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SHORT RESEARCH REPORT: CLINICAL

Exploring access to vasectomy services: a case study of funding in Counties Manukau

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ABSTRACT

INTRODUCTION: Although vasectomy rates in New Zealand have been reported as among the highest worldwide, there is limited information about who is receiving these services and how they are being accessed. This information is needed to develop equitable access to vasectomy services.

AIM: To describe the ethnicity and socioeconomic status of men accessing District Health Board-funded and self-funded vasectomies in Counties Manukau.

METHODS: A retrospective cohort analysis of provider data linked to ethnicity and area deprivation as an indicator of socioeconomic status.

RESULTS: Of 332 vasectomies, 66% were for New Zealand European men. Socioeconomic status was not associated with the number of procedures for New Zealand European men, but of the Māori and Pacific men who underwent vasectomies, most lived in the greatest areas of deprivation; 58% (18/31) and 50% (12/24), respectively. When vasectomies were funded, the number of procedures doubled for men from areas of high deprivation. The number of procedures was low for men of other ethnicities.

DISCUSSION: Our findings indicate differential access to vasectomies by ethnicity and socioeconomic status. Funding vasectomies may provide community benefits in terms of improving equity in access and alleviating a financial burden for many families living in areas of high deprivation.

KEYWORDS: Vasectomy; deprivation; ethnicity; access; funding

Introduction

Male sterilisation (vasectomy) is the most effective and only long-lasting form of contraception available to men in New Zealand. Compared to tubal ligation, it is more efficacious, cost-effective and has much lower complication rates.[1] Vasectomies in New Zealand are largely carried out in private clinics, and cost ~NZ$400.

Despite the advantages of vasectomy over tubal ligation, vasectomies are not nationally funded. A minority of district health boards (DHBs) offer access to a funded vasectomy, with varying eligibility criteria. Funding for a vasectomy can also be applied for on an individual basis for men with low income, through Work and Income New Zealand (WINZ), but this funding stream is reportedly difficult to navigate, the criteria for eligibility unclear, and accessed through a grant application made by the individual.

Although vasectomy rates in New Zealand have been reported as among the highest worldwide,[1,2] there is limited information about who receives these services and how they are being accessed. This information is needed to develop equitable access to vasectomy services.[2–4] We hypothesised

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WHAT GAP THIS FILLS

What is already known: Male sterilisation (vasectomy) is the most effective and only long-lasting form of contraception available to men in New Zealand. Despite the advantages of vasectomy over tubal ligation, vasectomies are not nationally funded.

What this study adds: Our findings indicate differential access to vasectomy services by ethnicity and socioeconomic status (as measured by area deprivation). Offering funded vasectomy services will likely result in more equitable access, and alleviate a considerable financial burden for many whānau, particularly for those who are already living in areas of high deprivation.

that there is an unmet need for vasectomies among Māori and Pacific men, and men from low socioeconomic backgrounds. We also hypothesised that offering free vasectomies would increase uptake of this contraception service.

In 2014, Counties Manukau DHB (CMDHB) introduced two different funding schemes to offer free vasectomies. The schemes were offered at different times and had different eligibility criteria. Using retrospective cohort analysis of provider data linked to ethnicity and area deprivation information, our aim was to compare access to vasectomy services among Māori, New Zealand Pacific, Asian and Middle Eastern Latin American and African (MELAA) men compared to New Zealand European men living in CMDHB.

Methods

Study design

A retrospective cohort study design was used. The study group consisted of men who attended a vasectomy procedure in CMDHB in 2014. Approximately 117,785 men aged 20–54 years are resident in CMDHB. At the 2013 Census, 36% of the Counties Manukau population were living in areas classed as the most socioeconomically deprived, with 58% of New Zealand Māori and 76% of Pacific Islander residents living mostly in areas of high deprivation (decile 9 and 10).[3]

DHB funding schemes

The CMDHB had two funding schemes available to men at different times. Scheme 1 was introduced in May 2014 to fully fund a procedure for men resident in CMDHB, entitled to public funded health care (New Zealand resident) and without private health insurance with vasectomy cover. This scheme was available for up to 123 procedures on a first-come, first-served basis.

