



“... Unuhia i te rito o te harakeke ...”

“... taken away too early ...”



Sudden Unexpected Death in Infancy

Workshop 2006

Sponsored by:
NZ Child and Youth Mortality Review
Committee

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Members of the Committee

- ◆ Prof Barry Taylor, Professor of Paediatrics (Chair)
- ◆ Dr Ian Hassall, Consultant (Deputy Chair)
- ◆ Dr Pat Tuohy, Chief Advisor Child and Youth Health, MOH
- ◆ Dr David Tipene Leach, General Practitioner
- ◆ Dr Joanne Baxter, Senior Lecturer in Preventive and Social Medicine
- ◆ Mr Christopher Morris, Social Worker
- ◆ Ms Tracie Mafile'o, Lecturer in Social Work
- ◆ Dr Marie Connolly, Chief Social Worker, CYF
- ◆ Dr Russell Franklin, Director

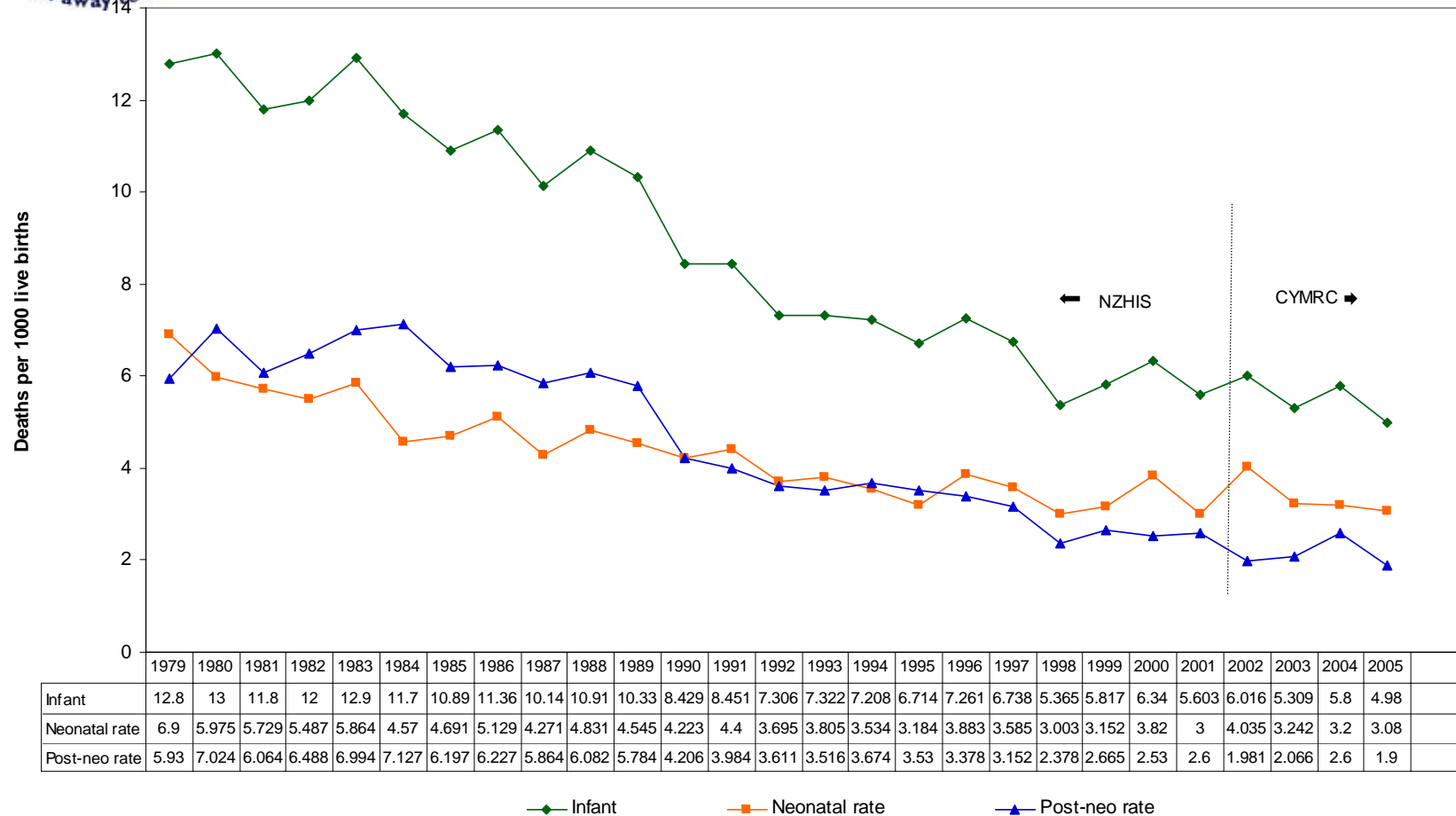


Definitions

- ◆ SUDI: Sudden Unexpected Death in Infancy
 - Explained
 - Unexplained
- ◆ SIDS: Sudden Infant Death Syndrome
 - No identified cause despite death scene exam, full clinical history and thorough post-mortem.
- ◆ Infancy: 0 – 1 year
- ◆ Neonatal period 0 – 28 days
- ◆ Post-neonatal period 29 days to 1 yr

