

Quarterly Report 10
National Cervical Screening Programme

January – March 2003

***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)

In 2000 the University of Otago, as part of its contract with the Ministry of Health, established the Independent Monitoring Group of the National Cervical Screening Programme (IMG-NCSP) 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 2 May 2003. This quarterly monitoring report was sent to the Ministry of Health on 31 July 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 principal 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 January - March 2003.

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 prior to 31 March 2003 were used. Aggregate anonymised data for women referred to DHB colposcopy units were also provided by the NSU.

Short interval re-screening, a measure of resource utilisation, was estimated to be 20.5% 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 12.1%. Both these estimates of short interval re-screening were higher than the target of 10%. Levels of short interval re-screening were similar amongst women aged up to 59 years of age and decreased at older ages. The estimated level of short interval re-screening varied considerably among the DHB areas, ranging from 12.7% in the West Coast to 27.7% in Auckland when both satisfactory and satisfactory but limited smears were included.

27,310 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 January 2002. Of these 27,310 women, 71.1% had a smear within the 15 months prior to 31 March 2003. This was less than the target of 85%. 1,634 of these 27,310 women had no smear result recorded since their high grade abnormality.

4,435 women had an ASCUS possible high grade or more serious cytology result recorded on the NCSP-Register between 1 April 2001 and 31 March 2002. More than three-quarters (77.2%) of these women were recorded as having had a histology specimen taken within 12 weeks of their high grade smear being taken. This was less than the target of 90%. For 282 of the 4,435 women, a subsequent histology result was not recorded on the NCSP-Register. This is much less than that reported last quarter (357). The proportions of women who had no histology recorded on the NCSP-Register varied amongst the NCSP regions.

Thirteen laboratories reported cervical cytology during the October - December 2002 quarter. Overall, of the 99,999 satisfactory or satisfactory but limited smears processed during the quarter, 7.3% were reported as abnormal, which was within the target of not more than 10%. Four laboratories, particularly the two-hospital based laboratories, reported more than 10% of the smears they read as abnormal.

Twelve of thirteen laboratories reporting cervical cytology met the 7-day cytology turn around time target, unlike last quarter when all laboratories met this target for the first time. All laboratories either met or were very close to achieving the 14-day target.

Twenty-nine laboratories reported cervical histology during the quarter. Five laboratories did not meet the 5-day histology turn around time target. Most laboratories had reported all or almost all histology results within 10 working days.

The proportion of smears reported as satisfactory but limited varied considerably among the laboratories, ranging from 6.6% to 22.3%. Three laboratories that reported cervical cytology during the quarter reported more than 20% of smears as satisfactory but limited. One laboratory reported more than 2.0% of smears as unsatisfactory and five laboratories reported less than 0.5% of smears as unsatisfactory.

The colposcopy service indicators were unable to be calculated because the data required 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.

Efforts to collect data from those DHB colposcopy units who did not provide any or incomplete data (Health Waikato, Healthcare Hawkes Bay, Lakeland Health, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Southern Health, Tairāwhiti Healthcare, Wairarapa Health and Waitemata Health) should continue.

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 who did not provide any or incomplete data for calculating both colposcopy waiting time indicators (Health Waikato, Healthcare Hawkes Bay, Lakeland Health, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Southern Health, Tairāwhiti Healthcare, Wairarapa Health and Waitemata Health) should continue.

2.2 Services Issues

1. Efforts to examine the relatively high level of short interval re-screening need to continue, particularly in those areas with levels of short interval re-screening higher than 20% (Auckland, Bay of Plenty, Capital Coast, Counties Manakau, Hutt Valley, Lakes, Northland and Waitemata).
2. 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.
3. Reasons why 1,634 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, particularly Maori and Pacific 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 282 women with a high grade cytology report have no subsequent histology result recorded on the NCSP-Register need to be examined by the National Screening Unit.
7. Reasons why histology reports were 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. The National Screening Unit should seek an explanation from Medlab Central Palmerston North, for the increase, above the target, in the proportion of total abnormalities reported.

9. Valley Diagnostic Laboratory should work towards achieving and maintaining the 7-day cytology turn around time target.
10. The National Screening Unit should seek an explanation from Auckland Hospital Laboratory, for the relatively low proportion of histology specimens reported within 5 working days.
11. Auckland Hospital Laboratory, Hutt Hospital Laboratory, Medical Laboratory Wellington, Rotorua Hospital Laboratory and Wellington Hospital Laboratory should continue to work towards achieving the 5-day histology turn around time target.
12. Reasons for reporting levels of unsatisfactory smears above the target range should be sought from Auckland Hospital Laboratory.
13. Reasons for reporting levels of unsatisfactory smears below the target range should be sought from Diagnostic Medlab Auckland, Medlab Bay of Plenty, Medlab Central Palmerston North, Medlab Hamilton and Southern Community Laboratory Christchurch.

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 annually and 6-monthly 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 for women referred to DHB colposcopy units were also provided by the NSU.

This report includes results for Maori and Pacific women. 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 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 were used for the calculation of indicators. Valley Diagnostic Laboratory did not forward an unknown number of cytology results for smears taken in March 2003 to the NCSP-Register by the time of the data download. These smear results were unable to be included in the calculation of indicators for this report.

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

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

4.0 Results

This reporting quarter ended on 31 March 2003. 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 13 NCSP regions and 21 DHB areas, and seven of these have identical boundaries (Hawkes Bay, Nelson/Marlborough, Northland, Tairāwhiti, Taranaki, 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%.'

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.

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

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.

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

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 overall level of short interval re-screening for 20-69 year old women was 20.5% when both satisfactory and satisfactory but limited smears were included. This was similar to that reported last quarter (20.6%). When only satisfactory smears were included, the estimated level of short interval re-screening was 12.1%, which was the same as that reported last quarter.

Short interval re-screening was highest amongst women aged 50-54 years (21.9%). Similar levels of short interval re-screening were estimated for women aged 20-29, 35-49 and 55-59 years. The lowest level of short interval re-screening (15.7%) occurred among women aged 65-69 years. When only satisfactory smears were included, the estimated level of short interval re-screening was highest amongst women aged 50-54 years (13.9%) and lowest amongst women aged 65-69 years (8.9%).

