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*National Cervical Screening
Programme*

July – September 2002

*Independent Monitoring Group
of the National Cervical Screening Programme*

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The Independent Monitoring Group of the National Cervical Screening Programme (IMG-NCSP)

The Independent Monitoring Group of the National Cervical Screening Programme (IMG-NCSP) was established by the University of Otago in 2000 as part of its contract with the Ministry of Health to provide independent quantitative monitoring of the National Cervical Screening Programme. The members of the IMG-NCSP are:

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The IMG-NCSP received data from the National Cervical Screening Programme Register for this report on 4 November 2002. This monitoring report was sent to the Ministry of Health on 3 April 2003.

Technical terms are used throughout this report, and an understanding of these terms may be necessary to interpret some parts of this report.

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1.0 Executive Summary

The Independent Monitoring Group of the National Cervical Screening Programme (IMG-NCSP) was established in November 2000 to provide independent quantitative monitoring of the National Cervical Screening Programme (NCSP). The IMG-NCSP first met in April 2001. The principle purpose of this monitoring is to assist the National Screening Unit (NSU) of the Ministry of Health (MoH) and providers of cervical screening services to improve the quality of the NCSP. This is a quarterly report for the period July-September 2002.

National indicators for the NCSP, established in 2000 by the NSU, provide the basis for monitoring reports produced by the IMG-NCSP. Indicators are reported quarterly, 6-monthly or annually. This report includes indicators reported quarterly. To calculate the indicators for this report, anonymised data provided by the NSU for women enrolled on the NCSP-Register were used. Aggregate anonymised data, where available, for women who were referred to DHB colposcopy units were also provided by the NSU.

The way in which some indicators were calculated has changed slightly since earlier reports. Therefore, the data presented in reports 1-5 were revised so that changes in indicator results could be observed over time. These revised tables appear in volume II of report 6. The affected indicators were short interval re-screening, delayed re-screening for women with a high grade abnormality, follow-up of women with HSIL cytology, laboratory smear reporting, laboratory cytology turn around time, laboratory histology turn around time and positive predictive value of HSIL.

Short interval re-screening, a measure of resource utilisation, was estimated to be 20.8% for women aged 20-69 years. Satisfactory but limited smears can generate a one-year recall recommendation and when these smears were excluded, estimated short interval re-screening was 11.6%. Both these estimates of short interval re-screening are higher than the target of 10%. Although short interval re-screening was highest among women aged 30-34 and 45-54 years (21.9%), it was almost as high among women aged 20-29, 35-44 and 55-59 years. The estimated level of short interval re-screening varied considerably among the DHB areas, ranging from 12.3% in the West Coast to 28.2% in Auckland when both satisfactory and satisfactory but limited smears were included.

25,467 participating women aged 20-69 years with a high grade cytological or histological abnormality recorded on the NCSP-Register had completed assessment and treatment before 1 July 2001. Of these 25,467 women, 71.9% had a smear within the 15 months prior to 30 September 2002. This was less than the target of 85%. 1,549 of these 25,467 women had had no smear recorded.

4,884 women had an ASCUS possible high grade or more serious cytology result recorded on the NCSP-Register between 1 October 2000 and 30 September 2001. About three-quarters (73.0%) of these women had a histology specimen taken within 12 weeks of their high grade smear being taken. This was less than the target of 90%. For 390 of

the 4,884 women, a subsequent histology result was not recorded on the NCSP-Register. The proportions of women who had no histology recorded on the NCSP-Register varied noticeably amongst the NCSP regions with 139 of the 390 women (35.6%) from the Bay of Plenty.

Thirteen laboratories reported cervical cytology during the July – September 2002 reporting quarter. Overall, of the 103,738 satisfactory or satisfactory but limited smears processed by laboratories during the quarter, 7.7% were reported as abnormal, which was within the target of not more than 10%. The two hospital-based laboratories and three community-based laboratories reported more than 10% of smears they read as abnormal.

Only one of the thirteen laboratories reporting smears did not meet the 7-day cytology turn around time target. This laboratory almost achieved the 90% target. All laboratories either met or were very close to achieving the 14-day target.

Thirty-one laboratories reported cervical histology during the July – September 2002 reporting quarter. For all laboratories combined, the 5-day histology turn around time was 91.1%, which met the target of 90%. Four of the fourteen hospital-based laboratories and one of the sixteen community-based laboratories did not meet the 5-day histology turn around time target. Compared with all laboratories, one laboratory reported a relatively higher number and proportion of histology results after 10 working days.

The proportion of smears reported as satisfactory but limited varied considerably among the laboratories. Four of thirteen laboratories that processed smears during the quarter reported more than 20% of smears as satisfactory but limited. Three community-based laboratories reported more than 2.0% of smears they read as unsatisfactory and two other community-based laboratories reported less than 0.5% of smears they read as unsatisfactory.

The colposcopy service indicators were again unable to be calculated because the data required to do this were not available. A suitable process to collect these data is required urgently in order for the IMG-NCSP to monitor the colposcopy service indicators.

2.0 Recommendations

The Independent Monitoring Group of the National Cervical Screening Programme makes the following recommendations in order to assist with improving the quality of the NCSP. The national indicator targets were considered when developing these recommendations. The recommendations were grouped into data related issues and service related issues.

2.1 Data Issues

1. A suitable process to collect data required for calculating the colposcopy waiting time indicators is required urgently in order for the IMG-NCSP to monitor colposcopy services.
2. Efforts to collect data from those DHB colposcopy units (Good Health Wanganui, Healthcare Hawkes Bay, Lakeland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Tairāwhiti Healthcare, Waitemata Health, Northland Health and Wairarapa Health) who did not provide any or incomplete data should continue.

2.2 Services Issues

1. Efforts to reduce the high level of short interval re-screening in all 5-year age groups, particularly the 20-59 year old age groups, need to continue including efforts to educate smear takers and women about the nationally recommended intervals for cervical screening.
2. Efforts to examine the relatively high level of short interval re-screening need to continue, particularly in those areas with high levels of short interval re-screening (Auckland, Capital Coast, Counties Manakau, Northland and Waitemata).
3. Reasons why 1,549 women with a high grade abnormality recorded on the NCSP-Register had no follow up smear results recorded on the NCSP-Register need to be examined and follow up arrangements for these women checked.
4. Efforts to encourage women with a history of a high grade abnormality to have annual smears should continue.
5. Reasons why women with a history of a high grade abnormality have had smears less frequently than recommended should be assessed.

6. Reasons why 390 women with a high grade cytology report have no subsequent histology result recorded on the NCSP-Register are sought by the NSU.
7. Reasons why a histology report was not recorded by the NCSP-Register within 12 weeks of a high grade cytology result for more than one-quarter of women, particularly Maori and Pacific women and women in the Bay of Plenty NCSP region, need to be examined.
8. An explanation for the low proportion of HSIL reporting should be sought from Southern Community Laboratory Christchurch.
9. The IMG-NCSP should use the monitoring data set to investigate the outcome of women with ASCUS cytology results.
10. Medical Laboratory Wellington should continue to work towards achieving the 7-day target.
11. Auckland Hospital Laboratory, Rotorua Hospital Laboratory, Taranaki Base Hospital Laboratory, Wellington Hospital Laboratory and Northland Pathology Laboratory should work towards achieving and maintaining the 5-day histology turn around time target.
12. An explanation for the relatively high number and proportion of histology specimens reported after 10 working days by Wellington Hospital Laboratory should be sought.
13. An explanation should be sought from Diagnostic Medlab Auckland and Medlab Hamilton for the low proportion of unsatisfactory smears reported.
14. An explanation should be sought from Medical Laboratory Wellington, Taranaki Medlab and Valley Diagnostic Laboratory for the high proportion of unsatisfactory smears reported.
15. Efforts to reduce the number of women with HSIL or ASCUS possible high grade cytology waiting more than 4 weeks for colposcopic assessment should continue.
16. Efforts to reduce the number of women with low grade cytology waiting more than 26 weeks for colposcopic assessment should continue, particularly Capital Coast and Health Waikato.

3.0 Methods

The National Screening Unit (NSU) of the Ministry of Health (MoH), through a committee of experts and a consultation process, established national indicators for the National Cervical Screening Programme (NCSP) in 2000. Where it was considered appropriate and feasible, the NSU set targets for some indicators. For indicators with no target, changes over time will be assessed. With more information available through the monitoring process, some indicator targets and reporting frequencies have changed (see previous monitoring reports). National indicators are reported quarterly, 6-monthly or annually.

This report includes indicators that are reported quarterly. Each indicator is described in the results section under the separate headings that identify the specific indicators. Indicators that are calculated 6-monthly and annually are listed and defined in Appendix 1.

To calculate the indicators for this report, anonymised data provided by the NSU for women enrolled on the NCSP-Register were used. Aggregate anonymised data, where available, for women referred to DHB colposcopy units were also provided by the NSU.

This report includes results for Maori women and Pacific women. For this reporting quarter, both the National Kaitiaki Group and the Pacific Women's Data Advisory Group approved the use of data for enrolled women recorded as identifying with the Maori and Pacific ethnic groups, respectively, on the NCSP-Register. For the purposes of the monitoring reports, women recorded on the NCSP-Register as being not Maori or Pacific were grouped together as 'Other'. This group included women whose ethnic group was unknown.¹

Only those cytology and histology results recorded on the NCSP-Register at the time of the data download were used for the calculation of indicators.

Unless otherwise stated, women's ages at the end of the reporting quarter were used when calculating the indicators. The registration status and demographic details of each woman at the time of the data download were used for all calculations.

Women were assigned to both a NCSP region and a District Health Board (DHB) area by the NCSP-Register. Each woman was allocated to the NCSP region and DHB area in which they lived, with two exceptions. Women whose address was unknown were allocated to the NCSP region according to their previously known address. Women, who usually had their smears in a NCSP region other than the one where they lived, were allocated to the NCSP region where they usually had their smears. For women in either of these situations, if the NCSP regions to which they were allocated had boundaries

¹ The National Screening Unit estimated that for 9% of women enrolled on the NCSP-Register, ethnicity was recorded as unknown.

identical to a DHB area, then they were allocated to that DHB, otherwise the DHB area in which they lived was recorded as unspecified.

4.0 Results

This reporting quarter ended on 30 September 2002. This report includes national indicators reported quarterly. For each indicator, the indicator is defined, the target, if any, is stated and how the indicator was calculated is explained. The level of detail reported for each indicator varies.

