

EVALUATION OF PAP TESTS COLLECTED BY NURSES IN VICTORIA DURING 2009

Victorian Cervical Cytology Registry



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Registry

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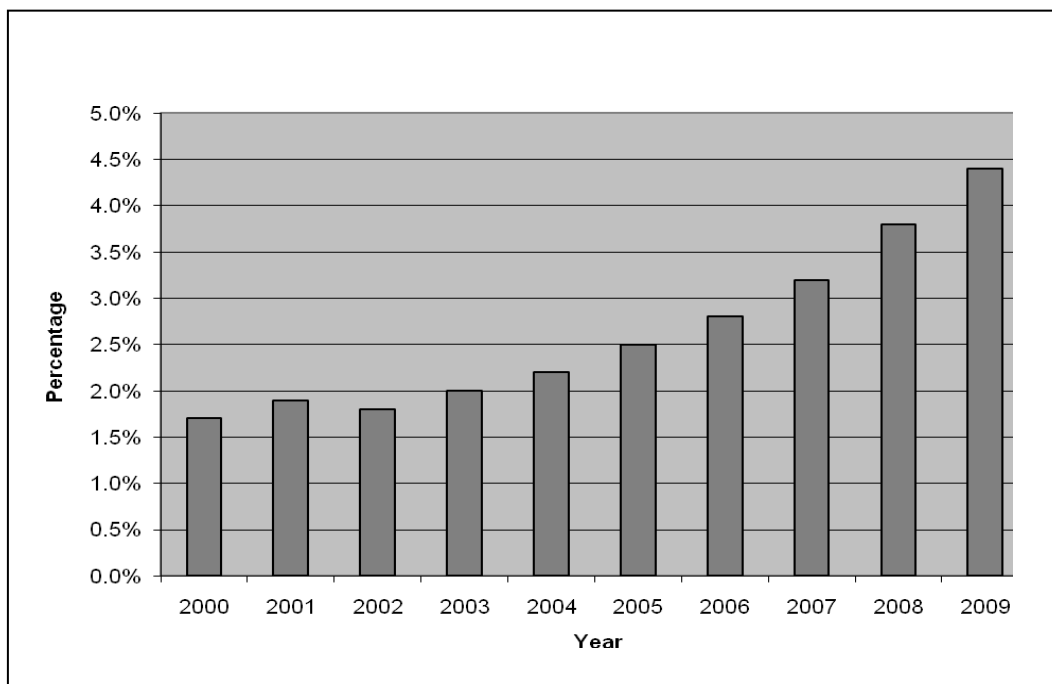
1. Number of Pap Tests Collected by Nurses

As known to the Victorian Cervical Cytology Registry (VCCR) a total of 25,594 Pap tests were collected by nurses during 2009 (with 25,252 being from women with a cervix). This is out of a total of 584,299 Victorian Pap tests for 2009 (with 574,409 being from women with a cervix). The number of tests collected by nurses represents 4.4% of all Victorian Pap tests collected in 2009. The following table shows comparison figures for earlier years. Over the last ten years, the number and proportion of Pap tests collected by nurses has increased by more than two and a half times.

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
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%

Figure 1.1 Proportion of Pap tests collected by nurses in Victoria



2. Post-Hysterectomy Tests

Three hundred and forty two Pap tests collected by nurses during 2009 were taken from women whose records indicate they have had a hysterectomy. This represents 1.3% of tests collected by nurses during 2009. Amongst other Victorian provider types, 1.7% of Pap tests performed during 2009 were from women who have had a hysterectomy.

