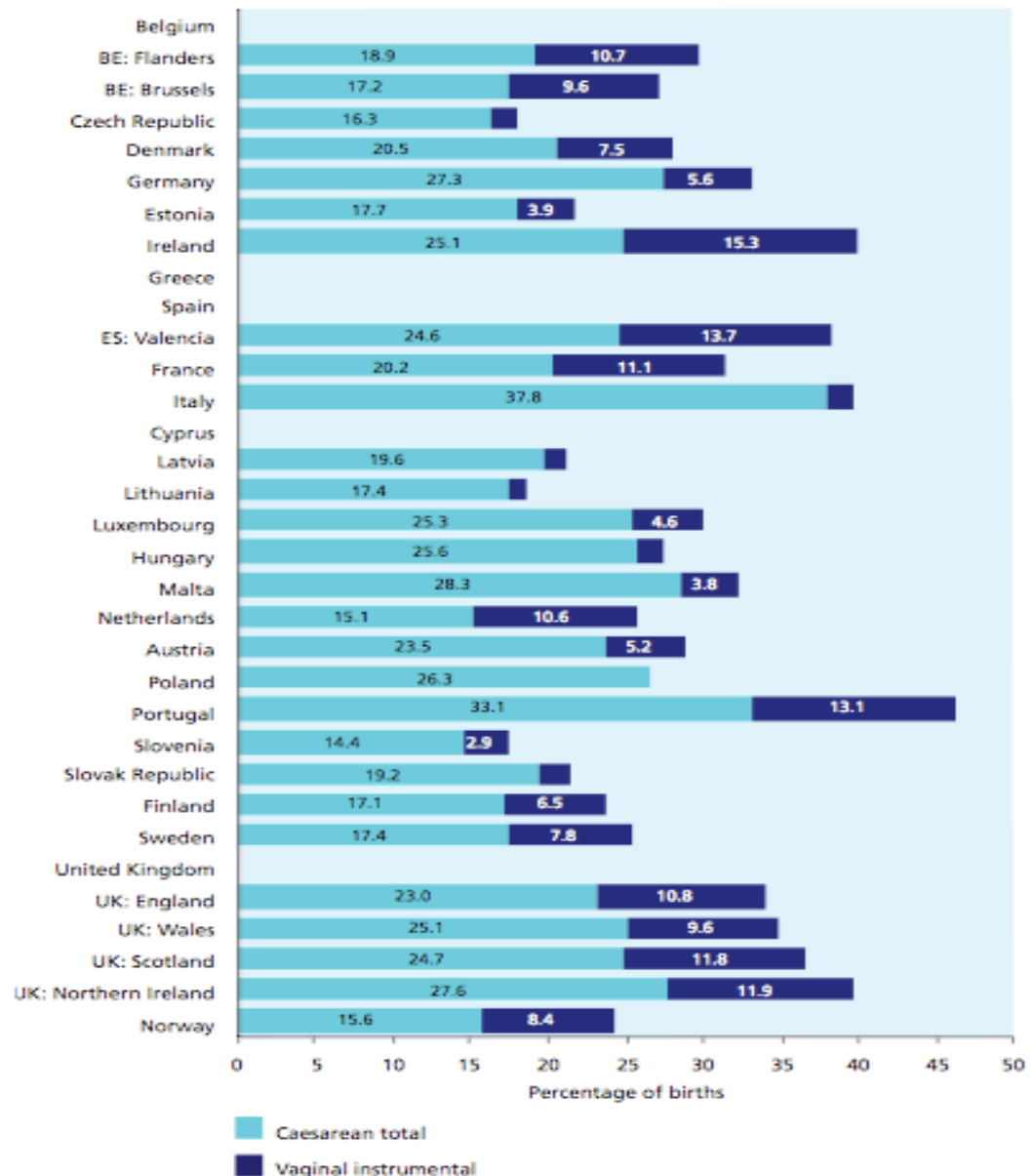


# What is the problem?

Cesarean section rates in Europe

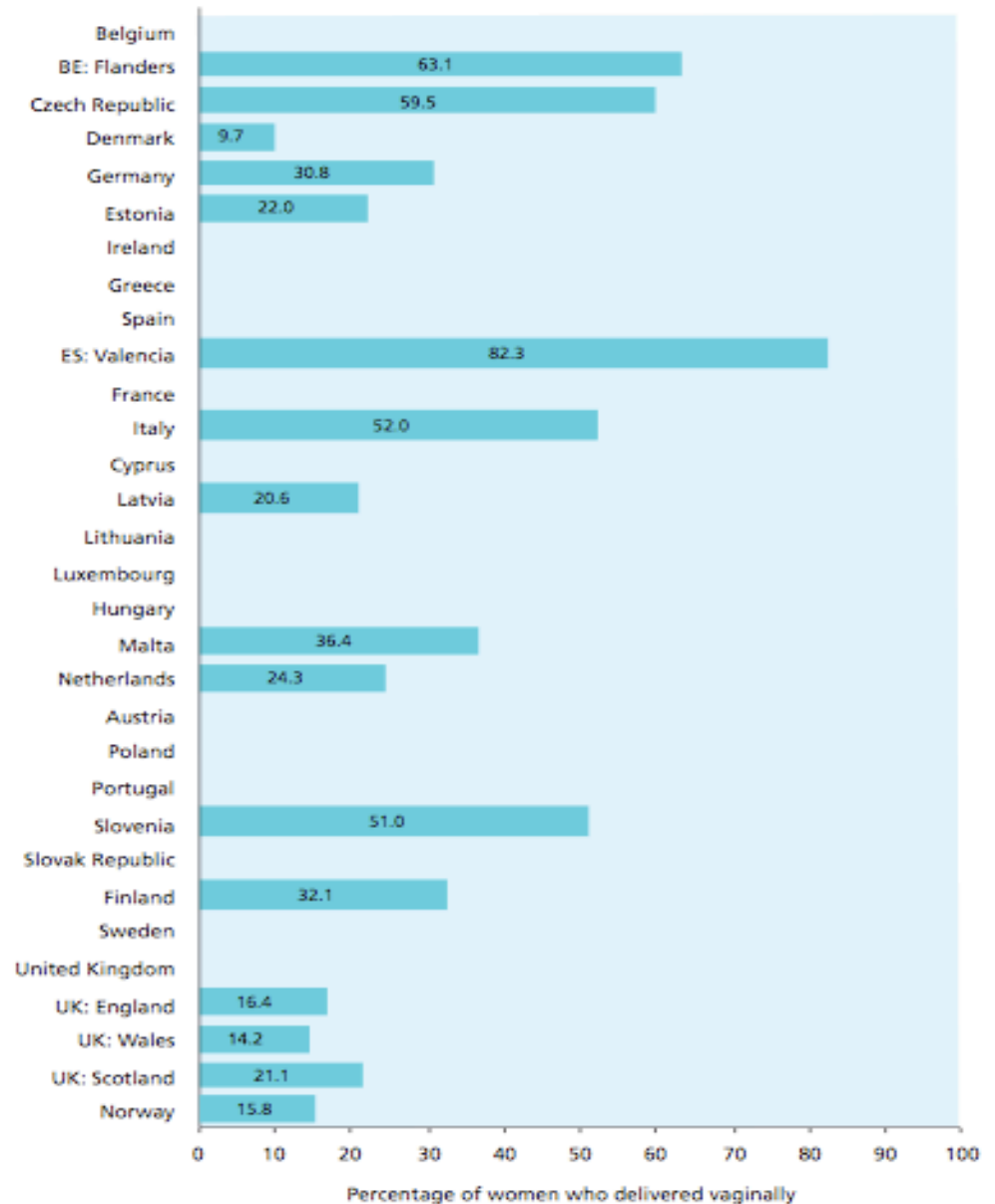
(Euro Peristat 2010)

Figure 5.1 Percentage of births by mode of delivery



# Episiotomy rates in Europe

Figure 5.9 Episiotomy rates



Why the way  
birth is done  
should matter  
to politicians  
and  
governments

...

