

EVALUATION OF PAP TESTS COLLECTED BY NURSES IN VICTORIA DURING 2010

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1. Number of Pap tests collected by nurses

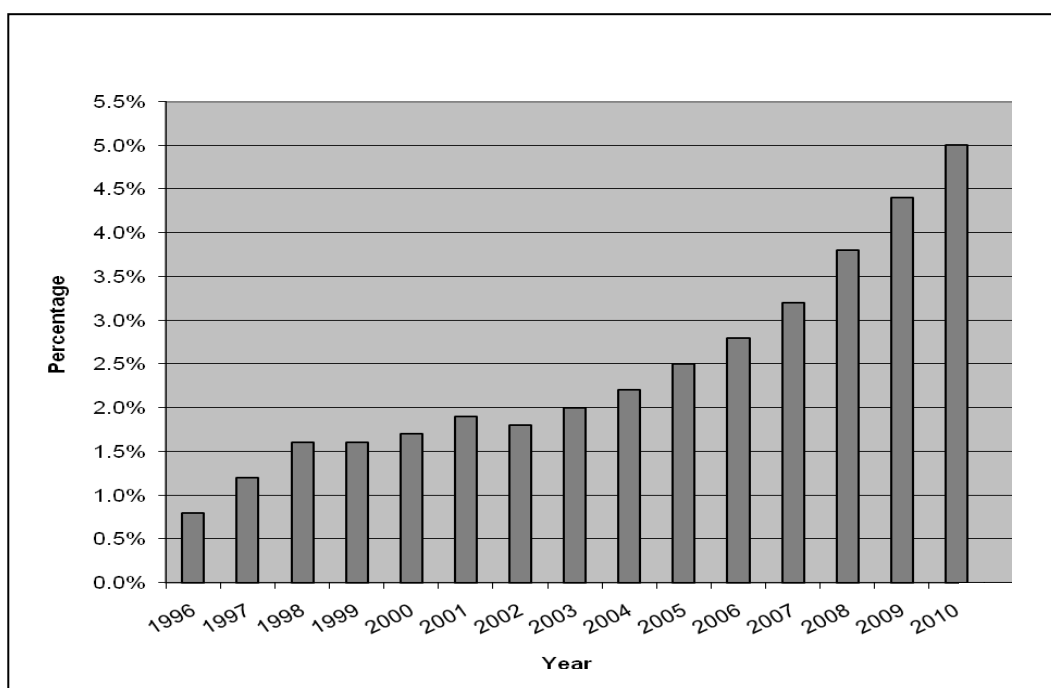
As known to the Victorian Cervical Cytology Registry (VCCR) a total of 28,546 Pap tests were collected by nurses during 2010 (with 28,203 being from women with a cervix). This is out of a total of 573,822 Victorian Pap tests for 2010 (with 564,374 being from women with a cervix). The Registry is only able to include data on Pap tests where nurses are credentialled and funded by the Department of Health to be eligible for their own 'practice number' at the Victorian Cytology Service.

The number of tests collected by nurses represents 5.0% of all Victorian Pap tests collected during 2010. Over the last fifteen years, the number and proportion of Pap tests collected by nurses has increased more than five times, as shown in Table 1.1 and Figure 1.1.

Table 1.1 Number of Pap tests collected by nurses in Victoria

Year	Number of Pap tests collected by nurses	% of all Victorian Pap tests
2010	28,546	5.0%
2009	25,594	4.4%
2008	21,668	3.8%
2007	18,651	3.2%
2006	16,035	2.8%
2005	14,375	2.5%
2004	13,100	2.2%
2003	11,494	2.0%
2002	10,635	1.8%
2001	11,017	1.9%
2000	9,628	1.7%
1999	9,922	1.6%
1998	9,858	1.6%
1997	7,155	1.2%
1996	5,170	0.8%

Figure 1.1 Proportion of Pap tests collected by nurses in Victoria



2. Post-hysterectomy tests

Three hundred and forty three Pap tests collected by nurses during 2010 were taken from women whose records indicate they have had a hysterectomy. This represents 1.2% of tests collected by nurses during 2010. Amongst other Victorian provider types, 1.7% of Pap tests performed during 2010 were from women who have had a hysterectomy.