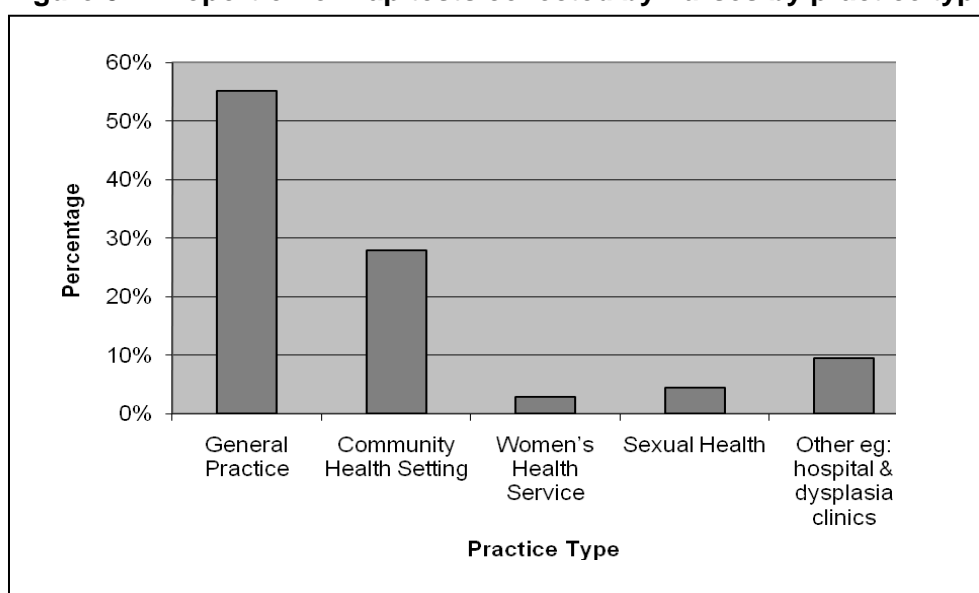
3. Type of Practice for Nurses

Of the Pap tests collected by nurses in 2009, 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 80.6% in 2008 (data not shown) to 83.2% in 2009.

Table 3.1 Number of Pap tests collected by nurses in 2009 by practice type

Practice type	Number of practices	Number of nurses at each practice type ¹	Number of smears taken in 2009 by nurses	% of smears by practice type
General Practice	133	139	14,123	55.2%
Community Health Setting	87	96	7,159	28.0%
Women's Health Service	5	6	743	2.9%
Sexual Health ²	5	41	1,133	4.4%
Other eg: hospital and dysplasia clinics	18	35	2,436	9.5%
Total	248	317	25,594	100%

Figure 3.1 Proportion of Pap tests collected by nurses 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. Location and Volume of Practice

During 2009, the Registry recorded 317 credentialed nurses as having collected Pap tests. The Registry is only able to include data on Pap tests where nurses are credentialed and funded by the Department of Health to be eligible for their own 'practice number' at the Victorian Cytology Service.

The volume of Pap tests collected by nurses in 2009, sub-classified by the practice location, is shown in the table below according to ARIA – the Accessibility/Remoteness Index of Australia. ARIA measures the remoteness of a location from service centres such as large towns and is considered to have a number of advantages compared with RRMA. ARIA has 5 classifications:

1. Highly Accessible – relatively unrestricted access to a wide range of goods and services and opportunities for social interaction.
2. Accessible – some restrictions to a wide range of goods and services and opportunities for social interaction.
3. Moderately Accessible – significantly restricted accessibility of goods, services and opportunities for social interaction.
4. Remote – very restricted accessibility of goods, services and opportunities for social interaction.
5. Very Remote – very little accessibility of goods, services and opportunities for social interaction.

Nurses who collected Pap tests in Victoria in 2009 have practice locations which belong to the first three categories. In the table below, the areas of Accessible and Moderately Accessible are merged due to smaller numbers.