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, ranging from 12.7% for the West Coast to 27.7% for Auckland. The level of short interval re-screening was almost as high in Waitemata (27.6%). Levels of short interval re-screening above 20% were also observed for Bay of Plenty (21.1%), Capital Coast (24.5%), Counties Manakau (23.2%), Hutt Valley (21.0%), Lakes (21.4%) and Northland (22.2%). When satisfactory smears only were included, the estimated level of short interval re-screening for each DHB area ranged from 5.4% for Waikato to 16.6% for Auckland. 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 11.9% for Bay of Plenty.

Table 3 shows the estimated level of short interval re-screening by ethnicity. Overall the level of short interval re-screening was similar amongst the three groups: Maori (17.5%), 'Other' (20.8%) and Pacific (20.6%). When only satisfactory smears were included the level of short interval re-screening was less than the 10% target for both Maori women (8.7%) and Pacific women (9.5%).

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

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.

interval re-screening observed. While there is no clear evidence that the absence of endocervical cells on smear slides increases 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 to smear takers by laboratories should accurately represent this policy.

RECOMMENDATIONS

Service Issues

1. Efforts to examine the relatively high level of short interval re-screening need to continue, particularly in those areas with levels of short interval re-screening higher than 20% (Auckland, Bay of Plenty, Capital Coast, Counties Manakau, Hutt Valley, Lakes, Northland and Waitemata).

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

2. 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.

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. [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	27,138	9,141	4,292	21.2	10.6
25-29	45,125	12,355	4,426	19.5	9.9
30-34	57,069	15,385	3,937	21.5	12.3
35-39	62,338	15,581	3,316	20.8	12.5
40-44	64,658	15,988	3,098	20.9	12.8
45-49	54,013	13,595	2,512	21.5	13.4
50-54	44,641	11,100	1,699	21.9	13.9
55-59	36,205	8,209	1,056	20.4	12.5
60-64	27,772	5,522	633	18.0	10.7
65-69	20,540	3,529	361	15.7	8.9
Total	439,499	110,405	25,330	20.5	12.1

† 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 by DHB area. [target = less than 10%]

DHB areas	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	42,513	13,184	1,970	27.7	17.7
Bay of Plenty	20,997	6,588	2,741	21.1	9.2
Canterbury	54,061	11,620	2,671	17.4	12.3
Capital Coast	34,445	10,077	2,173	24.5	12.6
Counties Manakau	38,027	10,028	1,579	23.2	12.9
Hawkes Bay	15,545	3,126	744	16.1	10.5
Hutt Valley	16,303	3,995	719	21.0	13.3
Lakes	11,799	3,598	1,369	21.4	11.1
MidCentral	16,408	3,481	951	16.4	9.4
Nelson-Marlborough	15,813	3,279	965	15.6	6.5
Northland	15,531	4,053	777	22.2	15.1
Otago	22,494	3,726	787	13.5	11.3
South Canterbury	6,266	1,266	270	16.6	11.2
Southland	12,377	2,087	532	13.1	9.9
Tairāwhiti	4,878	1,163	397	17.1	8.8
Taranaki	12,892	2,870	859	16.7	7.4
Waikato	35,008	7,954	2,894	15.8	6.4
Wairarapa	3,956	957	210	19.9	11.5
Waitemata	47,697	14,602	1,980	27.6	17.2
West Coast	3,366	555	146	12.7	8.5
Whanganui	6,470	1,436	377	17.4	9.6
DHB Unspecified	2,653	760	219	22.2	13.9
Total	439,499	110,405	25,330	20.5	12.1

† A1 = satisfactory smear

‡ A2 = satisfactory but limited smear

Table 3. Short interval re-screening proportion (%) for 20-69 year old women by ethnic group. [target = less than 10%]

Ethnic group	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 (ASCUS or more serious) A1† or A2‡ smear	Proportion (%) with >1 A1† or A2‡ smear amongst women with a normal history*	Proportion (%) with >1 A1† smear amongst women with a normal history
Maori	36,188	9,013	3,254	17.5	8.7
Other	390,133	98,163	21,428	20.8	12.5
Pacific	13,178	3,229	648	20.6	9.5
Total	439,499	110,405	25,330	20.5	12.1

† 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 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 Appendix 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 quarter 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 January 2002 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 January 2002.

Results

Table 4 show 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 January 2002 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. 27,310 participating women with a high grade abnormality recorded on the NCSP-Register had completed assessment and treatment before 1 January 2002. This number has steadily increased from 19,395 reported in the first quarter monitoring report, October-December 2000. Of the 27,310 women, 71.1% had a smear within 15 months of the end of this reporting quarter. This was

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.

similar to that reported for previous quarters, but less than the target of 85%. Just over three-quarters (76.4%) of the 27,310 women had a smear within 18 months. This proportion was also similar to that reported for previous quarters and much less than the target of 99%.

For 17.6% of the 27,310 women, their last smear was more than 18 months prior to 31 March 2003. This proportion has increased from 14.1% reported for the October-December 2000 quarter. This increase may be partly explained by the decreasing proportion of women with no smear recorded. For the October-December 2000 reporting quarter 8.1% had no smear reported compared with 6.0% for the current reporting quarter.

Table 5 shows the proportion of participating 20-69 year old women with a high grade abnormality recorded on the NCSP-Register who had completed treatment before 1 January 2002 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 by ethnicity. Three-quarters of 'Other' women had a smear within 15 months, compared with slightly more than half of both Maori and Pacific women. More than one-quarter of both Maori and Pacific women had a smear after 18 months compared with 15.4% of 'Other' women.

1,634 women had no smear recorded following completion of treatment before 1 January 2002. Higher proportions of both Maori and Pacific women (12.2% and 11.6%, respectively) had no smear recorded compared with 'Other' women (4.7%). Some of these women may have moved to live overseas and the NCSP-Register may not have this information. Sometimes there are clinical reasons for follow up smears not being taken. Other reasons are also possible.

