\

VICTORIAN CERVICAL CYTOLOGY REGISTRY

STATISTICAL REPORT 2001

Heather Mitchell, Vicky Higgins, Cathy Burrows

May 2002

TABLE OF CONTENTS

1. INTRODUCTION

The Victorian Cervical Cytology Registry is one of eight such registries operating throughout Australia. Each State and Territory operates its own register. Victoria was the first State to establish such a register. The Victorian Registry commenced operation in late 1989 after amendments to the *Cancer (Central Registers) Act*.

The Pap Test Registries, as they are commonly known, were introduced progressively across Australia throughout the 1990s. The main reason for establishing the registries was to provide an infrastructure for an organised (or systematic) approach to cervical screening.

Specific tasks assigned to the registries were to facilitate the regular participation of women in the National Cervical Screening Program by sending reminder letters to women, and the provision of a safety-net for women with abnormal Pap smears.

Secondary functions of the registers have developed on a more regional basis. In Victoria, other work areas of the Registry include making available the known screening history of a woman to the laboratory that is reporting the current smear, the provision of quantitative data to laboratories to assist with their quality assurance programs, and the provision of aggregate data to the Commonwealth so the National Cervical Screening Program can be judged against an agreed set of performance indicators.

This Statistical Report is one in a series of annual reports that have been published since the inception of the Victorian Registry. This Statistical Report provides timely information about screening in Victoria; in most areas, the data is additional to that published by the Commonwealth. Wherever possible, the same methodology has been adopted in this Statistical Report as is used in the Commonwealth report.

Cytology registrations are complete for 2001. Cytology reports are pre-coded by the pathology laboratory to the Registry's Cytology Code Schedule which is included as Appendix 1. The Cytology Code Schedule allows a Pap smear report to be summarised to a five digit numeric code covering the squamous cells, evidence of human papillomavirus infection, the endocervical component, other non-cervical cells, and the recommendation made by the laboratory as regards further testing. The full text of a Pap smear report is not stored at the Registry.

Histology and colposcopy registrations in this report are as notified by the end of March 2002. A very small proportion of all histology reports made during 2001 is expected after this time. While reasonably comprehensive registration occurs for histology reports, only a minority of colposcopy results are registered, most typically when a histology report is not available. Unlike the coding of cytology reports, coding of histology and colposcopy reports is done by the staff of the Registry. As with cytology reports, the full text of the histology and colposcopy reports is not stored at the Registry.

The Reminder and Follow-up Protocol used by the Registry is shown in Appendix 2. Reminder letters are not sent to women whose Registry records indicate a past history of hysterectomy or of cervical or uterine malignancy, or to women who are over 70 years of age.

Finally, the production of this report would not be possible without the cooperation of the staff of the pathology laboratories of Victoria, the staff of the Registry, and the support of the Management Committee. Very sincere thanks are extended to the members of all these groups.

2. PARTICIPATION IN SCREENING

2.1 National Policy

Since 1991, the policy of the National Cervical Screening Program as regards the age group and time interval for screening has been as follows:

> *Routine screening with Pap smears should be carried out every two years for women who have no symptoms or history suggestive of cervical pathology.*
>
> *All women who have ever been sexually active should commence having Pap smears between the ages of 18 to 20 years, or one to two years after first sexual intercourse, whichever is later. In some cases, it may be appropriate to start screening before 18 years of age.*
>
> *Pap smears may cease at the age of 70 years for women who have had two normal Pap smears within the last five years. Women over 70 years who have never had a Pap smear, or who request a Pap smear, should be screened.*[1]

This policy is currently under review by the National Cervical Screening Program.

2.2 By Women

Participation in the Registry by women is voluntary. The non-participation rate in Victoria is considered to be substantially less than 1%. Where a woman objects to her Pap smear being registered, the Registry holds no information about that test.

