

# Identification of Aboriginal and Torres Strait Islander women using an urban obstetric hospital

LISA R JACKSON PULVER, ALISON BUSH  
AND JEANETTE WARD

Lisa R Jackson Pulver MPH Grad Dip App Epi Senior Lecturer,  
Indigenous Health, School of Public Health and Community Medicine, UNSW.

Alison Bush AO FRANZCOG (Hon) Clinical Nurse Consultant,

Aboriginal Midwife Liaison Consultant, RPA Mothers and Babies Hospital.

Jeanette Ward MBBS MHPed PhD FAFPHM Area Director, Division of Population  
Health, South Western Area Health Service & Conjoint Professor in Public Health, UNSW.

## Abstract

**Objectives:** To determine the accuracy of routine identification of Aboriginal and Torres Strait Islander women confining at King George V (KGV) Hospital, located in Sydney, Australia.

**Design:** Interviewer-administered survey.

**Participants:** Consecutive sample of women who delivered live, well infants from May to July 1999.

**Main Outcome Measure:** Comparison of hospital documentation compared with confidential self-disclosure of Aboriginal or Torres Strait Islander status to a female Aboriginal health professional.

**Results:** Of 536 women in our sample, 29 (5%) self-disclosed as being Aboriginal or Torres Strait Islander. Only 10 of these were identified as Aboriginal or Torres Strait Islander in hospital records ( $p < 0.001$ ). While specificity as determined by us was 100%, sensitivity was low (34.5%). Those Aboriginal and Torres Strait Islander women referred by another organisation were significantly more likely than those who self-referred to the hospital to be correctly identified ( $p = 0.011$ ). Only 1% of non-Aboriginal women indicated they would have objected to an explicit question by staff about their Aboriginal or Torres Strait Islander status.

**Conclusions:** Routine identification significantly under-represents Aboriginal or Torres Strait Islander women giving birth at an urban obstetric hospital. We recommend the development and use of a sensitive but also specific series of questions to ensure women always are given the opportunity to disclose their status, especially as few women appear to mind such questions.

## Introduction

It is widely acknowledged that there is an under-estimation of the population of Aboriginal and Torres Strait Islander people in most data collections.<sup>1-4, 7,10</sup> Best estimates suggest the Aboriginal and Torres Strait Islander population of Australia in 1996, at 386,049 people, accounted for 2.1% of the total population.<sup>1</sup> Of these, there were 93,405 women aged 15 to 44 years.<sup>1</sup> From 1994 to 1996, there were 23,214 babies born to 22,996 mothers identified as Aboriginal and Torres Strait Islander.<sup>2</sup>

There is a higher proportion of low birth-weight babies born of women identified as Aboriginal and Torres Strait Islander compared with those of non-indigenous women (namely 12.4% compared with 6.2%).<sup>2</sup> Furthermore, the mean birth-weight of babies born to mothers identified as Aboriginal and Torres Strait Islander (3149g)<sup>2</sup> is significantly less than the mean birth-weight of babies born to other women (3365g).<sup>2</sup> Fetal deaths, neo-natal and peri-natal deaths are higher in mothers identified as Aboriginal and Torres Strait Islander compared with other women.<sup>2</sup> Ninety seven percent of all mothers identified as Aboriginal and Torres Strait Islander use public hospitals for birthing.<sup>2</sup>

The Chief Health Officer of NSW has acknowledged under-reporting of Aboriginal and Torres Strait Islander status in hospital data, further commenting that hospital staff are reluctant to ask patients if they are Aboriginal or Torres Strait Islanders.<sup>3</sup> Further, some Aboriginal and Torres Strait Islander patients may fear discrimination and poorer treatment if they self-identify their status.<sup>4</sup>

While the identification of Aboriginal and Torres Strait Islander women is especially pertinent in obstetrics, we found only one published study exploring this issue. In this research, focus groups were conducted with 54 Victorian midwives. Participants reported asking only those women who 'looked Aboriginal' about their Aboriginal or Torres Strait Islander status.<sup>5</sup> These midwives felt uncomfortable asking about Aboriginality because they perceived that women, whether Aboriginal, Torres Strait Islander or non-indigenous, felt 'ill at ease' when approached for this information.<sup>5</sup>

In the Central Sydney Area Health Service (CSAHS), the King George V (KGV) hospital provides secondary and tertiary services to women. We conducted this study to determine the accuracy of routine hospital documentation in identifying Aboriginal and Torres Strait Islander women confining at KGV.