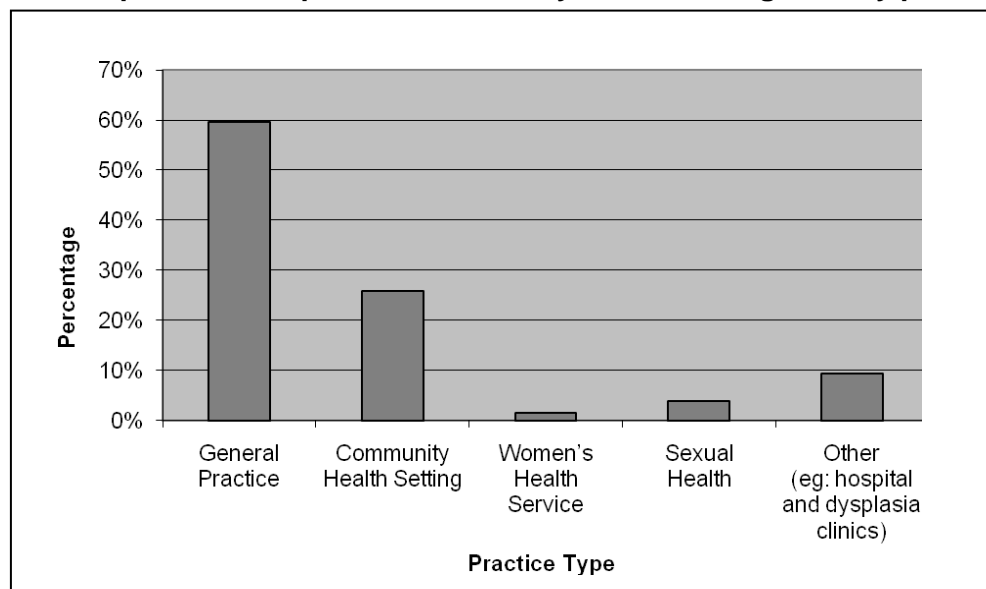
3. Type of practice for nurses

Of the Pap tests collected by nurses during 2010, the majority were conducted in General Practice or in a Community Health setting. The combined proportion of Pap tests collected in General Practice or a Community Health Setting increased from 83.2% in 2009 (data not shown) to 85.3% in 2010.

Table 3.1 Number of Pap tests collected by nurses during 2010 by practice type

Practice type	Number of practices	Number of nurses at each practice type ¹	Number of smears by nurses during 2010	% of smears by practice type
General Practice	153	158	16,997	59.5%
Community Health Setting	88	110	7,364	25.8%
Women's Health Service	5	6	408	1.4%
Sexual Health ²	6	43	1,096	3.9%
Other (eg: hospitals and dysplasia clinics)	21	33	2,681	9.4%
Total	273	350	28,546	100%

Figure 3.1 Proportion of Pap tests collected by nurses during 2010 by practice type



¹ For nurses who worked at more than one type of practice, their most common practice type was used.

² Sexual Health includes Melbourne Sexual Health Centre, Family Planning Victoria and the Action Centre.

4. Practice and woman location at time of Pap test

During 2010, the Registry recorded 350 credentialled nurses as having collected Pap tests. The geographical location of nurses (by practice) and the women whose Pap tests were collected by a nurse during 2010 are classified below using the Australian Standard Geographical Classification (ASGC) Remoteness Areas.

The ASGC Remoteness Areas classification was developed by the Australian Bureau of Statistics, and classifies Australia into large regions which share common characteristics of remoteness into broad geographical regions.

The ASGC Remoteness Areas classification divides Australia into five areas:

- Major Cities of Australia: includes most capital cities, as well as major urban areas.
- Inner Regional Australia: includes towns such as Hobart, Launceston, Noosa and Tamworth.
- Outer Regional Australia: includes towns and cities such as Darwin, Whyalla, Cairns and Gunnedah.
- Remote Australia: includes Alice Springs, Mount Isa and Esperance.
- Very Remote Australia: represents much of central and western Australia and includes towns such as Tennant Creek, Longreach and Coober Pedy³.