During 2001, a total of 577,000 Pap smears were registered. This represents a very minor increase of about 1% on the previous year. These 577,000 Pap tests appeared to originate from 542,000 women. No major recruitment program operated in Victoria during 2001.

The following table shows data on the number of Pap smears registered and the number of women from whom these tests appeared to originate for each year of operation of the Registry. The number of women screened in each of these years is probably an overestimate because of incomplete record linkage, there being no unique identifying number for each woman. Where possible, the Medicare number of women is used to assist with accurate record linkage. Since August 1999, the Registry has used SSA-Name in the matching of incoming tests to pre-existing data on the database. This has resulted in more complete record-linkage of different episodes of care for women, compared with the previous approach to record-linkage.

[1] Screening for the Prevention of Cervical Cancer. Commonwealth Department of Health and Family Services. Canberra: AGPS 1998.

Year	No. of Pap Smears Registered	No. of Women Screened
2001	577,000	542,000
2000	572,000	532,000
1999	603,000	558,000
1998	619,000	571,000
1997	587,000	535,000
1996	616,000	560,000
1995	590,000	530,000
1994	622,000	562,000
1993	571,000	523,000
1992	542,000	497,000
1991	545,000	498,000
1990	436,000	402,000

In interpreting the information in the above table, it is important to realise that many women in Victoria are screened on an annual basis. Participation over a longer period of time than one year cannot be derived by adding the counts for individual years.

2.2 Participation by Age Group

The participation of women by age group in cervical screening is expressed as a percentage.

- The denominator is the Estimated Resident Population in June 2000,[2] after adjustment for the estimated proportion of women who have had a hysterectomy[3]. While the Estimated Resident Population is available on an annual basis for Victoria, information on hysterectomy fractions is collected nationally approximately every five years; specific rates for Victoria are not available.

- The numerator is estimated from the Registry database. It is the number of women resident in Victoria who had at least one Pap smear in the time period of interest and who appear to have a cervix (that is, they have not had a hysterectomy according to information held by the Registry).

It is emphasised that participation rates are necessarily imprecise and vulnerable to measurement error in both the numerator and denominator.

Applying national hysterectomy rates to the estimated number of women who reside in Victoria will not give an exact count of the number of Victorian women who have a cervix and who are therefore eligible for cervical screening. Furthermore, the imprecision of hysterectomy rates collected in 1995 increases with the passage of time.

Measurement error in Registry data comes from imperfect record-linkage between multiple smears from the same woman (probably resulting in an overestimate of the number of women screened) and from inaccuracies in the Registry database as regards whether the Pap smear was taken from a woman with or without a cervix. Only women with a cervix are considered eligible for cervical screening.

The following table shows the estimated percentage of eligible women from each decade of the target age range who had at least one Pap smear during 2001, during the two year period 2000-2001, and the three year period 1999-2001.

Age Group	% Screened in 2001	% Screened in 2000-2001	% Screened in 1999-2001
20-29	32%	56%	72%
30-39	41%	70%	85%
40-49	43%	74%	87%
50-59	45%	76%	87%
60-69	33%	58%	65%
20-69	38.5%	66.6%	80.2%

These estimates are very similar to those reported last year. The very minor reduction in two-year and three-years participation (<1%) compared with last year's report is within the bounds of statistical variation.

Similarly there is little change with the estimates compared with those published in 1996 (that is, five years ago). At that time, the one-year, two-year and three-year participation rates were 41%, 67% and 81%.

[2] Australian Bureau of Statistics. Only preliminary estimates are available for 2000.
[3] National Health Survey 1995. Australian Bureau of Statistics

2.3 Participation by Division of General Practice

The Commonwealth Department of Health and Aged Care assigns almost all Victorian postcodes to a Division of General Practice. There are thirty Divisions of General Practice located solely within Victoria, and one Division located in both Victoria and New South Wales.

For this analysis, the denominator was the estimated number of eligible women resident in the postcodes of each Division in June 2000.

