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The National Cancer Screening Service Board
The National Cancer Screening Service Board

The publication of this report has been approved by the Board of the National Cancer Screening Service.

The Board of the National Cancer Screening Service (NCSS) was established by the Minister for Health and Children in January 2007. The establishment followed the launch of ‘A Strategy for Cancer Control in Ireland 2006’ which advocates a comprehensive cancer control policy programme in Ireland by the Cancer Control Forum and the Department of Health and Children. The Strategy set out recommendations regarding prevention, screening, detection, treatment and management of cancer in Ireland in coming years and recommended the establishment of a National Cancer Screening Service Board. Governance of BreastCheck – The National Breast Screening Programme and the former Irish Cervical Screening Programme (ICSP) Phase One was transferred to the Board of the NCSS on its establishment. The NCSS has been responsible for the establishment of CervicalCheck – The National Cervical Screening Programme.

The functions of the National Cancer Screening Service are as follows:

• To carry out or arrange to carry out a national breast screening service for the early diagnosis and primary treatment of breast cancer in women;

• To carry out or arrange to carry out a national cervical cancer screening service for the early diagnosis and primary treatment of cervical cancer in women and;

• To advise on the benefits of carrying out other cancer screening programmes where a population health benefit can be demonstrated;

• To advise the Minister, from time to time, on health technologies, including vaccines, relating to the prevention of cervical cancer; and

• To implement special measures to promote participation in its programmes by disadvantaged people.

Since its establishment the National Cancer Screening Service has aimed to maximise expertise across screening programmes and improve efficiency by developing a single governance model for cancer screening. The mandate of the Board of the NCSS also includes a policy, development and advice role. Accordingly the Board of the NCSS recently provided recommendations for a national, population based colorectal cancer screening programme in Ireland. In addition, the Board has established an Expert Group on Hereditary Cancer Risk comprising of experts in the areas of breast cancer, colorectal cancer, cancer epidemiology and medical genetics. At the request of the Minister for Health and Children, the Board of the NCSS undertook a thorough review of the role of Human Papilloma Virus (HPV) vaccines in the prevention and control of cervical cancer. The Board is also empowered to provide advice to the Minister for Health and Children relating to other screening developments. On its establishment, Dr Sheelah Ryan, former Chairperson of the National Breast Screening Board was appointed as Chairperson of the Board and Mr Tony O’Brien was appointed as Chief Executive Officer of the National Cancer Screening Service. The Board, appointed by the Minister for Health and Children, consists of 12 members.

Dr. Sheelah Ryan, Chairperson
Dr Gráinne Flannelly
Dr Marie Laffoy
Ms Edel Moloney
Mr Jack Murray
Dr Ailís ní Riain
Dr Ann O’Doherty (appointed June 08)
Professor Martin O’Donoghue
Professor Niall O’Higgins (until June 08)
Dr Donal Ormonde
Mr Eamonn Ryan
Professor Frank Sullivan
Dr Jane Wilde

Mr Tony O’Brien, Chief Executive Officer
Ms Majella Byrne, Secretary to the Board & Head of Corporate Services
Message from the Chief Executive Officer
Welcome to the 2007 Programme Report of the former Irish Cervical Screening Programme (ICSP) Phase One. This report outlines the programme statistics of the ICSP in 2007 and provides an update on the establishment of CervicalCheck – The National Cervical Screening Programme.

The Irish Cervical Screening Programme Phase One

The ICSP had been in operation in Counties Limerick, Clare and North Tipperary since 2000, originally under the aegis of the Mid-Western Health Board and more recently the Health Service Executive (HSE).

Established as a pilot programme in advance of the introduction of a national cervical screening programme, the aim of the ICSP was to test operational issues before the introduction of a national programme.

The ICSP operated a partnership approach in the provision of cervical screening to eligible women (aged 25 to 60) in primary care settings. The support and service offered to women living in the Mid-West by primary healthcare workers who were ICSP registered smeartakers provided the core foundation for the establishment of the national programme.

I would like to take this opportunity to thank each of those involved in the delivery of the ICSP for their commitment to the programme and the women they screened.

Establishment of CervicalCheck - The National Cervical Screening Programme

The National Cancer Screening Service Board (NCSSB) was established by the Minister for Health and Children in January 2007. The establishment followed the launch of 'A Strategy for Cancer Control in Ireland 2006' which advocates a comprehensive cancer control policy programme in Ireland by the Cancer Control Forum and the Department of Health and Children.