Table 4.1 Nurse practice and woman location at time of Pap test by Australian Standard Geographical Classification Remoteness Area⁴

ASGC Remoteness Area	Number (%) of nurses located in area ⁵	Number (%) of women at time of Pap test in area ⁶
Major Cities of Australia	156 (45.5%)	11,154 (39.6%)
Inner Regional Australia	130 (37.9%)	11,453 (40.6%)
Outer Regional Australia	56 (16.3%)	5,470 (19.4%)
Remote Australia	1 (0.3%)	101 (0.4%)
Very Remote Australia ⁷	0 (0.0%)	0 (0.0%)

Table 4.1 shows that the majority of nurses who collected Pap tests during 2010 were based in an major city or inner regional area, as were the women tested.

³ ABS Glossary of Statistical Geography Terminology. <http://www.abs.gov.au/ausstats/abs@.nsf/mf/1217.0.55.001> (accessed 2nd March 2011)

⁴ Postal Area to ASGC RA conversion file courtesy of the Australian Institute of Health and Welfare, February 2011.

⁵ The postal area for seven nurses could not be mapped.

⁶ The postal area for 368 Pap tests could not be mapped.

⁷ Very Remote Australia areas are not represented within Victoria.

5. Age distribution of women screened

The age distribution of the women whose Pap tests were collected by nurses is shown in the following table. A comparison of the age distribution for Victorian Pap tests collected by other provider types during 2010 is also provided. Table 5.1 shows that the aggregated percentage of Pap tests collected by nurses for women over the age of 50 years is greater than for tests collected by other provider types (38.9% compared with 30.7%).

Table 5.1 Age distribution of women screened in 2010

Age group	% of Pap tests collected by nurses	% of Pap tests collected by other provider types
<20 yrs	2.3%	1.9%
20-29 yrs	16.4%	19.9%
30-39 yrs	19.0%	24.3%
40-49 yrs	23.4%	23.2%
50-59 yrs	21.2%	18.1%
60-69 yrs	16.1%	11.1%
70+ yrs	1.6%	1.5%
Total	100%	100%

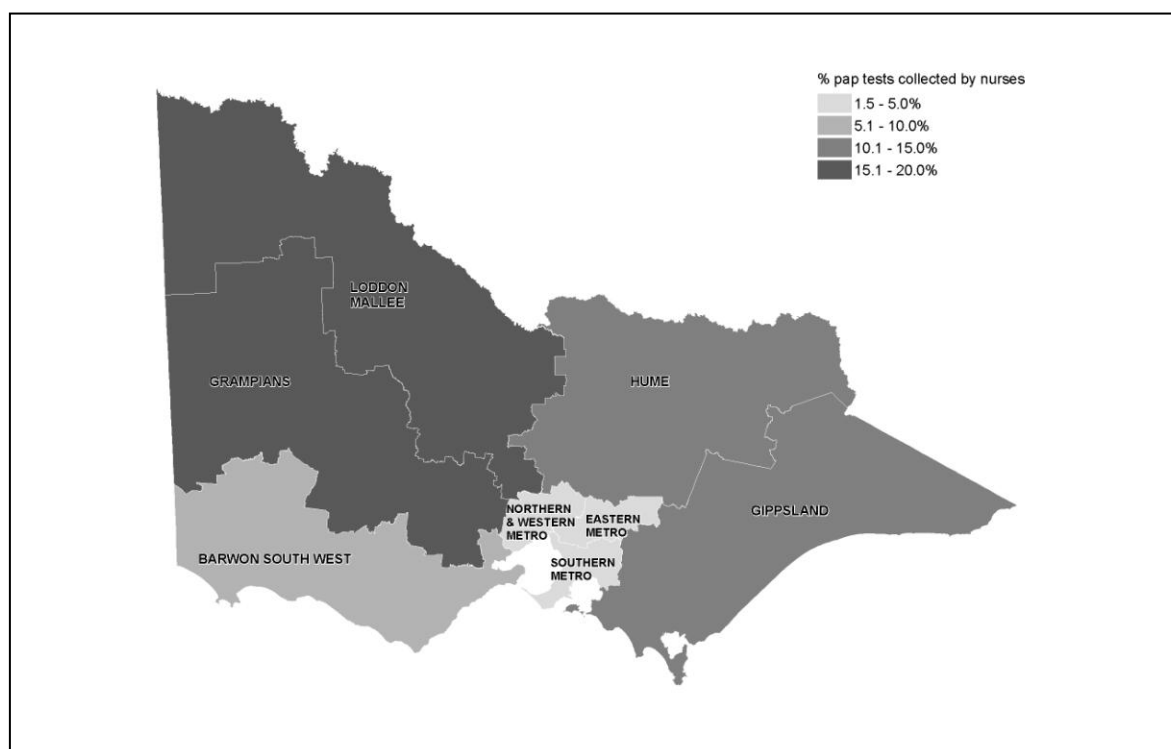
6. Proportion of Pap tests collected by nurses by DH region