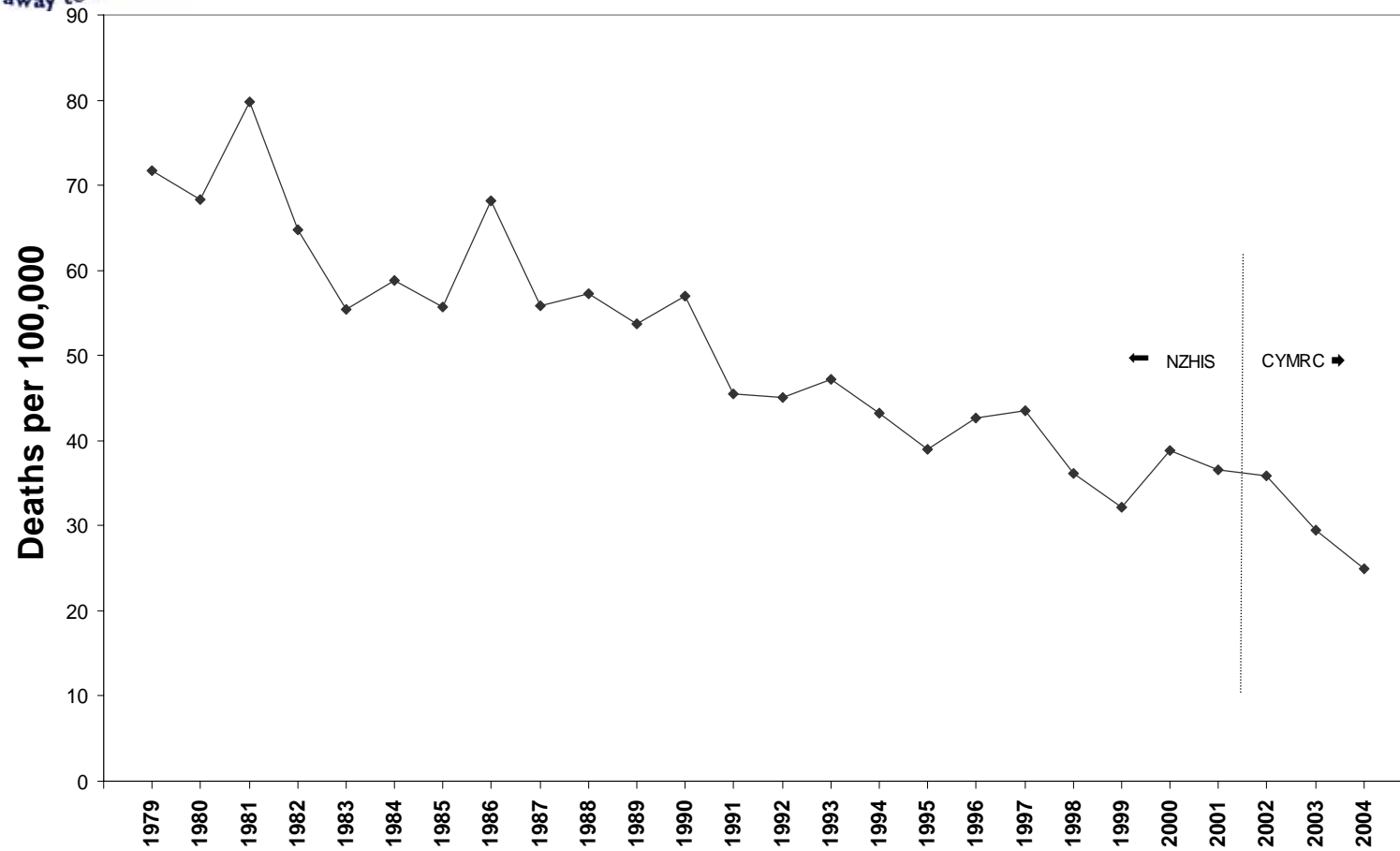


Infant Mortality Rates





1-4 years Mortality rate



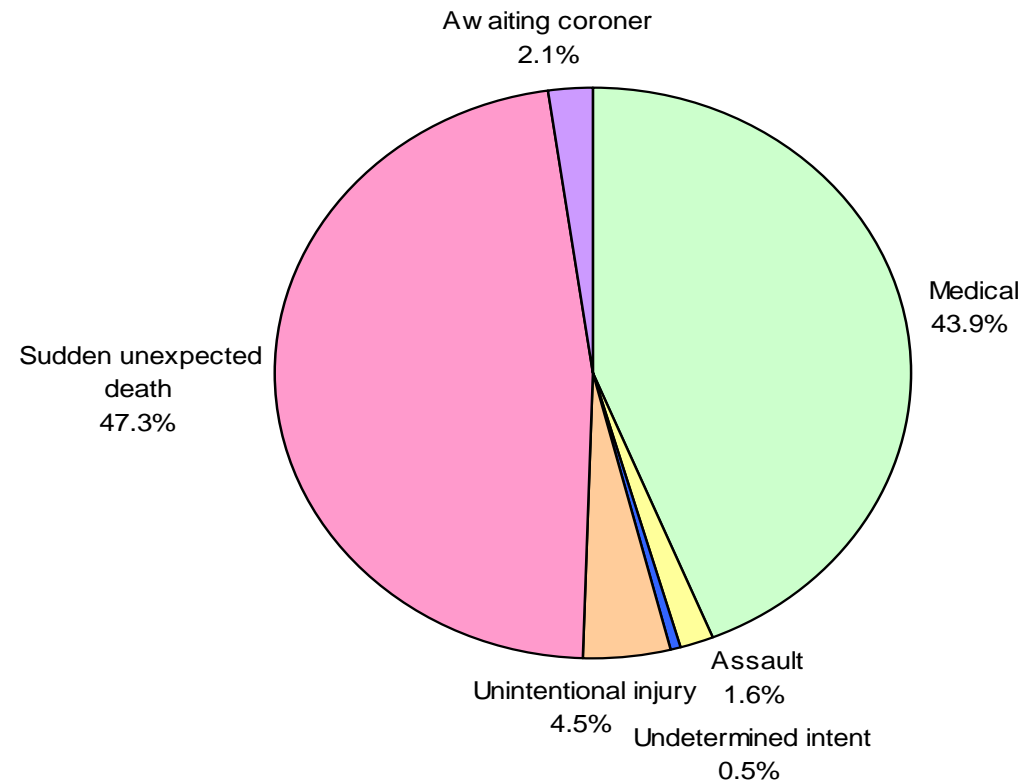


CYMRC Deaths of under 5 year olds

Year	0-28 days	4-52 weeks	1-4 years
2002	218	107	81
2003	182	116	66
2004	186	151	56
2005	178	110	56