Division Number	Division Name	% screened 2000-2001
301	Melbourne Division of GP	66%
302	North East Valley Division of GP	70%
303	Inner Eastern Melbourne Division of GP	72%
304	Inner South East Melbourne Division of GP	70%
305	Westgate Division of GP	59%
306	Western Division of GP	62%
307	North West Melbourne Division of GP	64%
308	The Northern Division of GP, Melbourne	61%
310	Whitehorse Division of GP	68%
311	Greater South Eastern Division of GP	67%
312	Monash Division of GP	63%
313	Central Bayside Division of GP	77%
314	Knox Division of GP	66%
315	Dandenong & District Division of GP	65%
316	Mornington Peninsula Division of GP	66%
317	GP Association of Geelong	67%
318	Central Highlands Division of GP	68%
319	North-East Victorian Division of GP	66%
320	Lilydale & Yarra Valley Division of GP	65%
321	The Sherbrooke & Pakenham Division of GP	72%
322	South Gippsland Division of GP	64%
323	Central-West Gippsland Division of GP	65%
324	Otway Division of GP	69%
325	Ballarat & District Division of GP	63%
326	Bendigo & District Division of GP	65%
327	Goulbourn Valley Division of GP	68%
328	East Gippsland Division of GP	74%
330	Western Victorian Division of GP	66%
331	Murray Plains Division of GP	68%
332	Mallee Division of GP	67%
Average		67%

The data in the above table is very similar to that presented last year.

This type of data, being small-area data, is subject to greater measurement error than the data in Section 2.2. The main source of inaccuracy in the above table derives from applying

national hysterectomy fractions to the relatively small female population resident in the postcodes of a Division of General Practice. For example, it is extremely unlikely that the national hysterectomy fractions are equally applicable to the postcodes of the Inner South East Melbourne Division of General Practice and the postcodes of the Mallee Division of General Practice.

Other additional but probably lesser sources of measurement error derive from use of the service provider's postcode of practice if the woman's residential postcode is not known to the Registry, the proportion of Victorian Pap smears reported by laboratories physically located outside of Victoria who do not report to the Registry (this will mainly effect Divisions located on the Victorian/New South Wales and Victorian/South Australia borders), and differences between the postcode assigned by the Australian Bureau of Statistics to the Estimated Resident Population data and the postcode nominated by the woman in her usual life.

For these reasons, the data in the above table should always be interpreted and used with considerable caution.

3. CYTOLOGY REPORTS

Cytology reports received by the Registry are coded numerically according to the following five categories of information which comprise the main aspects of a Pap smear report.

* Squamous cell code
* Human papillomavirus code
* Endocervical component code
* Other (non-cervical) cell code
* Recommendation code

The following analyses relate only to the 466,000 Pap smears collected by general practitioners and nurse practitioners in 2001. Smears collected by obstetricians and gynaecologists and at hospital outpatient clinics have been excluded from the analyses in Section 3 as these are more likely to be reported as abnormal. These selection criteria thus approximate 'community based smears' from the general female population.

In the following tables, 'Average' refers to the frequency of use of the report codes across all Pap smears collected by general practitioners and nurse practitioners in 2001. 'Range' is the highest and lowest proportion for individual laboratories registering a minimum of 500 smears during 2001; seventeen laboratories fulfilled these criteria. Five laboratories were excluded from this measurement because they reported less than 500 smears in 2001 to the Victorian Cervical Cytology Registry; three of these laboratories were either located on the border of Victoria and New South Wales or were located interstate.

3.1 Reporting of Squamous Cells

The following table shows the distribution of cytology reports for the ten squamous cell codes during 2001.

