ABORTION IN NEW ZEALAND PUBLIC HOSPITALS: A TWENTY-FIVE YEAR REVIEW

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As with most Western countries, the legal status of abortion has recently become a national issue in New Zealand. Traditionally, legal abortions have been performed in public hospital settings under conservative criteria. In response to increasing but sometimes misinformed public and parliamentary debate, this paper presents the relevant available information concerning abortion practices in New Zealand public hospitals; including the number of abortions performed annually, by type of abortion admission and patient's age, by hospital board area, and the number of reported deaths from abortion.

During the last five years abortion has become an increasingly important public issue in New Zealand. On separate occasions the New Zealand Parliament has considered whether abortion should be available in facilities other than public hospitals or whether the decision to allow an abortion request should be restricted to public hospital committees.

The public hospital abortion service has emerged as a significant consideration in the current debate, although claims have frequently been made about public hospital practices without reference to the available information. It has not been readily appreciated that public hospitals probably receive only about a fifth of the abortion requests in New Zealand (Facer, 1974).

METHOD

In order to obtain information about abortions in public hospitals the following data were requested from the Department of Health, National Health Statistics Centre, Wellington.

1. Numbers of abortion cases since records were kept, according to type of abortion (e.g. spontaneous, therapeutic, etc.)
2. Numbers of therapeutic abortions by patient's age.
3. Numbers of therapeutic abortions by hospital board area.
4. Numbers of spontaneous and numbers of unspecified abortions.
5. Numbers of therapeutic abortions by patient's marital status and grounds for abortion notified under the requirements of the Hospitals Amendment Act which came into force 1 September 1975.

The National Health Statistics Centre fulfilled these requests with the following limitations:

1. Total numbers of abortions admitted to public hospitals for the years 1929 to 1940 were available, but the classification of diseases did not show therapeutic abortion as a separate category prior to 1940.

2. Abortion admissions by patient's age were not available prior to 1940, and between 1940 and 1949 the breakdown was in ten-yearly intervals (with the exception of 1945 to 1947 when no age breakdown was available).
3. The separation of spontaneous and unspecified abortion admissions was available for the years 1969 to 1973.
4. Analysis of abortion notifications under the Hospitals Amendment Act into marital status and grounds for abortion was unavailable. Data on deaths from abortion were taken from the Department of Health *Trends,* 1975. For these reasons it is not possible to provide detailed information for the years before 1950, and, for some information, for later years still.

RESULTS

The total number of abortions from all causes admitted to New Zealand public hospitals has increased by 36.2 percent during the period 1950-1975 as shown in Table 1. The rate per 1,000 births for spontaneous and unspecified abortions has ranged from 66.2 to 76.7.

Table 1 also shows that therapeutic abortions induced for medical or legal reasons have increased approximately ten fold relative to the total number of births, from 1.9 per 1,000 births in 1950 to 17.3 per 1,000 births in 1975. The rate of therapeutic abortions remained relatively constant at under 2 percent of total births for the years 1950 to 1968. Substantial increases occurred each year from 1969 to 1973 inclusive, with a mean annual increase in excess of 52 percent. However, this increase in the rate dropped to 5.2 percent for 1974 and 1.8 percent for 1976.

Abortions induced for other reasons have declined both absolutely and relatively per 1,000 births throughout the period.

Table 2 shows that during the 25 years from 1951, the average age of patients receiving therapeutic abortions in public hospitals has declined steadily from a mean age of 30.6 years for the period 1951-1955 to a mean age of 26.5 years for the period 1971-1975. In the 5-year period beginning 1951, only 41 therapeutic abortions were performed on patients under 25 years of age, and these constituted less than 12 percent of public hospital therapeutic abortions. By 1975, the under-25 age groups accounted for 1,722, or over 40 percent of therapeutic abortions performed during the previous 5 years.

Although the number of abortions obtained by those aged 25 years or over also increased substantially from 1951 to 1975, this group now accounts for only 60 percent of public hospital abortions against almost 90 percent in the 1951-1955 period.