The Strategy set out recommendations regarding prevention, screening, detection, treatment and management of cancer in Ireland in coming years and recommended the establishment of a National Cancer Screening Service Board.

On establishment of the National Cancer Screening Service (NCSS) in January 2007, governance of the ICSP was transferred to the Board of the NCSS. It was our pleasure to then welcome 27 colleagues from the HSE into the new organisation.

The NCSS was responsible for establishing and implementing CervicalCheck – Ireland’s first national cervical screening programme for the 1.1 million women aged 25 to 60 living in Ireland.

On average 180 new cases of cervical cancer are currently diagnosed each year in Ireland and the average age of a woman at diagnosis is 46 years. The average age at death from cervical cancer is 56 and on average 73 women die from cervical cancer each year in Ireland.
The NCSS launched CervicalCheck – The National Cervical Screening Programme on 01 September 2008. Efforts and preparations were made to ensure that a quality assured, organised, cost effective programme be made available free of charge to all eligible women aged 25 to 60 living in Ireland.

In line with international best practice, screening is provided every three years to women aged 25 to 44 and then, once a woman has had two consecutive ‘no abnormality detected’ results, every five years between the ages of 45 and 60.

The purpose of cervical screening is to identify and to treat pre-cancerous cell changes before they ever have a chance to develop into cancer. The vast majority of abnormalities detected will be pre-cancerous changes, not cervical cancer.

As no single screening test is 100% accurate, CervicalCheck will offer a woman repeat smear tests (up to 11 or more smear tests in her lifetime) at intervals dictated by international best practice using laboratory services that have been independently assessed as operating to the highest standards. This will minimise a woman’s risk of cervical cancer and any possible risk of a false result.

**Management developments**

On establishment of the National Cancer Screening Service in January 2007, Dr Marian O’Reilly was appointed Head of Cervical Screening. Dr O’Reilly was previously the Director of the ICSP.

Mr John Gleeson was appointed Deputy Manager of CervicalCheck. Mr Gleeson will provide operational support to Dr Marian O’Reilly and guidance of the programme as it expands nationwide.

Dr Gráinne Flannelly has been appointed interim Clinical Director of CervicalCheck. Dr Flannelly will provide appropriate clinical governance and leadership for the programme.

**Smeartaker Training Unit**

The Smeartaker Training Unit has been established in the Limerick office. The Unit has responsibility for the co-ordination and delivery of all smeartaker educational initiatives. The introduction of CervicalCheck led to a demand for training potentially 4,000 smeartakers on an ongoing basis. The unit is managed by Carol McNamara, who is supported by three regional smeartaker training co-ordinators. Clinical smeartaker training will continue to be overseen by a network of 10 national clinical trainers.

**Opportunistic screening**

The smear tests performed as part of CervicalCheck will replace those previously performed opportunistically and at times inappropriately.

Screening is for asymptomatic women. Opportunistic smear taking is not effective and does not impact on levels of detection of cervical cancer. Consistent with international best practice opportunistic screening will be discouraged now that CervicalCheck is available to women aged 25 to 60 years nationwide.

**Conclusion**

The key objective of CervicalCheck is to deliver a quality assured screening service to women living in Ireland in line with best international practice. The NCSS is delighted to deliver this screening programme that can make a real difference to women’s lives by significantly reducing the incidence of cervical cancer in Ireland.

The publication of this report has been approved by the Board of the National Cancer Screening Service. The Board wishes to acknowledge the support of Mary Harney, TD, Minister for Health and Children, in the establishment of CervicalCheck – The National Cervical Screening Programme.

A successful national cervical screening programme has the potential to cut current incidence rates from cervical cancer by up to 80%. Currently in Ireland, having regular free smear tests as part of the CervicalCheck programme is the most effective way to minimise a woman’s risk of cervical cancer.
I would like to acknowledge the dedication of my colleagues in the Limerick and Dublin offices in ensuring the efficient transition of the ICSP into the NCSS, without causing any disruption to the existing screening service. In particular, I wish to recognise the work of Dr Marian O’Reilly, Head of Cervical Screening; Mr John Gleeon, Deputy Programme Manager and Mr Patrick Cafferty, former Deputy Manager of the ICSP. Without the dedication and support of these colleagues and all staff of the former ICSP, this national programme would not now be in place. I also wish to thank our Board members for the huge commitment they have shown in bringing this programme into being.

Following an extensive consultation period with medical practitioners and key stakeholders, a contract for the provision of smearing services was issued initially to GPs and medical practitioners in the Mid-West who had been registered with the ICSP. Following this transfer from an ICSP to a NCSS contract, the contract was issued directly to all other GPs and medical practitioners in primary care settings nationwide.

