THE ORGANISATION OF

THE

CERVICAL SCREENING SERVICE

IN IRELAND

Ethel McKenna
September 1986.
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REFERENCES.
INTRODUCTION

THE ORGANISATION OF THE
CERVICAL SCREENING SERVICE IN IRELAND

The aim of a Cervical Screening Programme is to reduce mortality from Cancer of the Cervix by ensuring that women at risk from this disease are screened regularly, in order to identify the early signs of the disease while it is still at the pre-invasive stage.

The purpose of this Project is to look at the requirements of a successful Cervical Screening Programme and to achieve this objective the Project will review the Organisation of the Cervical Screening Service, under the following headings:-

1. History.
2. Demand.
3. Users and Providers of the Service.
4. Costs and Staff Numbers.
5. Present Service.
7. Services in other Countries.
8. Conclusions and Recommendations.

This Research Project has been undertaken as part of the Higher Diploma in Hospital and Health Services Administration.

Signed: ____________________________
(Ethel McKenna).

September, 1986.
CHAPTER 1

THE HISTORICAL EVOLVEMENT OF THE

CERVICAL SCREENING SERVICE

Working in the Department of Anatomy in the Cornell University Medical School in New York, Dr. G.N. Papanicolaou developed a practical test for the early detection of carcinoma of the uterine cervix in 1928.

However, it was not until 1941 that exfoliative cells in a vaginal smear could be used effectively to screen for cervical cancer and in the U.S.A. it became routine practice to perform smear tests on women with gynaecological complaints. By the 1950's, in the U.S.A., screening had been extended to healthy asymptomatic women.

However, it was not until around 1960 that the "PAP" Smear Test received universal recognition and widespread use. Since then, cervical cytology has been widely acclaimed as a screening technique for large numbers of women to identify those with suspicious cells for further study.

The Cervical Screening Service was started in the United Kingdom in 1960, when in Scotland, Aberdeen and then Dundee set-up comprehensive screening programmes for the population in their charge. The rest of the United Kingdom started screening in the mid-1960's with money allocated from the Department of Health and Social Security to set-up cervical screening centres. Since then, the Service has been incorporated in the routine histopathology/cytology services in most District General Hospitals and there are very few totally separate cytology screening centres.

In Ireland, cervical screening was started by Professor J.D.
Kennedy, Regional Hospital, Galway, in 1963. The service originally operated from the Maternity Department in the Hospital and in 1970 was transferred to the Histopathology Department in the Regional Hospital, Galway, where it is still based.

In February 1970, the Department of Health requested Saint Luke's Hospital, Dublin, to undertake the organisation and operation of a National Laboratory Service for testing cervical smears in cases other than those already catered for at that time, i.e. in Galway Regional Hospital and some Dublin Maternity Hospitals, where the Service was already being provided for Patients attending Gynaecology Clinics. The Service to be operated by Saint Luke's Hospital was to be available to General Practitioners in all parts of the Country.

Saint Luke's Hospital agreed to undertake this National Service and is today the main Laboratory Centre for Diagnostic Screening for Cancer of the Cervix in the Republic of Ireland.

An organised Population Cervical Screening Programme is still not available in Ireland. However, a fragmented service is available on request, through General Practitioners and Screening Clinics organised by Health Boards, Maternity Hospitals and Family Planning Clinics. To date, the Department of Health and Health Boards have not agreed upon a uniform policy of providing a Screening Service.
CHAPTER 2

THE GROWING DEMAND FOR THE CERVICAL SCREENING SERVICE

Since the 1960's, cervical cytology has been widely acclaimed as a screening technique for large numbers of women, to identify those with suspicious cells for further study. Although screening by cervical cytology has been widely practised for 20 years, it is only recently that convincing evidence of its potential benefit has been published. (Ref. 1).

In this Country, approximately 104,000 Smear Tests were carried out in Year 1984, compared to 100,000 Smear Tests in Year 1983 and 90,000 Smear Tests carried out in Year 1982.