For some indicators, results were calculated for NCSP regions or DHB areas. It is important to note that there are 14 NCSP regions and 21 DHB areas, and nine of these have identical boundaries (Hawkes Bay, Nelson/Marlborough, Northland, Otago, Tairāwhiti, Taranaki, Southland, Waikato and West Coast).

4.1 Short Interval Re-screening

Definition

Short interval re-screening is the proportion of enrolled women with a normal smear history who have had a smear earlier than the recommended 3-year interval. Excessive short interval re-screening represents an overuse of limited resources.

Three-yearly cervical screening is considered to reduce cervical cancer incidence by 91.4% compared with 93.4% if annual screening is done, while costs are much higher.² The European Guidelines for Quality Assurance in Cervical Cancer Screening state that 'optimal use of resources is achieved if the proportion of smears taken in accordance with the guidelines is close to 100%.' This refers to both normal smears and follow-up smears for each unsatisfactory and abnormal smear.

Target

The target for short interval re-screening is less than 10%.

Calculation

To estimate short interval re-screening women who met all the following criteria were included:

1. they were aged 20-69 years at the end of the reporting period,
2. their history at enrolment was recorded as normal on the NCSP-Register,
3. they had at least one satisfactory or satisfactory but limited smear during the 33-months prior to the end of the reporting period,
4. all their cytological and histological results prior to the 33-months before the end of the reporting period were recorded on the NCSP-Register as negative for dysplasia or malignancy, and
5. their first smear taken during the 33-months prior to the end of the reporting period was not a woman's first smear.

² IARC Working Group. Screening for squamous cervical cancer: duration of low risk after negative results of cervical cytology and its implications for screening policies. *BMJ* 1986; 293: 659-64.

Following a woman's first ever smear, a further smear in one year is recommended.³

Each smear is classified as satisfactory, satisfactory but limited or unsatisfactory for laboratory reading. Unsatisfactory smears reported during the 33-month period were excluded because they generate a 3-month recall.⁴

The number of women who met the above criteria and who, during the 33-months prior to the end of the reporting period, had two or more smears recorded minus those who had at least one smear recorded as abnormal⁵ was expressed as a proportion of the number of women who had at least one smear recorded minus those who had at least one smear recorded as abnormal.

For women with a normal smear history, smears coded as satisfactory but limited generate either a 1-year or a 3-year recall depending on the reason for classifying a smear as satisfactory but limited.⁶ To determine whether smears categorised as satisfactory but limited with a 1-year recall were contributing to the high level of short interval re-screening, separate analyses were done for satisfactory and satisfactory but limited smears combined and satisfactory smears only. The proportion of smears coded as satisfactory but limited varied amongst laboratories (see section 4.7).

Results

Table 1 shows the estimated level of short interval re-screening for 20-69 year old women by 5-year age groups. The level of short interval re-screening for women aged 20-69 years was 20.8% when both satisfactory and satisfactory but limited smears were included. This is almost the same as that reported last quarter (21.0%). When only satisfactory smears were included, the estimated level of short interval re-screening was 11.6%, which was also similar to that reported for the previous quarter (11.9%).

Although short interval re-screening was highest amongst women aged 30-34 and 45-54 years (21.9%), it was very similar amongst 20-59 year old women, ranging from 20.2% to 21.9%. The lowest level of short interval re-screening (15.8%) occurred among women aged 65-69 years. When only satisfactory smears were included, the estimated level of short interval re-screening was similar for women aged 30-59 years, ranging from 12.2% for 55-59 year old women to 13.4% for 50-54 year old women. Short interval re-screening was lower amongst the other 5-year age groups when only satisfactory smears were included, with the lowest estimated level occurring amongst 65-69 year old women (8.6%).

Table 2 shows the estimated level of short interval re-screening for 20-69 year old women by DHB area. Short interval re-screening varied considerably among DHB areas. It ranged from 12.3% in the West Coast to 28.2% in Auckland. High levels of

³ Cervical Screening Working Party. Recommendations for cervical screening 1997. NZ Med J 1998; 111: 94-8.

⁴ Revised Bethesda Coding Standard. Appendix 9. National Cervical Screening Programme Interim Operational Policy and Quality Standards. Health Funding Authority, October 2000.

⁵ An abnormal smear was defined as any smear with a diagnosis of ASCUS or more serious according to the hierarchy of cytological codes (Appendix 2).

⁶ Revised Bethesda Coding Standard. Appendix 9. National Cervical Screening Programme Interim Operational Policy and Quality Standards. Health Funding Authority, October 2000.

short interval re-screening were also observed for Capital Coast (24.9%), Counties Manakau (24.3%), Northland (23.0%) and Waitemata (27.9%). Low levels of short interval re-screening were also observed for Otago (14.4%) and Southland (13.1%). When satisfactory smears only were included, the estimated level of short interval re-screening ranged from 5.1% for both the Nelson/Marlborough and Waikato DHB areas to 17.3% for the Auckland DHB area. The difference between the estimated level of short interval re-screening when both satisfactory and satisfactory but limited smears were included and that when satisfactory smears only were included varied amongst the DHBs. This difference ranged from 2.7% for Otago to 13.6% for Bay of Plenty.

It is likely that some women will have had smears more frequently than 3-yearly as part of investigations of symptoms, but this is unlikely to fully explain the continued level of short interval re-screening observed. While there is no clear evidence that the absence of endocervical cells on smear slides does not increase a woman's risk of a cervical abnormality⁷, this may be one reason why women are having smears more frequently than recommended. The current NZ recommendation is that "if the smear taker is satisfied that the cervix has been visualized and adequately sampled, and if the **smear result is normal while lacking an endocervical component**, there is no indication to repeat the smear earlier than the recommended smear interval, ie it is **recommended that the next smear is taken at the usual screening interval** of three years."⁸

RECOMMENDATIONS

Service Issues

The following recommendation was first stated in Report 2, Section 4.7 and is still applicable.

1. Efforts to reduce the high level of short interval re-screening in all 5-year age groups, particularly the 20-59 year old age groups, need to continue including efforts to educate smear takers and women about the nationally recommended intervals for cervical screening.

The following recommendation was first stated in Report 5, Section 4.1 and is still applicable.

2. Efforts to examine the relatively high level of short interval re-screening need to continue, particularly in those areas with high levels of short interval re-screening (Auckland, Capital Coast, Counties Manakau, Northland and Waitemata).

⁷ Mitchell H, Medley G. Longitudinal study of women with negative cervical smears according to endocervical status. *Lancet* 1991; 337: 265-7.

⁸ Cervical Screening. Guidelines for the Management of Women with Abnormal Cervical Smears. National Cervical Screening Programme, Health Funding Authority, 1999.

Table 1. Short interval re-screening proportion (%) by 5-year age groups for the 33 months to 30 September 2002 [target = less than 10%].

Age groups (years)	Number of women with a normal history and at least one A1† or A2‡ smear	Number of women with more than one A1† or A2‡ smear	Number of women with an abnormal A1† or A2‡ smear (ASCUS or more serious)	Proportion (%) with >1 A1† or A2‡ smear amongst women with a normal history*	Proportion (%) with >1 A1† smear amongst women with a normal history
20-24	27,859	9,494	4,441	21.6	9.1
25-29	46,824	13,145	4,625	20.2	9.3
30-34	58,829	16,075	4,054	21.9	11.7
35-39	64,218	16,304	3,491	21.1	12.1
40-44	64,717	16,274	3,246	21.2	12.4
45-49	53,610	13,773	2,590	21.9	13.0
50-54	44,392	11,071	1,746	21.9	13.4
55-59	34,561	7,984	1,062	20.7	12.2
60-64	27,295	5,450	679	17.9	10.2
65-69	20,168	3,519	398	15.8	8.6
Total 20-69	442,473	113,089	26,332	20.8	11.6

† A1 = satisfactory smear

‡ A2 = satisfactory but limited smear

* = (column 3 – column 4) x 100/(column 2 – column 4)

Table 2. Short-interval re-screening proportion (%) for 20-69 year old women for each DHB area. [target = less than 10%]

Age groups (years)	Number of women with a normal history and at least one A1† or A2‡ smear	Number of women with more than one A1† or A2‡ smear	Number of women with an abnormal A1† or A2‡ smear (ASCUS or more serious)	Proportion (%) with >1 A1† or A2‡ smear amongst women with a normal history	Proportion (%) with >1 A1† smear amongst women with a normal history
Auckland	42,366	13,421	2,068	28.2	17.3
Bay of Plenty	21,136	6,524	2,720	20.7	7.1
Canterbury	54,467	11,966	2,717	17.9	12.6
Capital Coast	34,930	10,358	2,222	24.9	12.1
Counties Manakau	37,829	10,385	1,592	24.3	12.2
Hawkes Bay	15,750	3,193	753	16.3	10.0
Hutt Valley	16,510	4,169	793	21.5	13.2
Lakes	12,084	3,697	1,504	20.7	9.3
MidCentral	16,825	3,560	924	16.6	9.3
Nelson-Marlborough	15,964	3,398	1,029	15.9	5.1
Northland	15,763	4,261	831	23.0	14.4
Otago	23,040	4,035	842	14.4	11.7
South Canterbury	6,279	1,331	299	17.3	11.4
Southland	12,444	2,118	562	13.1	9.8
Tairāwhiti	4,697	1,226	411	19.0	10.3
Taranaki	13,053	2,918	973	16.1	6.5
Waikato	35,745	8,247	3,123	15.7	5.1
Wairarapa	3,941	973	216	20.3	11.0
Waitemata	46,938	14,517	1,998	27.9	16.6
West Coast	3,464	560	152	12.3	8.9
Whanganui	6,629	1,484	375	17.7	9.9
DHB Unspecified	2,619	748	228	21.7	11.5
Total	442,473	113,089	26,332	20.8	11.6

† A1 = satisfactory smear

‡ A2 = satisfactory but limited smear

* = (column 3 – column 4) x 100/(column 2 – column 4)

4.2 Delayed re-screening for women with a high grade abnormality

Definition

Re-screening for women with a high grade abnormality is the proportion of women participating in the NCSP with a history of a high grade abnormality who have completed treatment and had a smear within specified time periods. For these women, if their last smear was more than 15 months previously it was considered delayed. It is recommended that women with a history of a high grade abnormality have annual smears until age 70 years.⁹

A high grade abnormality was defined as any cytology result recorded as ASCUS possible high grade, HSIL or more serious, or any histology result recorded as CIN-not otherwise specified, HSIL or more serious (according to the hierarchy of Bethesda or SNOMED codes as shown in Appendices 2 and 3, respectively).