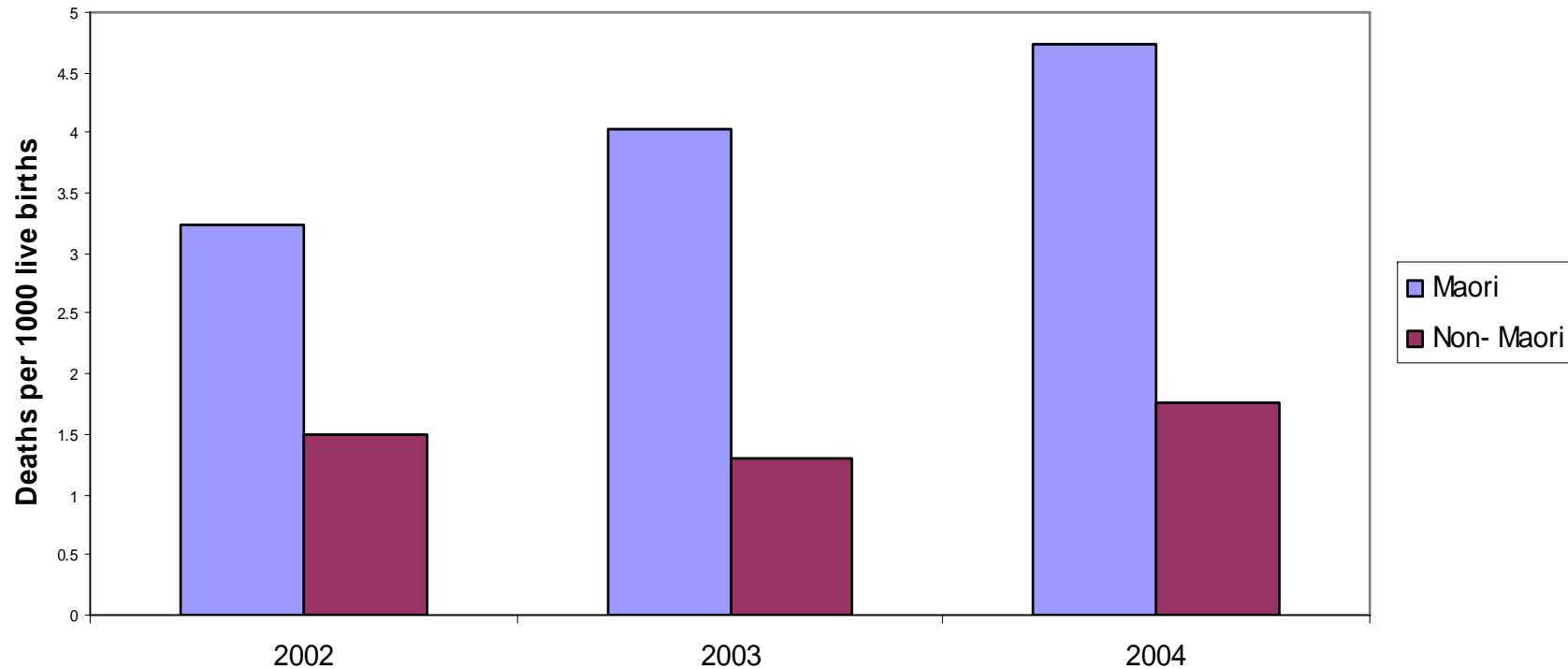


Main Categories of Post-neonatal death





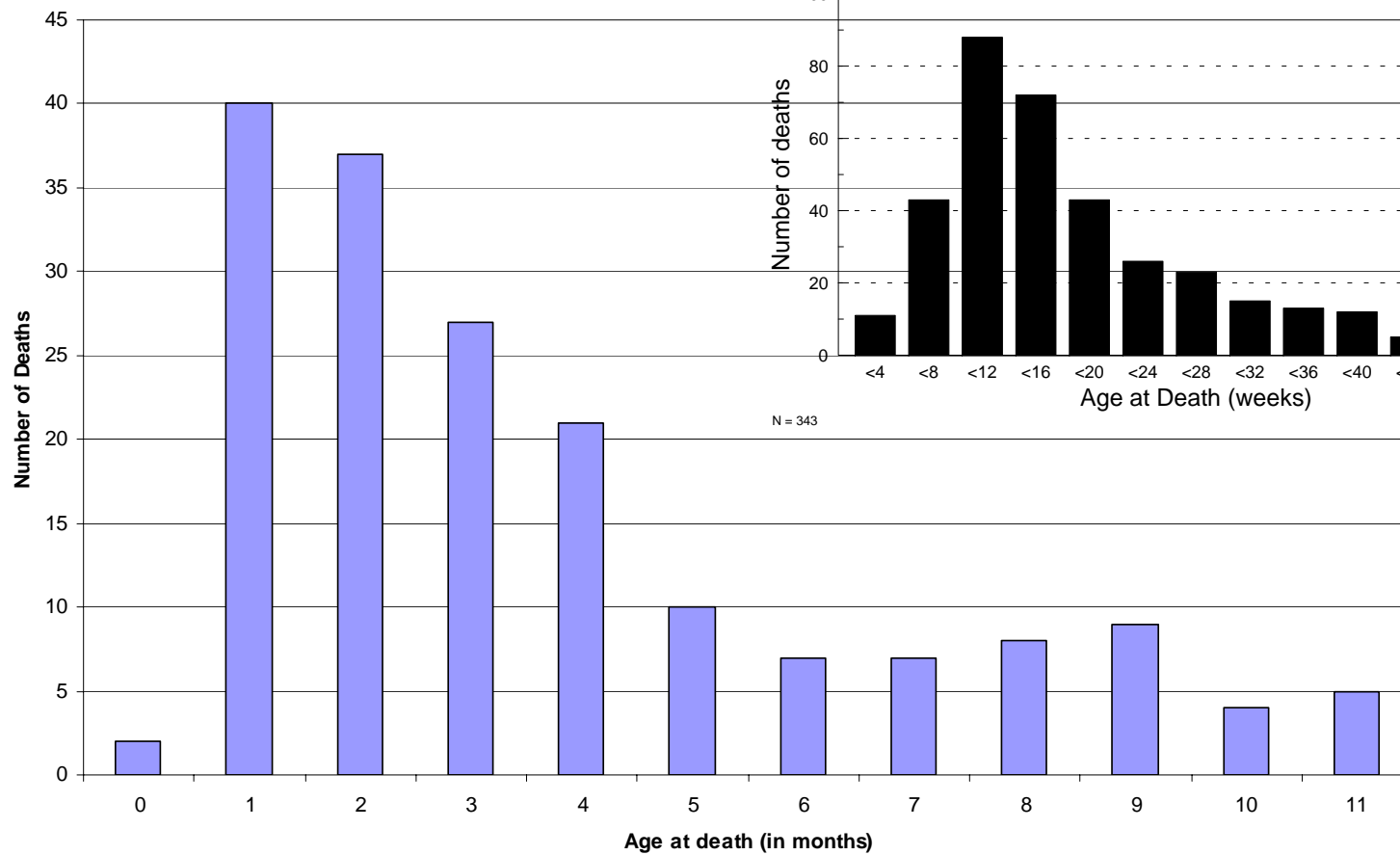
Post-neonatal death rate for Māori and non-Māori