Table 3 shows considerable variation across Hospital Board Areas in the rate of therapeutic abortions per 1,000 population. Palmerston North records the lowest rate of .04 in 1973 while Otago records the highest rate of 1.25, also in 1973.

TABLE 1
Abortions in New Zealand Public Hospitals, 1950-1975;
Numbers and rates per 1,000 total births (live plus still)

Year	Spontaneous or unspecified		Induced for medical or legal indications		Induced for other reasons		Other abortions (eg. cameous mole)		Total abortions	
	Numbers	Rates	Numbers	Rates	Numbers	Rates	Numbers	Rates	Numbers	Rates
1950	3,661	72.7	96	1.9	47	0.9	106	2.1	3,910	77.6
1951	3,758	74.0	74	1.5	40	0.8	119	2.3	3,991	78.6
1952	3,870	73.2	83	1.6	32	0.6	126	2.4	4,111	77.7
1953	4,028	76.1	48	0.9	38	0.7	129	2.4	4,243	80.1
1954	4,090	74.2	61	1.1	30	0.5	128	2.3	4,309	78.2
1955	4,179	73.9	77	1.4	20	0.4	100	1.8	4,376	77.4
1956	4,206	73.1	73	1.3	14	0.2	106	1.8	4,399	76.4
1957	4,138	69.6	72	1.2	10	0.2	99	1.7	4,319	72.7
1958	4,500	73.1	45	0.7	16	0.3	141	2.3	4,702	76.4
1959	4,597	73.2	54	0.9	9	0.1	134	2.1	4,794	76.3
1960	4,891	76.7	74	1.2	11	0.2	177	2.8	5,153	80.8
1961	4,847	73.0	40	0.6	11	0.2	181	2.7	5,079	76.5
1962	4,592	69.6	38	0.6	10	0.2	193	2.9	4,833	73.3
1963	4,689	71.6	45	0.7	5	0.1	134	2.0	4,873	74.4
1964	4,531	71.6	76	1.2	4	0.1	104	1.6	4,715	74.5
1965	4,209	69.1	60	1.0	7	0.1	154	2.5	4,430	72.7
1966	4,164	68.4	70	1.2	6	0.1	157	2.6	4,397	72.3
1967	4,164	67.3	95	1.5	3	0.0	99	1.6	4,361	70.4
1968	4,343	68.9	128	2.0	7	0.1	63	1.0	4,541	72.0
1969	4,183	66.2	211	3.3	13	0.2	107	1.7	4,514	71.5
1970	4,446	70.7	313	5.0	21	0.3	86	1.4	4,866	77.4
1971	4,471	68.4	470	7.2	23	0.4	103	1.6	5,067	77.5
1972	4,589	71.9	765	12.0	19	0.3	99	1.6	5,472	85.7
1973	4,464	72.8	988	16.1	18	0.3	76	1.2	5,546	90.5
1974*	4,186	70.5	1008	17.0	16	0.3	144	2.4	5,354	90.2
1975*	4,215	74.4	978	17.3	1	—	131	2.3	5,325	94.0

* Provisional.
— Too small to be expressed.