Since then, the registration of smearakers steadily and quickly built. At the time of publication, CervicalCheck had registered 4,000 smearakers (GPs, practice nurses and medical practitioners) in over 1,400 locations in Ireland, providing extensive national coverage for the 1.1 million women eligible for screening.

I thank and pay tribute to the invaluable support we have received from the primary care community. It is this support that has enabled CervicalCheck to become a truly national programme.

Mr Tony O’Brien
Chief Executive Officer
National Cancer Screening Service
Introduction from the Head of Cervical Screening
Cervical cancer is a leading cause of death among women throughout the world. In Ireland it is the ninth most commonly diagnosed cancer in women. Most cases are from two main histological diagnoses depending on whether they originate in squamous or glandular cervical epithelium. Squamous cell carcinomas account for almost 80% of all invasive cervical cancers while glandular or adenocarcinomas make up the bulk of the remainder (10-15%). The early phase of invasive cervical cancers begins as a slow process of disruption of the normal epithelium surrounding the transformation zone of the uterine cervix. This phase is invariably asymptomatic and can be discovered only through cytological examination using the Papanicolaou technique (the Pap / smear test) and with confirmation via a colposcope examination and biopsy of the suspected lesion.

The early stage of the squamous cell carcinoma is generally known as cervical intraepithelial neoplasia (CIN) of which there can be CIN 1, CIN 2 or CIN 3 indicating increasing severity; according to the classification scheme of the World Health Organisation or as a squamous intraepithelial lesion (SIL) as per the Bethesda classification system. If left untreated lesions will develop into in situ cervical cancer or CIN3. This is represented by a full thickness loss of cellular differentiation within the epithelium. Subsequently, it may traverse the lining formed by the basement membrane which separates the epithelium from the underlying connective tissue and become invasive.

The invasive cervical cancer rate in Ireland is one of the highest in Western Europe. In order to achieve a maximum reduction in cervical cancer in the Irish population, there is a need to replace opportunistic cervical screening with an organised population health based programme. Phase One of the Irish Cervical Screening Programme (ICSP) commenced in October 2000 in the Mid-West (Counties Limerick, Clare and North Tipperary). It was evaluated and provided a sound basis for its extension to the rest of the country from September 2008.

It is proven that organised cervical screening programmes that are quality assured are effective in reducing the incidence of cervical cancer by up to 80%. Cervical smear tests have a beneficial impact on cervical cancer prevention. The reduction in risk of developing cervical cancer is achieved through regular screening in the target population. A three yearly screening interval achieves a 91% risk reduction in developing invasive cervical cancer and a five yearly screening interval gives an 83% risk reduction.

Cervical cancer usually takes more than a decade to develop, so regular smear tests can help with the early detection of pre-cancerous changes. It is not possible at present to predict which cases of CIN will progress and which will regress. Because of the usual time lag before development of invasive cancer, regular smear tests afford good mechanism in early detection.

The effectiveness of cervical screening is dependant on high coverage of the population that can be achieved and maintained. Eighty percent coverage of the target population is needed so that there will be an optimal reduction in with the incidence of cervical cancer.

Evaluation of the cervical screening programme requires ongoing access to a woman’s clinical history of cytology, colposcopy and histology results. In Ireland, women will be eligible to participate in CervicalCheck – The National Cervical Screening Programme for 35 years of their lives i.e. from 25 to 60 years of age. Women must give explicit signed consent to their health information being transferred to the programme register that is held in a central cervical screening database in the programme office in Limerick.

I wish to thank everyone involved for their contribution to the success to date of the cervical screening programme in the Mid-West and look forward to continuing the partnership in the national setting.

Dr. Marian O’Reilly,
Head of Cervical Screening
National Cancer Screening Service
Statistics
1.1 Summary
As of 31 December 2007, there were 130,805 women on the ICSP Phase One Cervical Screening Register (CSR). This review for 2003-2007 indicates that coverage of the target population of women aged 25 to 60 is 62.45% (61,116/97,871). There were 3,575 unique women seen in colposcopy from 01 January 2003 to 31 December 2007 representing 5.8% (3,575/61,116) of the total number screened during the period. Diagnostic histology services recorded 15 cervical cancers and 645 pre-invasive cancers in the same time period.

The recommendation to change the screening interval to every three years in women aged 25-44 and every five years in women aged 45 to 60 following two consecutive negative smear test results was adopted by the National Cancer Screening Service Board and has been operational since July 2007.