## Method

Women who delivered live, well infants between May and July 1999 at KGV, and spoke sufficient English to give informed consent, were considered eligible for the study. Due to resource constraints, our interview could not be conducted in languages other than English. The Aboriginal Health & Medical Research Council Ethics Committee also required exclusion of any woman whose baby had died or was seriously ill. Each eligible woman was approached personally by LJP who first stated she was an Aboriginal Public Health Officer. Each woman was asked to participate in a study about her background and given an information sheet explaining the aims and method of our study. Women who agreed to participate signed a written consent form. LJP then asked consenting women if they were Aboriginal or Torres Strait Islander. All women also were asked to recall whether they were asked this or a similar question at the time they were admitted. We also asked whether they had noticed the self-nomination item on the admission form. Women who recalled being asked on admission about their Aboriginal or Torres Strait Islander status were requested to indicate if they had disclosed it either directly to staff or when completing admission their form. From week three, all women we interviewed also were asked 'Would you mind (or did you mind) being asked if you were Aboriginal or Torres Strait Islander by the admissions staff?' Non-indigenous women were thanked for their time, concluding with the question 'Would you like a copy of the final report when it becomes available?'

Aboriginal and Torres Strait Islander women were asked six questions in addition to those above. We asked those Aboriginal and Torres Strait Islander women who chose not to self-identify their reasons for not doing so. Women were asked if the present confinement was for their first child and whether they had any other children at the KGV Hospital. We asked about the method of referral to KGV Hospital and whether they were aware that there were Aboriginal and Torres Strait Islander staff working there. Women also were asked if they would feel more comfortable if there were more Aboriginal and Torres Strait Islander staff at the KGV hospital. Finally, each Aboriginal and Torres Strait Islander woman was asked if there were any comments she would like to make about her experiences. Aboriginal and Torres Strait Islander women also were asked if they wanted a copy of the final report when it became available.

This study was approved by the Ethics Review Committee of the Central Sydney Area Health Service. Ethical endorsement for this study and permission to publish our results was granted by the AH&MRC Ethics Committee.

## Data analysis

Self-reporting data from women was compared with an information sheet printed out daily by the medical records department. This sheet contained the names of each Aboriginal or Torres Strait Islander patient admitted to the hospital in the preceding 24 hours (midnight to midnight). Status as disclosed during LJP's interview was considered the 'gold standard'.

Descriptive statistics were undertaken using SPSS (Release 6.1). McNemar's  $\chi^2$  test was used to compare the proportion of women classified as Aboriginal and Torres Strait Islander by hospital documentation with self disclosed status. Pearson  $\chi^2$  was used to examine if women recalled being asked their Aboriginal or Torres Strait Islander status either by a staff member or on a form. Pearson  $\chi^2$  was also used to examine what proportion of women asked for a report of this study. Due to small cell sizes, Fishers exact test was used to determine any association between correct identification of Aboriginal and Torres Strait Islander status and method of referral to the Hospital. Fisher exact test also was used to examine whether Aboriginal and Torres Strait Islander status was correctly associated with women's views about the acceptability of a question about their status. We used Fishers exact test to examine for an association between method of referral and awareness of Aboriginal and Torres Strait Islander staff at the KGV. Sensitivity and specificity were calculated conventionally from a two-by-two table.

## Results

### *Identification of Aboriginal and Torres Strait Islander women*

Nine hundred and eleven women confined in the 12-week study period. Of these, 203 were ineligible: still births (n=10), neonatal deaths (n=2), critically ill baby (n=1) and insufficient English (n=190). Of the remaining 698, 168 women (24%) were discharged home before LJP could approach them. Of the 540 eligible women approached, only four declined to participate (response rate 99%).

