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Healthcare and wider societal implications of stillbirth: a population-based cost of illness study

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Outline of presentation

- Context and current state of affairs
 - Definitions
 - Importance of the research question
- Objective of the study
- Cost-of-illness methodology
- Main results
- Discussion and conclusion

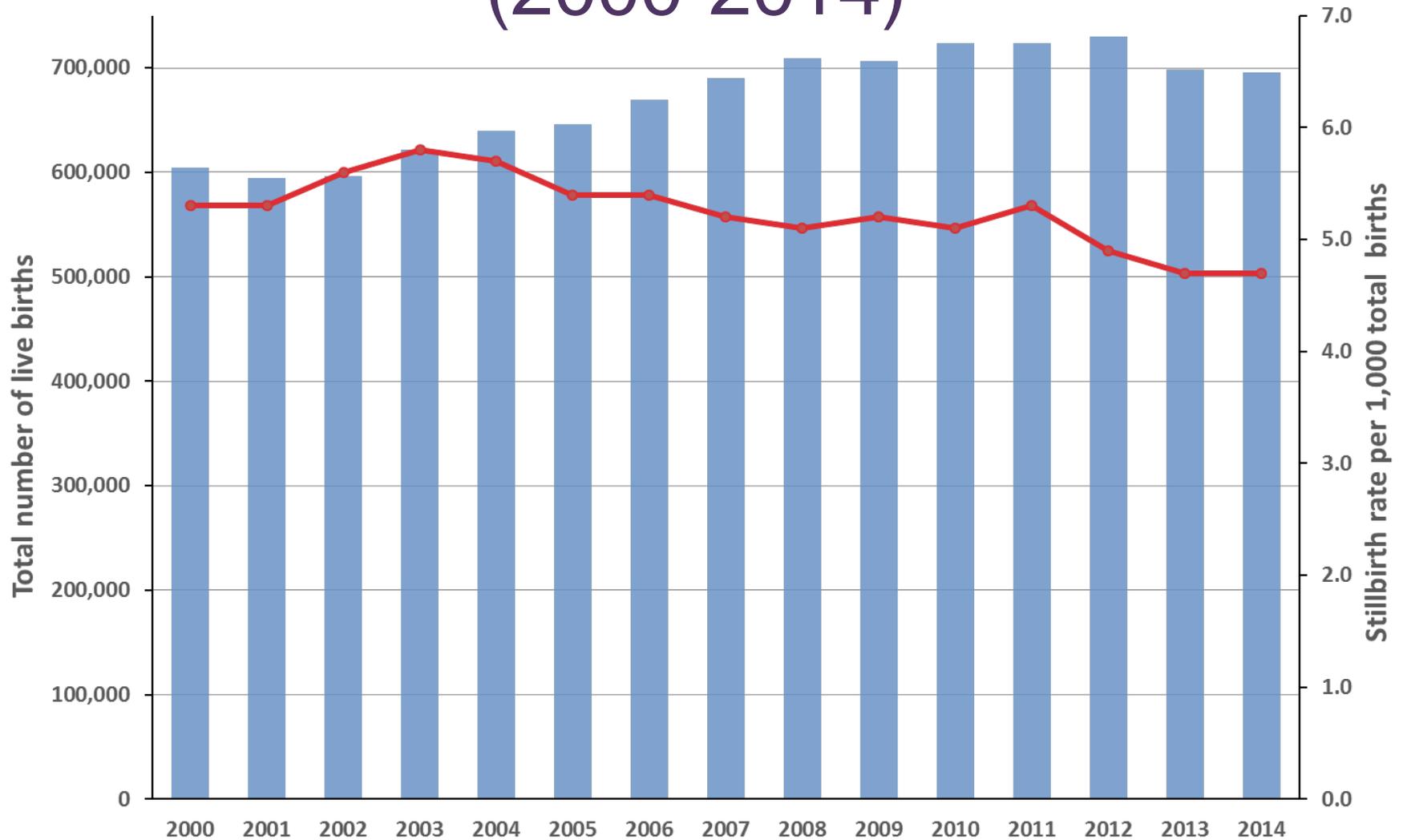


Definitions

- Stillbirth – baby born after 24 weeks gestation of pregnancy showing no signs of life at birth
 - Stillbirth rate is the total number of stillbirths/ total births
- Neonatal death – baby born alive at any gestation who dies in the period up to 1 month (0-27 days) after birth