(Conrad 2010)

**Table 3**

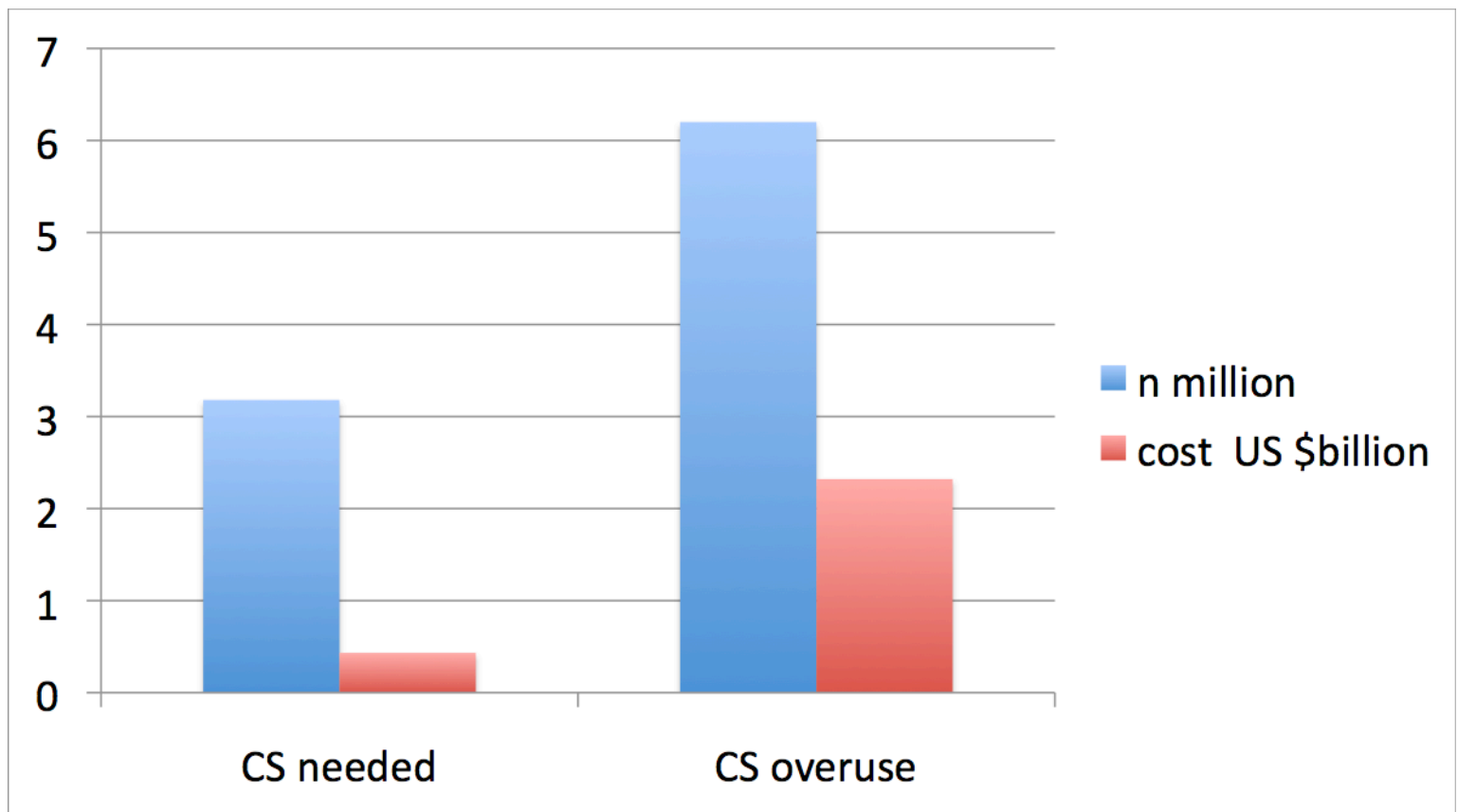
Estimated direct cost for select medicalized conditions in 2005.

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 (Walsh, 2007)	214.2	2002
Normal Pregnancy and/or Delivery (AHRQ, 2008)	18,290.5	2005
Normal Sickness (Greenberg et al., 2005)	6204.0	2000; 1998
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).

# Unnecessary Caesarean Sections: a Barrier to Universal Coverage

...estimated data 2008 (WHO)... Gibbons et al 2010



# Other key issues with variation across Europe...

- First trimester screening for diagnosis of fetal abnormality
- Risk of prematurity and low birth weight
- Experiences of and outcomes for migrant women



# What might explain this variation?

## Current childbirth discourses: examples

### Medicalisation'

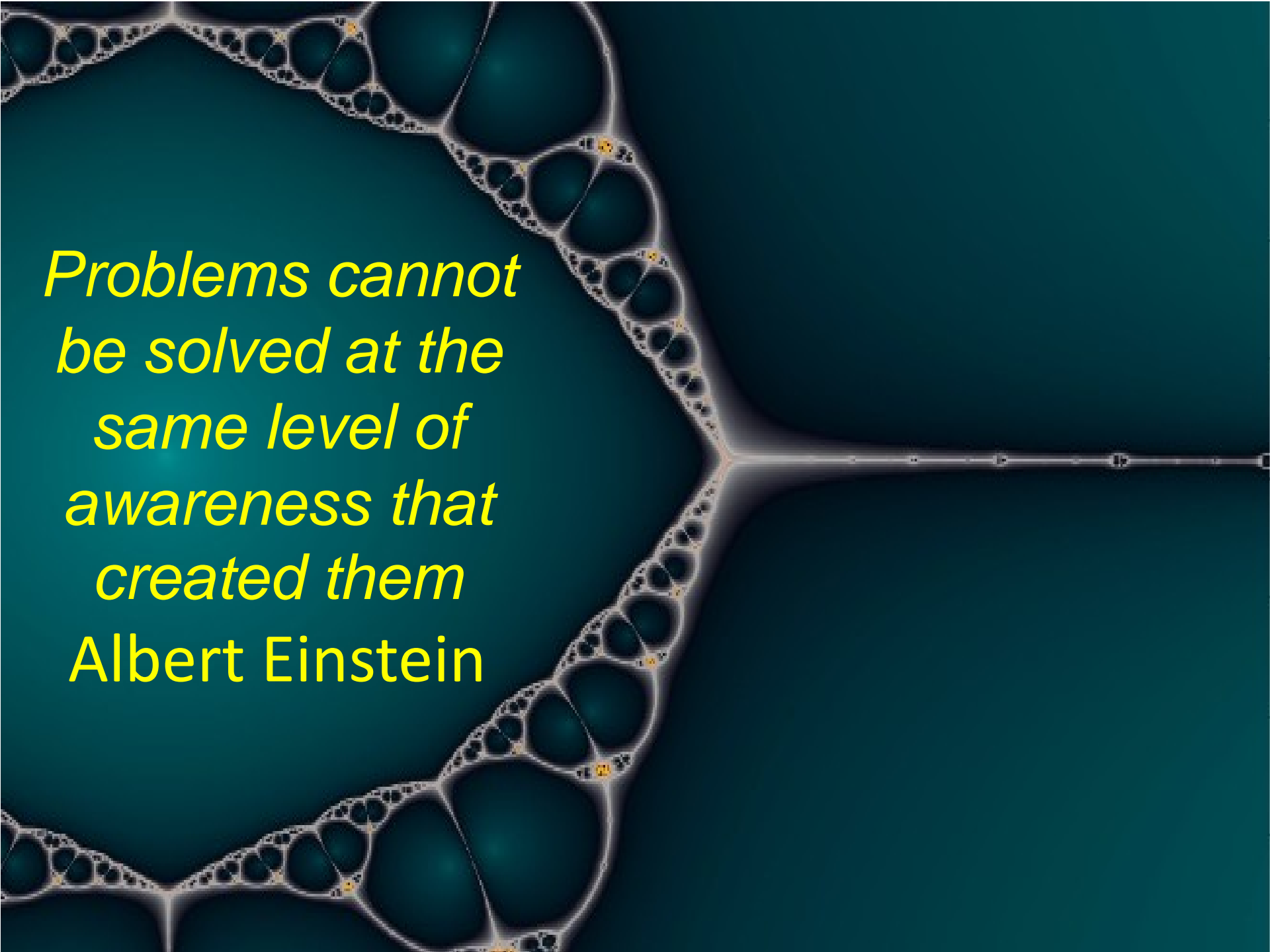
- biomedical/imaging
- culturally dominant?
- reducing pathology?
- increasing iatrogenesis?
- feminist critique - BUT
- critique not problematised