Targets

The targets for delayed re-screening were reported in the National Cervical Screening Programme Interim Operational Policy and Quality Standards as 15% for the last smear being 15 months or more previously and 1% for the last smear being 18 months or more previously. To maintain consistency with the reporting of targets for other indicators and to assist with interpretation, the targets for re-screening for women with HSIL or more serious abnormality are 85% for a smear within the last 15 months and 99% within the last 18 months.

Calculation

Participating women¹⁰ aged 20-69 years at the end of the reporting period who had a high grade result recorded on the NCSP-Register and were recorded as 'signed in'¹¹ following assessment and treatment prior to 1 July 2001 were included.¹² This date was chosen because it was 15 months before the end of the reporting quarter, allowing sufficient opportunity for recommended annual follow up smears to be taken and recorded on the NCSP-Register. The numbers of these women who had a smear recorded on the NCSP-Register within 15 months, between 15 and 18 months and more than 18 months prior to the end of the quarter were calculated. These were expressed as proportions of all participating women who had had a high grade abnormality recorded on the NCSP-Register and were recorded as 'signed in' following assessment and treatment before 1 July 2001.

⁹ Cervical Screening. Guidelines for the Management of Women with Abnormal Cervical Smears. National Cervical Screening Programme, Health Funding Authority, 1999.

¹⁰ The definition of participating women is included in Appendix 1.

¹¹ 'Women are "signed out" so that no letters are sent from the Register advising them of their results or recommended recall while under the care of a specialist or colposcopist. Once the period of colposcopy or treatment has finished women are "signed in" and the Register will send letters as appropriate to their test and smear history.' P6.24, NCSP Interim Operational Policy and Quality Standards. October 2000.

¹² Women who were recorded as having an abnormal history at enrolment were included only if they had had a high grade cytological or histological abnormality recorded on the NCSP-Register since enrolment.

Results

Table 3 shows the number and proportion of participating 20-69 year old women with a high grade abnormality recorded on the NCSP-Register who had completed treatment before 1 July 2001 and whose most recent smear was less than 15 months, between 15 and 18 months or more than 18 months prior to the end of the reporting quarter. 25,467 participating women with a high grade abnormality recorded on the NCSP-Register had completed assessment and treatment before 1 July 2001. This number has increased from 19,395 reported for the first quarter, October-December 2000. Of the 25,467 women, 71.9% had a smear within 15 months of the end of this reporting quarter, which is slightly less than reported for the previous quarter (72.4%) and less than the target of 85%. Just over three-quarters (77.4%) of the 25,467 women had a smear within 18 months. This proportion was very similar to that reported for previous quarters and much less than the target of 99%.

For 16.5% of the 25,467 women, their last smear was more than 18 months prior to 30 October 2002 and 1,549 women had had no smear recorded. Some of these women may have moved to live overseas and the NCSP-Register did not have this information. Sometimes there are clinical reasons for follow up smears not being taken.

RECOMMENDATIONS

Service Issues

1. Reasons why 1,549 women with a high grade abnormality recorded on the NCSP-Register had no follow up smear results recorded on the NCSP-Register need to be examined and follow up arrangements for these women checked.

The following recommendations were first stated in Report 1, Section 4.8 and are still applicable.

2. Efforts to encourage women with a history of a high grade abnormality to have annual smears should continue.
3. Reasons why women with a history of a high grade abnormality have had smears less frequently than recommended should be assessed.

Table 3. Timeliness of the most recent smear among women with a previous high grade or more serious abnormality
 [targets = 85% within 15 months and 99% within 18 months].

Time period	Number	Proportion (%)	Cumulative proportion (%)
Less than 15 months	18,309	71.9	71.9
15-18 months	1,402	5.5	77.4
More than 18 months	4,207	16.5	93.9
No smear recorded	1,549	6.1	100.0
Total	25,467	100.0	

4.3 Follow-up of women with HSIL cytology

Definition

Follow-up of women with HSIL cytology is defined as the proportion of enrolled women with a high grade or more serious cytology result for whom a histology specimen has been taken within specified time periods from the time the smear was taken as recorded by the NCSP-Register. The time periods are within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks and more than 52 weeks.

Targets

The targets for the follow-up of women with HSIL cytology are 90% for a histology specimen being taken within 12 weeks of the smear being taken, and 99% for a histology specimen being taken within 52 weeks of the smear being taken.

Calculation

The number of enrolled women aged 20-69 years at 30 September 2002 who had a cytology result of ASCUS possible high grade, HSIL or more serious abnormality (according to the hierarchy of codes, Appendix 2) recorded on the NCSP-Register between 1 October 2000 and 30 September 2001 was calculated. For each of these women the time between the date that the smear was taken and the date that the first subsequent histology specimen was taken was calculated. The numbers of women with a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks and more than 52 weeks after their ASCUS possible high grade, HSIL or more serious cytology result were expressed as proportions of the total number of women with ASCUS possible high grade, HSIL or more serious cytology between 1 October 2000 and 30 September 2001. The numbers and proportions of women with no histology result recorded on the NCSP-Register following their ASCUS possible high grade, HSIL or more serious cytology results were also calculated. Women without subsequent histology recorded were also described in two ways. Whether they had been signed back into the programme since their abnormal smear and whether they had a subsequent smear by a specialist or at a hospital treatment centre or private specialist clinic.

This indicator was calculated for women of all ethnic groups, and Maori, Pacific and 'Other' women separately. It was also calculated for each NCSP region.

Results

Table 4 shows the number and proportion of women aged 20-69 years at 30 September 2002 who had ASCUS possible high grade, HSIL or more serious cytology (according to the hierarchy of codes, Appendix 2) reported during the period 1 October 2000 and 30 September 2001 and had a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks, or after more than 52 weeks of the smear being taken. The number of these women with no subsequent histology result recorded on the NCSP-Register is also shown. Between 1 October 2000 and 30 September 2001, 4,884 enrolled women had a smear taken with an ASCUS possible high grade, HSIL or more serious cytology result recorded on the NCSP-Register. About three-quarters (73.0%) of these women had a histology specimen taken within 12 weeks of their high grade smear being

taken. This was less than the target of 90%. Of the 4,884 women with an ASCUS possible high grade, HSIL or more serious cytology result recorded on the NCSP-Register, 90.7% had a histology specimen taken within one year of their high grade smear. This was almost the same, as that reported last quarter (90.4%) and less than the target of 99%.

Tables 5, 6 and 7 show the number and proportion of Maori women, 'Other' women and Pacific women who had a high grade smear taken during the period 1 October 2000 to 30 September 2001 and had a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks, or after more than 52 weeks of the smear being taken. Neither of the two targets was reached in any of the three ethnic groups. Three-quarters (76.0%) of 'Other' women had a histology specimen taken within 12 weeks of their high grade smear compared with 59.5% of Maori women and 61.8% of Pacific women. Amongst the three ethnic groups differences in the proportions of women with high grade smears having subsequent histology within 13-26 weeks, 27-52 weeks or more than 52 weeks persisted. With each successive time period the size of the differences decreased. The proportion of Maori women, 'Other' women and Pacific women who had had a histology specimen taken following their ASCUS possible high grade, HSIL or more serious smear was 89.5%, 92.7% and 85.3%, respectively. Compared with the previous reporting quarter, the proportion of Pacific women having a subsequent histology increased from 81.1% to 85.3%. There was almost no change for Maori or 'Other' women.

Table 8 shows the number and proportion of women in each NCSP region with a high grade cytology result between 1 October 2000 and 30 September 2001, who had a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks, or after more than 52 weeks of the smear being taken. The proportion of women in each region who had a high grade smear result with a subsequent histology taken within 12 weeks as recorded on the NCSP-Register varied considerably amongst the regions. This proportion ranged from 44.8% for Bay of Plenty to 89.7% for the West Coast. No region reached the 12-week target of 90%. For the 1 January – 31 March 2002 reporting quarter two regions (Tairāwhiti and the West Coast) reached this target. Also, no region reached the 52-week target of 99%, although Otago almost reached it (97.3%).

For 390 women with a high grade smear result, a subsequent histology result was not recorded on the NCSP-Register (Table 4). This was fewer than the number of women reported with no histology recorded following a high grade smear for last quarter (422). Amongst the ethnic groups, the proportions of women who had no histology recorded on the NCSP-Register differed. This proportion was 10.5% for Maori women (Table 5), 7.3% for 'Other' women (Table 6) and 14.7% for Pacific women (Table 7). The proportion of Pacific women with no histology recorded had decreased from 18.9% reported last quarter. Amongst the NCSP regions, Bay of Plenty clearly had the greatest number and proportion of women with no histology result recorded on the NCSP-Register following a high grade smear (Table 8). 139 of 736 (18.9%) women with a high grade smear result in Bay of Plenty did not have a subsequent histology recorded on the

NCSP-Register. This was less than that reported for the previous quarter (159 of 780 (20.4%)). Compared with other regions, relatively high numbers of women also had no histology result recorded on the NCSP-Register in Auckland (93), Canterbury (27), Manawatu-Wanganui (30), Waikato (19) and Wellington (41).

Table 9 summarises women with a high grade smear result and no subsequent histology recorded on the NCSP-Register. Of the 390 women with no histology recorded, 85 (21.8%) women had no further smear recorded following the initial high grade smear result and 141 (36.2%) women had a follow-up smear taken by a non-specialist. Of the 226 women with either no smear or a smear by a non-specialist, 134 were recorded on the register as having been 'signed in' following their high grade smear result, suggesting that clinical management of an abnormality had been completed. For the remaining 92 women, their follow-up was less clear.

Some women with no histology result recorded may have had further investigations and treatment, but their histology reports were not recorded on the NCSP-Register. Some women may have moved overseas and had follow-up there, some women may not have had indications for biopsy at colposcopic examination and some women may have chosen to not have their histology results recorded on the NCSP-Register.

RECOMMENDATIONS

Service Issues

1. Reasons why 390 women with a high grade cytology report have no subsequent histology result recorded on the NCSP-Register are sought by the NSU.

The following recommendation was first stated in Report 2, Section 4.9 and is still applicable.

2. Reasons why a histology report was not recorded by the NCSP-Register within 12 weeks of a high grade cytology result for more than one-quarter of women, particularly Maori and Pacific women and women in the Bay of Plenty NCSP region, need to be examined.

Table 4. Timeliness of histology report after an ASCUS possible high grade, HSIL or more serious cytology result for enrolled 20-69 year old women [targets = 90% within 12 weeks and 99% within 52 weeks].