Table 4.1 Nurse location and volume of Pap tests by ARIA classification³

Number of Pap tests collected in 2009	Number of nurses located in Highly Accessible areas (n= 250)	Number of nurses located in Accessible or Moderately Accessible areas (n= 66)
>200 tests	23 (9.2%)	6 (9.1%)
100-199 tests	40 (16.0%)	15 (22.7%)
50-99 tests	47 (18.8%)	19 (28.8%)
20-49 tests	48 (19.2%)	18 (27.2%)
10-19 tests	38 (15.2%)	4 (6.1%)
1-9 tests	54 (21.6%)	4 (6.1%)

The median number of tests collected during 2009 by nurses in Highly Accessible areas was 38 tests (range 1 - 522). For nurses working in other areas, the median number was 74 tests (range 2 - 795). Compared with 2008 data, the median is similar for nurses working in Highly Accessible areas and is higher in other areas (up from 58).

³ Excludes 1 nurse whose postcode could not be mapped.

5. Location of Women Screened

The location of residence of women whose Pap tests were collected by nurses in 2009 is shown in the following table. The ARIA classification of remoteness is also used for this data. The proportion of women who had a Pap test in 2009 in a Highly Accessible area was the same as that in 2008 (73.5%).

Table 5.1 Location of women by ARIA classification for Pap tests collected by nurses

Location by ARIA classification	Number (%) of women screened
Highly Accessible	18,812 (73.5%)
Accessible	4,916 (19.2%)
Moderately Accessible	1,844 (7.2%)
Remote	2 (<0.1%)
Not able to be determined ⁴	20 (0.1%)
Total	25,594 (100%)

6. 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 2009 is also provided. The table shows that the proportion of Pap tests collected by nurses for women over the age of 50 years is greater than for tests collected by other provider types (37.7% compared with 29.9%).

Table 6.1 Age distribution of women screened in 2009

Age group	% of Pap tests collected by nurses	% of Pap tests collected by other provider types
<20 yrs	2.5%	2.0%
20-29 yrs	16.2%	19.6%
30-39 yrs	20.2%	25.1%
40-49 yrs	23.4%	23.4%
50-59 yrs	20.6%	17.8%
60-69 yrs	15.4%	10.7%
70+ yrs	1.7%	1.4%
Total	100%	100%

⁴ Address for woman unavailable.

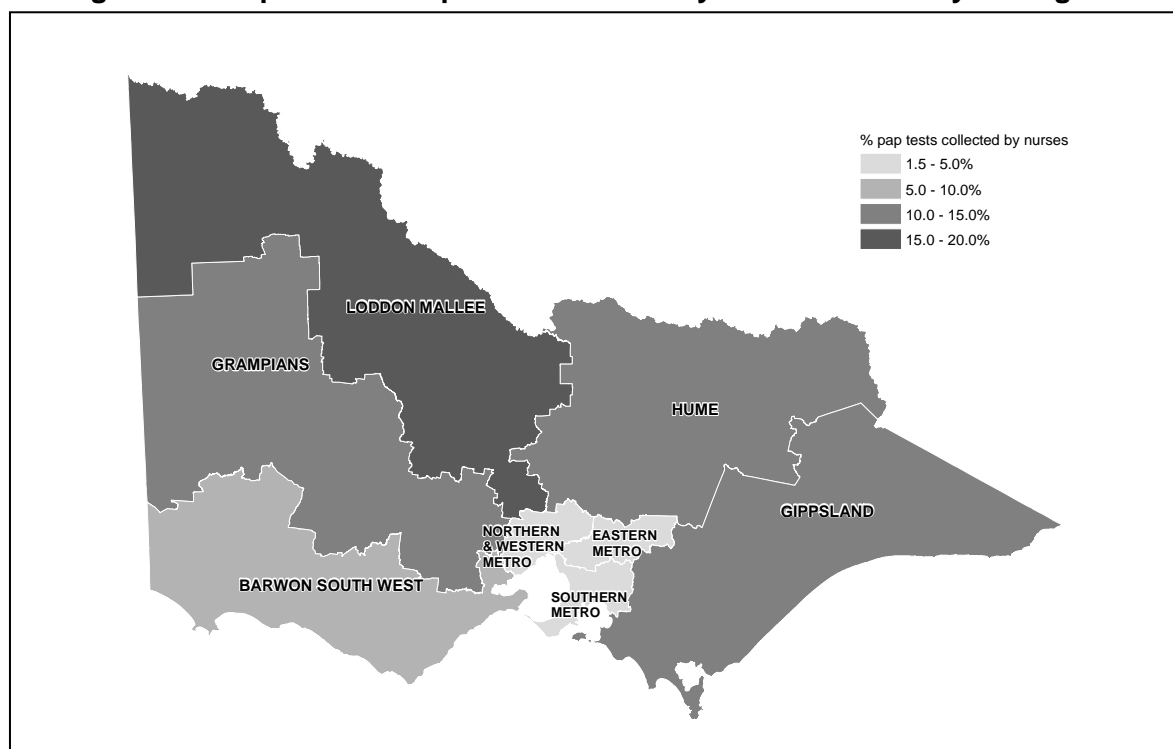
7. Proportion of Pap Tests Collected by Nurses by DH Regions