### 'Technocracy'

Economic  
Consumerist  
Modernist  
Operational surveillance  
Linear, mechanistic  
Standardised

### 'Humanisation'

Psycho-social  
Woman-centred  
Post-modernist  
Reduces iatrogenesis?  
Complexity based  
Not problematised



*Problems cannot  
be solved at the  
same level of  
awareness that  
created them*  
Albert Einstein



# The nature of current ‘normal’ science: limitations of the linear

**Table 1.1** Levels of evidence for intervention studies<sup>15</sup>

Level	Source of evidence
1++	High-quality meta-analyses, systematic reviews of randomised controlled trials (RCTs) or RCTs with a very low risk of bias
1+	Well-conducted meta-analyses, systematic reviews of RCTs or RCTs with a low risk of bias
1–	Meta-analyses, systematic reviews of RCTs or RCTs with a high risk of bias
2++	High-quality systematic reviews of case-control or cohort studies; high-quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2+	Well-conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2–	Case-control or cohort studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal
3	Non-analytical studies (for example case reports, case series)
4	Expert opinion, formal consensus

# Excessive risk aversion... and risk of loss of benefit

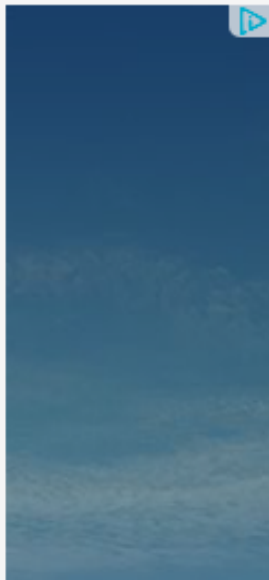
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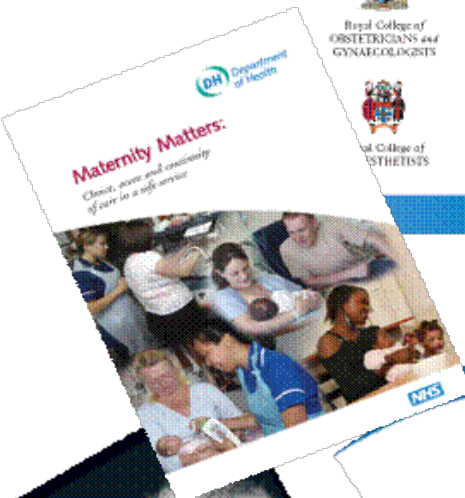
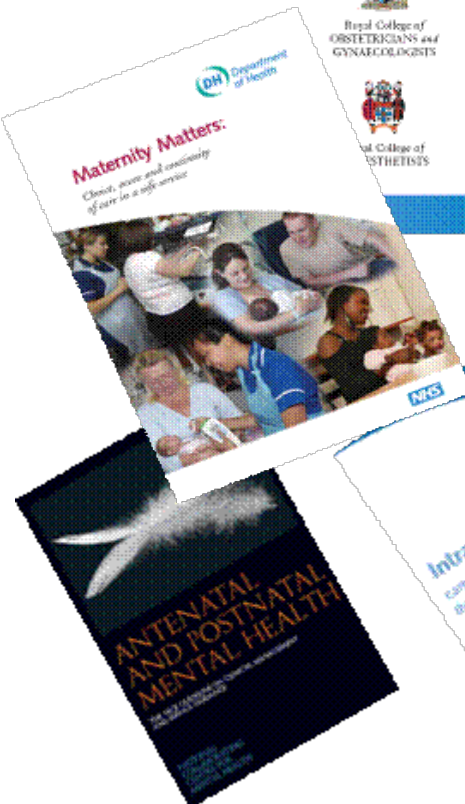
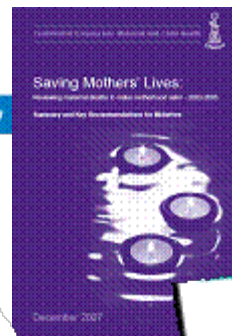
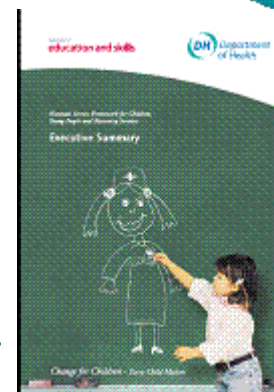
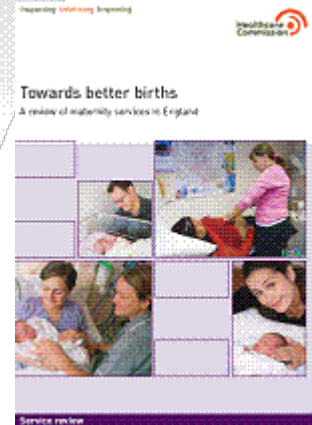
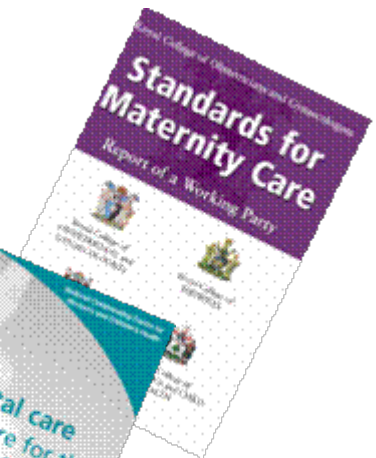
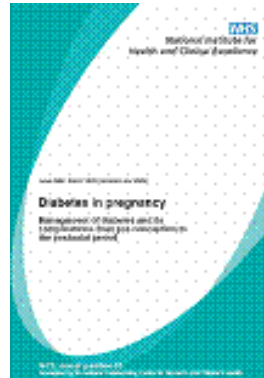
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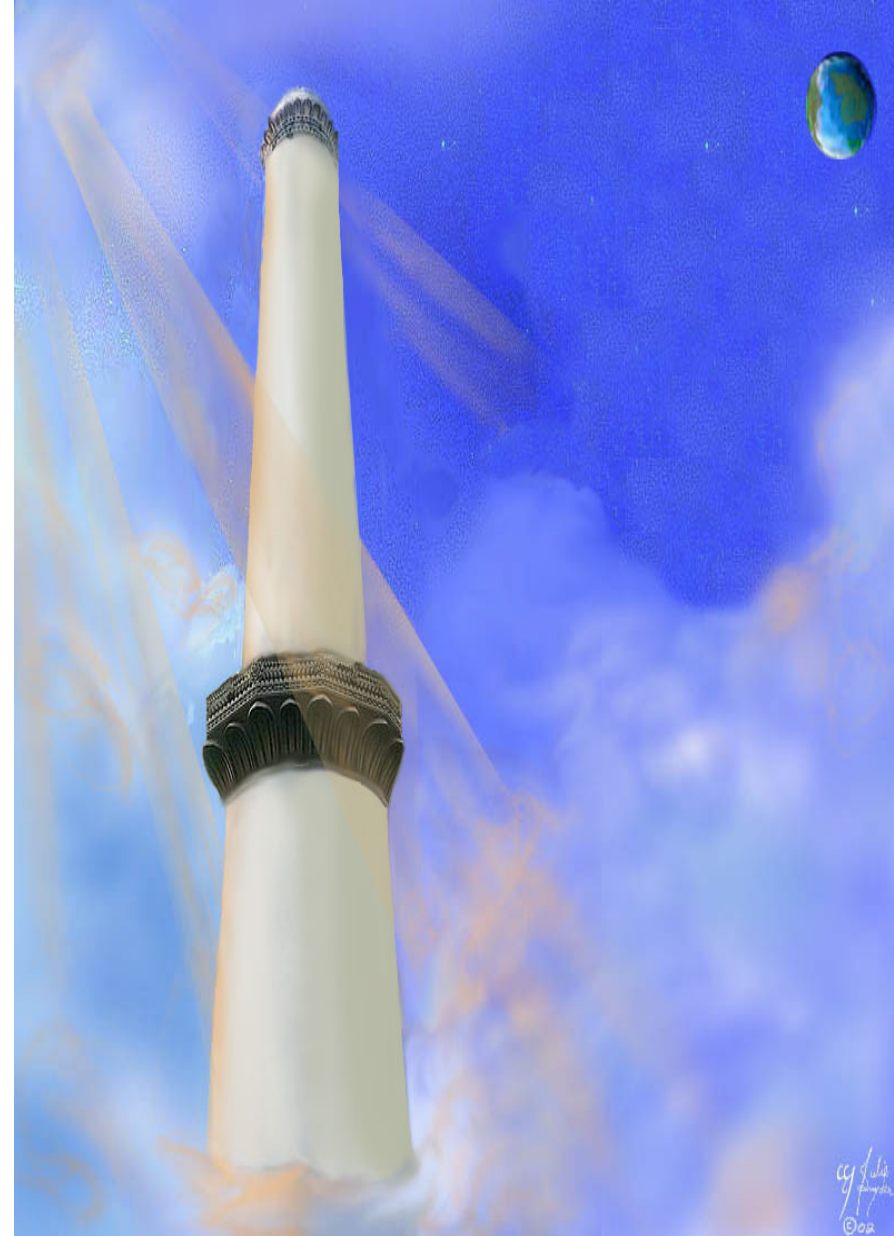
## **Sorry, no post today... it's raining! Royal Mail bosses ban deliveries after postie slips on pavement**