Time period	Number	Proportion (%)	Cumulative proportion (%)
Within 12 weeks	3,564	73.0	73.0
13-26 weeks	643	13.2	86.1
27-52 weeks	224	4.6	90.7
More than 52 weeks	63	1.3	92.0
Subtotal	4,494		
No histology recorded on NCSP-Register	390	8.0	100.0
Total	4,884		

Table 5. Timeliness of histology report after an ASCUS possible high grade, HSIL or more serious cytology result for enrolled 20-69 year old Maori women [targets = 90% within 12 weeks and 99% within 52 weeks].

Time period	Number	Proportion (%)	Cumulative proportion (%)
Within 12 weeks	475	59.5	59.5
13-26 weeks	152	19.0	78.6
27-52 weeks	71	8.9	87.5
More than 52 weeks	16	2.0	89.5
Subtotal	714		
No histology recorded on NCSP-Register	84	10.5	100.0
Total	798		

Table 6. Timeliness of histology report after ASCUS possible high grade, HSIL or more serious cytology result for enrolled 20-69 year old ‘Other’ women [targets = 90% within 12 weeks and 99% within 52 weeks].

Time period	Number	Proportion (%)	Cumulative proportion (%)
Within 12 weeks	3,026	76.0	76.0
13-26 weeks	473	11.9	87.8
27-52 weeks	147	3.7	91.5
More than 52 weeks	47	1.2	92.7
Subtotal	3,693		
No histology recorded on NCSP-Register	291	7.3	100.0
Total	3,984		

Table 7. Timeliness of histology report after ASCUS possible high grade, HSIL or more serious cytology result for enrolled 20-69 year old Pacific women [targets = 90% within 12 weeks and 99% within 52 weeks].

Time period	Number	Proportion (%)	Cumulative proportion (%)
Within 12 weeks	63	61.8	61.8
13-26 weeks	18	17.6	79.4
27-52 weeks	6	5.9	85.3
More than 52 weeks	0	0.0	85.3
Subtotal	87		
No histology recorded on NCSP-Register	15	14.7	100.0
Total	102		

Table 8. Timeliness of histology report after ASCUS possible high grade, HSIL or more serious cytology result for enrolled 20-69 year old women by NCSP region [targets = 90% within 12 weeks and 99% within 52 weeks].

NCSP region	Time periods										Total
	Within 12 weeks		13-26 weeks		27-52 weeks		More than 52 weeks		No histology		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Auckland	1,010	76.3	139	10.5	69	5.2	13	1.0	93	7.0	1,324
Bay of Plenty	330	44.8	209	28.4	43	5.8	18	2.4	139	18.9	736
Canterbury	424	82.5	40	7.8	17	3.3	6	1.2	27	5.3	514
Hawkes Bay	136	73.9	29	15.8	9	4.9	1	0.5	9	4.9	184
Manawatu/ Wanganui	270	77.4	27	7.7	19	5.4	3	0.9	30	8.6	349
Nelson/ Marlborough	97	65.5	34	23.0	11	7.4	2	1.4	4	2.7	148
Northland	144	79.1	24	13.2	9	4.9	0	0.0	5	2.7	182
Otago	200	86.6	15	6.5	6	2.6	6	2.6	4	1.7	231
Southland	95	80.5	10	8.5	4	3.4	2	1.7	7	5.9	118
Tairāwhiti	40	80.0	5	10.0	2	4.0	1	2.0	2	4.0	50
Taranaki	129	80.6	16	10.0	4	2.5	0	0.0	11	6.9	160
Waikato	329	79.3	50	12.0	13	3.1	4	1.0	19	4.6	415
Wellington	334	75.2	44	9.9	18	4.1	7	1.6	41	9.2	444
West Coast	26	89.7	1	3.4	0	0.0	0	0.0	2	6.9	29
Total	3,564	73.0	643	13.2	224	4.6	63	1.3	390	8.0	4,884

Table 9. The number of women with no histology result recorded by NCSP-Register status and source of any subsequent smear.

Women's status	Subsequent smear			Total
	No smear	Smear taken by non-specialist	Smear taken by specialist	
Not signed in	43	49	76	168
Signed in since high grade cytology result	42	92	88	222
Total	85	141	164	390

Laboratory Indicators

Several NCSP national indicators focus on laboratory performance. These are laboratory smear reporting rates, cytology and histology turn around times, satisfactory but limited and unsatisfactory smear reporting rates, and accuracy of negative cytology reports. Table 10 summarises the laboratory performance indicators by laboratory for this quarterly report. These indicators are discussed in detail in sections 4.4 – 4.7

Table 10. A summary of laboratory indicators reported.

Laboratory	Total number of smears reported	Satisfactory but limited smears (target = not more than 20%)		Unsatisfactory smears (target = 0.5 – 2.0%)		Negative for dysplasia or malignancy* (target = not more than 96%)		HSIL* (target = not less than 0.6%)		Total abnormalities*† (target = not more than 10%)		Smear turn around time proportion (%) (target = 90%)
		No.	%	No.	%	No.	%	No.	%	No.	%	Within 7 days
<i>Hospital-based</i>	Number											
Auckland Hospital Laboratory	2,771	572	20.6	47	1.7	2,199	80.73	160	5.87	525	19.27	96.82
Canterbury Health Laboratories	1,408	181	12.9	21	1.5	1,179	85.00	33	2.38	208	15.00	100.00
Rest of table 10 continued on next page												

* Unsatisfactory smears excluded

† Includes all smears with a diagnosis code of ASCUS or more serious according to the hierarchy of codes.

Table 10 *continued*

Laboratory	Total number of smears reported	Satisfactory but limited smears (target = not more than 20%)		Unsatisfactory smears (target = 0.5 – 2.0%)		Negative for dysplasia or malignancy* (target = not more than 96%)		HSIL* (target = not less than 0.6%)		Total abnormalities*† (target = not more than 10%)		Smear turn around time proportion (%) (target = 90%)
		No.	%	No.	%	No.	%	No.	%	No.	%	Within 7 days
<i>Community-based</i>	Number											
Diagnostic Medlab Auckland	29,038	6,017	20.7	91	0.3	27,498	94.99	253	0.87	1,449	5.01	99.99
Medical Laboratory Wellington	8,203	2,090	25.5	176	2.2	7,053	87.87	113	1.41	974	12.13	86.79
Medlab Bay of Plenty	7,093	1,266	17.9	48	0.7	6,216	88.23	84	1.19	829	11.77	98.49
Medlab Central, Palmerston North	7,924	1,297	16.4	40	0.5	7,203	91.36	75	0.95	681	8.64	99.96
Medlab Hamilton	7,488	1,014	13.5	32	0.4	6,625	88.85	47	0.63	831	11.15	100.00
Medlab South Christchurch	10,163	1,887	18.6	117	1.2	9,292	92.49	105	1.05	754	7.51	100.00
Pathlab Waikato	2,716	398	14.7	18	0.7	2,474	91.70	28	1.04	224	8.30	99.74
SCL‡ Christchurch	5,831	572	9.8	26	0.5	5,547	95.56	22	0.38	258	4.44	98.80
SCL‡ Dunedin	11,776	630	5.4	106	0.9	11,090	95.03	152	1.30	580	4.97	98.43
Taranaki Medlab	6,186	1,204	19.5	142	2.3	5,554	91.89	45	0.74	490	8.11	98.51
Valley Diagnostic Laboratory	4,096	837	20.4	91	2.2	3,794	94.73	56	1.40	211	5.27	97.53
Total	104,693	17,965	17.2	955	0.9	95,724	92.27	1,173	1.13	8,014	7.73	98.34

* Unsatisfactory smears excluded

† Includes all smears with a diagnosis code of ASCUS or more serious according to the hierarchy of codes.

‡ SCL = Southern Community Laboratory

4.4 Laboratory smear reporting

Levels of cytology abnormalities detected by laboratories depend on numerous factors including the prevalence of abnormalities, the case mix and laboratory reporting practice.¹³ Since the first monitoring report, the number of hospital based laboratories reporting cervical cytology has decreased. Consequently, some community-based laboratories will be reporting more smears from women attending hospital clinics.

The Bethesda System is used by the NCSP to record the cytological result of each smear. Laboratories can assign more than one Bethesda diagnosis code to each smear. Therefore, a hierarchy of the codes is used by the NCSP for the recommended follow-up and tabulation of results. Similarly, for the purposes of this report the most serious diagnosis code for each smear according to the hierarchy of codes is used. The Bethesda diagnosis codes were assigned to broad cytological categories and these are shown in Appendix 2. The hierarchy of broad cytological categories, with increasing severity from (a) to (l) is:

- (a) Negative for dysplasia or malignancy
- (b) Abnormal not otherwise specified
- (c) Atypical squamous cells of undetermined significance, excluding ASCUS possible high grade (ASCUS-LG)
- (d) Low grade squamous intraepithelial lesion (LSIL)
- (e) Atypical glandular cells of undetermined significance favouring a reactive process (AGUS favour reactive)
- (f) Atypical glandular cells of undetermined significance favouring a dysplastic process (AGUS favour dysplasia)
- (g) Atypical squamous cells of undetermined significance, possible high grade
- (h) High grade squamous intraepithelial lesion (HSIL)
- (i) Adenocarcinoma-in-situ (AIS)
- (j) Adenocarcinoma (endocervical, not otherwise specified and other)
- (k) Cancer not otherwise specified
- (l) Invasive squamous carcinoma of the cervix

Definition

Laboratory smear reporting is measured by the number and proportion of satisfactory or satisfactory but limited smears in the specified broad cytological categories (negative for

¹³ The prevalence of the abnormalities in the population of women whose smears are read at a laboratory is an important determinant of the pattern of reporting from the laboratory. Hence, the case mix can vary considerably among laboratories. Hospital laboratories read smears from women referred to colposcopy clinics after the initial report of a cytological abnormality. Many hospital laboratories also read smears from women attending sexual health clinics. The prevalence of cytological abnormalities is higher amongst these two groups of women. Consequently, the prevalence of abnormalities reported by hospital laboratories is much greater than those laboratories (community laboratories) for whom the great majority of smears come from women with normal smear histories. However, some community laboratories also provide cytology reporting for hospital or private gynaecology colposcopy clinics.

dysplasia or malignancy, total ASCUS, AGUS favour reactive, AGUS favour dysplasia, LSIL, ASCUS possible high grade and HSIL).

Target

The targets for laboratory smear reporting are:

1. Negative for dysplasia or malignancy not more than 96%,
2. HSIL not less than 0.60%,
3. Total abnormalities not more than 10%.