RECOMMENDATIONS

Service Issues

1. Reasons why 1,634 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.
2. Efforts to encourage women, particularly Maori and Pacific women, with a history of a high grade abnormality to have annual smears should continue.

The following recommendation was first stated in Report 1, Section 4.8 and is still applicable.

3. Reasons why women with a history of a high grade abnormality have had smears less frequently than recommended should be assessed.

Table 4. 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	19,425	71.1	71.1
15-18 months	1,447	5.3	76.4
More than 18 months	4,804	17.6	93.9
No smear recorded	1,634	6.0	100.0
Total	27,310	100.0	

Table 5. Timeliness of the most recent smear among participating women with a previous high grade or more serious abnormality by ethnic group.
[targets = 85% within 15 months and 99% within 18 months]

Ethnic group	Time periods				
	< 15 months	15-18 months	Within 18 months	>18 months	No smear
	%	%	Cumulative %	%	%
Maori (n=4,039)	54.4	4.7	59.1	28.6	12.2
'Other' (n=22,719)	74.5	5.4	79.8	15.4	4.7
Pacific (n=552)	55.4	7.4	62.9	25.5	11.6
Total (n=27,310)	71.1	5.3	76.4	17.6	6.0

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 31 March 2003 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 April 2001 and 31 March 2002 was calculated. For each of these women the time between the date that the smear was taken and the date that the 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 April 2001 and 31 March 2002. 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 taken by a non-specialist or specialist.

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 6 shows the number and proportion of women aged 20-69 years at 31 March 2003 who had ASCUS possible high grade, HSIL or more serious cytology (according to the hierarchy of codes, Appendix 2) reported during the period 1 April 2001 and 31 March 2002 and had a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52 weeks, or after 52 weeks of the smear being taken. The number of women with an ASCUS possible high grade, HSIL or more serious cytology report for which there was no subsequent histology result recorded on the NCSP-Register is also shown. Between 1 April 2001 and 31 March 2002, 4,435 women had an ASCUS possible high grade, HSIL or more serious cytology result recorded on the NCSP-Register. More than three-quarters (77.2%) 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%, but higher than that reported last quarter (74.8%). Of the 4,435 women with an ASCUS possible high grade, HSIL or more serious cytology result recorded on the NCSP-Register, 92.3% had a histology specimen taken within one year of their high grade smear. This was slightly higher than that reported last quarter (91.0%), but less than the target of 99%.

Tables 7, 8 and 9 show the number and proportion of Maori, 'Other' and Pacific women who had a high grade smear taken during the period 1 April 2001 and 31 March 2002 and had a histology specimen taken within 12 weeks, between 13 and 26 weeks, between 27 and 52

weeks, or after 52 weeks of the smear being taken. Amongst the three ethnic groups, neither of the two targets was reached. More than three-quarters (79.6%) of 'Other' women had a histology specimen taken within 12 weeks of their high grade smear compared with 66.3% of Maori women and 68.8% of Pacific women. For each ethnic group, the proportion of women having a histology specimen taken within 12 weeks increased since last quarter, particularly for Maori and Pacific women. This proportion increased from 61.1% to 66.3% for Maori women and from 64.6% to 68.8% for Pacific women. Amongst the three ethnic groups differences in the proportions of women with high grade smears having subsequent histology within 13-26 weeks, within 27-52 weeks or more than 52 weeks persisted. With each successive time period the size of the differences decreased.

Table 10 shows the number and proportion of women in each NCSP region with a high grade cytology result between 1 April 2001 and 31 March 2002, 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 amongst the regions ranging from 63.9% for Bay of Plenty to 86.8% for Otago. For Bay of Plenty this proportion had increased from 48% reported for the previous reporting quarter. No region reached the 12-week target of 90%, unlike the January-March 2002 reporting quarter when two regions (Tairāwhiti and the West Coast) reached the target. The West Coast reached the 52-week target of 99%. Except for Bay of Plenty, the proportion of women in each region who had a high grade smear result with a subsequent histology taken within 52 weeks was more than 90%.

For 282 women with a high grade smear result, a subsequent histology result was not recorded on the NCSP-Register (Table 4). This was much less than that reported last quarter (357). Amongst the ethnic groups, the proportions of women who had no histology recorded on the NCSP-Register differed. This proportion was 8.2% for Maori women (Table 5), 5.8% for 'Other' women (Table 6) and 13.5% for Pacific women (Table 7). These proportions were all less than those reported last quarter. Amongst the NCSP regions, Bay of Plenty had the greatest proportion (10.1%) and Auckland had the greatest number (80) of women with no histology result recorded on the NCSP-Register following a high grade smear (Table 8). Relatively high numbers of women had no histology result recorded on the NCSP-Register in Canterbury (40) and Wellington (34). For both Canterbury and Wellington these numbers had increased since last reporting quarter.

Table 11 summarises women with no histology result recorded on the NCSP-Register following a high grade smear. Of the 282 women with no histology recorded, 79 (28.0%) women had no subsequent smear recorded and 90 (31.9%) women had a follow-up smear taken by a non-specialist. Of the 169 women who had either no follow-up smear or a smear taken by a non-specialist, 123 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 46 women, their follow-up was less clear.

Some women with no histology 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 to be recorded on the NCSP-Register.

RECOMMENDATIONS

Service Issues

1. Reasons why 282 women with a high grade cytology report have no subsequent histology result recorded on the NCSP-Register need to be examined by the National Screening Unit.