- South Parade, in Doncaster, South Yorks, is a 'no go' area since a postman slipped on moss
- Businesses brand the decision 'completely laughable'
- Royal Mail say 'level of risk' is 'unacceptable due to the wet weather turning the footpath and steps into a dangerous surface'

# If it isn't recorded it isn't done...



- Theory-practice gap
- 'Ivory towers' and real life...



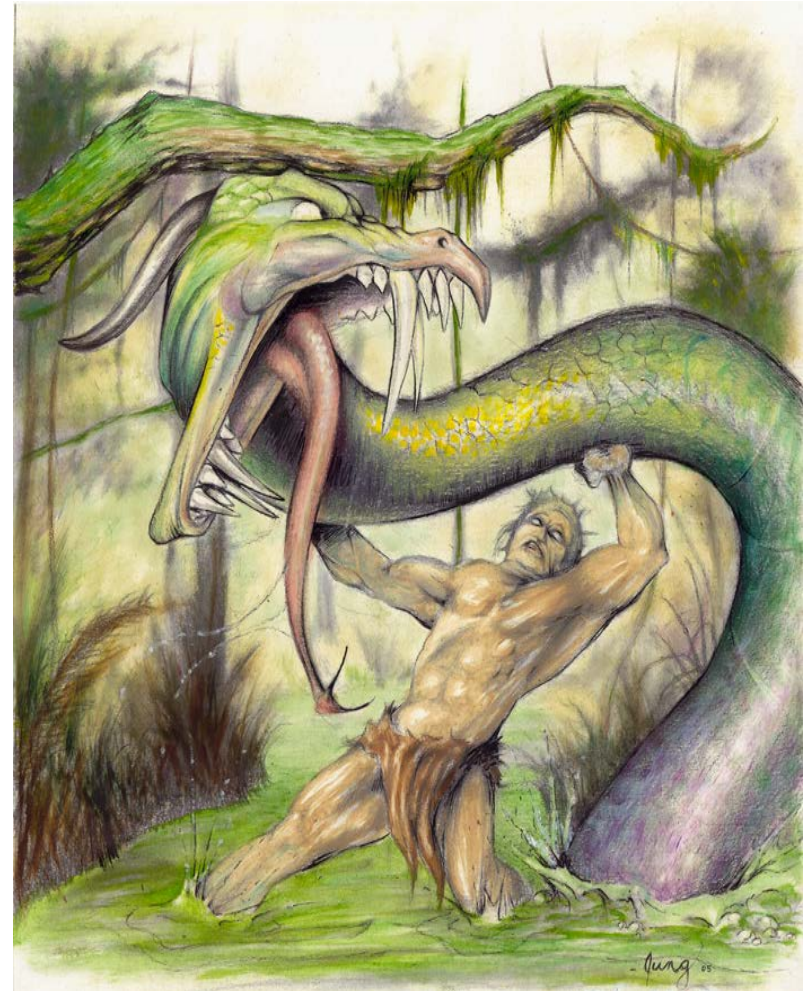


On the high ground, manageable problems lend themselves to solution through the application of research method and theory...



In the swampy lowland,  
messy confusing problems  
defy technical solution..  
[these are]...the problems  
of greatest human  
concern'

Schon 1983 p14



# A new way of seeing

- Salutogenesis
- Complexity
- Uncertainty



# Salutogenesis

*A salutogenic orientation facilitates seeing things that experts in a given pathology might well fail to see...it... pressures one to think in systems terms..we are all familiar with the concept of a risk factor. Can we not think of the concept of a salutary factor?*

*(Antonovsky 1993)*





# Salutogenic fundamentals

## *Manageability*

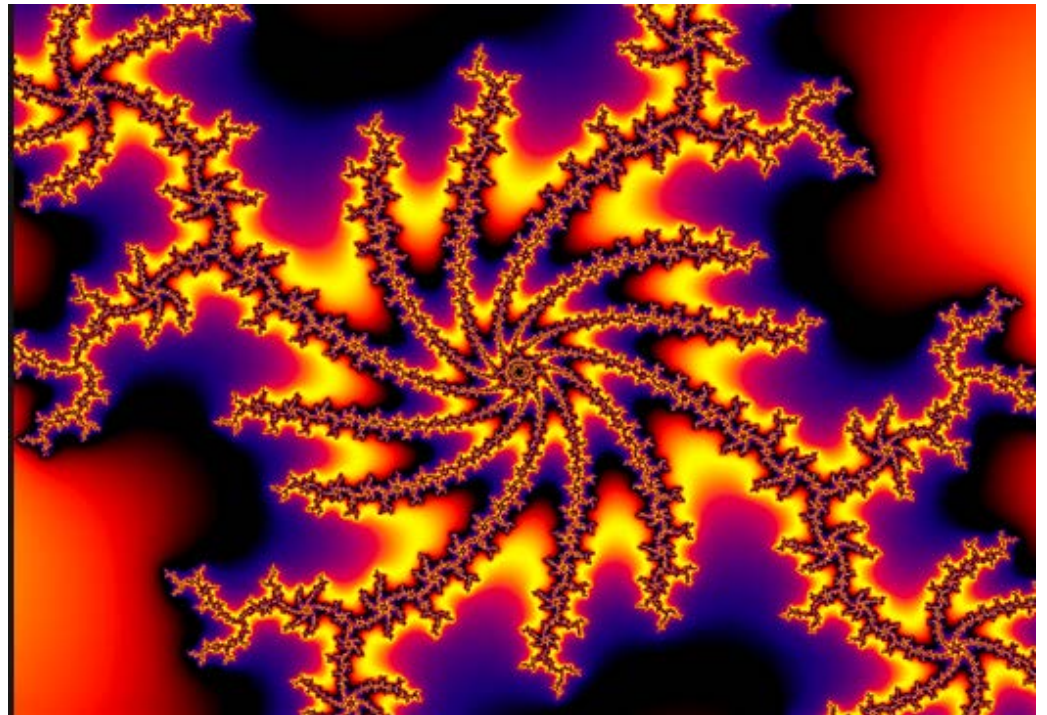
*having the resources  
(self and extended)  
to meet demands*