Calculation

The Bethesda diagnosis codes, as recorded on the NCSP-Register at the time of the data download, of smears taken during the reporting quarter were used to calculate the number of smears in each broad cytological category for each laboratory. These were expressed as proportions of the total number of smears reported by each laboratory. Where a single smear had more than one diagnosis code, only the most serious ranked code was used according to the hierarchy of codes (see Appendix 2). Total abnormalities included all smears with a diagnosis code of ASCUS or more serious abnormality. Smear results for women of all ages were included. Smears recorded as being unsatisfactory for evaluation were excluded.

Results

Table 11 shows the number and proportion of satisfactory or satisfactory but limited smears in the specified cytological categories for smears taken in the quarter for each of the laboratories that reported smears. The results are grouped into the two laboratories reporting smears predominantly for hospital clinics and the eleven laboratories reporting smears predominantly from the community.

During the quarter, 103,738 satisfactory or satisfactory but limited smears were taken, and the number of smears reported by each laboratory ranged from 1,387 at Canterbury Health Laboratories to 28,947 at Diagnostic Medlab Auckland.

Overall, of the 103,738 smears 92.3% were reported as negative for dysplasia or malignancy. This was slightly lower than that reported last quarter (93.1%), and within the target of not more than 96% of smears being negative for dysplasia or malignancy. Although each laboratory met the target, there was variation amongst the laboratories. The two hospital-based laboratories reported lower proportions of the smears they read as negative for dysplasia or malignancy (85.0% or less) compared with the community-based laboratories (87.9% or more).

The proportion of smears reported as HSIL was 1.13% for all laboratories combined. It was slightly more than that reported for the previous reporting quarter (1.06%). For all laboratories combined and for each laboratory the target of not less than 0.60% was met. As expected and as previously observed, the two hospital-based laboratories, particularly Auckland Hospital Laboratory, reported higher proportions of smears as HSIL compared with the community-based laboratories. Amongst the community-based laboratories, Medlab Laboratory Wellington and Valley Diagnostic Laboratory reported the highest

proportion of smears as HSIL (1.4%). The proportion of smears reported as HSIL by Southern Community Laboratory Christchurch (0.38%) was clearly below the target of 0.60%.

For all laboratories combined, the target of not more than 10% of smears reported as abnormal was not exceeded. This proportion was 7.7%, which is more than that reported last quarter (6.9%), but similar to that reported for previous quarters: 7.3% for January-March 2002, 7.6% for October-December 2001, 8.1% for July-September 2001 and 7.8% for April-June 2001. Both hospital-based laboratories reported more than 10% of smears they processed to be abnormal: Auckland Hospital Laboratory (19.3%) and Canterbury Health Laboratories (15.0%). Three community-based laboratories also reported more than 10% of the smears they processed as abnormal: Medical Laboratory Wellington (12.1%), Medlab Bay of Plenty (11.8%) and Medlab Hamilton (11.2%). This may be due to an increased proportion of smears processed by each of these laboratories coming from women attending hospital clinics. Both Medical Laboratory Wellington and Medlab Bay of Plenty reported relatively higher proportions of smears as ASCUS (6.5% and 7.0%, respectively) compared with the other community-based laboratories (less than 5.0%).

RECOMMENDATIONS

Service Issues

1. An explanation for the low proportion of HSIL reporting should be sought from Southern Community Laboratory Christchurch.

The following recommendations were previously stated in Report 5, Section 4.4, and are still applicable.

2. The IMG-NCSP should use the monitoring data set to investigate the outcome of women with ASCUS cytology results.

Table 11. The number and proportion of satisfactory or satisfactory but limited smears in broad cytological categories for each laboratory.

Laboratory	Negative for dysplasia or malignancy (target - not more than 96%)		Total ASCUS (including ASCUS possible HSIL)		LSIL		AGUS favour reactive		AGUS favour dysplasia		ASCUS possible HSIL		HSIL (target - not less than 0.60%)		Total abnormalities† (target - not more than 10%)		Total number of smears
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
<i>Hospital-based</i>																	
Auckland Hospital Laboratory	2,199	80.73	245	8.99	102	3.74	5	0.18	2	0.07	17	0.62	160	5.87	525	19.27	2,724
Canterbury Health Laboratories	1,179	85.00	89	6.42	80	5.77	4	0.29	1	0.07	4	0.29	33	2.38	208	15.00	1,387
Rest of table 11 continued on next page																	

† Includes all smears with a diagnosis code of ASCUS or more serious according to the hierarchy of codes.

Table 11 *continued*

Laboratory	Negative for dysplasia or malignancy (target = not more than 96%)		Total ASCUS (including ASCUS possible HSIL)		LSIL		AGUS favour reactive		AGUS favour dysplasia		ASCUS possible HSIL		HSIL (target = not less than 0.60%)		Total abnormalities† (target = not more than 10%)		Total number of smears
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
<i>Community-based</i>																	
Diagnostic Medlab Auckland	27,498	94.99	569	1.97	606	2.09	11	0.04	1	0.00	52	0.18	253	0.87	1,449	5.01	28,947
Medical Laboratory Wellington	7,053	87.87	521	6.49	321	4.00	13	0.16	3	0.04	20	0.25	113	1.41	974	12.13	8,027
Medlab Bay of Plenty	6,216	88.23	493	7.00	235	3.34	13	0.18	3	0.04	8	0.11	84	1.19	829	11.77	7,045
Medlab Central, Palmerston North	7,203	91.36	243	3.08	347	4.40	3	0.04	8	0.10	7	0.09	75	0.95	681	8.64	7,884
Medlab Hamilton	6,625	88.85	365	4.90	404	5.42	7	0.09	5	0.07	13	0.17	47	0.63	831	11.15	7,456
Medlab South Christchurch	9,292	92.49	363	3.61	264	2.63	14	0.14	3	0.03	40	0.40	105	1.05	754	7.51	10,046
Pathlab Waikato	2,474	91.70	134	4.97	59	2.19	2	0.07	1	0.04	7	0.26	28	1.04	224	8.30	2,698
SCL* Christchurch	5,547	95.56	92	1.58	136	2.34	5	0.09	1	0.02	5	0.09	22	0.38	258	4.44	5,805
SCL* Dunedin	11,090	95.03	51	0.44	365	3.13	1	0.01	1	0.01	24	0.21	152	1.30	580	4.97	11,670
Taranaki Medlab	5,554	91.89	203	3.36	233	3.86	5	0.08	1	0.02	7	0.12	45	0.74	490	8.11	6,044
Valley Diagnostic Laboratory	3,794	94.73	53	1.32	99	2.47	2	0.05		0.00	3	0.07	56	1.40	211	5.27	4,005
Total	95,724	92.27	3,421	3.30	3,251	3.13	85	0.08	30	0.03	207	0.20	1,173	1.13	8,014	7.73	103,738

† Includes all smears with a diagnosis code of ASCUS or more serious according to the hierarchy of codes.

* SCL = Southern Community Laboratory.

4.5 Laboratory cytology turn around time

Definition

Laboratory cytology turn around time is the period of time between the smear being received by the laboratory and the report being issued by the laboratory to the smear taker.

Target

The targets for the laboratory cytology turn around time are 90% of smear reports issued to the smear taker within 7 working days of the smear being received by the laboratory, and 100% of smear reports issued to the smear taker within 14 days of the smear being received by the laboratory.

Calculation

The difference between the date that the smear was received and the date that the smear was reported by the laboratory, as recorded by the NCSP-Register, was used to measure the laboratory turn around time. The numbers of smears reported within 7 working days, between 8 and 14 working days and more than 14 working days were expressed as proportions of the total number of smears reported by the laboratory during the quarter. Smears taken from enrolled women of all ages during the reporting period as recorded on the NCSP-Register were included.

Results

Table 12 shows the proportion of smears received and reports issued within specified time periods during the period 1 July to 30 September 2002 for each laboratory processing cervical cytology. Overall, 98.3% of smears received by laboratories were reported within 7 working days. This was greater than the target of 90%. Last quarter 96.1% of smears were reported within 7 working days.

Overall, the 14-day target of 100% was almost achieved. For all smears received by laboratories between 1 July and 30 September 2002, 99.99% were reported within 14 working days.

Only one of thirteen laboratories did not achieve the 7-day target. This laboratory was Medical Laboratory Wellington whose 7-day turn around time (86.8%) was close to the 90% target. Last quarter three laboratories did not meet the 7-day target. These laboratories were Valley Diagnostic Laboratory (89.8%), Medlab Bay of Plenty (86.1%) and Medical Laboratory Wellington (75.6%).

Four laboratories did not meet the 14-day target, but they were very close to achieving it. Overall, 12 of 104,693 smears were not reported within 14 working days compared with 16 smears for the previous quarter.

RECOMMENDATIONS

Service Issues

1. Medical Laboratory Wellington should continue to work towards achieving the 7-day target.

Table 12. Timeliness of the reporting of smears by laboratory [targets = 90% within 7 working days and 100% within 14 working days].

Laboratory	Within 7 working days	From 8 to 14 working days		More than 14 working days
	Proportion (%)	Proportion (%)	Cumulative proportion (%)	Proportion (%)
<i>Hospital-based</i>				
Auckland Hospital Laboratory	96.82	3.18	100.00	0.00
Canterbury Health Laboratories	100.00	0.00	100.00	0.00
<i>Community-based</i>				
Diagnostic Medlab Auckland	99.99	0.01	100.00	0.00
Medical Laboratory Wellington	86.79	13.20	99.99	0.01
Medlab Bay of Plenty	98.49	1.51	100.00	0.00
Medlab Central, Palmerston North	99.96	0.04	100.00	0.00
Medlab Hamilton	100.00	0.00	100.00	0.00
Medlab South Christchurch	100.00	0.00	100.00	0.00
Pathlab Waikato	99.74	0.07	99.81	0.18
Southern Community Laboratory Christchurch	98.80	1.20	100.00	0.00
Southern Community Laboratory Dunedin	98.43	1.53	99.96	0.04
Taranaki Medlab	98.51	1.49	100.00	0.00
Valley Diagnostic Laboratory	97.53	2.44	99.97	0.02
Total	98.34	1.65	99.99	0.01

4.6 Laboratory histology turn around time

Definition

Laboratory histology turn around time is the period of time between the cervical or vaginal histology specimen being received in the laboratory and the report being issued by the laboratory.

Target

The targets for the laboratory histology turn around time are 90% of final histology reports issued within 5 working days of the specimen being received by the laboratory, and 100% of final histology reports issued within a reasonable time period of the specimen being received by the laboratory.¹⁴ The National Cervical Screening Programme Interim Operational Policy and Quality Standards¹⁵ state that “If it is likely to take more than 10 days for the result to be reported the colposcopist should be informed.”

