

Caesarean Birth Trends in South Australia: 1985-2007

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ABSTRACT

The aim of this study was to find the reasons for the increase of caesarean birth in South Australia between 1985 and 2007, during which the caesarean rate increased from 18 per cent to 33 per cent. In South Australia between 1985 and 2007, 108 941 women gave birth by caesarean section, of which 48 056 women delivered a baby by elective caesarean and 60 885 women gave birth by emergency caesarean.

The study database consisted of de-identified birth details of 434 682 women and their babies from the mandatory collection of public and private hospital mothers who gave birth in South Australia between 1985 and 2007. Between 1991 and 2007, 37 376 private patients gave birth by caesarean section (18 227 elective and 18 494 emergency) and 47 916 public patients gave birth by caesarean section (19 149 elective and 45 571 emergency caesarean births). The public patient caesarean birth rate increased from 19 per cent in 1991 to 28 per cent in 2007 and the private patient caesarean birth rate increased from 26 per cent in 1991 to 42 per cent in 2007.

This thesis investigates caesarean birth data under three main areas: place of birth (for example, regional or metropolitan hospitals; public or private hospitals); demographic characteristics of mothers who gave birth (for example, age of mother and occupation of father); and, the relationship between caesarean birth and socio-economic disadvantage (using the Index of Relative Social Disadvantage scores measured from Australian Census data) in the Adelaide Statistical Division.

The caesarean rate has increased in both metropolitan and regional hospitals, with a higher caesarean rate in private compared with public hospitals. A first birth by caesarean was more likely to be an emergency followed by further births which were elective caesareans. The median age of women giving birth by caesarean in private hospitals between 1991 and 2007 has increased from 30 to 33 years of age, and, in public hospitals the median age has increased from 27 to 29 years of age. The father's occupation as tradespersons was associated with the highest rate of caesarean delivery. Women of most socio-economic advantage had a higher rate of caesarean delivery, a lower rate of gestational diabetes and their babies a lower rate of fetal distress, than more disadvantaged women.

Previous reasons given for the increase of caesarean birth rates included the increasing age of mothers, changes in private health insurance policy, malpractice claim fears of medical staff, a shortage of eligible midwives, and, the funding case-mix system for hospitals.

A recent Commonwealth Government Maternity Services Review recommends the training of more eligible midwives to give mothers a greater choice of birth models of care. The Australian Medical Association has asked for the collection of comparable birth data to assess this change in birthing policy direction.

DECLARATION

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or any other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Date

Judith very sadly passed away on May 5 2013. She had been informed about the examination outcome and was in the process of completing some minor corrections to the thesis. These have now been completed and the thesis has been submitted on her behalf so that the award can be made posthumously.

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ACRONYMS

ABC Australian Broadcasting Commission

ABS Australian Bureau of Statistics

AIHW Australian Institute of Health and Welfare

AMA Australian Medical Association

ASD Adelaide Statistical Division

ACHI Australian Classification of Health Interventions (Tabular list of diseases)

DDI Decision to Deliver Interval

FGM Female genital Mutilation

ICD-10-AM International Statistical Classification of Diseases and Related Health

Problems, 10th Revision, Australian Modification (Tabular list of diseases):

ICD-10-AM 16520-02 LSCS (lower section elective caesarean)

ICD-10-AM 16520-03 LSCS (lower section emergency caesarean)

ISAAC Integrated South Australian Activity Collection

NATSEM National Centre for Social and Economic Modelling

NCCH National Centre for Classification in Health

NHHRC National Health and Hospitals Reform Commission

NZMA New Zealand Medical Association

NHMRC National Health and Medical Research Council

NPDC National Perinatal Data Collection

OECD Organisation for Economic Cooperation and Development

POU Pregnancy Outcome Statistical Unit

RANZCOG Royal Australian and New Zealand College of Obstetricians and
Gynaecologists

SLA Statistical Local Area

TFR Total Fertility Rate

VBAC Vaginal Birth After Caesarean

WHO World Health Organisation