

STATISTICAL ANALYSIS OF EIGHT YEARS OF HOMEBIRTHS IN NEW ZEALAND.

analysis was made of all those deliveries that can be called 'domiciliary' in that preparation was made to deliver the baby at home with a domiciliary midwife and a general practitioner in attendance.

The period covered is from 1974, when homebirths began a resurgence, through 1976, formation of the MHA, to 1982, when analysis began. The total number of births analysed was 1159 and analysis was made of all details relevant to the births and their outcomes, such as maternal medical history, length of labour, details of birth, use of painrelief during labour, reasons for and factors associated with transfer to hospital when this occurred.

Approximately one third of the sample (29%) were first births, while 2.2% of mothers were having their fourth or more than fourth baby.

The age range of mothers was between 16 and 43, and almost all mothers (93.7%) were described as 'non smokers'.

While all the figures are presented as percentages of the total sample, e.g. 2.6% of the mothers had a history of major surgery and/or treatment of disease of the reproductive system, some birth statistics are generally described as a rate per thousand, particularly mortality rates of babies. To convert the percentage to a rate per thousand, move the decimal point one place to the right.

Thus mortality of babies in this home birth sample is 0.35%, which converts to 3.5 per thousand. This figure is very low when compared with hospital mortality statistics which have ranged between 12-18 per thousand. We do not, unfortunately, have current detailed obstetric hospital statistics to compare, and we must ask hospitals to produce these promptly.

Seven point five per cent of the mothers were transferred during labour, failure to progress during stage I accounts for over half of these. It is more important to consider this figure in relation to any other figures available from hospital statistics. For example, a recent newspaper item reporting on a new North Shore hospital in Auckland stated that 39% of deliveries were transferred during labour across the Harbour Bridge to National Women's Hospital. Thus it can be seen that the home birth transfer rates are pleasingly low by comparison.

It was also found that only 0.8% (7 per 1,000) of women having their baby at home showed signs of postnatal depression. In the hospital environment this figure is at minimum 10%, ten times the home birth number, and can rise as high as 30-40%. This is one other aspect of homebirth that appears to show massive improvement on the hospital situation.

Only 4.1 % of babies showed fetal distress during birth and the measure of the newborn's state immediately after birth (Apgar score) showed that 91.3% of homebirth babies showed a score of 7 or more out of the 10 point scale at one minute, and at the test performance five minutes after the birth, 97.4% of babies had a score of 9 or 10. In other words, almost all babies delivered at home are found to be in near perfect condition immediately after birth.

Five per cent of mothers received pain relief during labour in the form of acupuncture while 4.4% received analgesics. Again this last figure would compare highly favourably with hospital use of pain-killing drugs where widespread use is made of them.

Transfer to hospital of mother and child after birth occurred in 3.6% of the sample. There was no major cause for this.

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More detailed statistics can be obtained from The Resource Co-ordinator, NZHBA, P.O. BOX 11 412, Wellington.

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HOME BIRTH STATISTICS

197~~7~~ - Feb. 1982

N = 1159

1974 - 1982.

Parity 0 29%
>0 71% (Grand mult. 2.2%)
Age Range 16 - 43 years
Non-smokers 93.7%

MEDICAL HISTORY

Abortion	13.3%
Recurrent U.T.I.	2.8
Varicose vein	1.4
Retained placenta	.8
Mastitis	1.3
Vaginal spotting	.2
Abnormal presentation	2.0
C. Section	.3
Multiple birth	.6
Short labour	.3
Major surgery and/or treatment of reproductive system	2.6
Sepsis	.3
Current pregn. infection (e.g. rubella, thrush)	1.0
Prolapsed cord	.2
Congenital Malformation	.7
Prematurity	.1
Fetal distress	-
Anaemia	.3
Other	-

INTRA-PARTUM TRANSFER - 7.5%

Reasons for transfer of 7.5% -

Failed to progress 1st stage	4.4
2nd stage	.9
3rd stage	-
Fetal heart <120/>160	1.3
Meconium staining	.5
Malpresentation	2.4
Hypertension	.3
Raised temperature	.2

continued/2

Transverse arrest/ obstruction	.2%
Acidosis	.3
Cephalo/pelvic disproportion	.3
Other	.6

OUTCOMES

Hypertension	.8
Uterine dysfunction	1.8
Cord prolapse	.1
Malpresentation	1.8
<u>P.O.P.</u>	<u>4.5</u>
Shoulder dystocia	.2
Retained Placenta	1.0
Mastitis	2.2
Maternal infection	2.1
Post-natal depression	.8
<u>Fetal distress</u> (<u><120 /or >160</u>)	<u>4.1</u>
<u>Meconium staining</u>	<u>7.8</u>
Mortality	.4
Dysmaturity	-
Fetal abnormality	1.7
Birth injuries	.4
<u>Infant infection</u>	<u>4.4</u>
<u>Jaundice</u>	<u>44.4</u>
<u>Petechial rash</u>	<u>1.4</u>
Post partum oedema	.5
Forceps	.6
Cyanosis	1.0
Varicose veins	.3
Retained products	.1
Post partum haemor.	.1
Other	1.0
<u>Ecbolic</u>	<u>31.8</u>
<u>Low blood loss < 300ml</u>	<u>73.0</u>
<u>High blood loss > 600ml</u>	<u>3.0</u>
<u>Episiotomy rate</u>	<u>5.9</u>
<u>Sutured laceration</u>	<u>22.0</u>
<u>Artificial rupture</u>	<u>16.0</u>
<u>Apgar I (7 & ↑)</u>	<u>91.1</u>
<u>Apgar V (9,10)</u>	<u>97.4</u>
Resuscitation	2.5
Female babies	47.0
Mortality	0.4 (.35%)

Pain relief -

Analgesic	4.4
Anaesthetic	1.0
Acupuncture	5.0

continued/3

POST-NATAL TRANSFER - 3.6%

Reasons for transfer of 3.6% -

Maternal infection	.1
Infant infection	.2
Post-partum haemor.	.7
Haemoglobin rising	.9
Failure to thrive	.3
Retained placenta	.8
Respiratory problems	.5
Prematurity	.1
Observation only	.6

SIGNIFICANT VARIABLES FOR INTRAPARTUM TRANSFER

(i.e. I.P. TRANSFER)

Parity	<.0001	(Parity 0)
Gravida	<.0001	
History of abortion	<.0119	
Recurrent U.T.I.	<.01	
Hypertension	<.01	
Uterine dysfunction	<.0001	
Malpresentation	<.0001	
P.O.P.	>.0001	
Fetal distress	>.001	
Mortality	>.001	
Midwife	<.01	(see graphs)

POST-PARTUM TRANSFER CORRELATES

Retained placenta/products	<.0001
Fetal abnormality	<.01
Midwife	
* Forceps	<.001
Cyanosis	<.0001

PARITY

Gravida	<.0001	
Age	<.0001	
Stable relationship	<.0001	
I.P. transfer	<.0001	
1st stage labour	<.0001	
2nd stage labour	<.0001	
Analgesic	<.0001	
Ecbolic	<.0001	
Episiotomy	<.0001	(primips)
Artificial rupture	<.0001	(primips)
Apgar I	<.0001	(primipsdown)
Sex	<.0001	(↑ females for primips)
Weight	<.0001	
Acupuncture	<.01	
Blood loss	<.01	(greater for primips)
Apgar V	<.01	
Gestation	<.05	(longer for multip s)