Parenthood Postponed:

Older First-Time Mothers in New Zealand

Bryndl Hohmann-Marriott

Department of Sociology, Gender & Social Work

University of Otago

Dunedin, NZ

bryndl.hohmann-marriott@otago.ac.nz

www.otago.ac.nz/sgsw

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ABSTRACT

In New Zealand, as in most developed countries, age at first-time parenthood is rising. This postponement of parenthood has major consequences for the population as well as for individuals, but it has not yet been described in New Zealand. This analysis describes the characteristics of first-time New Zealand mothers of advanced maternal age. Data are from the new study Growing Up in New Zealand, which follows a cohort born in 2009/10. Data include 2,850 first-time expectant mothers, and those aged 32-36 and 37+ are compared with those aged 24-31 on a number of sociodemographic measures. This comparison reveals that advanced-age mothers are socioeconomically advantaged relative to the comparison group. Those 37+ stand in contrast to all other ages in their high use of ART and differ from those 32-36 in the relatively higher numbers who are unpartnered and of Pacific Island ethnicity.

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Characteristics of First-Time Mothers of Advanced Age in New Zealand

Age at parenthood is rising in most developed countries. In New Zealand, for the first time, births to women aged 35-39 have surpassed births to women aged 20-24 (Statistics NZ 2014; see Figure 1). The timing of these births is important from a lifecourse perspective, as well as having individual, interpersonal, and societal consequences. It is thus essential to understand who is delaying their first birth. Despite the importance, no study has yet investigated the postponement of parenthood or advanced maternal age in New Zealand. To offer a first look at these processes, I describe the sociodemographic characteristics of first-time mothers by age and examine the characteristics that distinguish first-time mothers of advanced age (32-36) or very advanced age (37+) from a comparison group of women aged 24-31.

BACKGROUND

Postponing parenthood has become increasingly acceptable and possible. The availability of reliable contraceptives offers the ability to defer parenthood indefinitely or at least until a specific set of conditions have been reached (Mills et al 2011; Balbo et al 2013). Postponement is also encouraged by the (inaccurate) perception that assisted reproductive technologies can solve any difficulties which may arise (Cooke et al 2013).

Some aspects of postponing childbearing are favourable. Parents who have postponed having children to complete their education and establish a career have greater financial and material assets. They are thus better situated to provide educational and other opportunities for their children (Cooke et al 2012; Mills et al 2011). Wanting to find the right partner is the most common reason for delaying childbearing (Hammarberg & Clarke 2005). Those who are older and more established when they find a partner with whom to have children tend to form stable relationships which translate to a lower chance of experiencing family breakdown (Cooke et al 2012; Mills et al 2011; Schmidt et al 2012).

Waiting to accrue these advantages is a gamble, however. Women who postpone parenthood risk reduced fecundity as they age. By older ages, men and women have also had more time to contract or develop infections and conditions affecting their fecundity. Lifestyle elements such as nutrition, exercise, alcohol intake, and smoking contribute to obesity and other related health problems, which can lower fecundity (Mintzioria et al 2013). The inverse relationship between fecundity and age means that by their mid to late thirties many people must seek assistance to achieve their reproductive goals. However, assisted reproductive technologies (ART) cannot completely offset age-related fecundity since the success of ART is itself age dependent (Mills et al 2011; Mintzioria et al 2013). Further, those who wish for more than one child encounter a compressed timeframe in which to realise their desired number of children (Schmidt et al 2012; Kippen 2006; Mills et al 2011).

For society there are demographic consequences of postponing parenthood, such as fertility decline (Kippen 2006). Other societal consequences of postponement include a decrease in the proportion of the population able to complete their fertility goals, and an increase in permanent and unintended childlessness (Kippen 2006; Schmidt et al 2012). In addition, there are health-related consequences for society in terms of increased adverse outcomes for children born to older parents (Schmidt et al 2012; Mintzioria et al 2013).