Calculation

The difference between the date that the cervical histology specimen was received and the date that the histology result was reported by the laboratory, as recorded on the NCSP-Register, was calculated for each laboratory that processed cervical histology. Histology specimens included diagnostic biopsies, treatment biopsies, polyps and the cervical tissue of total hysterectomy specimens. For each laboratory the numbers of cervical histology specimens received during the quarter and reported within 5 working days, 6-10 working days or more than 10 working days were expressed as proportions of the total number of cervical histology specimens received by each laboratory during the quarter.

The recorded results of cervical histology specimens taken from enrolled women of all ages during the reporting period were included. As the histology results of some women who had cervical histology specimens taken during the quarter were not recorded on the NCSP-Register at the time of the data download, these were unable to be included. Some ‘hard copy’ results dated August and September 2002, received by the MoH had not been processed and were not included in the data extract. This affected histology results reported by Wanganui Hospital Laboratory, Timaru Medlab and Whangarei Hospital Laboratory. Also, Pathlab Waikato, Medical Laboratory Southland, Middlemore Hospital Laboratory and Medlab Bay of Plenty sent some histology results for specimens taken during July-September 2002 following the date of the data extraction. These histology results were also not included in the calculation of the histology turn around time indicator.

Results

Table 13 shows the number of histology specimens reported and the timeliness of histology results reported by laboratories. Thirty-one laboratories were recorded as

¹⁴ P 5.21 National Cervical Screening Programme Interim Operational Policy and Quality Standards. Health Funding Authority, October 2000.

¹⁵ Ibid.

having reported histology specimens during this reporting quarter. Timaru Medlab was recorded on the NCSP-Register as not having reported any cervical histology during the July-September 2002 quarter. For all laboratories combined 7,029 histology results were recorded on the NCSP-Register. The number of histology specimens reported by each laboratory as recorded on the NCSP-Register varied considerably, ranging from 0 for Timaru Medlab to 932 for Diagnostic Medlab Auckland.

For all laboratories combined, the 5-day histology turn around time was 91.1%, which was slightly less than that for the previous quarter (94.7%), but still met the target of 90%. Five of the thirty-one laboratories did not meet the 5-day target. These laboratories were Auckland Hospital Laboratory (71.4%), Northland Pathology Laboratory (88.3%). Rotorua Hospital Laboratory (89.3%), Taranaki Base Hospital Laboratory (87.0%) and Wellington Hospital Laboratory (60.4%).

Most laboratories had reported all or almost all histology results within 10 working days of the specimen arriving at the laboratory. Overall, 88 of 7,029 (1.8%) histology specimens received during the quarter were reported after 10 working days from the time the specimen was received by the laboratory. Wellington Hospital Laboratory clearly had a higher number (44) and proportion (13.0%) of histology specimens reported after 10 working days compared with the other laboratories.

RECOMMENDATIONS

Service Issues

1. Auckland Hospital Laboratory, Rotorua Hospital Laboratory, Taranaki Base Hospital Laboratory, Wellington Hospital Laboratory and Northland Pathology Laboratory should work towards achieving and maintaining the 5-day histology turn around time target.
2. An explanation for the relatively high number and proportion of histology specimens reported after 10 working days by Wellington Hospital Laboratory should be sought.

Table 13. Timeliness of the reporting of histology by laboratory [targets = 90% within 5 working days and 100% within a reasonable period of time].

Laboratory	Number of histology specimens	Within 5 working days	6-10 working days	11 or more working days
		Proportion (%)	Proportion (%)	Proportion (%)
Auckland Hospital Laboratory	405	71.4	25.2	3.5
Canterbury Health Laboratories	632	99.2	0.6	0.2
Diagnostic Medlab Auckland	932	99.5	0.5	0.0
Hutt Hospital Laboratory	151	91.4	6.6	2.0
Medical Laboratory Southland	20	100.0	0.0	0.0
Medical Laboratory Wellington	249	94.0	4.4	1.6
Medlab Bay of Plenty	335	98.5	1.5	0.0
Medlab Central, Palmerston North	510	95.7	4.1	0.2
Medlab Hamilton	87	93.1	5.7	1.1
Medlab South Christchurch	45	100.0	0.0	0.0
Medlab South working for Timaru	114	100.0	0.0	0.0
Memorial Hospital Hastings Lab	143	95.8	2.1	2.1
Middlemore Hospital Laboratory	227	100.0	0.0	0.0
Nelson Diagnostic Laboratory	56	94.6	5.4	0.0
Nelson Hospital Laboratory	111	96.4	1.8	1.8
North Shore Hospital Laboratory	445	100.0	0.0	0.0
Northland Pathology Laboratory	77	88.3	10.4	1.3
Pathlab Waikato	154	100.0	0.0	0.0
Rotorua Hospital Laboratory	149	89.3	7.4	3.4
SCL Christchurch	172	99.4	0.6	0.0
SCL Dunedin	429	99.8	0.2	0.0
SCL Hawkes Bay	32	100.0	0.0	0.0
Southland Hospital Laboratory	146	97.9	2.1	0.0
Taranaki Base Hospital Laboratory	193	87.0	9.8	3.1
Taranaki Medlab	65	96.9	1.5	1.5
Timaru Medlab	0	0.0	0.0	0.0
Valley Diagnostic Laboratory	92	100.0	0.0	0.0
Waikato Hospital Laboratory	570	93.2	6.5	0.4
Wanganui Hospital Laboratory	47	93.6	6.4	0.0
Wellington Hospital Laboratory	338	60.4	26.6	13.0
Whangarei Hospital Laboratory	103	92.2	7.8	0.0
Total	7,029	91.1	7.1	1.8

4.7 Satisfactory but limited and unsatisfactory smears by laboratory

Definition

Satisfactory but limited smears are those smears reported with a Bethesda adequacy code of A2 (satisfactory but limited).

Unsatisfactory smears are those smears reported with a Bethesda adequacy of A3 (unsatisfactory).

It is important to note that the adequacy coding of a smear is influenced by both smear taking technique and laboratory reporting practice.

The recently revised Bethesda System no longer includes a satisfactory but limited category. Until the NCSP adopts this most recent revision of the Bethesda System, the IMG-NCSP will continue to report the satisfactory but limited smears by laboratory indicator. When the NCSP adopts the recently revised Bethesda System, consideration will be given to changing the current target for unsatisfactory smears.

Target

The target for satisfactory but limited smears is not more than 20% of all smears reported for a given laboratory.

The target for unsatisfactory smears is not less than 0.5% and not more than 2.0% of all smears reported for a given laboratory.

Calculation

All smears taken during the reporting quarter for which there was a result recorded on the NCSP-Register were used to calculate these indicators.

The number of satisfactory but limited smears and the number of unsatisfactory smears reported were both expressed as a proportion of the total number of smears processed during the quarter by each cytology reporting laboratory.

Results

Table 14 shows the number and proportion of satisfactory but limited and unsatisfactory smears taken during the quarter and reported by the specified laboratories. Overall, 104,693 smears were reported and recorded on the NCSP-Register, of which 17.2% were reported as satisfactory but limited. This was more than that reported last quarter (16.8%), but within the target of not more than 20%.

Amongst the laboratories, the proportion of satisfactory but limited smears varied considerably. This proportion ranged from 5.4% for Southern Community Laboratory Dunedin to 25.5% for Medical Laboratory Wellington. Four laboratories reported more than 20% of smears they read as satisfactory but limited compared with only one laboratory last quarter. These four laboratories were Auckland Hospital Laboratory (20.6%), Diagnostic Medlab Auckland (20.7%), Medical Laboratory Wellington (25.5%)

and Valley Diagnostic Laboratory (20.4%). A high proportion of satisfactory but limited smears is associated with a high level of short interval re-screening (see Section 4.1).

Overall, 0.9% of the 104,693 smears processed were reported as unsatisfactory for evaluation. This is the same or very similar to that reported for previous monitoring quarters, and within the target range of 0.5% - 2.0%. Medical Laboratory Wellington (2.2%) Taranaki Medlab (2.3%) and Valley Diagnostic Laboratory (2.2%) reported more than 2.0% of smears as unsatisfactory. Two laboratories reported less than 0.5% of smears they processed as unsatisfactory compared with three last quarter. These laboratories were Diagnostic Medlab Auckland (0.3%) and Medlab Hamilton (0.4%).

RECOMMENDATIONS

Service Issues

1. An explanation should be sought from Diagnostic Medlab Auckland and Medlab Hamilton for the low proportion of unsatisfactory smears reported.
2. An explanation should be sought from Medical Laboratory Wellington, Taranaki Medlab and Valley Diagnostic Laboratory for the high proportion of unsatisfactory smears reported.

Table 14. The number and proportion of satisfactory but limited and unsatisfactory smears by laboratory.

Laboratory	Total number of smears processed	Satisfactory but limited smears [target = not more than 20%]		Unsatisfactory smears (%) [target = 0.5 – 2.0%]	
		Number	Proportion (%)	Number	Proportion (%)
<i>Hospital-based</i>					
Auckland Hospital Laboratory	2,771	572	20.6	47	1.7
Canterbury Health Laboratories	1,408	181	12.9	21	1.5
<i>Community-based</i>					
Diagnostic Medlab Auckland	29,038	6,017	20.7	91	0.3
Medical Laboratory Wellington	8,203	2,090	25.5	176	2.2
Medlab Bay of Plenty	7,093	1,266	17.9	48	0.7
Medlab Central, Palmerston North	7,924	1,297	16.4	40	0.5
Medlab Hamilton	7,488	1,014	13.5	32	0.4
Medlab South Christchurch	10,163	1,887	18.6	117	1.2
Pathlab Waikato	2,716	398	14.7	18	0.7
Southern Community Laboratory Christchurch	5,831	572	9.8	26	0.5
Southern Community Laboratory Dunedin	11,776	630	5.4	106	0.9
Taranaki Medlab	6,186	1,204	19.5	142	2.3
Valley Diagnostic Laboratory	4,096	837	20.4	91	2.2
Total	104,693	17,965	17.2	955	0.9

4.8 Waiting time for colposcopic assessment for HSIL or ASCUS possible high grade

Definition

The waiting time for colposcopic assessment for HSIL or ASCUS possible high grade, is the time from the receipt of a referral by a DHB colposcopy service for women with a high grade cytology result to the time of the first colposcopic assessment.