Squamous Cell Code	Average	Range
Unsatisfactory	1.2%	0.3% - 2.9 %
No abnormal cells	89.9%	72.7% - 96.1%
Minor reactive/inflammatory changes	4.5%	1.3% - 18.2%
Mild atypia	2.4%	0.6% - 5.5%
Inconclusive	0.4%	0.1% - 0.9%
CIN 1 (incl. equivocal and possible CIN 1)	1.1%	0.2% - 3.3%
CIN 2	0.3%	0.1% - 0.5%
CIN 3	0.2%	0.1% - 0.5%
Possible invasive cancer	0.01%	<0.0% - 0.1%
Invasive squamous cell carcinoma	0.01%	<0.0% - <0.1%

A decrease was observed in 2000 and 2001 in the proportion of smears reported as abnormal. While 5.0% of smears were reported as abnormal in 1999, this fell to 4.4% during 2000 and stayed at this level for 2001. The proportion of smears reported as showing definite high grade abnormality (ie CIN 2, CIN 3, possible invasive cancer, invasive squamous cell carcinoma) declined to 0.52% in 2000 and 2001, from its previous level of 0.7%.

The previously reported small annual increase in the proportion of smears reported as 'no abnormal cells' continued, with 89.9% of smears being reported as 'no abnormal cells' in 2001 (cf 85.6% in 1997, 87.9% in 1998, 88.2% in 1999, and 89.2% in 2000).

The explanation for these changes is unclear. It is possible with 80% of the female population now being screened at least once in a three year period that any pre-existing pool of abnormalities has been largely detected in previous screenings. Alternatively, there may have been a change in the criteria used by laboratories as to what constitutes an abnormality.

3.2 Reporting of Human Papillomavirus Change

The following table shows the distribution of cytology reports according to cytological evidence of human papillomavirus (HPV) effect. HPV effect is frequently referred to as 'wart virus infection'.

Human Papillomavirus Cell Code	Average	Range
HPV cell changes absent	97.7%	96.0% - 99.2%
HPV cell changes possible	0.3%	0.0% - 1.7%
HPV cell changes present	2.1%	0.6% - 2.7%

3.3 Reporting of Endocervical Component

The following table shows the distribution of cytology reports for the codes relating to the endocervical component. Smears which are known to have been collected post-hysterectomy are excluded.

Endocervical Component Code	Average	Range
No endocervical component present	18.2%	10.0% - 29.5%
Normal endocervical component	80.9%	68.2% - 88.9%
Minor reactive/inflammatory changes	0.8%	0.0% - 4.9%
Inconclusive	0.1%	0.0% - 0.2%
Mild/moderate dysplasia	<0.1%	0.0% - <0.1%
Adenocarcinoma in situ	<0.1%	0.0% - <0.1%
Possible invasive cancer	<0.1%	0.0% - <0.1%
Invasive adenocarcinoma	<0.1%	0.0% - <0.1%

In 1990, 27% of Pap smears lacked an endocervical component. This proportion gradually reduced over the next five years. Between 1995 and 1999, it remained stable at 15%. During 2000, it increased to 17.3% and in 2001 it was 18.2%.

The reason for the increasing proportion of smears without an endocervical component is unclear.

3.4 Reporting of Other Cells (non-cervical)

99.9% of the cytology reports for smears collected by general practitioners and nurse practitioners indicated no other (non-cervical) abnormal cells were present.

Among the smears collected by general practitioners and nurse practitioners during 2001, there were 318 reports of benign change in non-cervical cells, 40 reports of malignant cells from the uterus, two reports of malignant cells from the vagina, and two reports of other malignant cells (such as metastatic malignancy).

3.5 Use of Recommendation Codes

Not all cytology reports include a recommendation by the laboratory about the next stage of care for the woman. 23,000 (5%) cytology reports issued during 2001 to general practitioners and nurse practitioners did not include a recommendation; this is a sharp decline from the figure in 2000 which was 50,000.