New Zealand's fertility rate of a relatively steady 2.0 is similar to that of the US, and higher than that of Europe. Overall, gender equality in New Zealand is relatively high by world standards (World Economic Forum 2014). Although the policy regime is neoliberal, there do exist national schemes aimed at offsetting the financial burden of children and allowing women to combine employment and childrearing, such as paid parental leave and twenty free hours of early childhood education for children (Families Commission 2014).

New Zealanders place a high social value on parenthood. This is particularly evident amongst Māori and Pacific Island communities and has been incorporated into the values of the Pākehā (non-Māori) population. New Zealand is considered a safe place to raise children, with a widespread belief that children have the right to a childhood characterised by fresh air, wide open spaces, and physical activity in the great outdoors.

METHOD

Data and Sample

The current analysis answers the research questions using a new cohort study, Growing Up in New Zealand (Morton et al, 2012). This innovative and interdisciplinary study conducted its first interview during the final trimester of pregnancy. Participants were women due to give birth between 25 April 2009 and 25 March 2010, and resident in the larger Auckland region, a diverse area with 29% of the country's population and 1/3 of its births (Morton et al, 2012).

Of the 6,822 women who participated in the the Growing Up in NZ antenatal survey, 2,850 were first-time mothers (defined as not having had a prior pregnancy which continued past 24 weeks). Of those first-time mothers, 693 (24%) were under age 24, and not included in the comparative analysis because they were substantially different from the comparison group. The sample for the comparative analysis was composed of 2,157 women, including 1,238 (57%) in a comparison group aged 24-31, 678 (31%) mothers of advanced age of 32-36, and 241 (11%) mothers of very advanced age of 37 or above. This study follows other studies that describe the characteristics of advanced-age mothers by comparing mothers of advanced age with a comparison group (i.e. Guedes & Canavarro 2014; Nilson et al. 2012).

Measures

Unplanned pregnancies were assessed using a question asking mothers 'Was this pregnancy planned?' Those responding that the pregnancy was planned were asked how long they were trying before becoming pregnant. Responses were coded into months ranging from 1-60. Those with planned pregnancies were further asked 'Did you have any treatment to assist you with becoming pregnant?' Health is measured by a question asking 'Thinking about before you became pregnant, in general would you say your health was…' Response choices included poor or fair, good, very good, or excellent, recoded as either 1) very good/excellent, or 0) poor/fair/good.

Partnership types include 1) no partner, 2) dating and not cohabiting, 3) cohabiting, 4) married or civil union (only four women were in a civil union). For those in a coresidential relationship, the length in years measures from the time the partners began living together (either the beginning of the cohabitation or marriage if never cohabited), to the time of conception.

Higher education includes 0) no degree, 1) secondary school (National certificate levels 1-4), 2) Diploma below Bachelor level, trade certificate or National Certificate levels 5 or 6, 3) Bachelor's degree, 4) Bachelor's degree with honours, Master's degree, or PhD. Employment status is either employed or not employed, which includes unemployed, student, or not in labor force. Income is measured by a variable asking 'In the last 12 months what was your total income, before tax or anything else was taken out of it? Please include your personal income in this total'. Response ranges in NZ dollars include 1) <$30,000, 2) $30,001-$50,000, 3) $50,001-$70,000, 4) $70,001-$100,000, 5) $100,001 or more.

Respondents were asked to give the ethnic group with which they most identified, and these were subsequently grouped into panethnic categories. These groups included 1) New Zealand European, 2) Māori, 3) Pacific Islander (including Samoan, Cook Islands Maori, Tongan, Niuean, Tokelauan, Fijian, Fijian Indian, and other Pacific peoples, 4) Asian (including Indian, Sri Lankan, Chinese, Korean, Japanese, Filipino, Cambodian, Vietnamese, and other Asian, 5) Other (including Australian, European, Middle Eastern, Latin American, and African).