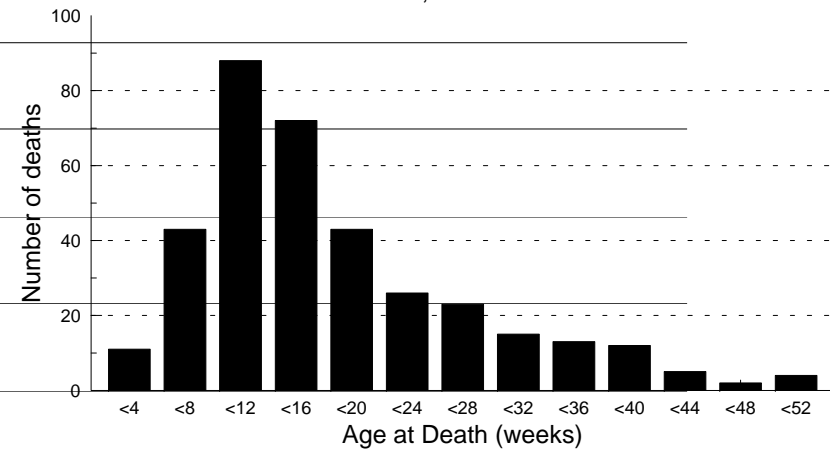
SUDI Age at Death

SUDI - Age at death



Age Distribution of "Cot Deaths"

Southern NZ, 1979 - 1984.



