

Recent Trends in Vasectomy in Australia

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Abstract: The main objective of this paper is to examine recent trends in vasectomy in Australia, using the National Health Insurance (Medicare) data for the period 1993-94 to 2002-03. Vasectomies reached a peak around 1996-97 and since then both the numbers and rates have declined. The decline in rates has occurred in all States/Territories except the Australian Capital Territory. There has been a consistent rise in the mean age at operation. These changes are compatible with other trends such as the postponement of births, adoption of newer contraceptives and women's access to safe abortion.

Keywords: Birth Control, Family Planning, Medicare, Vasectomy

Introduction

SINCE THE EARLY 1970s, sterilisation of both men and women has become well accepted as a method of terminal contraception in Australia. In 1971, the Australian Medical Association deleted its objection to sterilisation from its Code of Ethics (Siedlecky & Wyndham, 1990). Two trends in Australian family formation, the decline in total fertility and the rising age at childbirth, demonstrate a continuing evolution in the ways in which couples attempt to control the size and spacing of their families. The authors have previously noted changing patterns of contraceptive use (Yusuf, Siedlecky, 1999), and an increase in abortion rates (Yusuf & Siedlecky, 2002) which have been consistent with women postponing their first and later births.

An earlier examination of Medicare data for 1984 and 1995 showed that the rate of female sterilisation had declined by 73%; although the vasectomy rate remained more or less stable (Siedlecky, 1996). The decline in female sterilisation and a shift to older age groups was confirmed in an analysis of New South Wales (NSW) hospital discharge data for the period 1981 to 1994-95 (Yusuf, Siedlecky & Leeder, 1997). This paper extends the analysis of trends in vasectomy for the period 1994-95 to 2002-03. Although the prevalence of vasectomy has been estimated using data from surveys such as the 1995 National Health Survey (Yusuf & Siedlecky, 1999), this is the first detailed study of the incidence of vasectomy in Australia.

Data and Methods

Vasectomy data for the years 1993-94 to 2002-03 were obtained from the Health Insurance Commission (Medicare), which listed separately the services provided by specialists and general practitioners (GP)

by state and age group. Rates for each 10 year age group from 15 to 74 were calculated using Australian Bureau of Statistics (ABS) data for the mean male population over each period (Australian Bureau of Statistics, 1994 to 2003). Standardised rates were calculated to allow for changing age distributions in the various years. The few cases under age 15 were included in the 15-24 age group and those where age was not given were distributed *pro rata*. Some earlier data from 1984-85 (Siedlecky, 1996) have been used for comparisons. These did not include age groups.

Medicare statistics do not include operations performed on public ward patients, a fact which affects sterilisation data for females more than for males. Vasectomy is more likely to be carried out as a day surgery procedure and attract a Medicare rebate. In general it is not considered that the small proportion of vasectomies carried out in public hospitals has varied much over time. Medicare data do not include information on ethnicity or other socio-demographic variables.

Results

Overall Trends

The number of vasectomies in Australia recorded by Medicare for 1984-85 was 23,768 (Siedlecky, 1996). By 1993-94 this number had risen to 27,358 and continued to rise until 1996-97 but has since declined to 26,972 in 2002-2003 (Table 1). The vasectomy rate peaked in 1996-97 at 45.6 per 10,000 males aged 15-74 and has declined to 41.1 in 2002-2003, which is similar to the levels in 1993-94. The age-standardised rate followed the same general pattern, however, in each year the standardised rate was lower than the crude rate indicating the impact of changes in age



Table 1: Some Statistics about Vasectomies in Australia: 1993-94 to 2002-03

Year	No. of vasectomies	Rate per 10,000 males p.a.	Age standardised rate per 10,000 males p.a.	% of vasectomies performed by general practitioners
1993-94	27,358	41.7	41.7	41
1994-95	27,280	41.6	41.1	41
1995-96	28,035	42.8	41.7	42
1996-97	29,892	45.6	43.8	43
1997-98	27,960	42.6	40.6	44
1998-99	28,041	42.8	40.4	45
1999-00	27,858	42.5	39.8	45
2000-01	27,512	42.0	39.1	44
2001-02	28,456	43.4	40.3	41
2002-03	26,972	41.1	38.0	41

distribution. More than half of all vasectomies are performed by specialists.

Age Patterns

Figure 1 shows the age-specific vasectomy rates for the beginning year (1993-94) and the end year (2002-03) of this study. For both years, the peak age group for a vasectomy has been 35-44 years with a slight decline in rate from 107.4 to 105.6. The number of vasectomies in the age group 15-24 has declined each year from 251 in 1993-94 to only 78 in 2002-03 while the rate declined from 1.8 to 0.6. The rate declined among men aged 25-34 years from 72.0 to 48.7. There has been a rise in the rates for men aged 45-64 years indicating a shift to older men.