RESULTS

I begin by describing characteristics of first-time New Zealand mothers by age in Figures 2-4. I then compare mothers 32-36 and those 37+ to a comparison group of mothers 24-31 using chi-square and ANOVA tests, detailed in Table 1. The first set of characteristics focuses on the pregnancy and health. The number of unplanned pregnancies decreases steeply with age, seen in Figure 2, contrasting with the increase in the time to pregnancy and use of ART. Unexpectedly, reported good health also increases with age. Comparisons in Table 1 reveal that the pregnancy was planned by far more of all advanced-age mothers than the comparison mothers. All advanced-age mothers reported better health than the comparison mothers; this could reflect that only mothers with good health were able or

willing to be pregnant at this age, or perhaps that these mothers may have been consciously trying to improve or support their health with the goal of becoming pregnant and maintaining a healthy pregnancy. In several aspects, the 37+ mothers were distinguishable from mothers 32-36, as well as from mothers under 32. Of mothers with planned pregnancies, the very advanced-age mothers had taken the longest to become pregnant, expected as fecundity declines with age. Also as would be expected, over 30% of the 37+ group had used some form of assisted reproduction, more than double the number in the 32-36 group and well above the 5% in the comparison group.

Family structure also differs markedly by age, as seen in Figure 3, with the highest proportion married in the middle age range. Although the number with no partner drops for those in their mid-20's and older, the number rises again at the oldest ages. Comparisons given in Table 1 confirm that the oldest group had the largest number with no partner, as well as the smallest number who were married. Figure 4 clearly shows that education and income rise steeply with age, but fall somewhat for the oldest first-time mothers. This yields significant differences between the three groups of mothers, with all mothers mid-30's and over having higher educational qualifications, and mothers 32-36 having the highest incomes. Finally, Figure 5 shows ethnicity. Asian mothers are clustered in the mid-range of ages, contrasting with Māori and Pasifika mothers whose numbers decrease with increasing age, before rising again at the highest ages. Although most older mothers have a European-New Zealand ethnicity, a disproportionate number of the oldest mothers had a Pacific Island ethnicity.

DISCUSSION

This study provides an initial description of first-time mothers of advanced age in New Zealand. I found that New Zealand women who are postponing childbearing until their mid-30's are socioeconomically advantaged, with high levels of education and incomes. Most planned their pregnancies, and only 14% needed assisted reproduction. They are in good health and in coresidential relationships, and most identify as European-New Zealand ethnicity. Women who are having their first baby in their late 30's and early 40's are also in good health, but less socioeconomically advantaged. Although most pregnancies were planned, nearly one-third required assistance. Most women of this age have a coresident

partner, but more are unpartnered than are women in their mid-30's. Also, a disproportionate number of these very late first pregnancies are to women of Pacific Island ethnicity. My analysis also revealed that not all pregnancies at advanced ages are planned postponements, as just under 20% were unplanned.

These women in New Zealand fit in the larger picture of the developed world where women with higher education and incomes are planning their first children at a later age, but are often faced with difficulty becoming pregnant when they do so. As in New Zealand, first-time mothers of advanced age in Norway and Portugal are also mainly characterised by socioeconomic advantage, with a small group of more vulnerable mothers (Guedes & Canavarro 2014; Nilson et al. 2012). The countries are distinguished from one another in their pregnancy planning. Advanced-age mothers in Norway and Portugal were no different from the comparison group in their pregnancy planning (Guedes & Canavarro 2014; Nilson et al. 2012). By contrast, in New Zealand far more of the advanced-age mothers planned their pregnancies than did the comparison group.

In New Zealand, the oldest group of mothers appears to be facing particular challenges and may require awareness and intervention. Understanding these first-time mothers of advanced age can help in targeting public health messages, as well as assisting medical professionals working with pregnant women and new parents.

REFERENCES

Balbo, N., Billari, F. C. & Mills, M (2013). Fertility in advanced societies: a review of research, *European Journal of Population, 29*(1), 1-38.

Cooke, A., Mills, T. A. & Lavender, T. (2012). Advanced maternal age: delayed childbearing is rarely a conscious choice. A qualitative study of women's views and experiences, *International Journal of Nursing Studies, 49*(1), 30-39.

Families Commission. (2014). *Families and whānau status report 2014*. Families Commission.