# Salutogenic fundamentals

## *Comprehensibility*

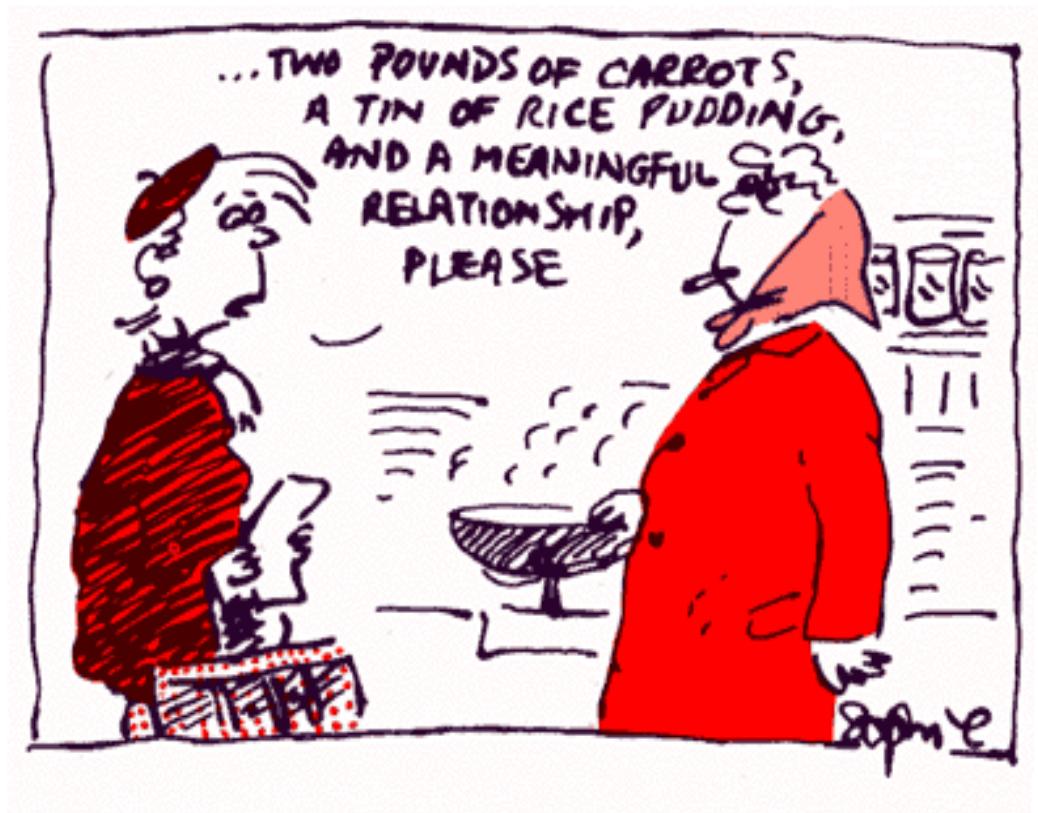
*Being able to make  
sense of  
(difficult/traumatic)  
situations*



# Salutogenic fundamentals

## *Meaningfulness*

*the ability to view  
experience in the  
context of life as a  
whole*



# Salutogenic fundamentals

## *Sense of coherence*

- ‘..a global orientation...’
- ? An outcome?

Antonovsky A 1987



# Complexity theory: 'from being to becoming...'

- The physics of being: (classical and quantum mechanics)...
- The physics of 'becoming': ..thermodynamics in its modern form...self-organisation and the role of fluctuations...'

•Prigogine I 1980 *From being to becoming: time and complexity in the physical sciences*. WH Freeman

# Metaphors/concepts of complexity

- The importance is in the whole and not the parts: (Brownian motion)
- ‘Self-organising dynamical systems’ (sensitivity to initial conditions)
- Non-linearity
- Emergence (‘Small in, large out’)
- Connectivity

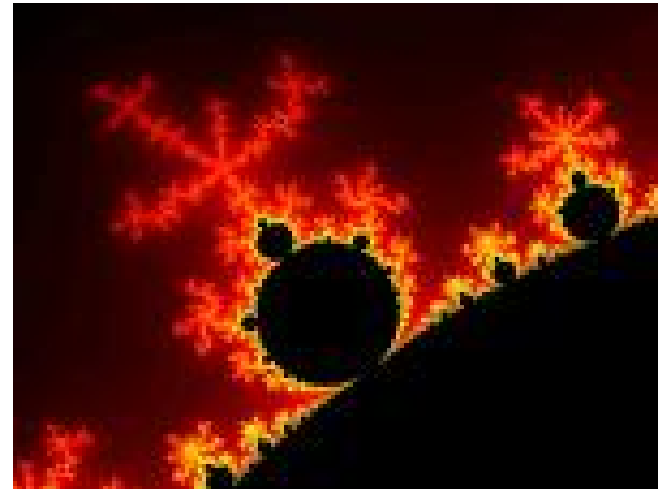
# Initial conditions, tipping points and simple rules

- **separation**
  - don't collide with your flockmates
- **alignment**
  - go where most of the others are going
- **cohesion:**
  - move towards the middle



# Normal pregnancy and birth as a complex adaptive process

- Dynamic...
- Connected....
- Emergent.....
- Unpredictable....
- ?self-organising...?

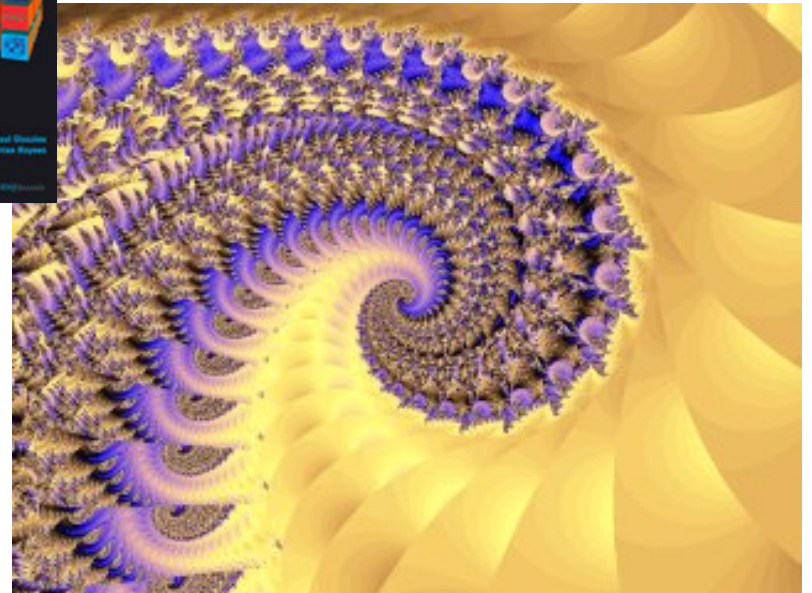
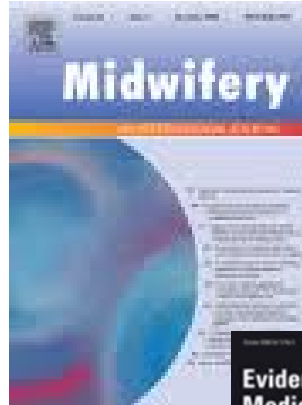