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

2. Reasons why histology reports were 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 6. Timeliness of histology report after an ASCUS possible high grade 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	3,426	77.2	77.2
13-26 weeks	482	10.9	88.1
27-52 weeks	186	4.2	92.3
More than 52 weeks	59	1.3	93.6
Subtotal	4,153		
No histology recorded on NCSP-Register	282	6.4	100.0
Total	4,435		

Table 7. Timeliness of histology report after HSIL or ASCUS possible high grade 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	469	66.3	66.3
13-26 weeks	108	15.3	81.6
27-52 weeks	60	8.5	90.1
More than 52 weeks	12	1.7	91.8
Subtotal	649		
No histology reported	58	8.2	100.0
Total	707		

Table 8. Timeliness of histology report after HSIL or ASCUS possible high grade 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	2,891	79.6	79.6
13-26 weeks	363	10.0	89.6
27-52 weeks	120	3.3	92.9
More than 52 weeks	47	1.3	94.2
Subtotal	3,421		
No histology reported	211	5.8	100.0
Total	3,632		

Table 9. Timeliness of histology report after HSIL or ASCUS possible high grade 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	66	68.8	68.8
13-26 weeks	11	11.5	80.2
27-52 weeks	6	6.3	86.5
More than 52 weeks	0	0.0	86.5
Subtotal	83		
No histology reported	13	13.5	100.0
Total	96		

Table 10. Timeliness of histology report after HSIL or ASCUS possible high grade 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 No.
	Within 12 weeks		13-26 weeks		27-52 weeks		Within 52 weeks		No histology		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Auckland	921	78.7	92	7.9	60	5.1	1,073	91.7	80	6.8	1,170
Bay of Plenty	304	63.9	94	19.7	19	4.0	417	87.6	48	10.1	476
Canterbury	443	81.3	41	7.5	15	2.8	499	91.6	40	7.3	545
Hawkes Bay	141	78.3	21	11.7	8	4.4	170	94.4	8	4.4	180
Manawatu/ Wanganui	250	79.4	27	8.6	12	3.8	289	91.7	22	7.0	315
Nelson/ Marlborough	106	74.6	26	18.3	8	5.6	140	98.6	0	0.0	142
Northland	166	83.4	14	7.0	9	4.5	189	95.0	9	4.5	199
Otago/ Southland	289	86.8	20	6.0	9	2.7	318	95.5	11	3.3	333
Tairāwhiti	35	77.8	6	13.3	1	2.2	42	93.3	3	6.7	45
Taranaki	119	75.3	25	15.8	5	3.2	149	94.3	8	5.1	158
Waikato	286	74.7	61	15.9	14	3.7	361	94.3	19	5.0	383
Wellington	337	74.2	49	10.8	26	5.7	412	90.7	34	7.5	454
West Coast	29	82.9	6	17.1	0	0.0	35	100.0	0	0.0	35
Total	3,426	77.2	482	10.9	186	4.2	4,094	92.3	282	6.4	4,435

Note: A column for 'more than 52 weeks' is not included in this table. Therefore, the sum of the 'within 52 weeks' column and the 'no histology' column does not equal the 'total' column.

Table 11. The number of women with no histology result recorded by NCSP-Register status and source of any subsequent smear.

Subsequent smear	Women's status		
	Not 'signed in'†	'Signed in'† since high grade cytology result	Total
No smear	23	56	79
Smear taken by non-specialist	23	67	90
Subtotal	46	123	169
Smear taken by specialist	39	74	113
Total	85	197	282

† 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.

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, positive predictive value of HSIL and accuracy of negative cytology reports. Table 12 summarises the laboratory performance indicators by laboratory for this quarterly report. These indicators are discussed in detail in sections 4.4 – 4.7

Table 12. A summary of laboratory indicators reported.

Laboratory	Total number of smears processed	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 0.60%)		Total abnormalities*† (target = not more than 10%)		Smear turn around time proportion (%) (target = 90%)
		No.	%	No.	%	No.	%	No.	%	No.	%	Within 7 days
Auckland Hospital Laboratory	2,348	511	21.8	69	2.9	1,835	80.5	153	6.71	444	19.48	95.05
Canterbury Health Laboratories	1,580	227	14.4	15	0.9	1,343	85.8	43	2.75	222	14.19	99.79
Diagnostic Medlab Auckland	28,441	6,333	22.3	88	0.3	26,921	94.9	187	0.66	1,432	5.05	99.99
Medical Laboratory Wellington	10,094	2,123	21.0	199	2.0	9,081	91.8	69	0.70	814	8.23	98.43
Medlab Bay of Plenty	6,701	1,244	18.6	28	0.4	5,984	89.7	64	0.96	689	10.33	96.69
Medlab Central, Palmerston North	7,668	1,365	17.8	30	0.4	6,792	88.9	95	1.24	846	11.08	99.97
Medlab Hamilton	6,735	894	13.3	25	0.4	6,071	90.5	43	0.64	639	9.52	95.30
Medlab South Christchurch	10,139	1,961	19.3	86	0.8	9,402	93.5	80	0.80	651	6.48	100.00
Pathlab Waikato	2,514	411	16.3	16	0.6	2,336	93.5	30	1.20	162	6.49	99.92
SCL‡ Christchurch	5,421	550	10.1	15	0.3	5,085	94.1	34	0.63	321	5.94	99.98
SCL‡ Dunedin	11,012	725	6.6	152	1.4	10,294	94.8	165	1.52	566	5.21	99.80
Taranaki Medlab	4,350	855	19.7	88	2.0	3,963	93.0	39	0.92	299	7.02	99.59
Valley Diagnostic Laboratory#	3,847	713	18.5	40	1.0	3,600	94.6	49	1.29	207	5.44	79.58
Total	100,850	17,912	17.8	851	0.8	92,707	92.7	1,051	1.05	7,292	7.29	98.32

* 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

An unknown number of results for smears taken in March 2003 were not forwarded to the NCSP-Register by the time of the data download.

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

The Bethesda System is used by the NCSP to record the cytological result of each smear.¹⁴ 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 is:

- (a) negative for dysplasia or malignancy
- (b) abnormal not otherwise specified
- (c) atypical squamous cells of undetermined significance (ASCUS), excluding ASCUS possible high grade
- (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 or neoplastic process (AGUS favour dysplasia)
- (g) ASCUS possible high grade
- (h) high grade squamous intraepithelial lesion (HSIL)
- (i) adenocarcinoma-in-situ (AIS)
- (j) adenocarcinoma¹⁵
- (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 following broad cytological categories:

1. negative for dysplasia or malignancy
2. total ASCUS (including ASCUS possible high grade)
3. LSIL (CIN 1 and/or HPV)
4. ASCUS possible high grade
5. HSIL
6. Total abnormalities (smears reported as ASCUS or more serious)

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 which 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.