In the following analysis, the statistics listed under 'Average' use data from all laboratories; the statistics listed under 'Range' are confined to the 16 laboratories that attached recommendations to more than 80% of their general/nurse practitioner Pap smears and where a minimum of 500 such reports were made. In calculating these percentages, the number of tests with recommendations was used as the denominator.

Recommendation Code	Average	Range
Repeat smear in 3 years	<0.0%	0.0% - 0.3%
Repeat smear in 2 years	83.4%	50.5% - 91.0%
Repeat smear in 1 year	10.6%	4.9% - 33.7%
Repeat smear in 6 months	2.0%	0.8% - 7.5%
Repeat smear in 3 months	0.2%	<0.1% - 1.9%
Repeat smear within 4 to 6 weeks	1.5%	0.1% - 7.5%
Referral for specialist opinion	1.7%	1.0% - 2.8%
Other	0.7%	<0.1% - 3.5%

Among smears receiving a recommendation, the proportion recommending a repeat smear in two years continued to increase. In 2001, 83.4% of smears, where a recommendation was made, recommended a repeat smear in two years. In 2000, the figure was 79.1%, in 1999 it was 76.5% and in 1998 it was 72.9%.

4. HISTOLOGY/COLPOSCOPY REPORTS

This section describes the histology/colposcopy reports during 2001 as known to the Registry. Where a woman had multiple follow-up examinations (biopsies and colposcopies) during the year, only the most severe is included, with histology results taking precedence over colposcopy results.

During 2001, a total of 13,848 women had one or more histology/colposcopy results of investigations relevant to the cervix entered onto Registry files. Ninety-seven percent of these notifications were histology reports, the remainder being colposcopy findings.

The following table shows the distribution of the further investigations for 2001.

Histology/colposcopy findings	Number	%	Cumulative %
Unsatisfactory	94	0.7%	0.7%
Normal	2,762	20.0%	20.6%
Benign changes	4,350	31.4%	52.0%
HPV effect - equivocal	298	2.2%	54.2 %
HPV effect	1,170	8.4%	62.6%
CIN - degree not stated	19	0.1%	62.8%
CIN - equivocal	84	0.6%	63.4%
CIN 1	1,902	13.7%	77.1%
CIN 2	1,322	9.5%	86.7%
CIN 2/3	380	2.7%	89.4%
CIN 3	1,361	9.8%	99.2%
Microinvasive cancer	27	0.2%	99.4%
Invasive cancer	79	0.6%	100%
TOTAL	13,848		100%

Among the 79 women whose further investigations resulted in a diagnosis of invasive cervical cancer, 52 were of squamous type, 22 were adenocarcinomas, and three were adenosquamous carcinomas. Two other cases were rarer types of malignancies. Squamous carcinoma therefore comprised 66% (52/79) of all cervical malignancies diagnosed during 2001 known to the Registry.

By contrast, the proportion of microinvasive carcinoma and CIN 3 cases accounted for by squamous disease was much higher. Among the 27 cases of microinvasive carcinoma, 23 (85%) were of squamous type and four were of adeno type. Among the 1,361 cases of CIN 3, 1,288 (95%) were of squamous type, 48 were of adeno type and 25 were of adenosquamous type.

These proportions are similar to our earlier Statistical Reports. They continue to suggest that the ability of a Pap smear to detect early stages of the disease spectrum for glandular (adeno) malignancy is less than for squamous malignancy.

5. CORRELATION BETWEEN CYTOLOGY AND HISTOLOGY/COLPOSCOPY REPORTS

The following table shows the correlation between the histology/colposcopy findings and the prediction made on the Pap smear immediately prior to the histology/colposcopy report.

The correlation is restricted to cases where the cytology was reported as abnormal in a six month period preceding the histology/colposcopy report. In cases where the histology or colposcopy report follows a negative cytology report, up to 24 months has been allowed between the cytology and the histology/colposcopy.

In interpreting this information, it is important to remember that only a minority of cytology reports of atypia, HPV and CIN 1 are further investigated by colposcopy or biopsy, and an even smaller percentage of negative cytology reports are followed by a colposcopy or biopsy.