The demand for the Service in the Regional Hospital, Galway, since Year 1981, has increased as follows:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF PATIENTS SCREENED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>20,000</td>
</tr>
<tr>
<td>1982</td>
<td>19,970</td>
</tr>
<tr>
<td>1983</td>
<td>20,120</td>
</tr>
<tr>
<td>1984</td>
<td>21,693</td>
</tr>
<tr>
<td>1985</td>
<td>26,049</td>
</tr>
</tbody>
</table>
Women are becoming more aware of the need for a Cervical Smear Test and the demand for the Service has increased greatly over the years. For example, the demand for the Service in the Saint Luke's Hospital Cytology Laboratory since 1970, has increased as follows:

Saint Luke's Hospital, Dublin.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF PATIENTS SCREENED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>1,720</td>
</tr>
<tr>
<td>1971</td>
<td>6,000</td>
</tr>
<tr>
<td>1972</td>
<td>8,500</td>
</tr>
<tr>
<td>1973</td>
<td>11,500</td>
</tr>
<tr>
<td>1974</td>
<td>16,713</td>
</tr>
<tr>
<td>1975</td>
<td>20,800</td>
</tr>
<tr>
<td>1976</td>
<td>24,950</td>
</tr>
<tr>
<td>1977</td>
<td>27,236</td>
</tr>
<tr>
<td>1978</td>
<td>32,062</td>
</tr>
<tr>
<td>1979</td>
<td>29,330 *</td>
</tr>
<tr>
<td>1980</td>
<td>34,400</td>
</tr>
<tr>
<td>1981</td>
<td>26,537 **</td>
</tr>
<tr>
<td>1982</td>
<td>33,431</td>
</tr>
<tr>
<td>1983</td>
<td>35,942</td>
</tr>
<tr>
<td>1984</td>
<td>42,989</td>
</tr>
<tr>
<td>1985</td>
<td>47,988</td>
</tr>
</tbody>
</table>

* In 1979, there was a drop in intake due to a postal strike.

** In 1981, it is thought that the high backlog which existed at that time, discouraged doctors from using the Laboratory Service at Saint Luke's Hospital.
In the Southern Health Board area, a Cervical Screening Service has been operating from the Regional Hospital, Wilton, Cork, since Year 1979. In Year 1984, approximately 10,000 new smear tests were taken in a catchment area of 160,000 women at risk over the age of 20 years. There has been a 20% per annum increase in the number of smears taken.

* * * * * * * *
CHAPTER 3

TYPES OF USERS OF THE CERVICAL SCREENING LABORATORY SERVICE

An examination of the types of users of the Cytology Laboratory Service will show which Health Board areas around the Country are actively involved in cervical screening programmes.

1) REGIONAL HOSPITAL, GALWAY.

The population catchment of users of the Cytology Laboratory Service at the Regional Hospital, Galway, consists of Galway; Mayo; Leitrim; Roscommon; Sligo; Clare; Limerick; Tipperary; Wexford; Waterford and Kilkenny.

Smear tests are received mainly from General Practitioners, Maternity Hospitals and local Health Centres. The total number of smear tests examined in the Cytology Laboratory in Year 1985 was 26,049 and 50% of these were from the Galway area. The remaining 50% were received from the other Health Board areas, which would also send some of their smear tests for examination to the Saint Luke's Hospital Cytology Laboratory in Dublin, as will be seen from the Summary of Numbers of Cervical Smears examined in the Saint Luke's Hospital Laboratory from Health Board areas in the Years 1981 to 1985. (See page 9).

2) REGIONAL HOSPITAL, CORK.

In the Southern Health Board area, the catchment is 160,000 women at risk over the age of 20 Years. In Year 1984, approximately 10,000 new smears were examined and the majority of
smears tested in the Southern Health Board area are taken in Hospitals and Family Planning Clinics.

3) SAINT LUKE'S HOSPITAL, DUBLIN.

The types of users of the National Cytology Laboratory Service at Saint Luke's Hospital, Dublin, come from all Health Board areas around the Country and comprise of General Practitioners, Family Planning Clinics and other Screening Clinics.

The total number of smear tests examined in the Cytology Laboratory in Year 1985 was 47,988 and these were received from the following categories of users.

<table>
<thead>
<tr>
<th>Users of the National Cytology Laboratory Service</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practitioners</td>
<td>58%</td>
</tr>
<tr>
<td>(Includes Health Board Clinics)</td>
<td></td>
</tr>
<tr>
<td>Family Planning Clinics</td>
<td>18%</td>
</tr>
<tr>
<td>Well Woman Clinics</td>
<td>14%</td>
</tr>
<tr>
<td>Consultants</td>
<td>5%</td>
</tr>
<tr>
<td>(Includes Hospital Clinics)</td>
<td></td>
</tr>
<tr>
<td>Irish Cancer Society Clinics</td>
<td>5%</td>
</tr>
</tbody>
</table>