¹⁴ Bethesda Coding Standard 1998 was used for this monitoring period.

¹⁵ Adenocarcinoma includes adenocarcinoma not otherwise specified, adenocarcinoma probably of endocervical origin, adenocarcinoma probably of endometrial origin and adenocarcinoma probably of extrauterine origin.

Targets

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, of satisfactory or satisfactory but limited smears taken during the reporting quarter were used to calculate the number of smears in each broad cytological category (listed in the definition above) for each laboratory. These were expressed as proportions of the total number of satisfactory or satisfactory but limited smears reported by each laboratory. Where a single smear had more than one diagnosis code, the most serious ranked code was used according to the hierarchy of codes. Total abnormalities included all smears with a diagnosis code of ASCUS or more serious abnormality according to the hierarchy of broad cytological categories. Smear results for women of all ages were included. Smears recorded as being unsatisfactory for evaluation were excluded.

Results

Table 13 shows the number and proportion of satisfactory or satisfactory but limited smears in the specified cytological categories for smears taken during the quarter and read by each of the laboratories that read smears. During the quarter, 99,999 satisfactory or satisfactory but limited smears were taken. The number of satisfactory or satisfactory but limited smears reported by each laboratory ranged from 1,565 for Canterbury Health Laboratories to 28,353 for Diagnostic Medlab Auckland.

Overall, of the 99,999 smears 92.7% were reported as negative for dysplasia or malignancy. This was almost the same as that reported last quarter (92.8%), 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, Auckland Hospital Laboratory and Canterbury Health Laboratories, reported lower proportions of the smears they read as negative for dysplasia or malignancy compared with the other laboratories.

The proportion of smears reported with a HSIL abnormality was 1.05% for all laboratories combined. This was similar to that reported for previous reporting quarters and met the target of not less than 0.60%. Each laboratory met the target of not less than 0.60%. As expected, Auckland Hospital Laboratory and Canterbury Health Laboratories reported higher proportions of smears as HSIL compared with the other laboratories.

For all laboratories combined, the target of not more than 10% of smears reported as abnormal was not exceeded. This proportion was 7.3%, which is almost the same as the previous quarter (7.2%). Both hospital-based laboratories reported more than 10% of smears they processed to be abnormal: Auckland Hospital Laboratory (19.5%) and Canterbury Health Laboratories (14.2%). These proportions are similar to that reported last quarter. Two community-based laboratories also reported more than 10% of the smears they processed as abnormal: Medlab Bay of Plenty (10.3%) and Medlab Central Palmerston North (11.1%). Both Medlab Bay of Plenty and Medlab Central Palmerston North were within the target last quarter. The proportion of smears reported as LSIL by Medlab Central, Palmerston North was the highest (6.9%), which was much higher than most other laboratories.

Since the previous reporting quarter the IMG-NCSP has begun to investigate the outcome of women with ASCUS cytology results using the monitoring data set. The results of this study will be reported.

RECOMMENDATIONS

Service Issues

1. The National Screening Unit should seek an explanation from Medlab Central Palmerston North, for the increase, above the target, in the proportion of total abnormalities reported.

Table 13. 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		ASCUS possible HSIL		HSIL (target - not less than 0.60%)		Total abnormalities† (target - not more than 10%)		Total smears
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Auckland Hospital Laboratory	1,835	80.5	221	9.7	54	2.4	20	0.88	153	6.71	444	19.48	2,279
Canterbury Health Laboratories	1,343	85.8	82	5.2	86	5.5	10	0.64	43	2.75	222	14.19	1,565
Diagnostic Medlab Auckland	26,921	94.9	577	2.0	648	2.3	41	0.14	187	0.66	1,432	5.05	28,353
Medical Laboratory Wellington	9,081	91.8	397	4.0	337	3.4	12	0.12	69	0.70	814	8.23	9,895
Medlab Bay of Plenty#	5,984	89.7	395	5.9	210	3.1	7	0.10	64	0.96	689	10.33	6,673
Medlab Central, Palmerston North	6,792	88.9	214	2.8	528	6.9	2	0.03	95	1.24	846	11.08	7,638
Medlab Hamilton	6,071	90.5	254	3.8	338	5.0	6	0.09	43	0.64	639	9.52	6,710
Medlab South Christchurch	9,402	93.5	322	3.2	223	2.2	26	0.26	80	0.80	651	6.48	10,053
Pathlab Waikato#	2,336	93.5	89	3.6	41	1.6	5	0.20	30	1.20	162	6.49	2,498
SCL* Christchurch	5,085	94.1	148	2.7	133	2.5	10	0.18	34	0.63	321	5.94	5,406
SCL* Dunedin	10,294	94.8	39	0.4	352	3.2	28	0.26	165	1.52	566	5.21	10,860
Taranaki Medlab	3,963	93.0	142	3.3	117	2.7	1	0.02	39	0.92	299	7.02	4,262
Valley Diagnostic Laboratory‡	3,600	94.6	47	1.2	109	2.9	5	0.13	49	1.29	207	5.44	3,807
Total	92,707	92.7	2,927	2.9	3,176	3.2	173	0.17	1,051	1.05	7,292	7.29	99,999

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

* SCL = Southern Community Laboratory.

‡ An unknown number of cytology results for smears taken in March 2003 were not forwarded to the NCSP-Register by the time of the data download.

An unknown number of smears sent to Medlab Bay of Plenty were read by Pathlab Waikato but are recorded as having been read by Medlab Bay of Plenty.

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 a proportion of the total number of smears processed 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 January to 31 March 2003 for each laboratory processing cervical cytology. Overall, 97.12% of the 100,850 smears received by laboratories were reported within 7 working days. This was greater than the target of 90%, but less than that reported last quarter (99.04%).