1.2 Objective
The objective of this report is to monitor ICSP Phase One activity. Key performance indicators monitor the screening process and allow early identification of problems and reactions, if needed. Statistics are gathered regarding activity of the:
- Population register
- Smear test attendance rates and coverage
- Laboratories – cytology and histology
- Colposcopy service.

The monitoring and evaluation of a national cervical screening programme is essential and mechanisms to support it are required. Cost effectiveness, coverage, and the decrease in the incidence and mortality of cervical cancer as a result of the programme are the major measures required. A number of screening rounds are required to demonstrate a decrease in morbidity and mortality. There will be confidence in evaluation outcomes of a national programme when all stakeholders adhere to one clearly defined national policy.

1.3 Methodology
The prime source of the following data is the Cervical Screening Register (CSR) based on five years data up to 31 December 2007. Reporting on screening activity at population level in ICSP Phase One is made possible by the demographic details and screening data stored centrally in the CSR for each woman. An extensive de-duplication process of women's files is undertaken annually and name matching software is active on the CSR. Information retained on women for ICSP purposes is subject to the Data Protection Act 1998 and 2003.

1.4 Analysis
The CSR contained the files of 130,805 women for ICSP Phase One on 31 December 2007. These women were grouped into one of three categories: active, inactive or permanently inactive (Table 1).

The inactive category identifies those women who are, for an interim, exempt from the programme for reasons such as self-deferral of routine smear test, under the care of colposcopy services or undergoing other medical treatment, under age or have temporarily moved out of the ICSP region.

The permanently inactive file is an archive of women who are not, or are no longer, eligible for the screening programme due to death, reaching the age of 61, having a history of a total hysterectomy for benign reasons, having moved out of the country or having requested not to be part of the programme.
Table 1: Number of women on the CSR by age group and status on 31 December 2007

<table>
<thead>
<tr>
<th>Age group</th>
<th>Active</th>
<th>Inactive</th>
<th>Permanently inactive</th>
<th>Total</th>
<th>Total within age cohort</th>
<th>Total percent within age cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>1,672</td>
<td>741</td>
<td>5</td>
<td>2,418</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>15,350</td>
<td>2,453</td>
<td>156</td>
<td>17,959</td>
<td>17,959</td>
<td>15.33%</td>
</tr>
<tr>
<td>30-34</td>
<td>16,926</td>
<td>3,954</td>
<td>557</td>
<td>21,437</td>
<td>21,437</td>
<td>18.29%</td>
</tr>
<tr>
<td>35-39</td>
<td>15,854</td>
<td>3,693</td>
<td>744</td>
<td>20,291</td>
<td>20,291</td>
<td>17.32%</td>
</tr>
<tr>
<td>40-44</td>
<td>13,927</td>
<td>2,760</td>
<td>628</td>
<td>17,315</td>
<td>17,315</td>
<td>14.78%</td>
</tr>
<tr>
<td>45-49</td>
<td>12,331</td>
<td>1,675</td>
<td>643</td>
<td>14,649</td>
<td>14,649</td>
<td>12.50%</td>
</tr>
<tr>
<td>50-54</td>
<td>10,617</td>
<td>1,210</td>
<td>704</td>
<td>12,531</td>
<td>12,531</td>
<td>10.69%</td>
</tr>
<tr>
<td>55-59</td>
<td>9,197</td>
<td>937</td>
<td>812</td>
<td>10,946</td>
<td>10,946</td>
<td>9.34%</td>
</tr>
<tr>
<td>60 only</td>
<td>252</td>
<td>775</td>
<td>1,026</td>
<td>2,053</td>
<td>2,053</td>
<td>1.75%</td>
</tr>
<tr>
<td>61+</td>
<td>953</td>
<td>4,695</td>
<td>5,558</td>
<td>11,206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Total</td>
<td>97,079</td>
<td>22,893</td>
<td>10,833</td>
<td>130,805</td>
<td>117,181</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 profiles the CSR population demographics against the 2006 census data in the HSE Mid-Western area for women in the target population (25-60). The under 25 and over 60 age groups along with women in the permanently inactive CSR category have been excluded to better reflect the ICSP target population. The drop in the graph at age 60 reflects the reference to that age alone whereas the other points refer to five year age cohorts. A possible explanation of the discrepancy for age groups 25-44 may be that women living outside the Phase One area may in fact have residency within the Phase One area.