The mean age at operation has risen in each year from just over 37 years in 1994-95 to over 39 years in 2002-03. This pattern holds for operations performed by both the specialists and the GPs (Fig 2).

Differences by State/Territory

Vasectomy rates also varied considerably between States/Territories (Table 2). The rates have been consistently higher in Queensland and Tasmania followed by the Australian Capital Territory (ACT), and lower in the Northern Territory and, strangely, in NSW. The decline in rates has occurred in all parts of the country except the ACT.

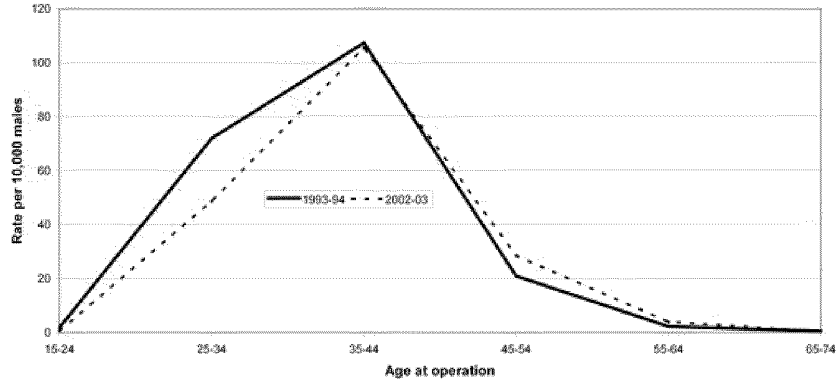
The percentage of vasectomies carried out by GPs varied between states/territories and over time (Table 3). The proportion of vasectomies performed by the

GPs has been consistently highest in the ACT rising from 73% in 1993-94 to 85% in 1998-99 and was still 83% in 2002-03. An increase in GP operations was also seen in NSW, Victoria, Queensland, and most marked in Tasmania. Since 2000-01 there has been a slight decline in all states except the ACT. The proportion of GP operations has been consistently lowest in South Australia where it declined from around 30% in 1984-85 to 19% in 1993-94 and to 7% in 2002-03.

Discussion and Conclusion

In the early 1900s, vasectomy was reportedly used on occasions for treatment of an enlarged prostate, to cure 'sexual disorders' such as masturbation, to sterilise the 'unfit' and as a means of rejuvenation in elderly men (Wyndham, 2003). Sterilisation of the unfit was advocated by various eugenic groups in Australia and overseas including the Racial Hygiene Association (1936), later the Family Planning Association of Australia – FPAA. Sterilisation became unpopular particularly after the excesses in Nazi Germany. In Australia although there were no specific laws forbidding sterilisation it was generally accepted to be illegal under laws relating to maim except where medically indicated. Sterilisation, and especially vasectomy, was opposed by groups who disapproved of birth control on both legal and moral grounds. The Federal Assembly of the Australian Medical Association took this view in its Code of Ethics in 1962. After much discussion the subject was deleted from the Code in 1971 (Siedlecky & Wyndham, 1990).