Guedes, M. & Canavarro, M. C. (2014). Characteristics of primiparous women of advanced age and their partners: A homogenous or heterogeneous group? *Birth, 41*, 46-55.

Hammarberg, K. & Clarke, V. E. (2005). Reasons for delaying childbearing: A survey of women aged over 35 years seeking assisted reproductive technology. *Australian Family Physician, 34*, 187-206.

Kippen, R. (2006). The rise of the older mother, *People and Place, 14*(3), 1-11.

MacPherson, L. (2014). *Births and Deaths: Year ended December 2013.* Statistics NZ.

Mills, M., Rindfuss, R. R., McDonald, P. & te Velde, E. (2011). Why do people postpone parenthood? Reasons and social policy incentives, *Human Reproduction Update, 17*(6), 848-860.

Mintziori, G., Lambrinoudaki, I., Kolibianakis, E. M., Ceausu, I., Depypere, H., Erel, C. T., Pérez-López, F. R., Schenck-Gustafsson, K., van der Schouw, Y. T., Simoncini, T., Tremollieres, F., Tarlatzis, B. C., Rees, M. & Goulis, D. G. (2013). EMAS position statement: late parenthood, *Maturitas, 76*(1), 200-204.

Morton, S.M.B., Carr, P. E. A., Grant, C.C., Robinson, E. M., Bandara, D. K., Bird, A., Ivory, V. C., Kingi, T.K.R., Liang, R., Marks, E.J., Perese, L. M., Peterson, E.R., Pryor, J., Reese, E., Schmidt, J.M., Waldie, K. E., & Wall, C. (2012). Cohort profile: Growing Up in New Zealand. *International Journal of Epidemiology*, doi:10.1093/ije/dyr206

Nilson, A. B. V., Waldenstrom, U., Hjelmsted, A., Rasmussen, S., & Schytt, E. (2012). Characteristics of women who are pregnant with their first baby at an advanced age. *Acta Obstetricia et Gynecologica Scandinavica, 91*, 353-362.

Schmidt, L., Sobotka, T., Bentzen, J. G. & Nyboe Andersen, A. (2012). Demographic and medical consequences of the postponement of parenthood, *Human Reproduction Update, 18*(1), 29-43.

World Economic Forum. (2014). *The global gender gap report 2014.* World Economic Forum.

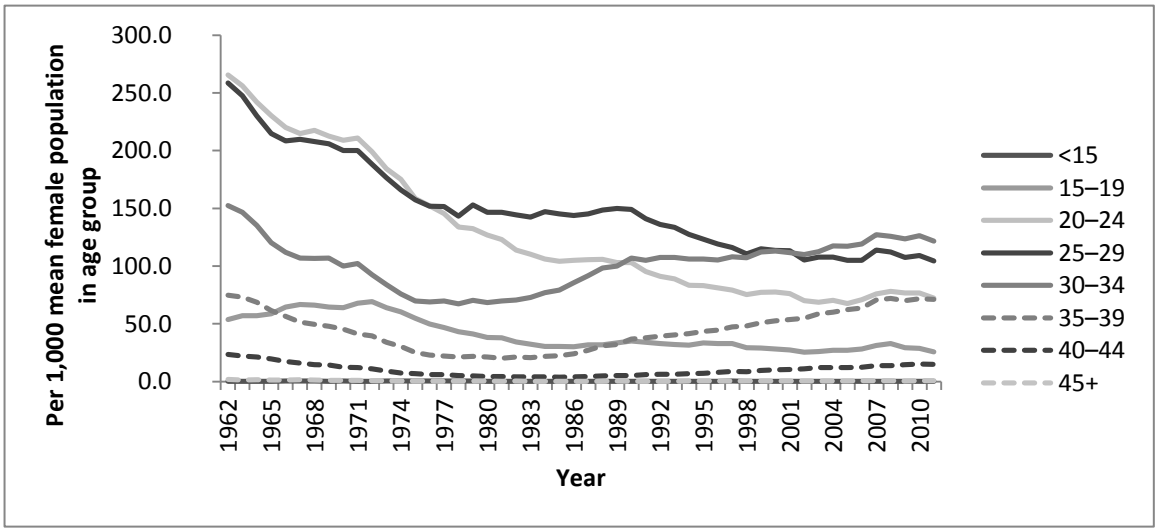
Table 1: Age Group Comparisons of First-Time Mother Characteristics