(Source - Records of the National Cytology Laboratory at Saint Luke's Hospital, Dublin)
Summary of Numbers of Cervical Smears examined in the Saint Luke's Hospital Laboratory from Health Board areas in the Years 1981 to 1985.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EASTERN</td>
<td>15,342</td>
<td>18,185</td>
<td>19,528</td>
<td>23,989</td>
<td>26,465</td>
</tr>
<tr>
<td>MIDLAND</td>
<td>2,154</td>
<td>2,416</td>
<td>3,048</td>
<td>3,356</td>
<td>4,543</td>
</tr>
<tr>
<td>MID-WESTERN</td>
<td>2,153</td>
<td>3,632</td>
<td>3,552</td>
<td>3,779</td>
<td>4,459</td>
</tr>
<tr>
<td>NORTH EASTERN</td>
<td>3,647</td>
<td>3,852</td>
<td>3,683</td>
<td>4,332</td>
<td>5,042</td>
</tr>
<tr>
<td>NORTH WESTERN</td>
<td>2,828</td>
<td>3,104</td>
<td>3,271</td>
<td>4,324</td>
<td>3,760</td>
</tr>
<tr>
<td>SOUTH EASTERN</td>
<td>1,586</td>
<td>1,546</td>
<td>2,234</td>
<td>2,427</td>
<td>2,993</td>
</tr>
<tr>
<td>SOUTHERN</td>
<td>808</td>
<td>679</td>
<td>597</td>
<td>746</td>
<td>670</td>
</tr>
<tr>
<td>WESTERN</td>
<td>19</td>
<td>17</td>
<td>29</td>
<td>36</td>
<td>56</td>
</tr>
<tr>
<td>TOTALS</td>
<td>28,537</td>
<td>33,431</td>
<td>35,942</td>
<td>42,989</td>
<td>47,988</td>
</tr>
</tbody>
</table>

(Source - Records of the National Cytology Laboratory at Saint Luke's Hospital, Dublin).
TOTAL NUMBERS OF CERVICAL SMEARS RECEIVED IN THE SAINT LUKE'S CYTOLOGY LABORATORY IN THE FIVE YEAR PERIOD FROM 1981 to 1985 FROM HEALTH BOARD AREAS

<table>
<thead>
<tr>
<th>HEALTH BOARD</th>
<th>TOTAL SMEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASTERN</td>
<td>103,509</td>
</tr>
<tr>
<td>MIDLAND</td>
<td>15,517</td>
</tr>
<tr>
<td>MID-WESTERN</td>
<td>17,575</td>
</tr>
<tr>
<td>NORTH EASTERN</td>
<td>20,556</td>
</tr>
<tr>
<td>NORTH WESTERN</td>
<td>17,287</td>
</tr>
<tr>
<td>SOUTH EASTERN</td>
<td>10,786</td>
</tr>
<tr>
<td>SOUTHERN</td>
<td>3,500</td>
</tr>
<tr>
<td>WESTERN</td>
<td>157</td>
</tr>
<tr>
<td>TOTAL</td>
<td>188,887</td>
</tr>
</tbody>
</table>

(Source - Records of the National Cytology Laboratory at Saint Luke's Hospital)
CHAPTER 4

*********.

INSTITUTIONS CURRENTLY PROVIDING THE CERVICAL SCREENING SERVICE.

The range of Institutions providing the Cervical Screening Service can be divided into two separate groups:

1) Centres providing the Laboratory Screening Service.
2) Centres providing the Service for taking of Cervical Smears.

1) CENTRES PROVIDING THE CYTOLOGY LABORATORY SERVICE.

As a result of written enquiries to all Hospitals providing the Cytology Laboratory Screening Service, the information obtained included the following:

SAINT LUKE'S HOSPITAL, DUBLIN, is the main Laboratory Screening Centre in the Republic of Ireland. The number of Smears examined in this Laboratory has risen from 28,609 in Year 1981 to 48,000 in Year 1985. The number of Smears being referred to the Laboratory is constantly increasing and a build-up of Smears awaiting examination has been a recurrent feature of the Service in recent years, resulting in delays in examination of smears and issuing of reports ranging from seven to fifteen weeks.

Saint Luke's Hospital supplies Screening Kits (Forms and Slides), free of charge, to Health Boards, who then distribute them to General Practitioners. Approximately fifty-eight per cent of the Smear Tests examined in the Saint Luke's Cytology Laboratory are sent in by General Practitioners, of which there are about 1,200 Countrywide who use the Service. The Service at Saint Luke's Hospital is not computerised.