Live births versus stillbirth rate (2000-2014)



RESEARCH ARTICLE

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Ending preventable stillbirths

 Series



Ending preventable stillbirths 3

Stillbirths: economic and psychosocial consequences

Alexander E P Heazell, Dimitrios Siassakos, Hannah Blencowe, Christy Burden, Zulfiqar A Bhutta, Joanne Cacciatore, Nghia Dang, Jai Das, Vicki Flenady, Katherine J Gold, Olivia K Mensah, Joseph Millum, Daniel Nuzum, Keelin O'Donoghue, Maggie Redshaw, Arjumand Rizvi, Tracy Roberts, H E Toyin Saraki, Claire Storey, Aleena M Wojcieszek, Soo Downe, for The Lancet Ending Preventable Stillbirths Series study group* with The Lancet Ending Preventable Stillbirths investigator group*

Personal social and emotional
consequences of stillbirth are profound

Wide reaching psychosocial and economic consequences, 'that are overlooked and underappreciated'

Lack of accurate data impedes the economic analysis of efforts to prevent stillbirths

Objective

- To conduct a cost-of-illness study capturing the societal costs associated with stillbirth in the UK
 - Expanding previous work in the area



Methods

- Evidence synthesis of data from published literature and national databases
- Prevalence-based cohort approach including costs of stillbirth and related events to two years after stillbirth
- Costs were additional resources as compared with a live birth
- Extensive sensitivity analysis and quality assessment of parameters conducted



Societal costs

Health and social care costs

Immediate antepartum, intrapartum and postpartum care

Phase 1: At the time an antepartum stillbirth is suspected and confirmed

Phase 2: Immediate postpartum care for all stillbirths

Emotional and mental health

Phase 3: Parental anxiety and depression

Phase 4: Experiences of healthcare professionals

Subsequent pregnancy care

Phase 5: Antenatal care during pregnancies occurring within 12 months of a prior stillbirth

Phase 6: Outcome of subsequent pregnancies occurring within 12 months of a prior stillbirth

Phase 7: Excess preterm live births

Non-health care costs

Litigation costs

Funeral and related costs for parents

Lost Productivity

Parental
Healthcare professional
Stillborn child

Productivity losses

- Absence of workplace from grieving parents and health care professionals
- Lost opportunity for the stillborn baby to reach adulthood, gain employment and contribute to nation's productivity
 - Risk of preterm birth had stillborn not happened included
 - In a sensitivity analysis: 52% of women falling pregnant in the 12 months following event (productivity losses decreased by this proportion)



Mean health and social care, litigation and funeral costs

Cost Category	Mean cost per stillbirth
Health and social care costs	
Immediate antepartum, intrapartum and postpartum care	£1,017
Emotional and mental health	£1,153
Subsequent pregnancy care	£2,022
Total health and social care costs	£4,192
Litigation costs	£778
Funeral and related costs for parents	£559