TABLE 2
Therapeutic abortions in Public Hospitals, by age, 1950-75

Age in years	'50	'51	'52	'53	'54	'55	'56	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66	'67	'68	'69	'70	'71	'72	'73	'74*	'75*
10-14 Years	1	—	—	2	—	—	—	3	2	—	1	—	—	2	1	2	1	—	2	5	5	11	10	20	37	38
15-19 Years	3	2	3	1	1	1	2	—	—	4	1	2	1	6	7	7	10	10	21	25	46	58	137	183	196	200
20-24 Years	11	7	3	4	9	8	6	5	2	9	4	4	1	6	13	5	18	11	33	32	72	105	148	195	195	190
25-29 Years	23	17	19	15	19	13	12	18	13	16	22	8	10	7	17	14	13	17	18	39	58	86	144	168	177	161
30-34 Years	26	22	20	14	11	18	24	17	12	12	20	14	16	8	15	15	6	23	13	40	46	88	128	165	170	157
35-39 Years	22	18	28	7	12	22	20	17	10	7	19	7	7	7	12	10	12	17	24	39	48	77	119	158	151	140
40-44 Years	9	7	8	4	8	13	9	11	4	6	4	3	3	8	11	6	10	14	17	25	29	38	72	87	69	81
45-49 Years	1	1	2	1	1	2	—	1	2	—	3	2	—	1	—	1	—	3	—	2	5	7	7	12	13	11
Not stated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	4	—	—	—	—	—
Totals	96	74	83	48	61	77	73	72	45	54	74	40	38	45	76	60	70	95	128	212	313	470	765	988	1008	978

* Provisional.

TABLE 3
Therapeutic abortions in selected* Hospital Board areas 1972-1975;
Rates per 1000 population as at 31 March 1975

Hospital Board Area	Population at March 1975	Therapeutic Abortions 1972	1973	1974	1975	4 Year Average	Rank Order of Number of Abortions
Auckland	795,230	157 (.20)	210 (.26)	199 (.25)	161 (.20)	182 (.23)	1
Wellington	350,150	65 (.19)	85 (.24)	95 (.27)	82 (.23)	77 (.22)	5
North Canterbury	343,460	162 (.47)	162 (.47)	153 (.45)	163 (.47)	160 (.47)	2
Waikato	317,770	85 (.27)	122 (.38)	106 (.33)	101 (.32)	104 (.33)	4
Otago	129,020	119 (.92)	161 (1.25)	134 (1.04)	105 (.81)	130 (1.01)	3
Palmerston North	122,880	12 (.10)	5 (0.4)	13 (.11)	10 (.08)	10 (.08)	10
Hawke's Bay	121,770	38 (.31	34 (.28)	43 (.35)	43 (.35)	40 (.32)	6
Southland	117,410	11 (.09)	6 (.05)	12 (.10)	19 (.16)	12 (.10)	9
Northland	100,080	5 (.05)	29 (.27)	24 (.24)	21 (.21)	19 (.19)	8
Taranaki	97,300	20 (.21)	23 (.24)	33 (.34)	41 (.42)	29 (.30)	7

Note: numbers in parentheses are rates per 1,000 population.
* The 10 Hospital Board Areas with the largest populations.

Within each Hospital Board Area the therapeutic abortion rates per 1,000 population have been generally constant throughout the period 1972-1975 with the exceptions of Northland, where the rate has increased four-fold and Taranaki where the rate has doubled. (Note that the rates in Table 3 are calculated from 1975 populations and the use of separate annual population data would result in slightly different rates from those calculated).

Although there is a significant positive correlation ($r = +0.746$, $p < 0.01$) between population size and number of therapeutic abortions performed within Hospital Board Areas there are notable exceptions to this overall trend. Wellington, which is second in population size, is fifth in number of abortions, while Palmerston North is sixth in population size and tenth in number of abortions performed.

TABLE 4
Abortion deaths (with or without sepsis) 1952-1972:
Numbers and rates per 10,000 live births

Year	Number	Rate
1952	10	1.9
1953	2	0.4
1954	8	1.5
1955	7	1.3
1956	8	1.4
1957	6	1.0
1958	6	1.0
1959	8	1.3
1960	8	1.3
1961	6	0.9
1962	3	0.5
1963	1	0.2
1964	5	0.8
1965	3	0.5
1966	3	0.5
1967	3	0.5
1968	2	0.3
1969	1	0.2
1970	1	0.2
1971	—	—
1972	1	0.2

Table 4 shows the reported abortion deaths from all sources during the period 1952-1972 total 92, an average of 4.4 per year. In the decade beginning 1952 abortion deaths averaged 7 per year. This annual average was substantially reduced during the period 1962-1972 to 2 per annum. Deaths resulting from both spontaneous and induced abortion numbered 5 during the years 1968-1972 inclusive. Total reported abortions in this same period totalled 24,460 from all sources, giving a mean rate of 0.20 deaths per 1,000 abortions.