	24-31	32-26	37+	X^2/ANOVA
Pregnancy				
Unplanned	36	19	16	***
Planned unassisted	65	67	54	
ART	5	14	30	
Time to become pregnant (months)[1]				***
Mean (SD)	6.5 (10.3)	9.7 (14.7)	20.2 (21.6)	
Health very good (%)	58	74	69	***
Relationship type (%)				
No partner or dating	6	4	8	***
Cohabiting	23	29	38	
Married	71	68	55	
Relationship length (years)[2]				
<1 year	30	22	24	***
1-4 years	45	42	38	
≥5 years	26	36	38	
Education (%)				
No degree or secondary school	20	14	17	***
Diploma below Bachelor level	30	22	28	
Bachelor's degree	32	32	24	
BA honours or postgraduate	17	32	32	
Employed	69	83	80	***
Income (%)				
<$30,000	44	25	31	***
$30,001-$50,000	28	18	16	
$50,001-$70,000	19	24	23	
$70,001-$100,000	8	22	16	
$100,001 or more	1	11	13	
Ethnicity (%)				
New Zealand European	52	74	71	***
Māori	9	4	7	
Pacific Islander	8	2	8	
Asian	27	15	12	
Other	4	5	4	
N (% of total sample)	1238 (57%)	678 (31%)	241 (11%)	

Note: 2,468 first-time mothers in the Growing Up in New Zealand antenatal sample.

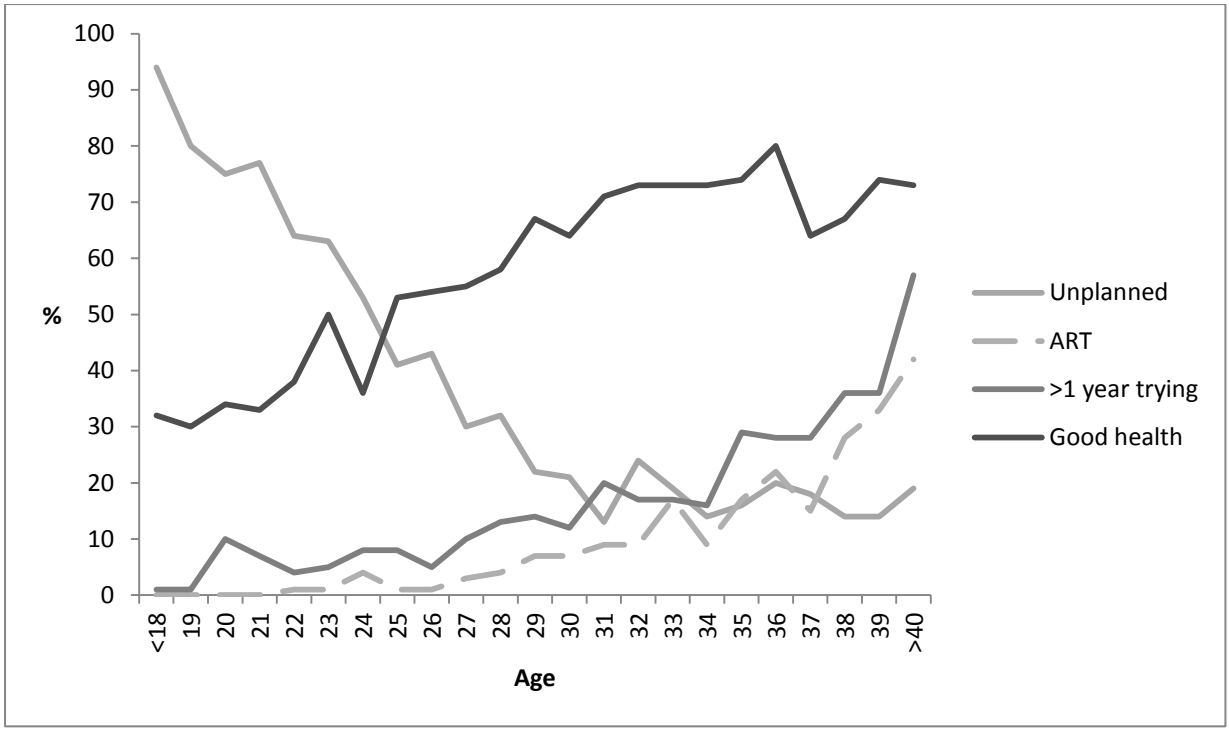
[1] If planned; [2] If cohabiting/married, length at conception