# Ways of knowing: *Best evidence*

## *Episteme*

**Science:**  
what is:  
(*theōria*)



**Table 1** An example of a typology of evidence (example refers to social interventions in children) (adapted from Muir Gray<sup>24</sup>)

Research question	Qualitative research	Survey	Case-control studies	Cohort studies	RCTs	Quasi-experimental studies	Non experimental evaluations	Systematic reviews
<b>Effectiveness</b> Does this work? Does doing this work better than doing that?				+	++	+		+++
<b>Process of service delivery</b> How does it work?	++	+					+	+++
<b>Salience</b> Does it matter?	++	++						+++
<b>Safety</b> Will it do more good than harm?	+		+	+	++	+	+	+++
<b>Acceptability</b> Will children/parents be willing to or want to take up the service offered?	++	+			+	+	+	+++
<b>Cost effectiveness</b> Is it worth buying this service?					++			+++
<b>Appropriateness</b> Is this the right service for these children?	++	++						++
<b>Satisfaction with the service</b> Are users, providers, and other stakeholders satisfied with the service?	++	++	+	+				+

# Ways of knowing: *Clinical expertise* *Téchnē*

**Art/technology:**  
bringing into being:  
production  
(*poiēsis*)



# Ways of knowing: *Values*

## Phronēsis

### **Practical wisdom:**

ethics, values

action (*praxis*)



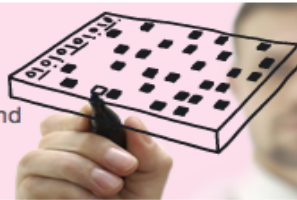
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Estonia is the latest member to join the COST Association, which now comprises 33 COST Member Countries and a Cooperating State, Israel.

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### COST Welcomes Horizon 2020



COST welcomes the official launch of Horizon 2020, the European Union's new research and innovation programme, announced on 11 December 2013 in Brussels. The highly anticipated announcement is an essential milestone in the transition to a more innovative and competitive Europe.

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04 April 2014

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# IS0907/iR4B

## Childbirth Cultures, Concerns, & Consequences *Creating a dynamic EU framework for optimal maternity care*

The screenshot displays the iResearch4Birth website. At the top, the logo 'iresearch4birth' is visible next to a search bar. A navigation menu on the left includes links for Home, About Us, Workgroups, STSM, Conferences, Presentations, News, Links, Gallery, Membership, and Contact Us. Social media icons for Facebook, Twitter, and YouTube are also present. The main content area features a large banner for 'cost' (European Cooperation in Science and Technology) with the text 'Cost Action IS0907 2010-2011' and the title 'Childbirth Cultures, Concerns and Consequences: Creating a dynamic framework for optimal maternity care'. A 'find out more' button is located at the bottom right of the banner. Below the banner, two video thumbnails are shown: 'Professor Cecily Begley' and 'Professor Soo Downe', both associated with 'oneworldbirth.net'. A 'Current News >>' section at the bottom left mentions 'HOCHSCHULE LUZERN'.

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**Childbirth Cultures, Concerns and Consequences:  
Creating a dynamic framework for optimal  
maternity care**

2nd Call for Short Term Scientific Missions (STSMs)

[find out more](#)

Professor Cecily Begley

oneworldbirth.net

Professor Soo Downe

Soo Downe Oneworldbirth

oneworldbirth.net

Current News >>

HOCHSCHULE  
LUZERN



# Purpose of the Action

- To advance scientific knowledge in maternity care provision and outcomes
- for mothers, babies and families across Europe
- by understanding **what works, for who, in what circumstances**
- and by **identifying and learning from the best.**



# Working groups

1. **Organisational system design**
  - 1.1 *Antenatal care and screening*
2. **Outcomes measurement**
3. **Impact on migrant women**
4. **Salutogenesis and complexity in maternity care systems**
5. **Building innovative knowledge transfer**