Target

The target is 95% or more of women with a high grade cytology result have a colposcopic assessment within 4 weeks.

Calculation

Data required for the calculation of the waiting time for assessment for HSIL or ASCUS possible high grade indicator are collected by DHB colposcopy clinics and reported to the Ministry of Health (MoH). Prior to the establishment of the IMG-NCSP data required to calculate this indicator were not collected. Because data definitions were inconsistent¹⁶ and some data were missing, it was not possible to calculate this indicator. Nevertheless, the number of women with an HSIL or ASCUS possible high grade cytology result who were referred to a DHB colposcopy clinic each month, and the number of women with an HSIL or ASCUS possible high grade cytology result who were waiting longer than 4 weeks for a colposcopic assessment at the end of each month reported by DHB colposcopy services were provided by the MoH.

Results

Table 15 shows the reported number of women with an HSIL or ASCUS possible high grade cytology results referred each month for a colposcopic assessment to each DHB colposcopy service, and the reported number of women referred for colposcopic assessment of an HSIL or ASCUS possible high grade cytology result waiting longer than 4 weeks at the end of each month. Good Health Wanganui, Healthcare Hawkes Bay, Lakeland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Tairāwhiti Healthcare and Waitemata Health did not provide data. For Northland Health and Wairarapa Health some data were missing.

Among those colposcopy units who provided data to the MoH, up to 54 women with an HSIL or ASCUS possible high grade cytology abnormality were reported to be waiting longer than 4 weeks at the end of the month during the reporting period. For Healthcare Otago, Hutt Valley Health and MidCentral Health and no women were reported to be waiting longer than 4 weeks.

¹⁶ Summary Of Findings From Questionnaire To Clarify Definitions Of CIN 1 And CIN 3 Used To Report Colposcopy Waiting Times. Unpublished Report. Ministry of Health, December 2000.

RECOMMENDATIONS

Data Issues

The following recommendations were previously stated in Report 5, Section 4.9, and are still applicable.

3. A suitable process to collect data required for calculating the colposcopy waiting time indicators is required urgently in order for the IMG-NCSP to monitor colposcopy services.
4. Efforts to collect data from those DHB colposcopy units (Good Health Wanganui, Healthcare Hawkes Bay, Lakeland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Tairāwhiti Healthcare, Waitemata Health, Northland Health and Wairarapa Health) who did not provide any or incomplete data should continue.

Service Issues

The following recommendation was previously stated in Report 5, Section 4.9, and is still applicable.

1. Efforts to reduce the number of women with HSIL or ASCUS possible high grade cytology waiting more than 4 weeks for colposcopic assessment should continue.

Table 15. Waiting time for colposcopic assessment of HSIL or ASCUS possible high grade by DHB colposcopy service.

DHB Colposcopy Reporting Unit	Number of women referred for colposcopic assessment of HSIL or ASCUS-HG			Number of women referred waiting longer than 4 weeks at the end of each month.		
	Jul	Aug	Sept	Jul	Aug	Sept
Auckland Healthcare‡	38	23	32	0	1	2
Canterbury Health	36	56	50	15	17	19
Capital Coast Health†	12	13	16	9	1	3
Coast Healthcare (West Coast)	0	1	7	7	-	1
Good Health Wanganui†						
Health South Canterbury	5	2	3	0	2	1
Health Waikato	19	24	24	13	9	0
Healthcare Hawkes Bay†						
Healthcare Otago	40	24	29	0	0	0
Hutt Valley Health	7	10	5	0	0	0
Lakeland Health†						
MidCentral Health	18	21	18	0	0	0
Nelson/Marlborough Health	8	7	5	3	2	1
Northland Health‡				5	6	4
Pacific Health Tauranga†						
Pacific Health Whakatane†						
South Auckland Health†						
Southern Health‡	16	10	7			
Tairāwhiti Healthcare†						
Taranaki Healthcare†	18	17	11	2	8	2
Wairarapa Health‡	3	6	1			
Waitemata Health†						
Total						

† Data not provided

‡ Missing data

4.9 Waiting time for colposcopic assessment for LSIL or ASCUS

Definition

The waiting time for colposcopic assessment for LSIL is the time from the receipt of a referral by a DHB colposcopy service for women with a low grade (LSIL or ASCUS) cytology result to the time of the first colposcopic assessment.

Target

The target is 95% or more of women with a low grade cytology result have a colposcopic assessment within 26 weeks.

Calculation

Data required for the calculation of the waiting time for assessment for LSIL indicator are collected by DHB colposcopy clinics and reported to the Ministry of Health (MoH). Prior to the establishment of the IMG-NCSP data required to calculate this indicator were not collected. Because data definitions were inconsistent¹⁷ and some data were missing, it was not possible to calculate this indicator. Nevertheless, the number of women with a low grade cytology result who were referred to a DHB colposcopy clinic each month, and the number of women with a low grade cytology result who were waiting longer than 26 weeks for a colposcopic assessment at the end of each month reported by DHB colposcopy services were provided by the MoH.

Results

Table 16 shows the reported number of women with low grade cytology results referred each month for a colposcopic assessment, and the reported number of women referred for colposcopic assessment of a low grade cytology result waiting longer than 26 weeks at the end of each month for each DHB colposcopy service. Good Health Wanganui, Healthcare Hawkes Bay, Lakeland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Tairāwhiti Healthcare and Waitemata Health did not provide data. For Northland Health, Southern Health and Wairarapa Health some data were missing.

Amongst those DHB colposcopy services that provided data to the MoH, the numbers of women referred for an assessment of a low grade abnormality waiting longer than 26 weeks were much higher for Capital Coast and Health Waikato compared with the other DHB colposcopy services. For Auckland Healthcare, Healthcare Otago, Hutt Valley Health and MidCentral Health no women were reported to be waiting longer than 26 weeks at the end of July, August or September 2002.

¹⁷ Summary Of Findings From Questionnaire To Clarify Definitions Of CIN 1 And CIN 3 Used To Report Colposcopy Waiting Times. Unpublished Report. Ministry of Health, December 2000.

RECOMMENDATIONS

Data Issues

1. See Section 4.8, Recommendation 1.
2. See Section 4.8, Recommendation 2.

Service Issues

The following recommendation was previously stated in Report 5, Section 4.10, and is still applicable.

1. Efforts to reduce the number of women with low grade cytology waiting more than 26 weeks for colposcopic assessment should continue, particularly Capital Coast and Health Waikato.

Table 16. Waiting time for colposcopic assessment of LSIL or ASCUS by DHB colposcopy service.

DHB Colposcopy Reporting Unit	Number referred for colposcopic assessment of LSIL			Number of those referred waiting longer than 26 weeks at the end of each month		
	Jul	Aug	Sept	Jul	Aug	Sept
Auckland Healthcare	57	48	39	0	0	0
Canterbury Health‡	49	38	43	-	-	-
Capital Coast Health	40	41	43	85	87	97
Coast Healthcare (West Coast)	0	4	6	3	-	0
Good Health Wanganui†						
Health South Canterbury	12	15	7	6	9	8
Health Waikato	21	58	59	358	393	324
Healthcare Hawkes Bay†						
Healthcare Otago	14	19	24	0	0	0
Hutt Valley Health	12	13	9	0	0	0
Lakeland Health†						
MidCentral Health	25	19	17	0	0	0
Nelson/Marlborough Health	24	28	28	2	14	1
Northland Health‡				13	13	11
Pacific Health Tauranga†						
Pacific Health Whakatane†						
South Auckland Health†						
Southern Health‡	7	11	12			
Tairāwhiti Healthcare†						
Taranaki Healthcare	23	10	16	1	5	1
Wairarapa Health‡	9	8	8			
Waitemata Health†						
Total						

† Data not provided

‡ Missing data

4.10 Satisfactory but limited and unsatisfactory smears by smear taker

Definition

Satisfactory but limited smears are those smears reported with a Bethesda adequacy code of A2 (satisfactory but limited).

Unsatisfactory smears are those smears reported with a Bethesda adequacy of A3 (unsatisfactory).

It is important to note that the adequacy coding of a smear is influenced by both smear taking technique and laboratory reporting practice.

The recently revised Bethesda System no longer includes a satisfactory but limited category. Until the National Cervical Screening Programme adopts this most recent revision of the Bethesda System, the IMG-NCSP will continue to report the satisfactory but limited smears by laboratory indicator.

Target

The target for satisfactory but limited smears is not more than 20% of all smears reported for each smear taker category.

The target for unsatisfactory smears is not less than 0.5% and not more than 2.0% of all smears reported for each smear taker category.

Calculation

Smears taken from enrolled women of all ages during the reporting quarter for which there was a result recorded on the NCSP-Register were used to calculate these indicators. The total number of smears recorded against each smear taker for the 12 months prior to the end of the reporting quarter was used to calculate the annual volume of smears taken by each smear taker.

For each smear taker group, the number of satisfactory but limited smears was expressed as a proportion of the total number of smears taken by each group.

For each smear taker group, the number of unsatisfactory smears was expressed as a proportion of the total number of smears taken by each group.

Results

Table 17 shows the number and proportion of satisfactory but limited and unsatisfactory smears taken in the quarter by annual volume of smears taken by each smear taker group. Overall, 104,693 smears were taken during the reporting quarter, of which 7 were taken by lay smear takers, 67,462 by medical smear takers, 27,383 by nurses, 9,345 by specialists and 496 by midwives. Of the 104,693 smears, 81.9% were considered satisfactory, 17.2% were considered satisfactory but limited and 0.9% were considered unsatisfactory for evaluation. Overall, the proportion of satisfactory but limited and the proportion of unsatisfactory smears were both within the targets.

The proportion of satisfactory but limited smears was within the target of not more than 20% for each entire smear taker group. Medical smear takers, specialists and midwives, who took fewer than 30 smears in the 12 months prior to 30 September 2002, the proportion of satisfactory but limited smears was greater than 20%. This proportion was higher for the midwife group (27.7%) compared with the medical smear takers (22.2%) and specialists (22.8%). The proportion of satisfactory but limited smears was also greater than 20% for specialists who took 30-100 smears annually (23.2%) and midwives who took 30-100 smears annually (21.7%). The lay smear taker group did not have any smears considered to be satisfactory but limited, but this group only took 7 smears during the quarter. Similar results were reported for the previous quarter.