Figure 1: Correlation between the number of women aged 25-60 on the CSR database and the CSO 2006 Census Data on 31 December 2007
1.4.1 Level of screening

1.4.1.1 Number of women screened

From 01 January 2003 to 31 December 2007, 67,943 unique women attended for cervical screening of which 6.5% (4,405/67,943) were below and 3.6% (2,422/67,943) above the age threshold for screening (Table 2).

Table 2: Number of unique women screened by age for the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>Age group</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
<th>Total within age cohort</th>
<th>Total percent within age cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>1,082</td>
<td>937</td>
<td>781</td>
<td>663</td>
<td>942</td>
<td>4,405</td>
<td>10,181</td>
<td>16.66%</td>
</tr>
<tr>
<td>25-29</td>
<td>2,561</td>
<td>1,923</td>
<td>1,685</td>
<td>1,838</td>
<td>2,174</td>
<td>10,181</td>
<td>10,181</td>
<td>17.13%</td>
</tr>
<tr>
<td>30-34</td>
<td>3,235</td>
<td>2,086</td>
<td>1,700</td>
<td>1,631</td>
<td>1,818</td>
<td>10,470</td>
<td>10,470</td>
<td>17.27%</td>
</tr>
<tr>
<td>35-39</td>
<td>3,065</td>
<td>1,951</td>
<td>1,780</td>
<td>1,508</td>
<td>1,722</td>
<td>10,026</td>
<td>10,026</td>
<td>16.40%</td>
</tr>
<tr>
<td>40-44</td>
<td>2,869</td>
<td>1,740</td>
<td>1,681</td>
<td>1,396</td>
<td>1,627</td>
<td>9,313</td>
<td>9,313</td>
<td>15.24%</td>
</tr>
<tr>
<td>45-49</td>
<td>2,432</td>
<td>1,506</td>
<td>1,440</td>
<td>1,178</td>
<td>1,409</td>
<td>7,965</td>
<td>7,965</td>
<td>13.03%</td>
</tr>
<tr>
<td>50-54</td>
<td>2,032</td>
<td>1,313</td>
<td>1,302</td>
<td>954</td>
<td>1,125</td>
<td>6,726</td>
<td>6,726</td>
<td>11.01%</td>
</tr>
<tr>
<td>55-59</td>
<td>2,062</td>
<td>1,014</td>
<td>862</td>
<td>784</td>
<td>889</td>
<td>5,611</td>
<td>5,611</td>
<td>9.18%</td>
</tr>
<tr>
<td>60 only</td>
<td>309</td>
<td>112</td>
<td>96</td>
<td>139</td>
<td>168</td>
<td>824</td>
<td>824</td>
<td>1.35%</td>
</tr>
<tr>
<td>61+</td>
<td>790</td>
<td>393</td>
<td>293</td>
<td>410</td>
<td>536</td>
<td>2,422</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20,437</td>
<td>12,975</td>
<td>11,620</td>
<td>10,501</td>
<td>12,410</td>
<td>67,943</td>
<td>61,116</td>
<td></td>
</tr>
</tbody>
</table>

1.4.1.2 Coverage

Coverage is a cumulative measure of the number of eligible women (25-60 years) who have undergone smear testing over the screening interval. It provides information on the relative extent to which the ICSP is reaching its target population. The proportion of the target population screened in intervals is the main determinant of success of a screening programme. On the other hand, too frequent testing increases human and financial costs with only a very small gain in mortality reduction. Coverage from 01 January 2003 to 31 December 2007 was 62.45% (61,116/97,871) (Table 3).
Coverage of women in the ICSP Phase One from 01 January 2003 to 31 December 2007 is defined as the number of women who have had a smear test within the last five years expressed as a percentage of the eligible women from the CSR database (Figure 2).

### Table 3: Coverage by age cohort from 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>Age group</th>
<th>Eligible women</th>
<th>No. of women screened from 01 Jan. 2003 to 31 Dec. 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-29</td>
<td>16,094</td>
<td>10,181</td>
</tr>
<tr>
<td>30-34</td>
<td>17,666</td>
<td>10,470</td>
</tr>
<tr>
<td>35-39</td>
<td>16,494</td>
<td>10,026</td>
</tr>
<tr>
<td>40-44</td>
<td>14,369</td>
<td>9,313</td>
</tr>
<tr>
<td>45-49</td>
<td>12,689</td>
<td>7,965</td>
</tr>
<tr>
<td>50-54</td>
<td>10,871</td>
<td>6,726</td>
</tr>
<tr>
<td>55-59</td>
<td>9,421</td>
<td>5,611</td>
</tr>
<tr>
<td>60 only</td>
<td>267</td>
<td>824</td>
</tr>
<tr>
<td>Total</td>
<td>97,871</td>
<td>61,116</td>
</tr>
</tbody>
</table>

Coverage of women in the ICSP Phase One from 01 January 2003 to 31 December 2007 is defined as the number of women who have had a smear test within the last five years expressed as a percentage of the eligible women from the CSR database (Figure 2).