Of the 536 women interviewed, 27 (5%) were Aboriginal and two (<1%) were Torres Strait Islanders. Thus, 29 (5.4% in total) women self disclosed they were Aboriginal or Torres Strait Islander. By contrast, the hospital had listed only 10 of these women as Aboriginal. None was identified as a Torres Strait Islander. Hence, we found significant under-reporting of Aboriginal and Torres Strait Islander women in routine documentation (McNemars  $\chi^2=17.1$ , df=1,  $p<0.001$ ). No non-Aboriginal or Torres Strait Islander woman was incorrectly identified by hospital documentation as being either Aboriginal or Torres Strait Islander.

Further, two (0.38%) of the non-Aboriginal women volunteered to LJP that their babies were Aboriginal.

### *Women's recall of and reactions to a question about Aboriginal and Torres Strait Islander status*

All 536 women were asked if they recalled any questions about their Aboriginal and Torres Strait Islander status. Seven of the 29 (24%) Aboriginal and Torres Strait Islander women compared with 38 of the 507 (7.4%) other women recalled such a question by staff (Pearson  $\chi^2=9.88$ , df=1,  $p=0.002$ ). While only five of the 29 (17%) Aboriginal and Torres Strait Islander women and 115 of the 507 (22.6%) other women recalled the self-nomination box on the admission form, this difference was not significant (17% versus 22.6%) (Pearson  $\chi^2=0.467$ , df=1,  $p=0.494$ ).

Two of those 19 Aboriginal and Torres Strait Islander women not identified on the hospital records recalled being asked either by a staff member about their Aboriginality (n=1) or noticed the self-nomination item on admission (n=1). Both declined to self-identify in response. By contrast, three of the women not identified on the records stated they had self-identified as being Aboriginal: two by indicating this on the form and another in response to a direct question by a staff member.

Responses of those 414 women interviewed during or after week three of the study who all were asked 'Would you mind (or did you mind) being asked if you were Aboriginal or Torres Strait Islander?' are summarised in Table One. Only 5 (1%) non-indigenous women would have minded being asked this question. There was no significant difference in the proportions of women according to their Aboriginal and Torres Strait Islander status

as to whether they would have objected to such as question (Fisher's Exact Test  $p=0.266$ ). The one Aboriginal and Torres Strait Islander woman who indicated that she would mind being asked had not been asked directly but recalled only the form requesting self-disclosure. She had chosen not to self-identify in this way, finding it unacceptable.

## **Other aspects of hospital care for Aboriginal and Torres Strait Islander women**

Each of the 29 Aboriginal and Torres Strait Islander women was asked the method of referral to KGV Hospital. Ten of these women had been referred by another organisation (Table Two). Of those ten, seven (70%) had been correctly identified by the KGV hospital as Aboriginal and Torres Strait Islander. Of the other 19 women who were self-referred to KGV, only three (16%) had been correctly identified as Aboriginal and Torres Strait Islander. Thus, Aboriginal and Torres Strait Islander women who were referred were significantly more likely than self-referred women to be correctly identified as Aboriginal and Torres Strait Islander people (Fisher's Exact Test  $p=0.011$ ).

Of those 14 Aboriginal and Torres Strait Islander women who had previously confined, only eight (57%) had had their previous children at the KGV Hospital. Of those eight women who had previously confined at the KGV, seven were aware there were Aboriginal and Torres Strait Islander staff at the hospital.

Only 21 (72%) Aboriginal and Torres Strait Islander women confined at the KGV Hospital were aware of the Aboriginal Midwife Liaison Consultant (AB) and other Aboriginal and Torres Strait Islander staff at the hospital. There was no difference in the proportion of women aware of this service between those who self-referred and those referred by another organisation (Fisher's exact test  $p=0.68$ ).

Nineteen (66%) Aboriginal and Torres Strait Islander women responded that they would feel more comfortable if there were more Aboriginal and Torres Strait Islander staff at the hospital.