Twelve of the thirteen laboratories achieved the 7-day target of 90%. The 7-day cytology turn around time for Valley Diagnostic Laboratory for the January-March 2003 monitoring period was 35.14%, which was clearly less than the target and that reported last quarter (96.47%).

Overall, the 14-day target of 100% was almost achieved. Four laboratories did not meet the 14-day target, but they were close to achieving it. Only 49 of 100,850 smears (0.05%) were not reported within 14 working days. Valley Diagnostic Laboratory reported 39 of these 49 smears (data not shown). For the previous reporting quarter, 14 smears were reported after 14 working days.

RECOMMENDATIONS

1. Valley Diagnostic Laboratory should work towards achieving and maintaining the 7-day cytology turn around time target.

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

Laboratory	Number of smears processed	Within 7 working days	From 8 to 14 working days	Within 14 working days	More than 14 working days
		Proportion (%)	Proportion (%)	Cumulative proportion (%)	Proportion (%)
Auckland Hospital Laboratory	2,348	100.00	0.00	100.00	0.00
Canterbury Health Laboratories	1,580	100.00	0.00	100.00	0.00
Diagnostic Medlab Auckland	28,441	100.00	0.00	100.00	0.00
Medical Laboratory Wellington	10,094	98.88	1.12	100.00	0.00
Medlab Bay of Plenty#	6,701	96.55	3.45	100.00	0.00
Medlab Central, Palmerston North	7,668	99.91	0.07	99.97	0.03
Medlab Hamilton	6,735	100.00	0.00	100.00	0.00
Medlab South Christchurch	10,139	100.00	0.00	100.00	0.00
Pathlab Waikato#	2,514	99.60	0.40	100.00	0.00
Southern Community Laboratory Christchurch	5,421	99.91	0.07	99.98	0.02
Southern Community Laboratory Dunedin	11,012	99.70	0.24	99.94	0.06
Taranaki Medlab	4,350	99.86	0.14	100.00	0.00
Valley Diagnostic Laboratory†	3,847	35.14	63.84	98.99	1.01
Total	100,850	97.12	2.83	99.95	0.05

An unknown number of smears sent to Medlab Bay of Plenty were read by Pathlab Waikato but are recorded as having been read by Medlab Bay of Plenty.

† An unknown number of cytology results for smears taken in March 2003 were not forwarded to the NCSP-Register by the time of the data download.

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 to the clinician.

Histology specimens include diagnostic biopsies, treatment biopsies, cervical polyps and cervical tissue of total hysterectomy specimens.

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.¹⁶ “If it is likely to take more than 10 days for the result to be reported the colposcopist should be informed.”¹⁷

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 or 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. Cervical histology specimens taken from enrolled women of all ages during the reporting period as recorded on the NCSP-Register were included.

Results

Table 13 shows the number of histology specimens reported and the timeliness of histology results reported by laboratories. Twenty-nine laboratories reported histology specimens during the period 1 January to 31 March 2003. Since last quarter Whangarei Hospital Laboratory has ceased reporting cervical histology. 6,053 histology specimens were recorded on the NCSP-Register as having been received and reported by laboratories, compared with 6,810 last quarter. The number of histology specimens reported by each laboratory varied considerably, ranging from 18 for Southern Community Laboratory Hawkes Bay to 872 for Diagnostic Medlab Auckland.

For all laboratories combined, the 5-day histology turn around time was 93.9%. This met the target of 90%, and was slightly more than the 5-day histology turn around time reported last quarter (93.5%). Five laboratories did not meet the 5-day target: Auckland Hospital Laboratory (60.9%), Hutt Hospital Laboratory (88.7%), Medical Laboratory Wellington (86.5%), Rotorua Hospital Laboratory (83.8%), Wellington Hospital Laboratory (83.7%). Medical Laboratory Wellington, unlike the other four laboratories, met the target last quarter.

Most laboratories had reported all or almost all histology results within 10 working days of the specimen arriving at the laboratory. Overall, 46 of 6053 (0.8%) were reported more than 10 working days after the time the specimens were received by the laboratory. This is less than half the number of histology specimens reported after 10 working days last reporting quarter.

¹⁶ P 5.21 National Cervical Screening Programme Interim Operational Policy and Quality Standards. Health Funding Authority, October 2000.

¹⁷ Ibid.

The number and proportion of histology specimens reported after 10 working days by Rotorua Hospital Laboratory, Auckland Hospital Laboratory, Hutt Hospital Laboratory and Northland Pathology Laboratory was less than that for the previous quarter.

RECOMMENDATIONS

Service Issues

1. The National Screening Unit should seek an explanation from Auckland Hospital Laboratory, for the relatively low proportion of histology specimens reported within 5 working days.
2. Auckland Hospital Laboratory, Hutt Hospital Laboratory, Medical Laboratory Wellington, Rotorua Hospital Laboratory and Wellington Hospital Laboratory should continue to work towards achieving the 5-day histology turn around time target.

Table 15. 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	243	60.9	35.8	3.3
Canterbury Health Laboratories	440	95.9	3.4	0.7
Diagnostic Medlab Auckland	875	99.7	0.3	0.0
Hutt Hospital Laboratory	142	88.7	11.3	0.0
Medical Laboratory Southland	38	100.0	0.0	0.0
Medical Laboratory Wellington	244	86.5	12.7	0.8
Medlab Bay of Plenty	381	97.9	2.1	0.0
Medlab Central, Palmerston North	527	90.5	9.5	0.0
Medlab Hamilton	59	96.6	1.7	1.7
Medlab South Christchurch	57	100.0	0.0	0.0
Medlab South working for Timaru	80	100.0	0.0	0.0
Memorial Hospital Hastings Lab	86	91.9	8.1	0.0
Middlemore Hospital Laboratory	197	100.0	0.0	0.0
Nelson Diagnostic Laboratory	78	100.0	0.0	0.0
Nelson Hospital Laboratory	179	97.2	2.2	0.6
North Shore Hospital Laboratory	374	99.5	0.5	0.0
Northland Pathology Laboratory	196	90.8	7.1	2.0
Pathlab Waikato	139	100.0	0.0	0.0
Rotorua Hospital Laboratory	80	83.8	8.8	7.5
SCL Christchurch	162	99.4	0.0	0.6
SCL Dunedin	407	99.3	0.7	0.0
SCL Hawkes Bay	18	100.0	0.0	0.0
Southland Hospital Laboratory	94	95.7	4.3	0.0
Taranaki Base Hospital Laboratory	116	97.4	2.6	0.0
Taranaki Medlab	46	100.0	0.0	0.0
Valley Diagnostic Laboratory	54	92.6	7.4	0.0
Waikato Hospital Laboratory	332	94.6	3.6	1.8
Wanganui Hospital Laboratory	34	91.2	8.8	0.0
Wellington Hospital Laboratory	375	83.7	12.5	3.7
Total	6,053	93.9	5.3	0.8