REGIONAL HOSPITAL, GALWAY, provides a Laboratory Screening Service for the Western Health Board, the Mid-Western Health Board, the South-Eastern Health Board, some Clinics in the Midland and North
Western Health Board regions, plus a service for General Practitioners for most Counties outside of Leinster.

The Cytology Laboratory at the Regional Hospital examined 26,000 Smears in Year 1985. The Service is fully computerised.

There is a Terminal in the Cytology Laboratory, which is linked with the Computer at University College, Galway. When a smear reaches the Cytology Laboratory, full details such as the Patient's name, address, age, family size and name of family doctor, are recorded on the Terminal by a Member of the Secretarial Staff and at the same time a search is made on the Computer for details of the results of any previous Smears. When the Smear has been screened, the results are recorded on the Terminal for storage by the Computer. At present there are over 1/4 million items of data on tape. Each individual has the same case number on the Computer for life.

The present delay in this Laboratory for examination of smears and issuing of reports is six weeks approximately.

REGIONAL HOSPITAL, WILTON, CORK, provides a Cervical Screening Laboratory Service for it's own region. In Year 1984, the intake was 10,000 new Smears and there has been a 20% per annum increase in the number of Smears taken.

NATIONAL MATERNITY HOSPITAL, DUBLIN. The Cytology Laboratory Service in this Hospital is restricted to their own Hospital Patients, i.e. post-natal and gynaecology clinics. The Service is not available to General Practitioners or to other Hospitals, so strictly speaking it is not a screening service.

However, a substantial number of Smear Tests are carried out in
this Hospital and the total number in Year 1985 was 10,955. There is no backlog of cervical smears and written reports are issued to the Wards within three to four days.

**COOMBE LYING-IN HOSPITAL, DUBLIN.** The Cytology Laboratory Service in this Hospital was restricted to their own Hospital Patients up to Year 1984, when 10,250 cervical smears were examined. In Year 1985, the Coombe Hospital opened a Clinic specifically for women who wanted to have a cervical smear test carried out and the number of smear tests carried out in Year 1985 increased to 11,500, which is attributed to the attendance of women at this Clinic. The results of smear tests are available in two to three days and because of this fast Laboratory service, referrals from General Practitioners to the Screening Clinics have increased and at present there is a three weeks waiting list for an appointment for a cervical smear test at the Clinic.

**SAINT JAMES'S HOSPITAL, DUBLIN.** The Cytology Laboratory Service at this Hospital is restricted to their own Hospital Patients and there are no facilities for non-patients. The total number of Smear Tests carried out in the Hospital in Year 1984 was 8,000.

**OTHER HOSPITALS** providing the Service are as follows:

Rotunda Hospital - 5,000 Smear Tests examined in Year 1984.

Saint Vincent's Hospital, Elm Park - 1,000 Smear Tests examined in Year 1984.

James Connolly Memorial Hospital - 750 Smear Tests examined in Year 1984.
2. CENTRES PROVIDING THE SERVICE FOR TAKING OF CERVICAL SMEARS.

Following written enquiries to all Directors of Community Care and Medical Officers of Health and to Chief Executive Officers of the Health Boards, the information supplied concerning arrangements for taking of cervical smears in each Health Board area, included the following:

EASTERN HEALTH BOARD.

a) Community Care Area - Wicklow.

There are no Cervical Smear Testing Clinics held in this Area. Cytology Kits are obtained from Saint Luke's Hospital, Dublin and distributed to General Practitioners on request and about 72 Cytology Kits are used per annum. Smear Tests are sent to Saint Luke's Hospital Laboratory for examination.

b) Community Care Area - Dublin (No.3).

There are no Cervical Smear Testing Clinics held in the Health Centres in this Area. Cytology Kits are supplied to General Practitioners on request and approximately ten Doctors in this Community Care Area are supplied with Kits. However, a Service for taking of Smears is provided in the Coombe Lying-In Hospital in this Area, by way of the special Cervical Smear Test Clinics set-up in Year 1985. The Clinics are held every Tuesday and Thursday morning and afternoon and approximately 16 Patients are seen on each day.

c) Community Care Area - Kildare.

A Cervical Screening Service has been available in Co. Kildare since the early 1970's. It is provided by General Practitioners in their own Surgeries and at Special Health
Board Clinics. Clinics have been held in the main at Naas Health Centre as demand has determined and the Clinics are staffed by a Doctor and Nurse, with Clerical support for appointments and record keeping. Smear Tests are sent to Saint Luke's Hospital Cytology Laboratory for examination.