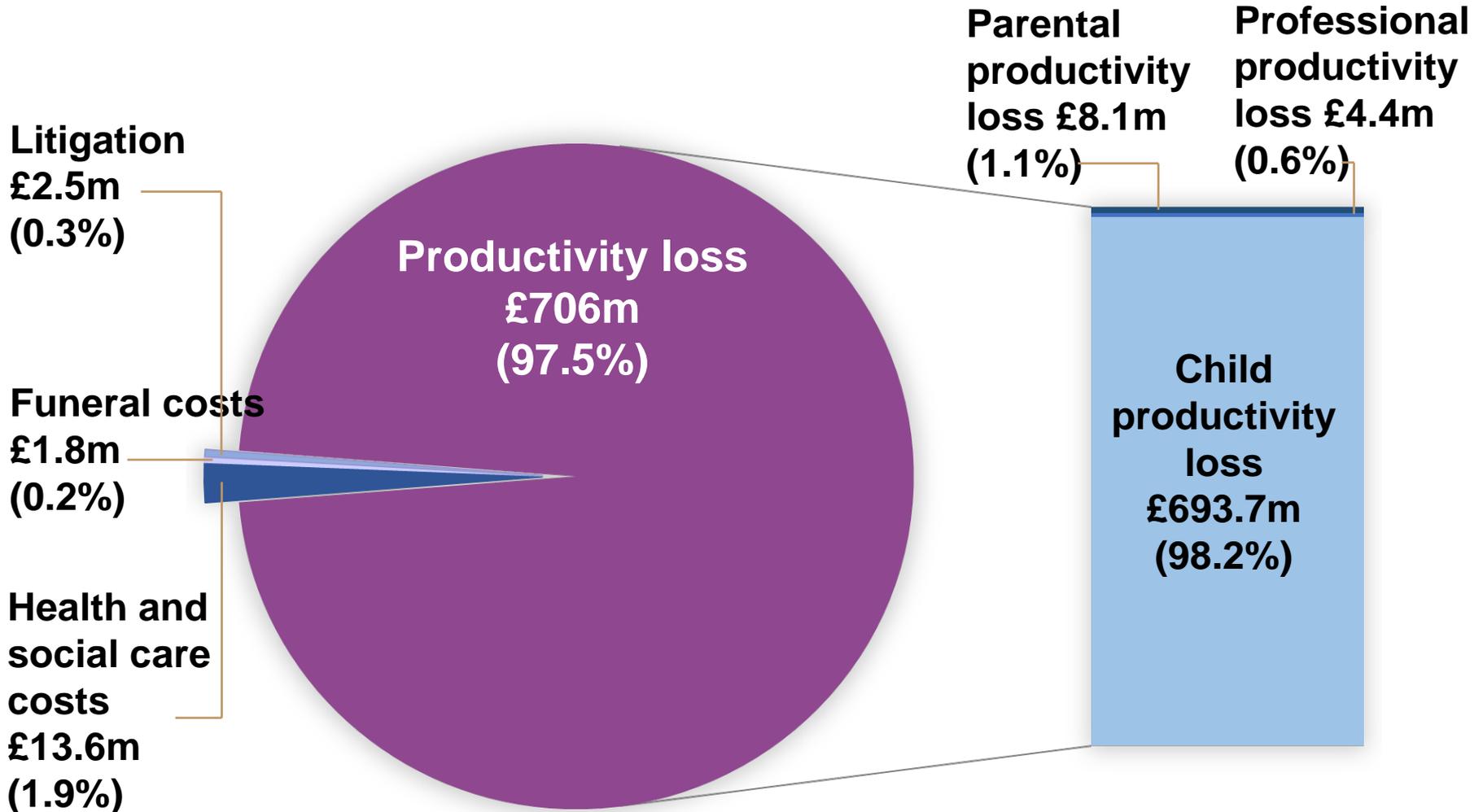
Productivity costs

Productivity Cost Category	Mean cost per stillbirth	Total cost 2013/14 (millions)
Parental productivity losses	£2,476	£8.1
Health professionals productivity losses	£1,353	£4.4
Productivity losses of the potential child/adult	£213,304	£693.7
Total	£217,133	£706.1
Productivity losses of the potential child/adult (52% of women falling pregnant in the 12 months)		£333.0
Total		£345.5



Costs of stillbirth

There were 3,252 registered stillbirths in the UK in 2014 costing a total of £724 million to society



Discussion and conclusion

- The economic consequences of stillbirth affect many people yet our figures underestimate the true cost
- Assumptions had to be made about the values of some parameters / costing perspectives
- Our figures provide the most up-to-date and comprehensive estimates of the costs of stillbirth worldwide
- We anticipate they will be helpful in evaluating investments in interventions to reduce stillbirth