Most Victorian postcodes are assigned to a region of the Victorian Department of Health (DH) (previously the Department of Human Services). Victoria is divided into eight regions, five in rural Victoria and three covering metropolitan Melbourne. The table below shows that nurses collected a higher proportion of Pap tests in rural regions than in metropolitan regions. The proportion of Pap tests collected by nurses also increased across most DH regions between 2009 and 2010, with the largest increases seen in the Grampians regions (4.5% increase) and Hume region (2.2% increase).

Table 6.1 Pap tests for women with a cervix collected by nurses by DH region

Region name	No. of Pap tests collected by nurses in 2010 ⁸	No. of nurses in each region in 2010 ⁹	% of Pap tests collected by nurses in 2010	% of Pap tests collected by nurses in 2009
Barwon South West	3,028	41	8.7%	7.8%
Eastern Metropolitan	1,554	24	1.5%	1.6%
Gippsland	2,683	30	11.5%	10.5%
Grampians	3,458	31	18.1%	13.6%
Hume	2,997	45	12.3%	10.1%
Loddon Mallee	5,417	50	19.2%	18.9%
Northern & Western Metropolitan	6,640	100	4.0%	3.5%
Southern Metropolitan	2,406	25	1.8%	1.5%

Figure 6.1 Proportion of Pap tests collected by nurses during 2010 by DH region



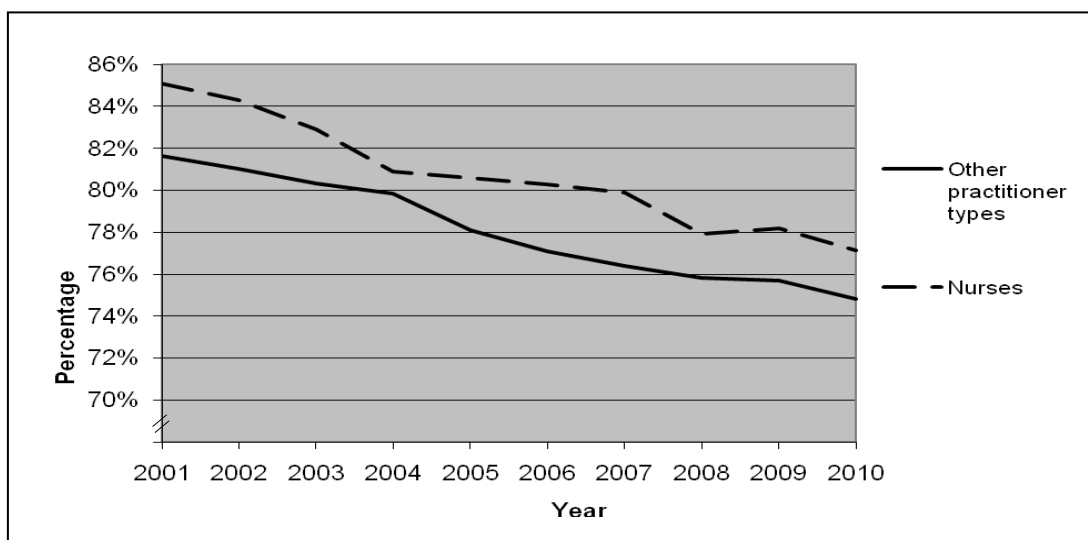
⁸ Excludes 343 post-hysterectomy Pap tests and 20 women where postcode was missing or not able to be matched.