### Figure 2: ICSP coverage for the period 01 January 2003 to 31 December 2007
1.4.3 Smear test activity

1.4.3.1 Adherence to ICSP screening policy

Overall, policy smear tests represented 70.8% (86,257/121,757) (Table 4) of all smear tests received by the ICSP. A little more than 29.2% (35,500/121,757) were inappropriate smear tests for which no payment was made and included all smear tests on women under 25 years of age. The level of inappropriate smearing was generally low within the ICSP eligible (25-60 years) population (Figure 3). Smear tests in women over 60 years of age were appropriately followed up as indicated by cytology management guidelines and especially if it was a first ever smear test.

Table 4: Policy and inappropriate smear tests

<table>
<thead>
<tr>
<th>Age group</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of smears</td>
<td>Policy</td>
<td>Inappropriate</td>
</tr>
<tr>
<td>&lt;25</td>
<td>1,102</td>
<td>0.00</td>
<td>1.102</td>
</tr>
<tr>
<td>25-29</td>
<td>3,828</td>
<td>3.293</td>
<td>86.0</td>
</tr>
<tr>
<td>30-34</td>
<td>3,628</td>
<td>2.899</td>
<td>79.9</td>
</tr>
<tr>
<td>35-39</td>
<td>3,279</td>
<td>2.505</td>
<td>76.4</td>
</tr>
<tr>
<td>40-44</td>
<td>3,128</td>
<td>2.305</td>
<td>73.7</td>
</tr>
<tr>
<td>45-49</td>
<td>2,583</td>
<td>1.891</td>
<td>73.2</td>
</tr>
<tr>
<td>50-54</td>
<td>2,174</td>
<td>1.558</td>
<td>71.7</td>
</tr>
<tr>
<td>55-59</td>
<td>1,614</td>
<td>1.162</td>
<td>72.0</td>
</tr>
<tr>
<td>60 only</td>
<td>220</td>
<td>0.158</td>
<td>71.8</td>
</tr>
<tr>
<td>61+</td>
<td>676</td>
<td>0.491</td>
<td>72.6</td>
</tr>
<tr>
<td>Total</td>
<td>22,232</td>
<td>16,262</td>
<td>73.1</td>
</tr>
</tbody>
</table>
1.4.4 Cytology

Of the 121,757 (Table 4) smear tests taken, the slides of 383 smear tests were either damaged or broken and a further 857 were pending results at the end of 2007 and are not included in this analysis. The remaining 120,517 (Table 5) smear tests are reported here.

1.4.4.1 Cytology findings

From the raw data of cytology screening activity, 7.52% were reported unsatisfactory or inadequate for cytology screening and required a repeat test (Table 5).

When the figures are adjusted to remove the unsatisfactory or inadequate smear test reports from the total reported (Table 6), 2.56% of smear test samples showed moderate dyskaryosis, severe dyskaryosis, invasive squamous carcinoma and glandular neoplasia.

Up to 2007 University College Hospital Galway processed 69.26% (83,468/120,517) ICSP smear tests, St. Luke’s Hospital processed 27.01% (32,552/120,517), and RCSI processed 3.73% (4,497/120,517).

The level of inadequate or unsatisfactory reporting at UCHG was 8.3% (6,932/83,468), at St. Luke’s was 6.3% (2,044/32,552), and at RCSI was 1.9% (87/4,497).
### Table 5: Cytology findings for smear tests in the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of smear tests processed</th>
<th>Total number of smear tests processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>24,374</td>
<td>2,114</td>
</tr>
<tr>
<td>2004</td>
<td>23,468</td>
<td>2,574</td>
</tr>
<tr>
<td>2005</td>
<td>19,081</td>
<td>1,917</td>
</tr>
<tr>
<td>2006</td>
<td>18,719</td>
<td>1,258</td>
</tr>
<tr>
<td>2007</td>
<td>34,875</td>
<td>1,200</td>
</tr>
<tr>
<td>Total</td>
<td>120,517</td>
<td>9,063</td>
</tr>
</tbody>
</table>