***=p<.001



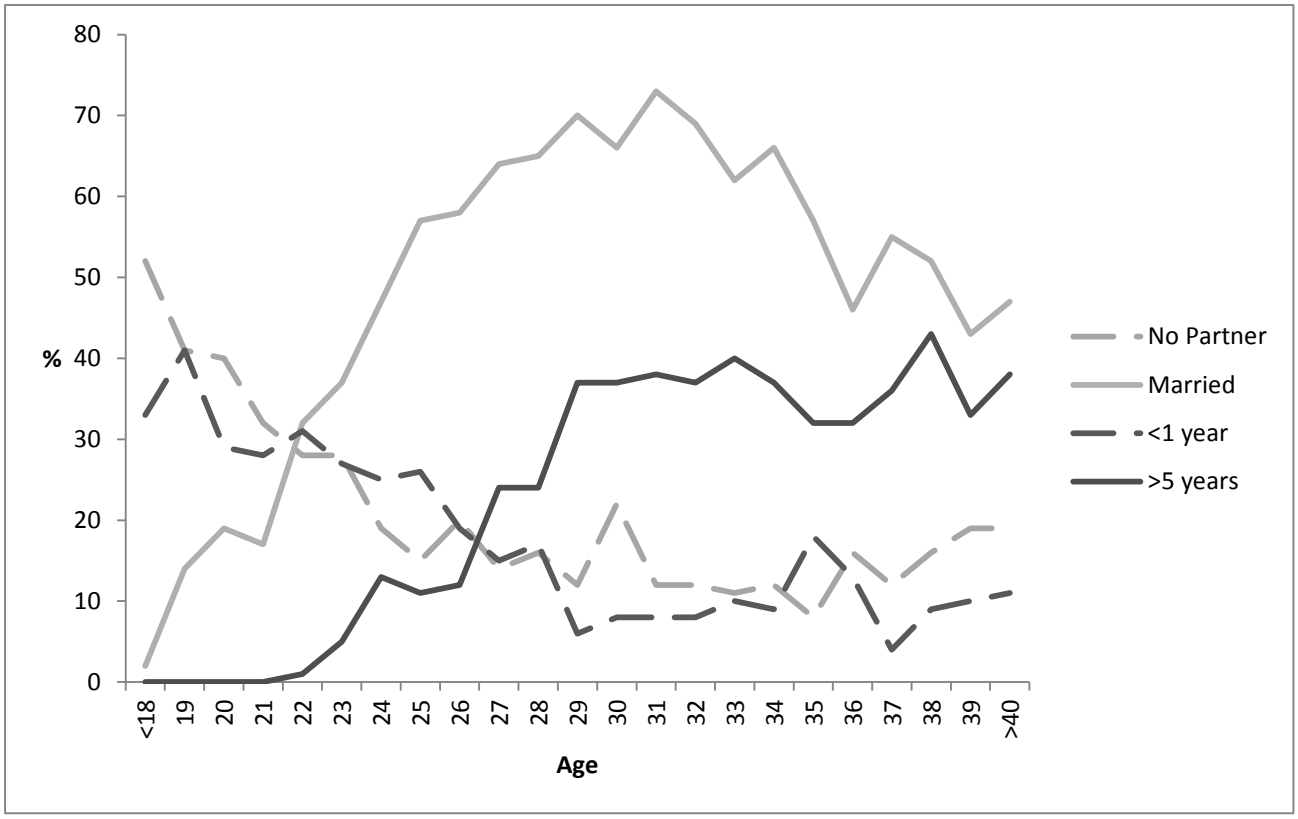
Source: Statistics New Zealand data from MacPherson, L. (2014), author figure