N = 343



SUDI Annual Rates

Ethnicity	4 – 52 Weeks							1 – 4 Years			
	2002		2003		2004		Total	2002	2003	2004	Total
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths				
Maori	30	2.02	42	2.68	44	2.45	116	1	2	2	5
Pacific Island	7	1.21	5	0.83	9	1.45	21		1		1
Other	11	0.33	13	0.38	16	0.45	46	3	2	2	7
Total	48	0.89	60	1.07	69	1.19	177	4	5	4	13



SUDI by Ethnicity and Gender

Ethnicity	Female			Male			Total	%
	4-52 weeks	1-4 years	Total	4-52 weeks	1-4 years	Total		
Maori	54		54	62	5	67	121	64%
Pacific Island	13	1	14	8		8	22	12%
Asian				1		1	1	1%
Other	12	2	14	27	5	32	46	24%
Total	79	3	82	98	10	108	190	100%



SUDI Risk Factors

Risk factors recorded for the 129 SUDI in 2003 and 2004

Risk Factor	Yes	No	Not recorded	Total
Placed prone	11	43	75	129
Found prone	17	35	77	129
Smokers in family	37	9	83	129
Maternal smoker	0	9	120	129
Bed share with adult	25	31	73	129



SUDI Risk Factors for 2005

Risk factors recorded for 22 possible SUDI deaths in 2005

Risk Factor	Yes	No	Not recorded	Total
Placed prone	4	16	2	22
Found prone	6	13	3	22
Smokers in family	19	2	1	22
Maternal smoker	0	2	20	22
Bed share with adult	12	10	0	22

What do we know about child care practice in babies that have not died

∞ At national level:

- **Original Cot death Study data (1997 – 1999)**
- **Followup study**
- **Well-child provide data on breast feeding**

∞ Local level:

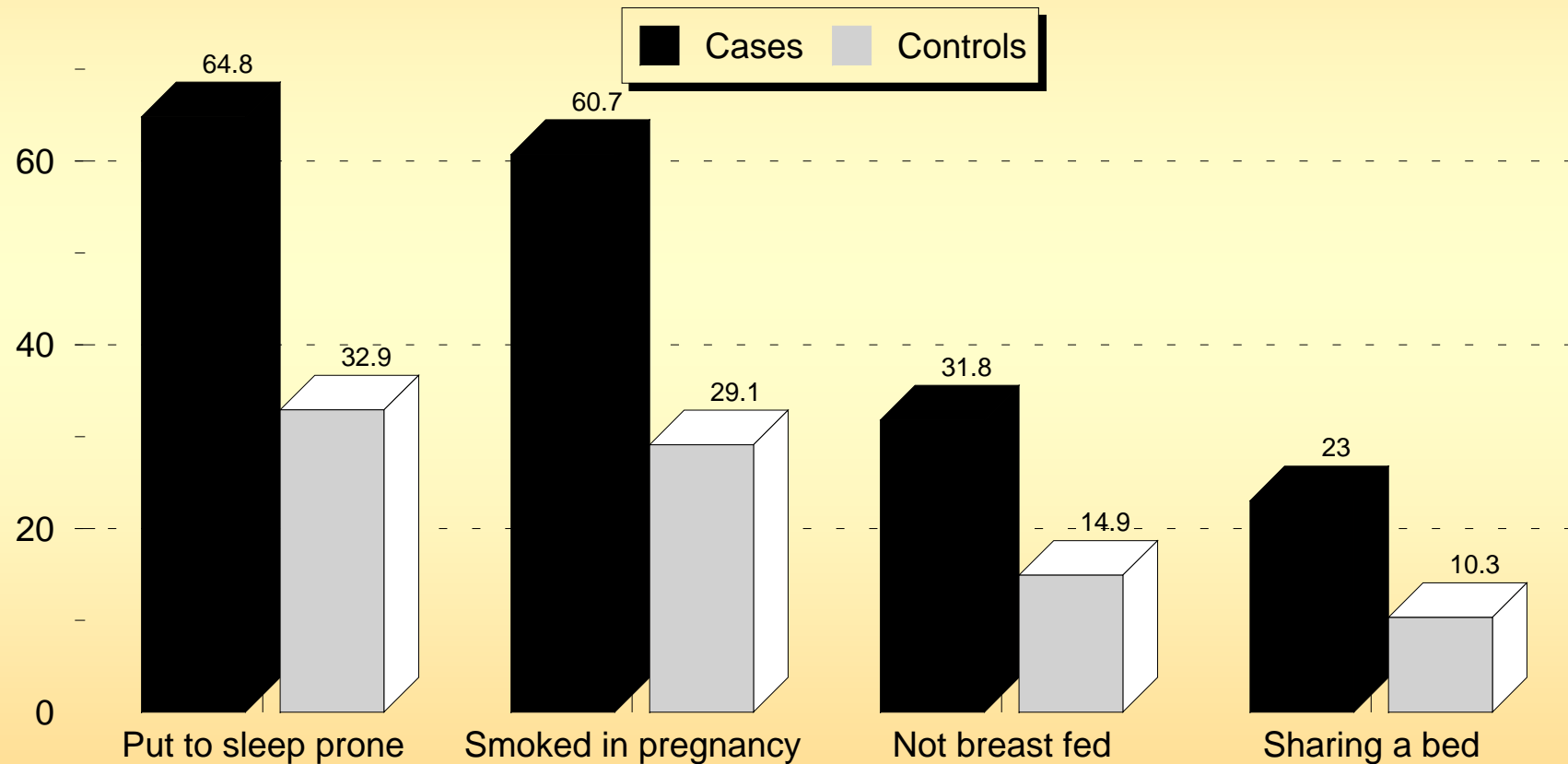
- **Otago**
- **?Auckland**
- **?Others??**