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 revised Bethesda System 2001 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 revised Bethesda System 2001, 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 specified laboratories. Overall, 100,850 smears were processed, of which 17.8% were reported as satisfactory but limited. This was similar to that reported last quarter (17.7%) and within the target of not more than 20%.

Among the laboratories, the proportion of satisfactory but limited smears varied considerably. This proportion ranged from 6.6% for Southern Community Laboratory Dunedin to 22.3% for Diagnostic Medlab Auckland. Auckland Hospital Laboratory (21.8%) and Medical Laboratory Wellington (21.0%) also reported more than 20% of the smears they read as satisfactory but limited. A high proportion of satisfactory but limited smears is associated with a high level of short interval re-screening (see Section 4.1).

Overall, 0.8% of the 100,850 smears processed were reported as unsatisfactory for evaluation. This is the same as that reported last quarter and less than that reported for all other monitoring quarters, but within the target range of 0.5% - 2.0%. Auckland Hospital Laboratory reported more than 2.0% of smears as unsatisfactory (2.9%), which is higher than that reported last quarter (2.0%). Five laboratories reported less than 0.5% of smears they read as unsatisfactory: Diagnostic Medlab Auckland, Medlab Bay of Plenty, Medlab Central Palmerston North, Medlab Hamilton and Southern Community Laboratory Christchurch. For

the previous quarter, two laboratories reported less than 0.5% of smears they read as unsatisfactory.

RECOMMENDATIONS

Service Issues

1. Reasons for reporting levels of unsatisfactory smears above the target range should be sought from Auckland Hospital Laboratory.
2. Reasons for reporting levels of unsatisfactory smears below the target range should be sought from Diagnostic Medlab Auckland, Medlab Bay of Plenty, Medlab Central Palmerston North, Medlab Hamilton and Southern Community Laboratory Christchurch.

Table 16. The number and proportion of satisfactory but limited and unsatisfactory smears by laboratory.

Laboratory	Number of smears processed	Satisfactory but limited smears [target = not more than 20%]		Unsatisfactory smears (%) [target = 0.5 – 2.0%]	
		Number	Proportion (%)	Number	Proportion (%)
Auckland Hospital Laboratory	2,348	511	21.8	69	2.9
Canterbury Health Laboratories	1,580	227	14.4	15	0.9
Diagnostic Medlab Auckland	28,441	6,333	22.3	88	0.3
Medical Laboratory Wellington	10,094	2,123	21.0	199	2.0
Medlab Bay of Plenty#	6,701	1,244	18.6	28	0.4
Medlab Central, Palmerston North	7,668	1,365	17.8	30	0.4
Medlab Hamilton	6,735	894	13.3	25	0.4
Medlab South Christchurch	10,139	1,961	19.3	86	0.8
Pathlab Waikato#	2,514	411	16.3	16	0.6
Southern Community Laboratory Christchurch	5,421	550	10.1	15	0.3
Southern Community Laboratory Dunedin	11,012	725	6.6	152	1.4
Taranaki Medlab	4,350	855	19.7	88	2.0
Valley Diagnostic Laboratory†	3,847	713	18.5	40	1.0
Total	100,850	17,912	17.8	851	0.8

An unknown number of smears sent to Medlab Bay of Plenty were read by Pathlab Waikato but are recorded as having been read by Medlab Bay of Plenty.

† Many cytology results for smears taken in March 2003 were not forwarded to the NCSP-Register by the time of the data download.

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 to 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 to 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 inconsistent¹⁸ 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. The number of colposcopy units who provided colposcopy data for this reporting quarter decreased. Six DHB colposcopy reporting units did not provide any data for this reporting quarter compared with four for the previous quarter. The six units were Health Waikato, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, Tairāwhiti Healthcare and Waitemata Health. For Healthcare Hawkes Bay, Lakeland Health, South Auckland Health, Southern Health and Wairarapa Health some data were missing.

Among those colposcopy units that provided data to the MoH, the highest reported number of women with an HSIL or ASCUS possible high grade cytology abnormality waiting longer than 4 weeks at the end of a month was 5. This is much lower than the 58 reported for the previous quarter, but more colposcopy units provided data for the October-December 2002 quarter. For Good Health Wanganui, Healthcare Otago, Hutt Valley Health and MidCentral Health no women were reported to be waiting longer than 4 weeks at the end of each month during the reporting period.

¹⁸ 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.

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 who did not provide any or incomplete data for calculating the waiting time for assessment for HSIL indicator (Health Waikato, Healthcare Hawkes Bay, Lakeland Health, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Southern Health, Tairāwhiti Healthcare, Wairarapa Health and Waitemata Health) 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 17. 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.		
	January	February	March	January	February	March
Auckland Healthcare	28	44	27	0	0	1
Canterbury Health	39	30	27	3	0	1
Capital Coast Health	10	7	12	1	2	0
Coast Healthcare (West Coast)	1	2	4	5	8	7
Good Health Wanganui	5	5	8	0	0	0
Health South Canterbury	1	0	1	0	1	1
Health Waikato†						
Healthcare Hawkes Bay‡	4	21				
Healthcare Otago	15	23	25	0	0	0
Hutt Valley Health	11	9	6	0	0	0
Lakeland Health‡	9	9		2	3	
MidCentral Health	13	17	10	0	0	0
Nelson/Marlborough Health	5	4	4	2	0	1
Northland Health†						
Pacific Health Tauranga†						
Pacific Health Whakatane†						
South Auckland Health‡	43	51				
Southern Health‡	5	12	16			
Tairāwhiti Healthcare†						
Taranaki Healthcare	18	17	10	3	2	2
Wairarapa Health‡	3	4	5			
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 to 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 to 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 inconsistent¹⁹ 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. The number of colposcopy units who provided data for this reporting quarter decreased since last quarter. Six DHB colposcopy reporting units did not provide any data for this reporting quarter compared with four for the previous quarter. The six units were Health Waikato, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, Tairāwhiti Healthcare and Waitemata Health. For Healthcare Hawkes Bay, Lakeland Health, South Auckland Health, Southern Health and Wairarapa Health some data were missing.