## **Women's interest in a report of the research findings**

Significantly more ( $n=18$ ) (62%) Aboriginal and Torres Strait Islander than non-Aboriginal women ( $n=67$ ) (13%) stated they wanted a report of the study (Pearson  $\chi^2=49.1$ ,  $df=1$ ,  $p<0.001$ ).

## **Discussion**

While our use of a confidential interview by an Aboriginal researcher to determine Aboriginal or Torres Strait Islander status was methodologically innovative, we acknowledge potential bias arising from inclusion in our sample only of women who had delivered live, well infants and those who could speak sufficient English for informed consent. It is virtually certain that Aboriginal or Torres Strait Islander women would have been over-represented among women meeting these criteria for ineligibility. However, it was not possible to interrogate available databases to examine systematic bias in our sample. Nonetheless, the fact that almost all women approached by LJP agreed to participate strengthens our confidence in the internal validity of our study.

Having obtained a unique 'gold standard' against which to compare the accuracy of routine hospital identification in an urban obstetric hospital, we were disappointed to find significant under-reporting of Aboriginal and Torres Strait Islander women. Our results reveal useful strategies to improve identification. For example, having found that women transferred to the hospital were significantly more likely to be correctly identified as Aboriginal and Torres Strait Islander compared with those women who self-referred, we conclude staff currently rely on 'clues' from transfer documentation to identify Aboriginal or Torres Strait Islander women. Furthermore, three of the Aboriginal women recalled that they had self identified either directly to (non-Aboriginal) staff or on their admission form as being Aboriginal yet their status did not appear on the computer-generated list available to ward staff, the Aboriginal Midwife Liaison Consultant or other Aboriginal and Torres Strait Islander support officers at the time of confinement.

We also discovered that, at KGV, Aboriginal and Torres Strait Islander status on hospital databases is a 'forced field'. Therefore, any person entering information on admission must complete this item. However, this item subsequently defaults to 'blank' following the current confinement. This means that those women who have had previous children at KGV and have been identified as Aboriginal and Torres Strait Islander are not automatically recorded as such in subsequent admissions. Other information, such as date of birth, family name and previous admissions remains in the database. This inadvertent inconsistency may be compounding poor identification.

Our results show that two thirds of the Aboriginal and Torres Strait Islander women would feel more comfortable if there were more Aboriginal and Torres Strait Islander staff working at the hospital. Employment of Aboriginal and Torres Strait Islander people in the provision of health care has been recommended in the 1994 National Aboriginal and Torres Strait Islander survey<sup>7</sup> and is being supported in NSW through a state-wide Employment Strategy.<sup>7</sup> It will be important however also to ensure that all Aboriginal and Torres Strait Islander women are informed of the presence of such staff.

In 1998, the NSW Government stated that 'mainstream services must become responsive to the needs of Aboriginal people'.<sup>8</sup> Better provision of responsive care first necessitates accurate identification of Aboriginal and Torres Strait Islander patients in all health care facilities. Development of the *Better Practice Guidelines to Improve the Level of Aboriginal and Torres Strait Islander Identification in the NSW Public Health System*<sup>9</sup> anticipates improvements in the accuracy of identification. In addition, the Commonwealth has initiated a project by the Aboriginal and Torres Strait Islander Health Information Plan and the Australian Institute of Health and Welfare called '*This time, let's make it happen*'<sup>10</sup>. This initiative recommends:

1. Adopting the standard question 'Are you of Aboriginal or Torres Strait Islander origin?' during routine data collection.
2. Providing training and support for data collectors, making them aware of the importance of asking questions about Aboriginal and Torres Strait Islander status.
3. Raising public awareness of the issue.
4. Assessing the accuracy of the data being collected.

Interestingly, the majority of non-Aboriginal women in our study stated they would not have minded if they had been asked if they were Aboriginal and Torres Strait Islander. Hopefully, the Commonwealth initiative should receive strong support by hospitals and Area Health Services in New South Wales. In particular, concerns demonstrated in previous research that non-Aboriginal women would object to such a question<sup>3</sup> can now be appeased.