*5.1 Communities of Practice*

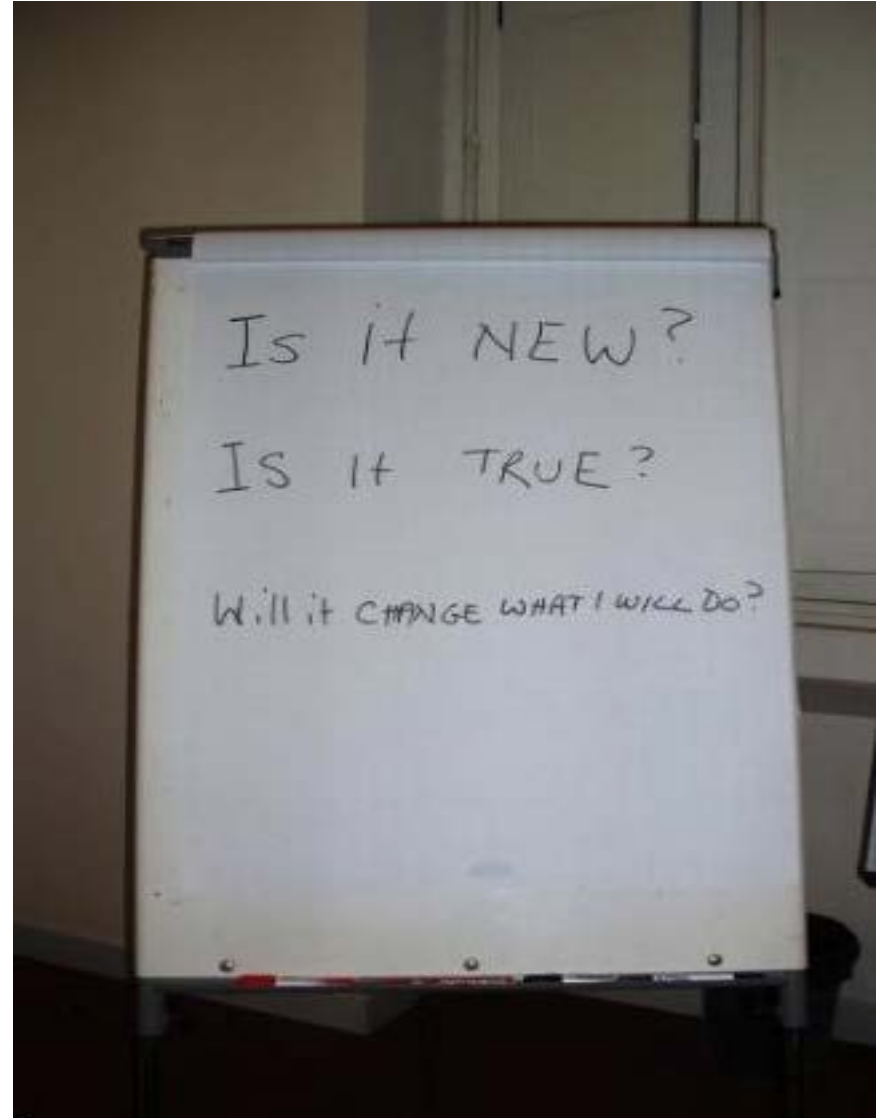
**Early Stage Researchers Group**



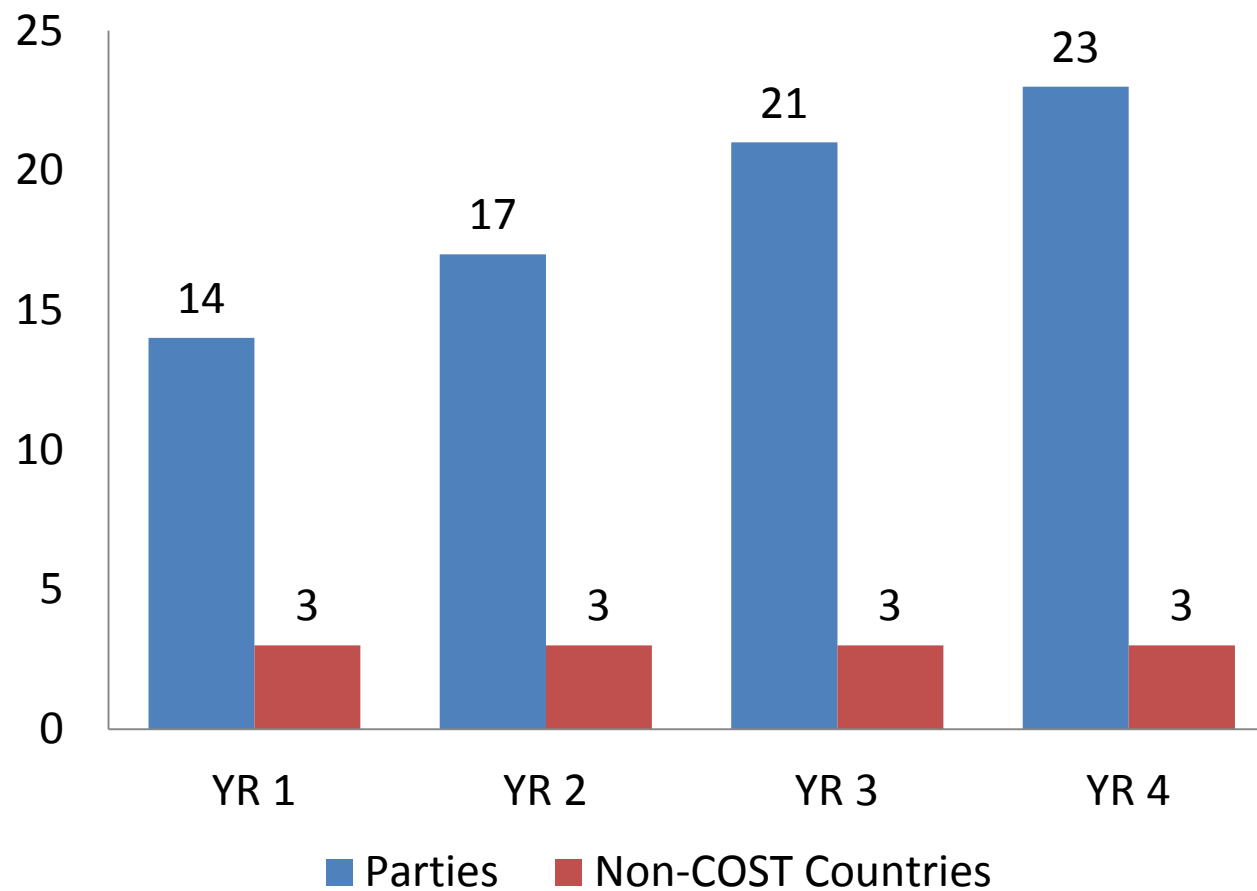


## Other instruments

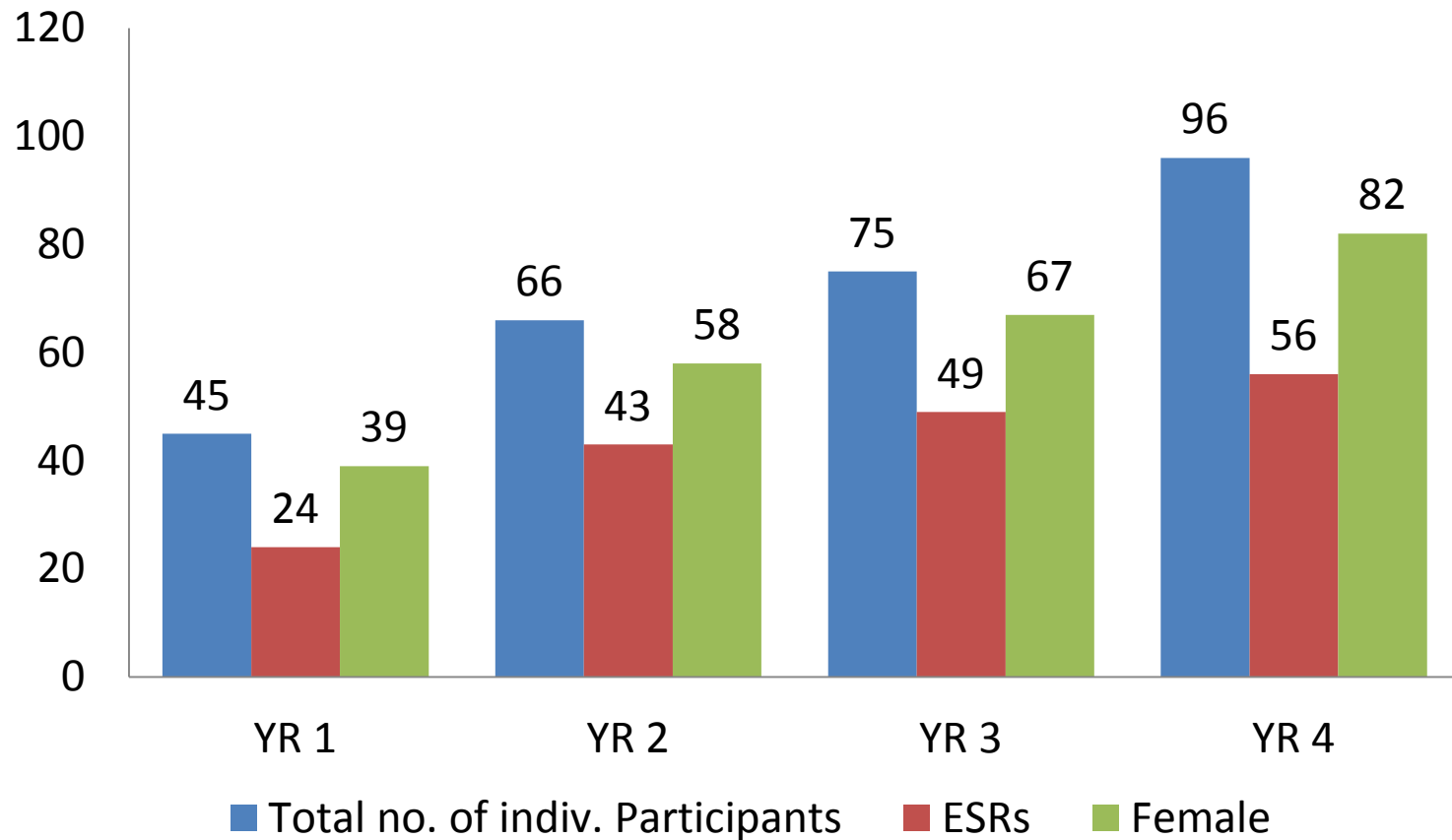
- Training Schools
- Workshops
- Conferences