Amongst those DHB colposcopy services that provided data to the MoH, the number of women referred for an assessment of a low grade abnormality waiting longer than 26 weeks at the end of each month during the reporting period was highest for Lakeland Health (123 women at the end of January and 126 women at the end of February). For the October-December 2002 quarter more than 230 women were waiting at the end of each month in the Health Waikato area. This DHB did not forward colposcopy data for the current reporting quarter. For Canterbury Health, Good Health Wanganui, Healthcare Otago and Hutt Valley Health no women were reported to be waiting longer than 26 weeks at the end of January, February and March 2003.

¹⁹ 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. Efforts to collect data from those DHB colposcopy units who did not provide any or incomplete data for calculating the waiting time for assessment for LSIL indicator (Health Waikato, Healthcare Hawkes Bay, Lakeland Health, Northland Health, Pacific Health Tauranga, Pacific Health Whakatane, South Auckland Health, Southern Health, Tairāwhiti Healthcare, Wairarapa Health and Waitemata Health) should continue.

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 at Lakeland Health.

Table 18. 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		
	January	February	March	January	February	March
Auckland Healthcare	5	36	45	0	0	1
Canterbury Health	43	51	48	0	0	0
Capital Coast Health	29	48	51	12	1	0
Coast Healthcare (West Coast)	5	3	0	3	1	1
Good Health Wanganui	9	14	27	0	0	0
Health South Canterbury	0	8	16	6	6	8
Health Waikato†						
Healthcare Hawkes Bay‡	2	6				
Healthcare Otago	14	18	21	0	0	0
Hutt Valley Health	11	11	7	0	0	0
Lakeland Health‡	17	35		123	126	
MidCentral Health	21	17	29	0	6	5
Nelson/Marlborough Health	21	24	22	6	2	4
Northland Health†						
Pacific Health Tauranga†						
Pacific Health Whakatane†						
South Auckland Health‡	19	22				
Southern Health‡	6	17	9			
Tairāwhiti Healthcare†						
Taranaki Healthcare	15	22	14	2	0	1
Wairarapa Health‡	7	13	3			
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 revised Bethesda System 2001 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 18 shows the numbers and proportions of satisfactory, satisfactory but limited and unsatisfactory smears taken in the quarter by annual volume of smears taken by each smear taker group. Overall, 100,850 smears were taken during the reporting quarter, of which 14 were taken by lay smear takers, 66,070 by medical smear takers, 25,945 by nurses, 8,356 by specialists and 465 by midwives. Of the 100,850 smears, 81.4% were considered satisfactory, 17.8% were considered satisfactory but limited and 0.8% 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, except the lay smear taker group (21.4%). Amongst the subgroups the lay smear takers, medical smear takers, specialists and midwives, who took fewer than 30 smears in the 12 months prior to 31 December 2002, the proportion of satisfactory but limited smears was greater than 20%. This proportion was highest for the medical smear takers (24.6%) compared with the lay smear takers (21.4%), specialists (21.4%) and midwives (23.6%). The proportion of satisfactory but limited smears was also greater than 20% for specialists who took 30-100 smears annually (22.5%).

The proportion of unsatisfactory smears was within the target range of 0.5-2.0 % for the medical smear taker, nurse, specialist and midwife groups. For lay smear takers, none of the 14 smears taken during the quarter were considered unsatisfactory for assessment. Amongst the health professional subgroups, the proportion of unsatisfactory smears was above the target range of 0.5-2.0% for specialists who took fewer than 30 smears (3.9%) and midwives who took fewer than 30 smears (3.3%).

RECOMMENDATIONS

Data Issues

1. The Ministry of Health should review how the quality of smear taking by smear takers is monitored.

Table 19. 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	14	11	78.6	3	21.4	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	14	11	78.6	3	21.4		0.0
Medical	< 30	4,123	3,057	74.1	1,015	24.6	51	1.2
	30-100	17,922	14,375	80.2	3,362	18.8	185	1.0
	> 100	44,025	35,535	80.7	8,159	18.5	331	0.8
	Total	66,070	52,967	80.2	12,536	19.0	567	0.9
Nurse	< 30	1,545	1,265	81.9	266	17.2	14	0.9
	30-100	9,322	7,768	83.3	1,488	16.0	66	0.7
	> 100	15,078	12,853	85.2	2,129	14.1	96	0.6
	Total	25,945	21,886	84.4	3,883	15.0	176	0.7
Specialist	< 30	154	115	74.7	33	21.4	6	3.9
	30-100	763	583	76.4	172	22.5	8	1.0
	> 100	7,439	6,145	82.6	1,207	16.2	87	1.2
	Total	8,356	6,843	81.9	1,412	16.9	101	1.2
Midwife	< 30	123	90	73.2	29	23.6	4	3.3
	30-100	107	84	78.5	23	21.5		0.0
	> 100	235	206	87.7	26	11.1	3	1.3
	Total	465	380	81.7	78	16.8	7	1.5
Total		100,850	82,087	81.4	17,912	17.8	851	0.8

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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 Segal'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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

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 invasive carcinoma cytology results reported by a given laboratory.

Reporting Frequency

6-monthly

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.

Reporting Frequency

Annual

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.

Reporting Frequency

Annual

Appendix 2

Bethesda 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