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 between 2008 and 2009 the proportion of Pap tests collected by nurses increased across all DH regions with the largest increases seen in rural regions; in particular the Grampians (2.8% increase), Hume (1.8% increase), Loddon Mallee (1.3% increase), Barwon South West (1.7% increase) and Gippsland (0.6% increase).

Table 7.1 Pap tests for women with a cervix collected by nurses by DH regions

Region name	No. of Pap tests collected by nurses in 2009 ⁵	No. of nurses in each region in 2009 ⁶	% of Pap tests collected by nurses in 2009	% of Pap tests collected by nurses in 2008
Barwon South West	2,748	31	7.8%	6.1%
Eastern Metropolitan	1,730	19	1.6%	1.2%
Gippsland	2,489	27	10.5%	9.9%
Grampians	2,559	30	13.6%	10.8%
Hume	2,489	35	10.1%	8.3%
Loddon Mallee	5,368	45	18.9%	17.6%
Northern & Western Metropolitan	5,776	103	3.5%	3.2%
Southern Metropolitan	2,081	23	1.5%	1.4%

Figure 7.1 Proportion of Pap tests collected by nurses in 2009 by DH regions



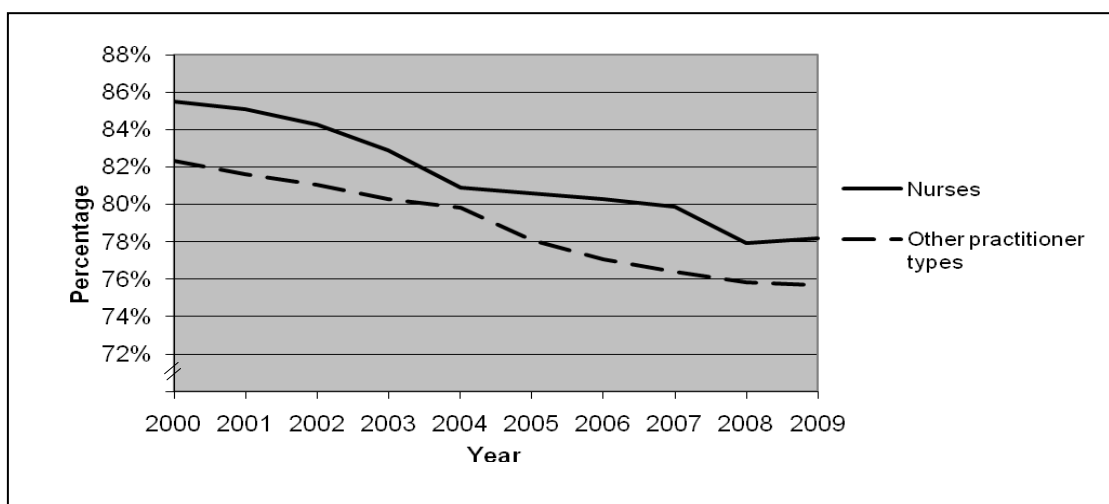
⁵ Excludes 342 post-hysterectomy Pap tests and 12 women where postcode was missing or not able to be matched.