# Countries joining in by year



# Action participants (WG members)



# Use of COST Instruments

Activity (No.)	Year 1	Year 2	Year 3	Year 4
MC/CG/WG Meetings (Face to face)	2/0/10	2/2/10	2/2/10	2/2/15
STSMs	4	5	8	15 awarded
Training Schools	0	1	0	1
Workshops or Conferences	5	5	6	2
Joint Publications	0	0	10, 4 submitted, 1 in press	Over 100 outputs to date

# Innovative knowledge transfer

<http://www.iresearch4birth.eu/iResearch4Birth/>

<https://www.facebook.com/iResearch4Birth>

- Podcasts
- Crowdsourcing
- Twitter
- Stakeholder CoPs



# Examples of significant output:

## Optibirth

- Successful FP7 bid, started autumn 2012
- Includes stakeholders, especially service users
- Changing the conversation
- Potential to decrease CS, and reduce other interventions/increase sustainability of maternity health care



The screenshot shows the OptiBIRTH project website. The header features the 'Opti Birth' logo on the left, a language selector with 'en it de' on the right, and a search bar. Below the header is a navigation menu with 'Home', 'About Us', 'Workpackages', 'Team Members', and 'Resources'. The main content area is titled 'The OptiBIRTH project' and includes the 'Opti Birth' logo, the contract/grant agreement number 'HEALTH – F3 – 2012-305208', the EC contribution of '€2,999,546', the starting date '01/09/2012', the duration of '48 months', and the end date '31st August 2016'. It also lists the instrument 'FP7-HEALTH-2012-INNOVATION-1' and the specific project title 'HEALTH.2012.3.2-1. Improving the organisation of health service delivery'. The co-ordinator is identified as 'Professor Cecily Begley, Trinity College Dublin (TCD), Ireland.'

Opti Birth

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**The OptiBIRTH project**

Opti Birth

Contract/Grant agreement number: **HEALTH – F3 – 2012-305208**

EC contribution: €2,999,546

Starting date: 01/09/2012

Duration: 48 months

End date: 31st August 2016:

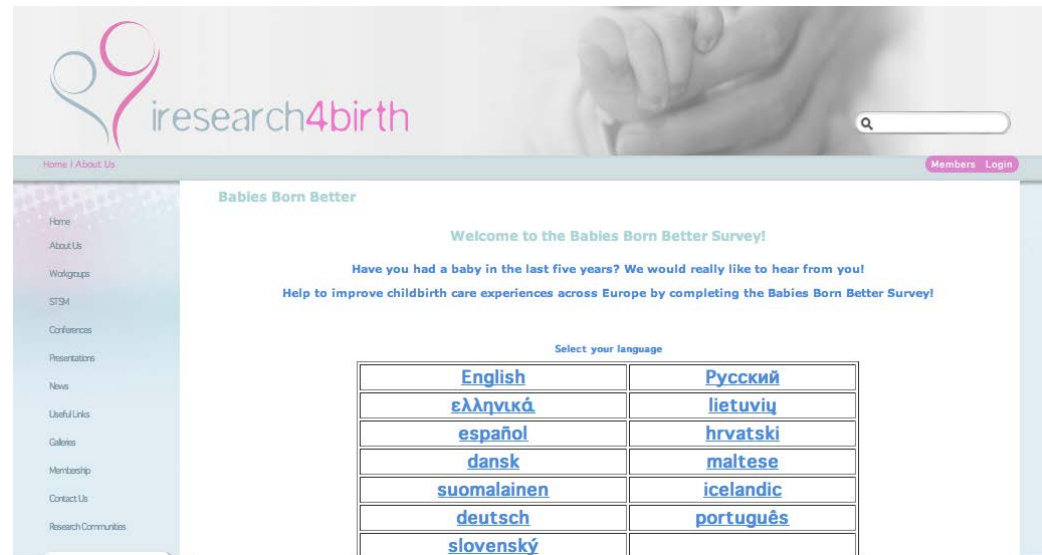
**Instrument: FP7-HEALTH-2012-INNOVATION-1** **HEALTH.2012.3.2-1. Improving the organisation of health service delivery**

Co-ordinator: Professor Cecily Begley, Trinity College Dublin (TCD), Ireland.

# Babies Born Better (B3) survey:

Salutogenic, complex systems based, designed to learn from the best

- Based on new social media (e-survey, through facebook, twitter, e-forums)
- Currently in 18 languages: more in preparation
- Over 22,000 responses from 20 countries



# Other outputs and activities (examples)

- Publications/presentations
- European survey of protocols for routine antenatal care and fetal screening
- European survey of maternity care staff on optimal maternity care
- RCT of place of birth in China
- Toolkit for dissemination
- Delphi study to identify optimal outcomes for maternity care..





# Prof Dr Katrien Beeckman, Vrije Universiteit Brussel, Belgium



## Activity

- Coördinator Nursing and Midwifery research group

## Research expertise

- Antenatal care trajectories
  - **Measuring appropriateness through the Content and Timing of care in Pregnancy tool**
  - **Analysing determinants of care trajectories, focus on migrant women**
- Organisation of antenatal care across Europe
  - **Evaluation of national guidelines of routine antenatal care and foetal screening (content analysis and evaluation of applicability CTP tool)**

## COST Action Birth

- Participation possible in WG 3 & WG 4
- New models of antenatal care provision to vulnerable women
  - **Provision of additional social support and effects on uptake of care, psychosocial stress, health behaviour etc**
  - **Implementation of the Centring Pregnancy care model**
  - **Tele -lifestyle coaching in obese women, compliance, pitfalls, effects**

**CV** Midwife, 2001; master in medical social sciences, 2004, Phd in Social health sciences, 2011

# What next?



- A **global B3 Maternity Research Network**, built on the survey
- A State of the Art book
- An STSM book
- Engagement with politicians and service designers/providers
- Development of a planned Framework for Optimal Maternity Services
- Continuing spin-off networks, ESR development and etc
- New bids to COST, H2020, and national funders....

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## ISCH COST Action IS1405

### Building Intrapartum Research Through Health - an interdisciplinary whole system approach to understanding and contextualising physiological labour and birth (BIRTH)

Descriptions are provided by the Actions directly via e-COST.

Optimal maternal and infant health is critical to societal well-being. Reducing childbirth mortality and severe morbidity is a primary concern for most governments. However, this focus on pathology has been associated with an over-extension of clinical interventions to low risk women, with unexpected adverse clinical consequences, and rising health care costs. Part of the problem has been a scientific focus on understanding pathologies of pregnancy and childbirth from simple, clinical, linear perspectives, with a consequent lack of understanding of

## Individuals, Societies, Cultures and Health COST Action IS1405

[▶ Description](#)[▶ Parties](#)[▶ Management Committee](#)

## General Information\*

Proposer of the Action:

[Prof. Soo DOWNE](#)

Science officer of the Action:

[Dr Luule MIZERA](#)

Administrative officer of the Action:

[Ms Valentina VIGNOLI](#)

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# BIRTH Action Working Groups

Epigenetics and the hygiene hypothesis in relation to intrapartum events, and associations with longer term non-communicable diseases (WG1)

The mechanics and bioengineering of pregnancy and labour, including the nature and consequences of, and synergies between, maternal and fetal movement (WG2)

Socio-cultural phenomenon that contextualize labour and birth, including the effects of dissonance between dominant cultural social expectations and those of marginalized groups, such as migrant women (WG3)

Organizational characteristics, contexts, cultures and economic costs of variation in rates of interventions in childbirth (WG4)

Neuro-psycho-social characteristics and effects of labour events (WG5).

# Progress to date

- 23 countries
- 36 MC members
- 24 alternate MC members
- First meeting Dec 10<sup>th</sup> 2014



# Picturing complex, salutogenic, joyful, healthy birth:

*Beyond Europe, and into the future*