In comparison, maternal deaths from all major causes, excluding abortion, totalled 73 in the five years from 1968 to 1972, with 314,974 live births, this gives a mean rate of 0.23 per live births.

TABLE 5
Spontaneous and unspecified abortions admitted to New Zealand Public Hospitals 1969-1975

Year	Spontaneous	Unspecified	Total
1969	1486 (36%)	2698 (64%)	4184
1970	1324 (30%)	3121 (70%)	4445
1971	1137 (26%)	3334 (74%)	4471
1972	1242 (27%)	3347 (73%)	4589
1973	1420 (32%)	3044 (68%)	4464*
1974	1255 (30%)**	2931 (70%)*½	4186*
1975	1264 (30%)**	2951 (70%)*½	4215*

* Provisional.
** Estimated.

Both these rates represent a marked drop from the 1952 to 1956 average rates of 1.63 deaths per 1,000 abortions and maternal mortality of 0.66 deaths per 1,000 births.

Table 5 shows the proportion of abortion admissions to public hospitals which are classified as spontaneous compared with those unspecified. Between 1969-1973 spontaneous abortions were, on average, 30 percent of all abortion admissions. The classifications for 1974 and 1975 have been estimated on the basis of this average. Unspecified abortions, which are on average 70 percent of all abortion admissions, include morbidity arising from non-medical abortions.

DISCUSSION

For the greater part of the 25 years under review public hospital practices relating to therapeutic abortions were constant. However, during the last five years in particular, there has been an increase in the number of public hospital abortions. This trend has occured at a time when measurable changes in medical attitudes to abortion have occurred (Gregson and Irwin, 1971; Veale, 1977) resulting in growing acceptance of legal abortion by the medical profession. A parallel trend has also occurred in public opinion toward abortion as shown in the national surveys reported by Kirkwood and Facer (1976).

Overseas experience indicates that increasing acceptance of induced abortion is frequently accompanied by greater representation from women in the younger fertile age groups. In a major review of world trends in abortion practices over the last decade, Tietze and Lewit (1977) reported that countries which adopted nonrestrictive or moderately restrictive laws experienced an increased rate of abortion coupled with a noticeable increase in abortions among women in younger age groups. Despite such a trend among those obtaining abortions in public hospitals in New Zealand there exists still a preponderance of older women. In the United States, for instance, of more than 600,000 legal abortions carried out in 1973, approximately 31.7 percent were performed on women who were under 20 years of age, 30.8 percent were on women between 20 and 24 years, and 35.2 percent were on women

over 25 (National Academy of Sciences, 1975). New Zealand figures for 1973 indicate that of 988 therapeutic abortions in public hospitals, the group under 20 years of age accounted for 20.5 percent, and the group from 20 to 24 years for 19.9 percent. These figures do not differ significantly from the provisional figures available for 1974 and 1975. Interestingly, however, therapeutic abortions carried out in private facilities in New Zealand may more closely approximate the trends evident in the 1973 American sample. Of abortions performed at the Auckland Medical Aid Centre for the period May 1975 to May 1976, 34.5 percent were on women 16 to 20 years of age, 25 percent were on women between 21 and 25 years, and 35.4 percent were on women 26 years or over (Hunton and Salive, 1977).

Considerable variation has been shown to exist across public hospital board areas in terms of their therapeutic abortion rates. Further, variations have been reported in the procedures adopted by hospital boards in handling abortion requests, suggesting that response to abortion requests may, in part, be determined by geographic location (Facer, 1974). It would be informative to undertake a systematic comparison of abortion rates with respective hospital board procedures in order to determine whether any relationship exists between the two. Presently available information indicates that Dunedin has a less formal procedure and high abortion rate, whereas Wellington with a formally structured procedure has a relatively low abortion rate.