Scheme 2 was offered 2 months after Scheme 1 ceased and is still ongoing. Men are eligible for a fully funded procedure under Scheme 2 if they meet the above eligibility criteria in addition to their partner being currently engaged with maternity services (pregnant at the time of a vasectomy procedure, including awaiting termination of pregnancy and within 6 weeks post-delivery). As a comparison, information regarding men who paid for their own procedure (self-funded) at the same clinic was also collected during a 6-month period when neither scheme was offered.

Data collection

Data (name, date of birth, date of procedure and funding type) were collected from a private clinic, SNIP Counties Manukau, and linked via the patient's National Health Index (NHI) code to national datasets to obtain socioeconomic status (New Zealand Deprivation Index 2006 (NZDep 2006)) and ethnicity.[4] Ethnicity in the New Zealand healthcare system is based on self-reported ethnicity and for this dataset was obtained from the most recent health system contact.[5] For individuals reporting more than one ethnicity, these responses were prioritised to obtain a single ethnicity for each mother/infant, in line with Ministry of Health guidelines.[3] Ethnicity was reported as New Zealand European, New Zealand Māori, Pacific, Indian, MELAA, and Other. Socioeconomic status was defined using NZDep2006 quintiles, a validated, census-derived area-based index of relative socioeconomic deprivation, where quintile 1 represents the least deprived areas and quintile 5 the most deprived.[6]

Ethical approval was granted by the Central Health and Disability Ethics Committee, New Zealand (15/CEN/54).

Statistical analysis

Descriptive statistics including 95% confidence intervals (CI) are used to describe these data, by ethnicity and sociodemographic information, for each funding scheme (SAS Enterprise Guide 4.3; SAS Institute Inc., Cary, NC, USA).

Results

A total of 332 men underwent a vasectomy procedure (Table 1). Vasectomy services were accessed most by New Zealand European men (65%, 219/332), mostly aged 30–49 years. Socioeconomic status was not associated with the number of procedures for New Zealand European men, but of the New Zealand Māori and Pacific men who underwent vasectomy procedures, most lived in the greatest areas of deprivation; 58% (18/31) and 50% (12/24), respectively. The number of procedures was low for men of Indian, MELAA and Asian ethnicities. Overall, most procedures were for men aged 30–49 years. Sixty-five (52.8%) of the allocated 123 procedures were undertaken in Scheme 1.

Access to vasectomy services described by funding type and area deprivation is shown in Table 2. Within each funding scheme, approximately twice as many procedures were for men living in areas of highest deprivation (Dep 9–10) compared to men living in the lowest areas of deprivation (Dep 1–2). For example, under funding Scheme 2, 37.5% (CI 28.3% to 47.8) of men lived in areas of highest deprivation compared to 15.8% (CI 9.3 to 24.4) of men from areas of lowest deprivation. Compared to men who were self-funded and living in areas of highest deprivation, there were more vasectomies for men under both Scheme 1 (14% higher) and Scheme 2 (17% higher). The number of procedures was approximately the same across all

Table 1. Sociodemographic description of men who underwent a vasectomy described by funding type, area deprivation and age (at time of procedure) with corresponding total and percentage by ethnicity

	New Zealand Māori	New Zealand European	Pacific	Indian	MELAA	Asian	Other	Total (All)
Funding type								
Scheme 1	9	36	8	.	.	2	10	65
Scheme 2	11	69	5	2	.	3	11	101
Self-funded	11	113	11	4	3	4	19	165
WINZ		1						1
Area deprivation								
Least deprived 1 to 2	3	48	2	.	3	1	5	62
3 to 4	2	28	1	1	.	3	7	42
5 to 6	3	58	6	3	.	2	9	81
7 to 8	4	29	3	2	.	.	5	43
Most deprived 9 to 10	18	56	12	.	.	2	7	95
Missing	1	.	.	.	1	7	.	9
Age group (years)								
20–29	3	10	3	.	.	.	2	18
30–39	13	102	12	5	2	3	16	153
40–49	13	82	7	1	1	6	17	127
Over 50	1	25	2	.	.	.	4	32
Missing	1	.	.	.	.	.	1	2
Total (ALL)	31 (9.3%)	219 (65.7%)	24 (7.2%)	6 (1.8%)	3 (0.9%)	9 (2.7%)	40 (12%)	332

socioeconomic areas during the time when neither funded schemes were available.