### Table 6: Cytology findings excluding unsatisfactory smear tests in the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>NAD</th>
<th>BNA(sq) or BNA(gl)</th>
<th>BNA(gl)</th>
<th>Mild dyskaryosis</th>
<th>Moderate dyskaryosis</th>
<th>Severe dyskaryosis</th>
<th>Query invasive Sq Ca</th>
<th>Query Glandular</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>22,260</td>
<td>20,355</td>
<td>91.44</td>
<td>767</td>
<td>3.45</td>
<td>22</td>
<td>0.10</td>
<td>590</td>
<td>2.65</td>
</tr>
<tr>
<td>2004</td>
<td>20,894</td>
<td>19,388</td>
<td>92.79</td>
<td>587</td>
<td>2.81</td>
<td>31</td>
<td>0.15</td>
<td>473</td>
<td>2.26</td>
</tr>
<tr>
<td>2005</td>
<td>17,164</td>
<td>15,533</td>
<td>90.61</td>
<td>424</td>
<td>2.47</td>
<td>33</td>
<td>0.19</td>
<td>673</td>
<td>3.92</td>
</tr>
<tr>
<td>2006</td>
<td>17,461</td>
<td>15,220</td>
<td>87.17</td>
<td>751</td>
<td>4.30</td>
<td>31</td>
<td>0.18</td>
<td>840</td>
<td>4.81</td>
</tr>
<tr>
<td>2007</td>
<td>33,675</td>
<td>30,399</td>
<td>90.27</td>
<td>1145</td>
<td>3.40</td>
<td>16</td>
<td>0.05</td>
<td>1,302</td>
<td>3.87</td>
</tr>
<tr>
<td>Total</td>
<td>111,454</td>
<td>100,915</td>
<td>90.54</td>
<td>3674</td>
<td>3.30</td>
<td>133</td>
<td>0.12</td>
<td>3,878</td>
<td>3.48</td>
</tr>
</tbody>
</table>
1.4.5 Colposcopy

The following provides information on the level of activity in colposcopy. Looking at the period 01 January 2003 to 31 December 2007, 5.8% (3,575/61,116) of the total number screened were seen at colposcopy. From the numbers of women referred to the colposcopy clinic on CSR and those that attended the clinic, it is apparent that there is a high degree of compliance by women (Table 7).

Table 7: Number of unique women who attended colposcopy for the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25-29</td>
<td>236</td>
<td>148</td>
<td>139</td>
<td>216</td>
<td>228</td>
<td>967</td>
<td>2,286</td>
</tr>
<tr>
<td>30-34</td>
<td>241</td>
<td>163</td>
<td>161</td>
<td>154</td>
<td>157</td>
<td>876</td>
<td>2,094</td>
</tr>
<tr>
<td>35-39</td>
<td>142</td>
<td>97</td>
<td>93</td>
<td>112</td>
<td>107</td>
<td>551</td>
<td>1,392</td>
</tr>
<tr>
<td>40-44</td>
<td>101</td>
<td>93</td>
<td>77</td>
<td>94</td>
<td>103</td>
<td>468</td>
<td>1,086</td>
</tr>
<tr>
<td>45-49</td>
<td>104</td>
<td>67</td>
<td>58</td>
<td>67</td>
<td>61</td>
<td>357</td>
<td>822</td>
</tr>
<tr>
<td>50-54</td>
<td>49</td>
<td>41</td>
<td>39</td>
<td>40</td>
<td>34</td>
<td>203</td>
<td>435</td>
</tr>
<tr>
<td>55-59</td>
<td>41</td>
<td>24</td>
<td>22</td>
<td>22</td>
<td>31</td>
<td>140</td>
<td>243</td>
</tr>
<tr>
<td>60</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>921</td>
<td>636</td>
<td>590</td>
<td>707</td>
<td>725</td>
<td>3,575</td>
<td>8,387</td>
</tr>
</tbody>
</table>

A unique woman (Figure 4) usually attends the clinic a number of times throughout her pathway of care before being discharged back to her General Practitioner.