	Cytology Prediction						
Histology/colposcopy findings	Negative (n=6339)	Atypia (n=472)	HPV (n=778)	CIN 1 (n=2392)	Inconcl. (n=699)	CIN 2 (n=1259)	CIN 3 (n=1120)
Normal, benign	83.1%	43.4%	41.0%	21.6%	30.3%	11.8%	6.7%
HPV equivocal	2.2%	4.9%	6.6%	2.5%	2.3%	1.7%	0.3%
HPV effect	5.6%	15.7%	43.1%	14.4%	8.3%	4.7%	1.7%
CIN equivocal	0.3%	1.3%	1.3%	1.3%	1.0%	0.6%	0.0%
CIN degree not stated	0.0%	0.0%	0.4%	0.3%	0.3%	0.2%	0.4%
CIN 1	5.5%	18.2%	36.3%	37.6%	11.9%	15.4%	4.9%
CIN 2	1.7%	10.6%	8.8%	14.4%	15.0%	37.6%	14.7%
CIN 2/3	0.4%	1.3%	2.0%	3.0%	4.9%	8.3%	10.2%
CIN 3	1.1%	4.7%	3.7%	4.9%	24.7%	19.5%	57.8%
Cancer - microinvasive	0.0%	0.0%	0.0%	0.04%	0.3%	0.08%	1.6%
Cancer - invasive squam.	<0.016%	0.0%	0.0%	0.0%	0.4%	0.0%	1.0%
Cancer - invasive other	<0.016%	0.0%	0.0%	0.0%	0.6%	0.0%	0.8%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Notable points in the above table include the following.

The high percentage of women with normal histology after a negative Pap smear report relates mainly to women who had a hysterectomy, most likely for other reasons.

A majority of the women with negative cytology that was followed by high grade histology (CIN 2, CIN 2/3, CIN 3, cancer) had not received a recommendation for repeat cytology in one or two years. More typically they had received a recommendation for colposcopy (indicating that the previous cytology was significantly abnormal) or they had no recommendation made because a colposcopy was being performed at the same consultation. The heightened awareness of the cytologist about the circumstances in which they were issuing many of these negative reports suggests sampling difficulties may have accounted for at least some of these negative cytology reports.

The positive predictive value of a cytology report of CIN 3 for high grade histology (CIN 2, CIN 2/3, CIN 3, cancer) was 86% (964/1120). For a cytology report of CIN 2 it was 65.6% (826/1259). For an inconclusive cytology report, it was 45.9% (321/699).

Among the 1,296 women with histology of CIN 3, 1,066 (82.3%) had preceding cytology that was reported as CIN 2, CIN 3 or inconclusive.

6. FREQUENCY OF EARLY RESCREENING

While the Australian screening policy is for repeated testing every two years after a negative Pap smear report, many women are screened more frequently than this. While a small level of early rescreening can be justified on the basis of a past history of abnormality, the levels within Australia are far in excess of this. The evidence is that early rescreening does not just occur in the months immediately prior to the two year anniversary, but rather is a steady continuum throughout the two year period after a negative Pap smear report.

The following table shows the number of further testings over a 24 month period for women who received a negative Pap smear report in the February of each year. For example, the first column of data shows for women with a negative Pap smear report in February 2000, the number of subsequent Pap smears in the two year period February 2000 to February 2002.

Number of further Pap smears	2000	1999	1998	1997	1996	1995	1994	1993
No further tests	55%	56%	54%	51%	49%	48%	47%	45%
1	36%	34%	36%	38%	38%	38%	39%	41%
2	7%	7%	8%	9%	10%	10%	11%	11%
3	1%	1%	2%	2%	2%	2%	2%	2%
4	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
5 or more	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%

This data indicates that there has been a slow but steady improvement in the degree of early rescreening after a negative Pap smear report. Among women who received a negative Pap smear report in February 1999, 56% had no further screenings in the next 24 months; this compares favourably with 45% of the women in 1993 having no further screening in the next 24 months.