Discussion

Our findings indicate that of the 332 men having vasectomies, over half were New Zealand European. There was a high uptake of services when vasectomies were offered for free through Scheme 1 and Scheme 2, particularly by men living in high areas of deprivation.

This is the first study in New Zealand that describes access to vasectomy services by ethnicity. Previous research from 1997 to 1999, based on a random national sample of men, reported only on data for New Zealand European men. According to Census data, the population of Pacific peoples in Counties Manukau is ~20% compared to 6.5% nationally;[3] 7% of vasectomies in this study were for Pacific men. Similarly, 9% of vasectomies were for Māori men (whereas Maori are 15% of the national population[3]). This may indicate unmet need for vasectomy services and more work is warranted to explore the needs of Māori and Pacific men.

Vasectomy is a safe and reliable form of contraception.[1,7] In addition to being more effective and safer than female sterilization methods, vasectomy is less expensive.[1] In terms of cost savings, it has been predicted that if the number of tubal ligations and vasectomies were equal, potential annual savings in the United States would be US$266 million in procedure cost alone and US$13 million additional savings in postoperative complication management.[1] Despite these obvious benefits, very few Western countries offer funded vasectomies, with the exception of the UK, where vasectomies are fully funded by the National Health Service and where there is stringent access to funded tubal ligation procedures. Vasectomies are not funded in the United States (nor covered by many insurance providers), and for some healthcare providers, this has been viewed as gross oversight, particularly in light of the 2012 'contraceptive mandate' that sanctioned the provision of contraceptives and sterilisation services to women at no cost, but excludes male contraceptive options.[8] The burden of contraception (including permanent) continues to rest with women, despite a growing body of evidence to show that men want a more active role in family planning.[9,10]

Until now, our knowledge of vasectomy users in New Zealand has been based on data that are 20 years old,[1,2] yet New Zealand has a high vasectomy rate internationally.[1] This study provides an up-to-date snapshot of access to vasectomy services, albeit from one DHB over a short time frame. That said, in a time of significant economic constraint on DHB budgets, improving access to vasectomy services, over tubal ligation, could represent considerable cost-savings and would be justified.

Limitations of the study

This is a descriptive study from one DHB, so we cannot draw any definitive associations between

Table 2. Number of vasectomy services described by funding type and area of deprivation

Area deprivation	Scheme 1				Scheme 2				Self-funded				Total
	Number	Percentage and 95% CIs			Number	Percentage and 95% CIs			Number	Percentage and 95% CIs			
Least deprived 1 to 2	14	21.5	12.3	33.4	16	15.8	9.3	24.4	31	18.8	13.1	25.6	61
3 to 4	8	12.3	5.4	22.8	7	6.9	2.8	13.8	27	16.4	11.1	22.9	42
5 to 6	8	12.3	5.4	22.8	28	27.7	19.3	37.5	45	27.3	20.6	34.7	81
7 to 8	9	13.8	6.53	24.6	10	9.9	4.9	17.5	24	14.5	9.5	20.9	43
Most deprived 9 to 10	23	35.3	23.9	48.2	38	37.6	28.2	47.8	34	20.6	14.7	27.6	95
Missing	3	4.6	0.96	12.9	2	2	0.24	6.97	4	2.4	0.66	6.09	9
Total	65				101				165				331

access to services and socioeconomic status or generalisability of the findings nationally. Access to Schemes 1 and 2 was offered on a first-come, first-served basis, with no formal advertising or promotion. This probably contributed to low uptake (~50%) for Scheme 1. As Scheme 2 followed Scheme 1, there had been some local promotion, which likely contributed to higher uptake in this Scheme. We did not ascertain why men underwent the procedure and had no information about their families (e.g. partner status, number of children).

Offering funded vasectomy services will likely result in more equitable access, and alleviate a considerable financial burden for many New Zealand whānau, particularly for those who are already living in areas of high deprivation.

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COMPETING INTERESTS
Dr Simon Snook is health a care provider at the SNIP clinic where the data was collected from.

Drs Filoche and Lawton declare no conflicts of interest.