The proportion of unsatisfactory smears was within the target range of 0.5-2.0 % for each entire smear taker group, except the lay smear taker group. This latter group did not have any smears reported as unsatisfactory. For midwives who took between 30 and 100 smears or more than 100 smears in the 12 months to 30 September 2002, no smears were reported as unsatisfactory. For specialists who took fewer than 30 smears or 30-100 smears annually and midwives who took fewer than 30 smears annually, the proportions of unsatisfactory smears were above 2.0% (3.3%, 2.7% and 2.2%, respectively).

Except for the lay smear taker group who only took 7 smears during this reporting quarter, the proportion of satisfactory but limited or unsatisfactory smears taken by each smear taker group decreased with an increasing annual number of smears taken.

RECOMMENDATIONS

Nil

Table 17. The number and proportion (%) of satisfactory but limited and unsatisfactory smears for each smear taker group.

Smear taker group	Annual volume of smears	Total number of smears taken in quarter	Satisfactory smears		Satisfactory but limited smears [target = not more than 20%]		Unsatisfactory smears [target = 0.5 – 2.0%]	
			Number	Proportion (%)	Number	Proportion (%)	Number	Proportion (%)
Lay	< 30	7	7	100.0	0	0.0	0	0.0
	30-100	0	0	0.0	0	0.0	0	0.0
	> 100	0	0	0.0	0	0.0	0	0.0
	Total	7	7	0.0	0	0.0	0	0.0
Medical	< 30	3,642	2,789	76.6	802	22.0	51	1.4
	30-100	18,115	14,502	80.1	3,408	18.8	205	1.1
	> 100	45,705	37,169	81.3	8,159	17.9	377	0.8
	Total	67,462	54,460	80.7	12,369	18.3	633	0.9
Nurse	< 30	1,419	1,141	80.4	268	18.9	10	0.7
	30-100	9,242	7,772	84.1	1,415	15.3	55	0.6
	> 100	16,722	14,334	85.7	2,279	13.6	109	0.7
	Total	27,383	23,247	84.9	3,962	14.5	174	0.6
Specialist	< 30	123	91	74.0	28	22.8	4	3.3
	30-100	624	462	74.0	145	23.2	17	2.7
	> 100	8,598	7,099	82.6	1,375	16.0	124	1.4
	Total	9,345	7,652	81.9	1,548	16.6	145	1.6
Midwife	< 30	137	96	70.1	38	27.7	3	2.2
	30-100	115	90	78.3	25	21.7	0	0.0
	> 100	244	221	90.6	23	9.4	0	0.0
	Total	496	407	82.1	86	17.3	3	0.6
Total		104,693	85,773	81.9	17,965	17.2	955	0.9

Appendix 1

The following is a list of national indicators that will be reported 6-monthly or annually. Each indicator is defined and the target, if any, is stated.

Enrolment

Definition

Enrolled women were defined as women aged 20-69 years at the end of the reporting period who had ever had a smear recorded on the NCSP-Register. Women who were recorded on the NCSP-Register as deceased, living overseas, being too ill to continue being screened or having had indicated to the programme they did not wish to have any more smears were excluded. Women with a normal smear history who were recorded on the NCSP-Register as no longer participating in routine screening because they had had a hysterectomy for a benign reason were also excluded.

Target

There is no target for enrolment, but changes over time will be monitored.

Participation

Definition

Participation is the proportion of 20-69 year old enrolled women who have had a smear recorded on the NCSP-Register within the 6 years prior to the end of the reporting period.

Targets

The targets for participation were 85% for the unadjusted population and 90% for the hysterectomy-adjusted population. Following a recommendation by the IMG-NCSP, the target for participation for the unadjusted population was lowered to 80% in December 2001. The target for the adjusted population is unchanged.

Coverage

Definition

Coverage is the proportion of 20-69 year old enrolled women who have had a cervical smear recorded on the NCSP-Register in the 36 months prior to the end of the reporting period. A 36-month period was used because this is the recommended cervical screening interval for women in New Zealand. Also, international comparisons will be possible.

Targets

The targets for coverage are 80% for the unadjusted population and 85% for the hysterectomy-adjusted population.

Women enrolled on the register but not currently participating

Definition

Non-participants are enrolled women who have not had a smear recorded on the NCSP-Register in the 6 years prior to the end of the reporting period.

Target

There is no target for this indicator.

Re-participation rate

Definition

The re-participation rate is the proportion of enrolled women who had no smear results recorded on the NCSP-Register in the 6 years prior to the reporting period, and who had a smear result recorded on the NCSP-Register during the reporting period. It is a measure of effective health promotion activities aimed at encouraging women overdue for a smear to have another.

Target

There is no target for this indicator.

Cervical cancer incidence and stage of invasive cervical cancer

Definitions

Cervical cancer incidence is the annual rate of new registrations of invasive cervical cancer (ICD9 code 180) per 100,000 women, age standardised to Segi's World population.

The stage of invasive cervical cancer is the classification of the extent of invasive cervical cancer cases at diagnosis by FIGO staging (I-V).

Targets

The targets for cervical cancer incidence are 8.6 or less per 100,000 women by 2005 for all women and 11.0 or less per 100,000 women by 2005 for Maori women.

The target for stage of cervical cancer is 70% or more of new cervical cancers classified as FIGO stage I at diagnosis.

Cervical cancer mortality

Definition

Cervical cancer mortality is the annual rate of death from cervical cancer (ICD9 code 180) per 100,000 women, age standardised to Segi's world population.

Targets

The targets for cervical cancer mortality are 2.5 or less per 100,000 women by 2005 for all women and 6.0 or less per 100,000 women by 2005 for Maori women.

Cytology abnormality reporting**Definition**

Cytology abnormality reporting is the rate at which specified cytological cervical abnormalities are reported. A cytological abnormality may not be confirmed at clinical examination or biopsy.

For the purposes of this monitoring report, cytological abnormality reporting is the rate at which cytological cervical abnormalities are recorded by the NCSP-Register for a specified time period.

Targets

There are no targets.

Histology abnormality reporting

The Systematised Nomenclature of Medicine (SNOMED) histology codes are used by the NCSP-Register to record the histological result of vaginal and cervical histology specimens. Each histology specimen can be assigned a maximum of five SNOMED codes. Laboratories usually code histology results and the coded results are transferred electronically to the NCSP-Register. Histology specimens include diagnostic biopsies, treatment biopsies, polyps and the cervical tissue of total hysterectomy specimens.

Definition

Histology abnormality reporting is the rate at which specified histological cervical abnormalities are reported.

For the purposes of this monitoring report, histology abnormality reporting is the rate at which histological cervical abnormalities are recorded by the NCSP-Register for a specified time period.

Targets

There are no targets.

Interval cancers

Definition

Interval cancers are those invasive cervical cancers diagnosed between screening examinations in women whose cytology results were negative for dysplasia or malignancy at their last smear.

Target

There is no target.

Programme sensitivity

Definition

Programme sensitivity is the proportion of all women with invasive cervical cancer (both screen detected and interval cases) whose cervical cancer was detected by screening within a defined period.

Targets

The targets for squamous cervical cancer are more than 85% at one year and more than 75% at three years.

Opt off rate

Definition

The opt off rate is the proportion of all cervical cytology results reported by a laboratory which are not sent to the NCSP-Register.

Target

There is no target.

Cytology reports predicting HSIL (positive predictive value)

Definition

Cytology reports predicting HSIL is the probability of a histological report of HSIL or more serious abnormality given an HSIL or invasive carcinoma cytology report. This is called the positive predictive value of an HSIL cytology report.

Target

The target for cytology reports predicting HSIL is not less than 65% and not more than 85% of all HSIL or more serious smear results reported by a given laboratory.

Accuracy of negative cytology reports

Definition

The accuracy of negative cytology reports is the ability of a laboratory to correctly identify a negative smear.

Target

For women with a histological diagnosis of HSIL or more serious, not more than 20% of their cytology slides reported within the preceding 42 months as negative are, on review, consistent with HSIL or more serious abnormality.

Residual high grade disease after treatment

Definition

Residual high grade disease after treatment is high grade squamous (CIN2-3) or glandular intraepithelial lesions present at the post treatment colposcopy (usually at 4-6 months) for all methods of treatment.

Target

The target is 15% or less with residual high grade disease.

Appendix 2

BETHSEDA codes by broad cytological abnormality category used for IMG-NCSP reports.

Bethesda Coding Standard 1998 was used for this monitoring period.

- (a) Negative for dysplasia or malignancy
- (b) Abnormal not otherwise specified – C6
- (c) Atypical squamous cells of undetermined significance, excluding ASCUS possible high grade (ASCUS-LG) – C3A1; C3A1A; C3A1B; C3A1C; C3A1D; C3A1F; C3A1G
- (d) Low grade squamous intraepithelial lesion (LSIL) – C3A2A; C3A2A1; C3A2A2; C3A2A3
- (e) Atypical glandular cells of undetermined significance not otherwise specified or favouring a reactive process (AGUS favour reactive) – C3B2; C3B2A; C3B2B; C3B2B1; C3B2C; C3B2E
- (f) Atypical glandular cells of undetermined significance favouring a hyperplastic or dysplastic process (AGUS favour dysplasia) – C3B2A1; C3B2B2; C3B2D
- (g) Atypical squamous cells of undetermined significance, possible high grade (ASCUS-HG) – C3A1E
- (h) High grade squamous intraepithelial lesion (HSIL) – C3A2B; C3A2B1; C3A2B2; C3A2B3; C3A2B4; C3A2B5; C3A2B6; C3A2B7
- (i) Adenocarcinoma-in-situ (AIS) – C3B3D; C3B3E; C3B3F
- (j) Adenocarcinoma (endocervical, not otherwise specified and other) – C3B3; C3B3A; C3B3B; C3B3C
- (k) Cancer not otherwise specified – C3C; C4
- (l) Invasive squamous carcinoma of the cervix – C3A3

Appendix 3

Snomed codes by broad histological abnormality category used for the IMG-NCSP reports.

- (a) Normal – M60000
- (b) Other non-neoplastic – M40000; M72480; M73000; M01000
- (c) Polyp – M76800
- (d) Atypia/HPV – M67000; M76700; M76720
- (e) CIN - not otherwise specified – M67015
- (f) LSIL – M67016
- (g) HSIL – M67017; M80102; M80702
- (h) Glandular dysplasia – M67031
- (i) Adenocarcinoma-in-situ – M81402
- (j) Other primary cervical cancer – M80203; M88003; M80003
- (k) Metastatic (non-cervical) carcinoma – M80006
- (l) Invasive adenocarcinoma – M81403
- (m) Adenosquamous carcinoma – M85603
- (n) Microinvasive squamous carcinoma – M80763
- (o) Invasive squamous carcinoma – M80703