Figure 4: Number of unique women who attended colposcopy for the period 01 January 2003 to 31 December 2007
Women attending the colposcopy clinic may have had a procedure carried out or biopsy taken (Table 8 and Figure 5)

Table 8: Types of colposcopy procedures as a percentage of total number of procedures for the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>Age group</th>
<th>Total no.</th>
<th>Lletz</th>
<th>% of n</th>
<th>Punch biopsy</th>
<th>% of n</th>
<th>Smear tests</th>
<th>% of n</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>2,032</td>
<td>192</td>
<td>9.4</td>
<td>509</td>
<td>25.0</td>
<td>1,331</td>
<td>65.5</td>
</tr>
<tr>
<td>2004</td>
<td>2,293</td>
<td>228</td>
<td>9.9</td>
<td>582</td>
<td>25.4</td>
<td>1,483</td>
<td>64.7</td>
</tr>
<tr>
<td>2005</td>
<td>2,160</td>
<td>171</td>
<td>7.9</td>
<td>500</td>
<td>23.1</td>
<td>1,489</td>
<td>68.9</td>
</tr>
<tr>
<td>2006</td>
<td>2,753</td>
<td>225</td>
<td>8.2</td>
<td>646</td>
<td>23.5</td>
<td>1,882</td>
<td>68.4</td>
</tr>
<tr>
<td>2007</td>
<td>3,069</td>
<td>211</td>
<td>6.9</td>
<td>681</td>
<td>22.2</td>
<td>2,177</td>
<td>70.9</td>
</tr>
<tr>
<td>Total</td>
<td>12,307</td>
<td>1,027</td>
<td>8.3</td>
<td>2,918</td>
<td>23.7</td>
<td>8,362</td>
<td>67.9</td>
</tr>
</tbody>
</table>

Figure 5: Types of colposcopy procedures as a percentage of total number of procedures undertaken by year for the period 01 January 2003 to 31 December 2007
1.4.6 Histology

The highest ranking SNOMED code is reported. If a woman has a number of histologically diagnosed specimens, the most severe grade is noted.

1.4.6.1 Histology findings by year

Histological findings relating to the cervix were reported for 2,390 women screened for the period of 01 January 2003 to 31 December 2007 (Table 9, Figure 6).

Of women referred to histology, SNOMED results indicated (Table 9):

- Normal tissue 11.67% (279/2,390)
- Low grade CIN 1 36.32% (868/2,390)
- High grade CIN 2 24.39% (583/2,390)
- Pre-invasive CIN 3 26.98% (645/2,390)
- Carcinoma 0.63% (15/2,390)
Table 9: Distribution of histology findings by highest ranking SNOMED code for the period 01 January 2003 to 31 December 2007

<table>
<thead>
<tr>
<th>No. of women</th>
<th>Inadequate</th>
<th>Normal tissue</th>
<th>CIN 1</th>
<th>CIN 2</th>
<th>CIN 3</th>
<th>CGIN</th>
<th>Adeno-carcinoma in situ</th>
<th>Adeno-carcinoma</th>
<th>Squamous cell ca</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M09010</td>
<td>M00100 M09490</td>
<td>M74006</td>
<td>M74007</td>
<td>M74008</td>
<td>M74009</td>
<td>M81402</td>
<td>M81403</td>
<td>M80703</td>
</tr>
<tr>
<td>2003</td>
<td>419</td>
<td>0.0</td>
<td>49</td>
<td>11.7</td>
<td>167</td>
<td>39.9</td>
<td>83</td>
<td>19.8</td>
<td>115</td>
</tr>
<tr>
<td>2004</td>
<td>431</td>
<td>0.0</td>
<td>13</td>
<td>3.0</td>
<td>171</td>
<td>39.7</td>
<td>128</td>
<td>29.7</td>
<td>117</td>
</tr>
<tr>
<td>2005</td>
<td>376</td>
<td>0.0</td>
<td>70</td>
<td>18.6</td>
<td>116</td>
<td>30.9</td>
<td>98</td>
<td>26.1</td>
<td>91</td>
</tr>
<tr>
<td>2006</td>
<td>518</td>
<td>0.0</td>
<td>110</td>
<td>21.2</td>
<td>149</td>
<td>28.8</td>
<td>124</td>
<td>23.9</td>
<td>133</td>
</tr>
<tr>
<td>2007</td>
<td>646</td>
<td>0.0</td>
<td>37</td>
<td>5.7</td>
<td>265</td>
<td>41.0</td>
<td>150</td>
<td>23.2</td>
<td>189</td>
</tr>
<tr>
<td>Total</td>
<td>2,390</td>
<td>0.0</td>
<td>279</td>
<td>11.7</td>
<td>868</td>
<td>36.3</td>
<td>583</td>
<td>24.4</td>
<td>645</td>
</tr>
</tbody>
</table>
If you have any queries about the former Irish Cervical Screening Programme or CervicalCheck - The National Cervical Screening Programme, contact:

CervicalCheck administration office on 061 461 390 or Freephone 1800 45 45 55

www.cervicalcheck.ie