In late 2000, the National Cervical Screening Program adopted the following definition of early rescreening:

> *Early rescreening is the repeating of a Pap smear within 21 months of a negative Pap smear report, except for women who are being followed up in accordance with the NHMRC guidelines for the management of cervical abnormalities.*

This definition recognises that some rescreening may occur opportunistically between 21 and 24 months after a negative Pap smear report and this may be cost-effective. If 21 months is used as the cut-point, then early rescreening will appear to be less of a problem. For example, among the women who received a negative Pap smear report in February 2000, 65% had no further tests during the next 21 months.

7. SCREENING HISTORY OF WOMEN DIAGNOSED WITH CERVICAL CANCER IN 2001

The Registry was aware of 27 women who were diagnosed with microinvasive cervical cancer in 2001 and 79 women with invasive cervical cancer. There will be other Victorian women who were diagnosed with cervical malignancy in 2001 but who are not listed with the Pap Test Registry because they had no screening history prior to their cancer being diagnosed.

For this analysis, adequately screened is defined as at least three negative smears known to the Registry in the ten years prior to the diagnosis of cancer and where there was at least two years between consecutive negative smears. According to the Registry's files, 25 of the women with cervical cancer had been adequately screened prior to their malignancy being diagnosed, and 81 were inadequately screened.

The following table shows the screening history by type of cervical cancer.

Type of cancer	Adequate Screening History	Inadequate Screening History	Total
Squamous			
- microinvasive	6 (26%)	17 (74%)	23 (100%)
- invasive	7 (14%)	45 (86%)	52 (100%)
Adeno			
- microinvasive	1 (25%)	3 (75%)	4 (100%)
- invasive	11 (50%)	11 (50%)	22 (100%)
Other	0 (0%)	5 (100%)	5 (100%)

The above table shows that around one quarter of the women with microinvasive cancer will have been adequately screened, this proportion being similar for both squamous and adeno microinvasive cancer. However there is a wide disparity between invasive squamous carcinoma and invasive adenocarcinoma. Fifty percent of the 22 women diagnosed with invasive adenocarcinoma had been adequately screened in the ten years prior to their diagnosis of cancer.

Nine of the 106 women were known to have a history of histologically proven high grade intraepithelial disease (CIN 2, CIN 3, adenocarcinoma in situ) at least one year prior to their cancer diagnosis.

The policy of the National Cervical Screening Program is that women may cease being screened at the age of 70 years if they have had two normal Pap smears while in the age group 65-69 years.

Twenty two of the 106 women with cervical cancer were 70+ years of age at the time of their cancer diagnosis. According to the Registry's records, only two of these women had two normal smears while in the age group 65-69 years. Eighteen of the 22 women were diagnosed with invasive squamous carcinoma. One of the 22 women had a known past history of histologically proven high grade intraepithelial disease.

Appendix 1. Cytology Code Schedule

Appendix 2. Reminder and Follow-up Protocol

Cytology Report	Time*	Action by Victorian Cervical Cytology Registry
CIN 2, CIN 3, Cancer	3 months 4 months 6 months 12 months	Contact laboratory Questionnaire to practitioner Questionnaire to specialist if referred Telephone call to practitioner Letter to woman Reminder to woman
Atypia, HPV effect, CIN 1, Inconclusive	9 months 10 months	Courtesy list to practitioner Reminder to woman
Negative with past history of histologically confirmed CIN 2 or 3	15 months	Reminder to woman
Negative with no past history of histologically confirmed CIN 2 or 3	27 months	Reminder to woman
Unsatisfactory	3 months 4 months	Repeat smear reminder to practitioner Reminder to woman

* Time intervals are determined from the date of the cytology