Figure 1: Age-specific fertility rates 1962-2011 for New Zealand



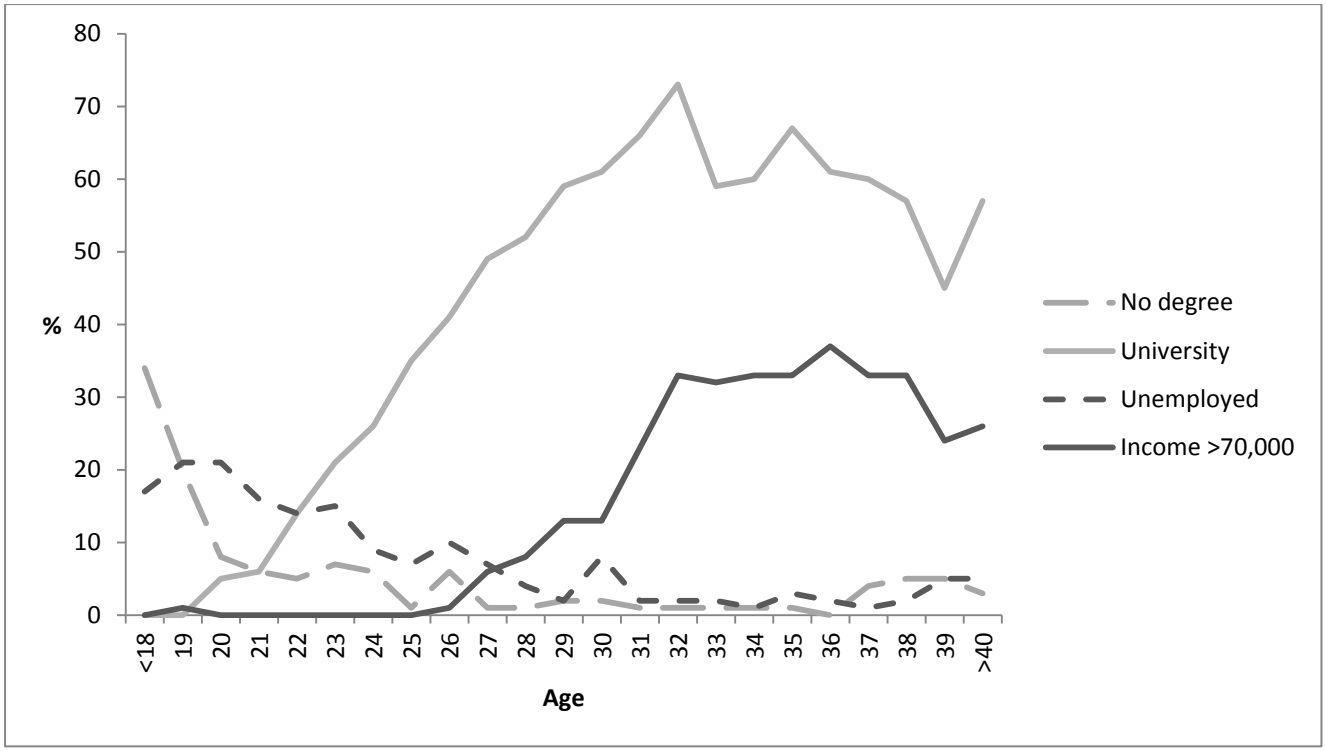
Data: 2,850 first-time mothers in the Growing Up in New Zealand antenatal survey