New Zealand is undergoing a transitionary period concerning abortion, from that of predominantly non-medical abortion (Facer, Simpson and Murphy, 1973) to predominantly medically induced abortion. As this trend develops it is expected on the basis of overseas experience that mortality and morbidity from non-medical abortion will decline significantly (National Academy of Sciences, 1975; Titze and Lewit, 1977). There are difficulties in determining what proportion of abortion cases admitted to public hospitals have resulted from non-medical inducements. Reports of British studies of this problem indicate a wide range of findings: 48 percent (22 percent known to be induced and 26 percent suspected, Morris 1966); 64 percent due to criminal abortion (Diggory, 1971); and 90 percent induced (Davis, 1950). The problem is also compounded by two factors: Diggory (1971) observes, "It is often impossible to establish whether a given woman is having a spontaneous or natural abortion or one that has been criminally induced"; and Morris (1966) shows that "the common belief that, whereas an induced abortion is usually infected, a spontaneous abortion is not . . . is a dangerous fallacy." Although New Zealand statistics have distinguished spontaneous from unspecified abortion admissions since 1969, no research has been conducted to determine the proportion of admissions resulting from illegal abortion. In view of the readiness of official inquiries (Report, 1977) to accept very low estimates of such admissions which appear to be based on the opinions of a few medical practitioners, there is an urgent need for research in this area.

American statistics for 1972 and 1973, based upon approximately 1¼ million legal abortions, indicate a mortality rate of .035 per 1,000 abortions. This places the risk of death for a woman obtaining a legal abortion at about the same level as a tonsillectomy (between 0.3 and .05 per 1,000 operations). In contrast, American maternal mortality rates of 0.14 per 1,000 live births from complications of pregnancy and childbirth excluding abortion, is comparable with the New Zealand rate of 0.23 maternal deaths per 1,000 live births (National Academy of Sciences, 1975).

Historically, New Zealand has been in the forefront in implementing social reforms and progressive public health measures. This has not been true in the case of abortion. A report by the Maternity Services Committee of the Board of Health (1976) stated with regard to family planning, sterilisation and therapeutic abortion that "in some cases that came to our knowledge, the board have been pressurised by minority groups from without to limit their activities in some of these directions".

The increasing availability of medical abortion in both the public and private sectors has resulted in restrictive legislation initiated by minority pressure groups. The first such attempt was the Hospitals Amendment Act 1975 which sought to limit abortions to public hospitals and approved private hospitals. Subsequently, this legislation was in effect declared inoperative by the Supreme Court. A further attempt was made in 1976 to restrict abortion decisions to public hospitals but as a Royal Commission was then sitting on this subject Parliament decided to delay the legislation for one year.

Concurrent with these legislative actions, criminal proceedings were brought against a doctor who performed abortions at the Auckland Medical Aid Centre. He was subsequently acquitted and the Court of Appeal, in upholding the acquittal, stated that abortion was lawful if "performed to preserve the mother from a real or substantial risk of serious harm to her mental or physical health". Mr. Justice Woodhouse also commented that ". . . it would be undesirable to regard the formula used in the present case as finally determining the limits within which any therapeutic abortion may ever lawfully be performed," (R. v. Woolnough, 22nd July, 1976).

CONCLUSION

Further research is indicated into a number of aspects of New Zealand public hospital abortion practices, particularly in the areas of admissions resulting from illegal abortion and the relationship between the administrative procedures used by hospital boards in handling abortion requests and therapeutic abortion rates. New Zealand appears to have entered upon a phase of increasing public awareness and acceptance of medically-induced abortions. This has been reflected in an increased number of public hospital abortions over recent years. On the

basis of trends reported from most Western countries, it might be expected that this change in attitudes would be accompanied not only by less restrictive legislation relating to abortion, but also by the development of safer abortion practices and by increased emphasis upon the psychological wellbeing of those requesting abortions.

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