⁶ Excludes four nurses whose postcode could not be matched.

8. Endocervical Status

Of the technically satisfactory Pap tests collected from women with a cervix by nurses in 2009, 78.2% 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 75.7%. Figure 8.1 illustrates a decline in the proportion of Pap tests with an endocervical component since 2000.

Figure 8.1 Proportion of Victorian Pap tests with an endocervical component for nurses and other practitioner types



9. Profile of Pap Test Reports for Women with a Cervix

Table 9.1 shows the Pap test report categories for tests collected by nurses and other practitioner types in 2009 for women with a cervix⁷. 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 9.1 Profile of Pap test reports collected in 2009 for women with a cervix

Report category	Number (%) of Pap tests collected by nurses	% of Victorian Pap tests collected by other practitioner types ⁸
High grade abnormality	154 (0.6%)	0.9%
Low grade abnormality	1,205 (4.8%)	5.0%
Inconclusive	227 (0.9%)	0.7%
Negative	23,251 (92.1%)	91.1%
Unsatisfactory	415 (1.6%)	2.3%
Total	25,252 (100%)	100%

⁷ Based only on the squamous cell code within the VCCR Cytology Code Schedule.

⁸ This excludes Pap tests collected by nurses.

10. Time Since Previous Screening for Women with a Cervix

The following table shows the time since any previous Pap test, as known to the Registry, for tests collected in 2009. Compared with Pap tests collected by other Victorian provider types, a higher proportion of tests were collected by nurses where the time interval since the last test was greater than two years.

Table 10.1 Time since previous Pap test for women with a cervix

Time since previous test	Number (%) of Pap tests collected by nurses in 2009	% of Victorian Pap tests collected in 2009 by other provider types ⁹
No previous test	2,834 (11.2%)	11.1%
4 yrs +	2,428 (9.6%)	7.3%
3.5 to <4 yrs	629 (2.5%)	2.2%
3.0 to <3.5 yrs	996 (3.9%)	3.4%
2.5 to <3 yrs	2,406 (9.5%)	8.0%
2.0 to <2.5 yrs	9,836 (39.0%)	34.6%
1.5 to <2 yrs	2,785 (11.0%)	11.6%
1.0 to <1.5 yrs	2,044 (8.1%)	11.1%
0.5 to <1 yr	825 (3.3%)	6.2%
<0.5 yrs	469 (1.9%)	4.5%
Total	25,252 (100%)	100%

11. Conclusion

The number and proportion of Pap tests collected by nurses in Victoria continues to grow. In 2009 the number of tests collected by nurses increased to 25,594 which represents 4.4% of all Pap tests performed in Victoria that year.

The proportion of post-hysterectomy Pap tests collected by nurses in 2009 was slightly less than that for other provider types. As seen in previous years, General Practice and Community Health settings remained the main types of practices where nurses collect Pap tests. More nurses collect Pap tests in ARIA Highly Accessible areas than in Accessible or Moderately Accessible areas, and almost three quarters of the women who had a Pap test collected by a nurse in 2009 were in a Highly Accessible area.

Compared with other provider types, nurses collected a higher proportion of tests from women over the age of 50 years for the year 2009. Within DH regions, nurses continue to increase the proportion of Pap tests they collect, particularly within rural regions. As a reflection of smear quality, the proportion of tests with an endocervical component continues to be higher for nurses than other practitioner types.

The data in this report highlights the increasingly important role that nurses have in the Victorian Cervical Screening Program, particularly in relation to the rising number of Pap tests collected by nurses in recent years and the high quality of smears.

⁹ This excludes Pap tests collected by nurses.

12. References

Australian Institute of Health and Welfare. *Rural, regional and remote health; a guide to remoteness classifications*. 2004. AIHW cat .no PHE 53. Canberra: AIHW.

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