NZ National Cot Death Study

Child Care Practice

Percent of cases or controls

80



Cases = 370, Controls = 1559

What do we know about child care practice in babies that have not died

∞ At national level:

- Original Cot death Study data (1987 – 1990)**
- Followup study (1992 – 1993)**
- Well-child provide data on breast feeding**

∞ Local level:

- Otago surveys in 1999 and 2002/3**
- ? Others in Auckland and elsewhere.**

Telephone survey of families with 1 month old babies

412 parents - July 1999

- ∩ Response rate 76%**
- ∩ Sleep position – never placed prone 88.1%**
- ∩ Bottle fed from birth 11.2%**
- ∩ Sheep skin under baby 17.7%**
- ∩ Polythene mattress cover 4.9%**

Irritable Baby study – Rachel Sayers

August 2001 and May 2002

	n	Recruitment
Families approached re study	1186	
Newborn Questionnaire	785	66.2% (Response rate)
9-week Questionnaire	650	82.8% (Completion rate)

Smoking at time of birth

Maternal Smoking (n= 783):

	n	%
Has never smoked	448	57.2
Does not smoke now	219	28.0
Current smoker	116	14.8

Sleep Position at 9 weeks

Sleep Position (n= 586):

	n	%
Supine	362	61.8
Side	123	21.0
Prone	3	0.5
Supine and Side	83	14.2
Any combination with Prone	15	2.6

Pacifier Use

Pacifier Use (n= 642):

	n	%
Pacifier Used	121	18.8
Pacifier not used	521	81.2

Bedsharing

Usual Sleeping Place (n= 642; more than one response sometimes given):

	n	%
Anywhere	92	14.3
Own Bassinet/Cot	528	82.2
Parents Bed	99	15.4
Pram	199	31.0
Car Seat	245	38.2
Hammock	5	0.78
Front/Back Pack	71	11.1
Other	47	7.3

Results

∞ Participants and Non-participants

- 464 decided not to participate
- Information on type of delivery available for 335
- Information on parity available for 324
- No significant differences in either delivery or parity between non-participants and those who completed one or both questionnaires.

Results

∞ Completers and Non-completers

- 650 completed Nine-week Questionnaire, 135 did not
- Significant differences between 2 groups were:
 - » Gestation
 - » Birth weight
 - » Parental age
 - » Smoking
- Non-significant differences
 - » Age of baby when birth questionnaire completed
 - » Gender of baby

Results

∞ Newborn Questionnaire

- 785 completed
- 418 males (53.2%); 367 females (46.8%)
- Average age 4.7days
- Mean:
 - » Gestation: 39 weeks
 - » Birth weight: 3388g
 - » Maternal age: 30.5
 - » Paternal age: 32.7
- 14.8% mothers current smokers



Why this workshop?

- ◆ Our SUDI rates are high in comparison with other countries
- ◆ The disparity between Māori and others is highest for this cause of death (up to 70% of deaths)
- ◆ We are over-due to examine what we could do better.
- ◆ There may be other risk factors to deal to