**Fig 1. Age-Specific Vasectomy Rates:
Australia, 1993-94 and 2002-03**



**Fig 2. Mean Age at Vasectomy Operation:
Australia, 1993-94 to 2002-03**

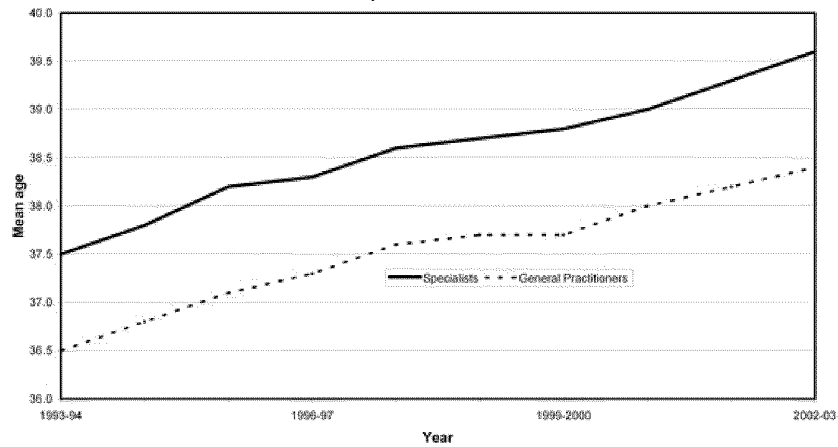


Table 2: Age-Standardised Vasectomy Rates per 10,000 Males

Year	NSW	VIC	QLD	SA	WA	TAS	ACT	NT
1993-94	33.5	39.6	58.3	40.7	42.1	57.7	48.9	32.6
1994-95	32.9	37.5	58.1	42.9	38.8	64.9	50.1	38.9
1995-96	33.5	37.9	57.1	43.8	41.5	63.3	57.1	36.6
1996-97	35.5	40.4	59.8	43.9	44.0	63.7	60.8	37.5
1997-98	32.4	37.8	57.5	40.4	39.1	57.5	51.1	34.4
1998-99	31.5	38.6	57.6	39.4	39.6	55.5	51.5	30.4
1999-00	31.2	37.1	56.8	39.1	39.2	62.6	51.2	28.9
2000-01	30.8	37.1	54.5	38.0	38.5	58.0	58.5	28.1
2001-02	34.0	38.7	53.2	40.3	39.1	53.7	49.9	25.1
2002-03	30.4	36.0	53.4	37.7	36.0	50.2	52.8	27.3

Note: Data for vasectomies performed by general practitioners and specialists were combined.
 NSW: New South Wales
 VIC: Victoria
 QLD: Queensland
 SA: South Australia
 WA: Western Australia
 TAS: Tasmania
 ACT: Australian Capital Territory
 NT: Northern Territory

Table 3: Percentage of Vasectomies Performed by General Practitioners

Year	NSW	VIC	QLD	SA	WA	TAS	ACT	NT
1993-94	32	29	62	19	57	19	73	40
1994-95	33	30	63	17	57	18	78	39
1995-96	36	29	63	13	55	21	82	37
1996-97	36	30	64	12	57	21	81	40
1997-98	35	32	66	14	57	25	83	38
1998-99	38	34	67	10	56	30	85	40
1999-00	37	34	67	12	54	29	84	35
2000-01	39	32	65	12	51	28	83	48
2001-02	38	30	63	9	46	27	86	45
2002-03	37	29	64	7	43	21	83	39

NSW: New South Wales
 VIC: Victoria
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During the late 1960s and into the 1970s there was much debate on the legality of sterilisation and particularly vasectomy (Edwards, 1979). In 1976 the Queensland Department of Health sent a circular to all hospital superintendents advising them that sterilisation was illegal except on medical grounds and that 'the mere desire to avoid the responsibility of pregnancy would not suffice' (Queensland Department of Health, 1976). This was in spite of the fact that several private vasectomy clinics were already operating in Queensland and a study of 831 cases had been reported in the *Medical Journal of Australia* (Whitby, Brown & Seeney, 1975). FPAA opened its first vasectomy clinic in Sydney in 1972 (Siedlecky & Wyndham, 1990).

The variations between states/territories in the proportion of vasectomies performed by GPs reflect both public attitudes and the accessibility of services. The decline of GP operations in the past two years may be a temporary fluctuation, or may indicate the effect of the recent rises in indemnity insurance following the collapse of a major health insurance company which has caused some GPs to give up procedures such as vasectomy.

The 1995 National Health Survey included a special survey of contraceptive use among women (Yusuf & Siedlecky, 1999). It showed that sterilisation of either partner was the most frequently reported reason for non-use of contraception in sexually active women aged over 35 years. In this age group, more than 16% of women relied on male sterilisation. Overseas born women were less likely to use the pill or sterilisation. A previous study among Lebanese Turkish and Vietnamese women found that of a total of 980 married women only two (both Vietnamese)

reported a vasectomy. This confirmed an earlier study among ethnic groups in Canberra which found that many migrant men did not favour vasectomy (Lucas, 1984).

Although the group most likely to have a vasectomy are still men aged 35-44, there has been a continuous rise in the mean age at operation with a shift to older age groups. The decline in the age group (15-24) may also reflect a decline in the sterilisation of intellectually handicapped young men. Medicare data do not give indications for operation.

The recent decline in vasectomy rates and the rise in the mean age at operation raise a number of questions. The decline has not been offset by any increase in female sterilisation as indicated by studies in NSW. In this state, vasectomy rates have shown fluctuations over the years, but the downward trend since 1996-97 has been similar to that in other states (Table 3). Female sterilisation rates in NSW declined from 15.4 to 6.0 per 1,000 women between 1981 and 1994-95 (Yusuf, Siedlecky & Leeder, 1997). Unpublished hospital discharge data obtained from the NSW Department of Health show that this rate declined further to 3.8 in 2001-02. These figures include cases in public wards and day-only surgery cases. It is fair to assume that similar changes are occurring in other states. The trends in both male and female sterilisation reflect other factors - the rising age at childbirth, adoption of the newer and improved contraceptive methods such as the long-acting hormonal implants and intra-uterine devices, and access to safe abortion. Since Australian women are postponing their births, there is less pressure on their partners to undergo sterilisation at an earlier age.

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