Figure 2: Pregnancy and Health of New Zealand First-Time Mothers by Age



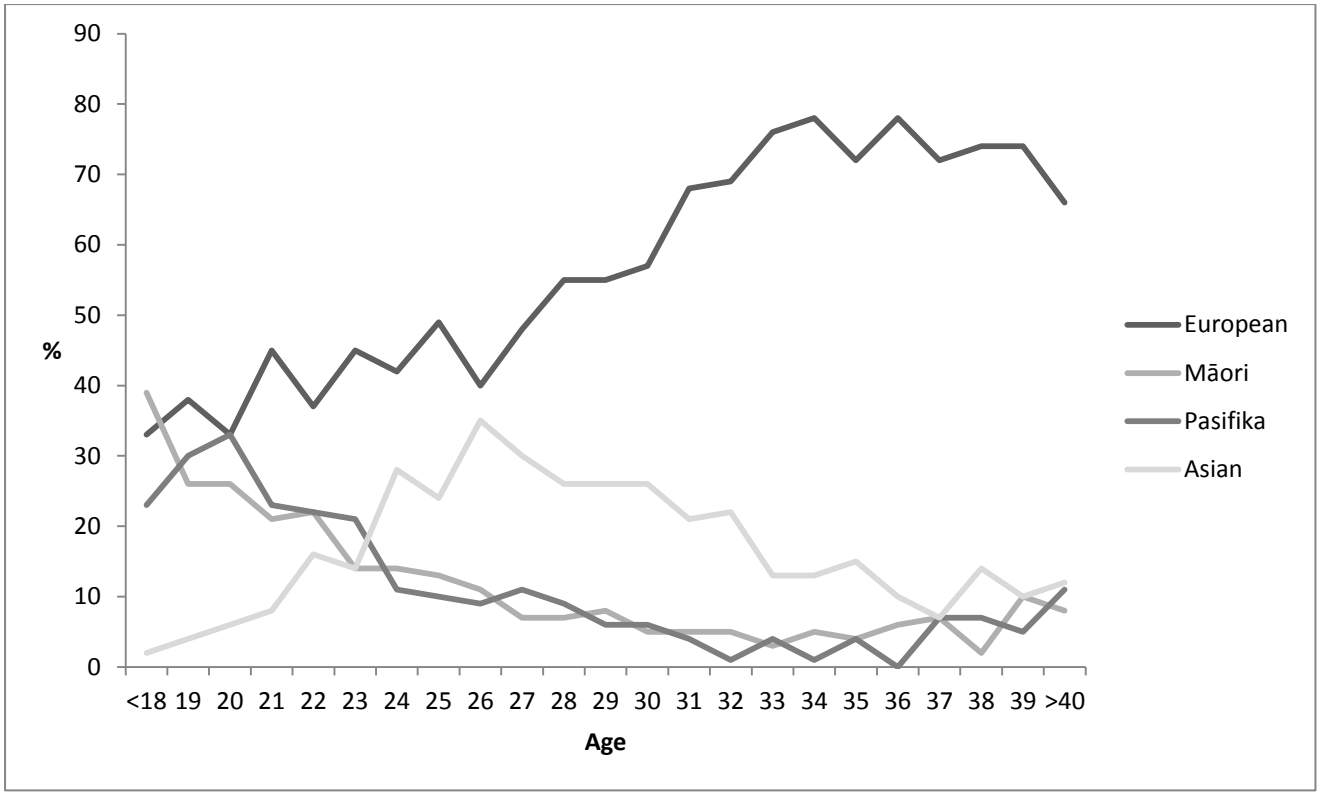
Data: 2,850 first-time mothers in the Growing Up in New Zealand antenatal survey

Figure 3: Family Structure of New Zealand First-Time Mothers by Age



Data: 2,850 first-time mothers in the Growing Up in New Zealand antenatal survey

Figure 4: Education and Income of New Zealand First-Time Mothers by Age



Data: 2,850 first-time mothers in the Growing Up in New Zealand antenatal survey

Figure 5: Ethnicity of New Zealand First-Time Mothers by Age