⁹ Excludes four nurses whose postcode could not be matched.

7. Endocervical status

The presence of endocervical cells within a Pap test specimen is considered to be a reflection of smear quality. Of the technically satisfactory Pap tests collected from women with a cervix by nurses in 2010, 77.1% were reported as including an endocervical component. The proportion of Pap tests with an endocervical component for other provider types during the same time period is 74.8%. Figure 7.1 illustrates a decline in the proportion of Pap tests with an endocervical component over the last decade.

Figure 7.1 Proportion of Victorian Pap tests collected by nurses and other provider types with an endocervical component



8. Profile of Pap test reports for women with a cervix

Table 8.1 shows the Pap test report categories for tests collected by nurses and other provider types during 2010 for women with a cervix¹⁰. Compared with Victorian Pap tests collected by other provider types, nurses had a higher proportion of tests with a negative result and lower proportions for high grade, low grade and unsatisfactory tests.

Table 8.1 Profile of Pap test reports collected during 2010 for women with a cervix

Report category	Number (%) of Pap tests collected by nurses	% of Pap tests collected by other provider types ¹¹
High grade abnormality	154 (0.5%)	0.8%
Low grade abnormality	1,297 (4.6%)	4.8%
Inconclusive	219 (0.8%)	0.8%
Negative	26,090 (92.5%)	91.4%
Unsatisfactory	443 (1.6%)	2.2%
Total	28,203 (100%)	100%

¹⁰ Based only on the squamous cell code within the VCCR Cytology Code Schedule.

¹¹ This excludes Pap tests collected by nurses.

9. Time since previous screening for women with a cervix

The following table shows the length of time since any previous Pap test, as known to the Registry, for tests collected by nurses during 2010. Compared with Pap tests collected by other Victorian provider types, a higher proportion of Pap tests were collected by nurses where the time interval since the last test was greater than two years.

Table 9.1 Time since previous Pap test for women with a cervix

Time since previous test	Number (%) of Pap tests collected by nurses in 2010	% of Victorian Pap tests collected in 2010 by other provider types ¹²
No previous test	3,002 (10.6%)	10.9%
4 yrs +	2,749 (9.8%)	7.4%
3.5 to <4 yrs	641 (2.3%)	2.1%
3.0 to <3.5 yrs	1,201 (4.3%)	3.6%
2.5 to <3 yrs	2,747 (9.7%)	8.4%
2.0 to <2.5 yrs	11,087 (39.3%)	35.2%
1.5 to <2 yrs	2,900 (10.3%)	11.1%
1.0 to <1.5 yrs	2,226 (7.9%)	10.8%
0.5 to <1 yr	1,108 (3.9%)	6.1%
<0.5 yrs	542 (1.9%)	4.4%
Total	28,203 (100%)	100%

10. Recording Aboriginal and Torres Strait Islander status on pap tests

Improving participation of A&TSI women in cervical screening is a key objective of the Victorian Government's Cancer Action Plan. In the past, the cervical screening program has not collected data on A&TSI background of women, making it difficult to appropriately plan programs and services. Following a successful pilot conducted in 2008, the Victorian Cytology Service (VCS) has been working with Nurses Pap Test providers using VCS to collect information on A&TSI status on VCS pathology request forms on an ongoing basis. The new pathology request form includes a box to record A&TSI status in the standard nationally approved format:

- Aboriginal
- Torres Strait Islander
- Aboriginal and Torres Strait Islander
- Not Aboriginal or Torres Strait Islander

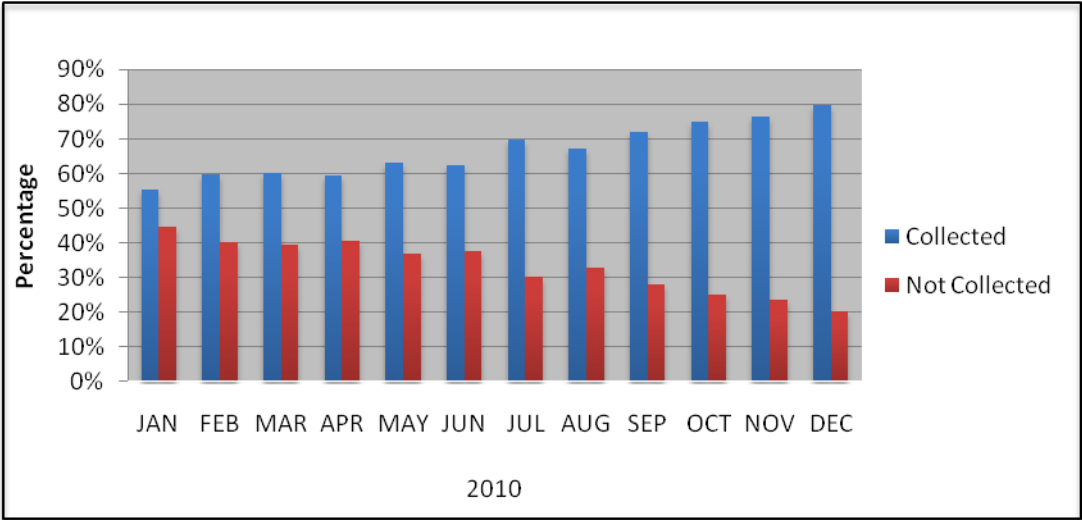
The Victorian Cervical Cytology Registry (VCCR) has been working with VCS to capture this information on the VCCR database and to facilitate provision of data from other pathology providers in the future. The VCCR database now records A&TSI status in the standard format where it is provided by the laboratory, and it is included on the VCCR website change of demographic details.

During 2010 there was a marked improvement in the recording of ATSI information as a proportion of Pap tests conducted by Nurses Pap test Providers during the course of the year, from 55.5% of tests to 79.6% of all tests. The overall percentage of tests for which A&TSI

¹² This excludes Pap tests collected by nurses.

status was recorded in 2010 was 67.4%. This improvement reflects the strong commitment of nurses involved in cervical screening, as well as the stakeholders involved in this project, particularly VCS and PapScreen Victoria.

Figure 10.1 Proportion of tests taken by Nurses Pap test providers using VCS for which A&TSI data was recorded, by month, Victoria 2010



11. Conclusion

During 2010 the number of tests collected by nurses increased to 28,546 which represents 5.0% of all Pap tests performed that year, continuing the trend observed in recent years with an increasing proportion of Pap tests collected by nurses in Victoria.

General Practice and Community Health Settings continue to remain the main practice types where nurses collect Pap tests.

The majority of nurses who collected Pap tests and Victorian women who had Pap tests collected by nurses during 2010 were located in major cities or inner regional remoteness areas.

Compared with other provider types, during 2010 nurses collected a higher proportion of tests from women over the age of 50 years. Within DH regions, nurses continue to collect a higher proportion of Pap tests in rural regions than in metropolitan regions. Although a downward trend has been observed, the proportion of tests with an endocervical component continues to be higher for nurses than other provider types.

The data in this report highlights the important role that nurses play in the Victorian Cervical Screening Program, particularly given the rising number of Pap tests collected by nurses in recent years.

12. References

Australian Bureau of Statistics, *Australian Standard Geographical Classification (ASGC) (cat no. 1216.0)*, July 2010.
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1216.0July%202010?OpenDocument>
(accessed 25th February 2011)