Unless proactive strategies are taken, continued reliance on previous approaches to identify Aboriginal and Torres Strait Islander women will continue to significantly under-represent the numbers of Aboriginal and Torres Strait Islander women using urban obstetric hospitals. The development and use of a standardised series of questions would ensure all women are given the opportunity to disclose their status, especially since few women appear to mind such a question. Another survey such as ours in the future could evaluate objectively the impact of specific strategies to ensure more accurate identification of Aboriginal and Torres Strait Islander women.

**Table 1: Identification of Aboriginal and Torres Strait Islander women**

Hospital Identification	Status (Gold Standard)		Total
	Aboriginal and Torres Strait Islander	Non-Aboriginal	
Yes	10	0	10
No	19	507	526
	29	507	536

**Table 2: Women’s responses to the question ‘Would you mind (or did you mind) being asked if you were Aboriginal or Torres Strait Islander?’ (n=420\*)**

Aboriginal and Torres Strait Islander women		
Yes	1	(5%)
No	20	(95%)
Non-Aboriginal women		
Yes	5	(1%)
No	394	(99%)

\* Women interviewed from weeks three to 12 were asked this question

**Table 3: Mode of referral to the KGV**

	Number of women	n (%) recorded as Aboriginal and Torres Strait Islander
Self-referral	19	3 (16%)
Referral by another organisation	10	7 (70%)
Aboriginal Medical Service Redfern	5	4
Air Ambulance or Care flight	3	2
Road ambulance	1	0
Transfer from another urban hospital	1	1

Acknowledgements

We thank the generosity of all women who agreed to participate in our study, in particular the Aboriginal and Torres Strait Islander women for sharing part of their stories; ward staff of 6 South, 7 North, 11 North and South as well as the staff of the front desk of the KGV Hospital for providing the daily summary sheets; Ms Val Smith and Dr Andrew Child for organisational support and Mr Neil Donnelly for statistical advice.

This research was conducted while the first author was completing the NSW Health Department Public Health Officer Training Program at the Needs Assessment Health Outcomes Unit, CSAHS and doctoral studies at the Department of Public Health and Community Medicine, University of Sydney.

There are no competing interests to this study to declare.

References

Australian Bureau of Statistics (ABS). *Experimental Estimates of the Australian Aboriginal and Torres Strait Islander Population, 30 June 1991 to 30 June 1996*. ABS Cat. No. 3230.0. Canberra: Australian Government Publishing Service. 1998.

Day P, Sullivan EA, Lancaster P 1999. *Indigenous mothers and their babies Australia 1994-1996. AIHW Cat. No. PER 9*. Sydney: Australian Institute of Health and Welfare National Perinatal Statistics Unit (Perinatal Statistics Series No. 8).

Public Health Division. *The Health of the People of New South Wales - Report of the Chief Health Officer*. NSW Health Department, Sydney, 2000.

Public Health Division. *The Health of the People of New South Wales - Report of the Chief Health Officer*. NSW Health Department, Sydney, 1997.

Robertson H, Lumley J, Berg S. How midwives identify women as Aboriginal or Torres Strait Islanders. *J Aust Coll Midwives*. 1995 Feb; 8(3): 26-9.

Australian Bureau of Statistics (ABS). *1994 National Aboriginal and Torres Strait Islander Survey: New South Wales*. ABS Cat No 4190.1 Canberra: Government Publishing Service. 1994.

NSW Department of Health. *NSW Department of Health Employment Strategy for the year 2000 and beyond*. 1998. Sydney.

The NSW Government Statement of Commitment to Aboriginal People, November 1997.

NSW Department of Health. *Better Practice Guidelines to Improve the Level of Aboriginal and Torres Strait Islander Identification in the NSW Public Health System*. NSW Health Department, Sydney 2000.

The National Centre for Aboriginal and Torres Strait Islander Statistics. *Collecting Indigenous Status for Data Collectors in Health Services*. Darwin: Australian Bureau of Statistics. 1999.