The Eastern Health Board Programme Manager, Community Care, confirmed that the Health Centres at which Cervical Smear Testing Clinics are held in the Eastern Health Board Area are:

1) Rathcoole  
2) Lucan  
3) Clondalkin  
4) North Strand  
5) Ballymun

6) Finglas  
7) Coolock  
8) Kilbarrack  
9) Edenmore  
10) Naas

These Clinics are staffed by the Public Health Nurses in the course of their ordinary duties.

SOUTH EASTERN HEALTH BOARD.

a) Community Care Area - Wexford.

A Cervical Screening Clinic commenced in Enniscorthy, Wexford, in February 1982. In Year 1982, ten Clinics were held and 87 Patients were screened. In the Year 1985, eighteen Clinics were held and 191 Patients were screened. Figures for the first six months of Year 1986 are well up on those for Year 1985. The Clinic is staffed by a Nurse and a Doctor. A Clinic also operates from New Ross, Co. Wexford.

b) Community Care Area - Waterford.

Cervical Smear Test Clinics are held in the Waterford Community
Care Area. Approximately 600 Smear Tests are taken annually at the Clinic held in the Health Centre every week. When other work allows and/or when extra help is available, this is stepped-up to two to three Clinics weekly. The Cytology Kits are supplied by Galway Regional Hospital Laboratory and Smear Tests are sent to that Laboratory for examination.

A voluntary Family Health Centre in Waterford City, established about one year ago, does approximately 300 Smear Tests per annum, which Tests are also sent to the Galway Regional Hospital Laboratory for examination.

c) Community Care Area - Kilkenny/Carlow.
In Kilkenny, a weekly Cervical Cytology and breast examination Clinic is held in the Community Care building, which accepts self-referral and referral by General Practitioners. Approximately 500 Smear Tests are being carried out at this Clinic yearly and the Tests are sent to the Galway Regional Hospital Laboratory for examination.

In Carlow, self-referrals are accepted in the Carlow Maternity Unit of the District Hospital and approximately 100 Smear Tests are carried out yearly by the Medical Officer, who is a General Practitioner.

d) Community Care Area - Tipperary.
Cervical Cancer Screening facilities in this Community Care Area are provided at six Centres: Carrick-on-Suir; Cashel; Cahir; Clonmel; Killenaule and Tipperary. Information about the Clinics is provided at the Health Centres and in the local Press.
SOUTHERN HEALTH BOARD.

a) Community Care Area - North Lee and North Cork.

Cervical Smear Screening Clinics are not held in either North Lee or North Cork Community Care areas. Reservations were expressed about setting-up an extensive cervical smear screening service, with regard to its cost effectiveness.

MID-WESTERN HEALTH BOARD.

a) Community Care Area - Roscrea.

Cervical Smear Screening Clinics are held in three main Centres - Roscrea, Thurles and Nenagh, each of which is staffed by three Public Health Nurses and one co-ordinating Nurse. The Clinics are held three times a year and an Advertisement is placed in the local Press before each Clinic. Twice a year, two half-day Clinics are similarly staffed, at Newport and Cappamore. Due to pressure of work and as a result of big attendances at these half-day sessions, the possibility of extending these to one day is being examined.

In Year 1985, 667 women were screened and the Smear Tests are sent to the Galway Regional Hospital Laboratory for examination.

NORTH WESTERN HEALTH BOARD.

a) Community Care Area - Donegal.

Cervical Smear Screening Clinics are held in Killybegs Health Centre, Lifford Health Centre, Moville Health Centre, Creeslough Health Centre and Carndonagh Health Centre, i.e. five Centres in the County. The Clinics are held on alternative months, which is six yearly in each Centre, with the exception of Creeslough which is twice yearly. A total number of 329 women availed of the Service in Year 1985. Three Public
Health Nurses attend each Clinic and the Smear Tests are sent to the Cytology Laboratory at Saint Luke's Hospital for examination.

NORTH EASTERN HEALTH BOARD.

a) Community Care Area - Louth/South Monaghan.
Cervical Smear Test Clinics are held in this Community Care Area in Dundalk and Drogheda.
In Dundalk, Clinics were held every month up to December 1985, but since January 1986 have been held twice a month. It is usual to call 35 women to the Clinic and the average attendance is 25.
In Drogheda, an average of two Smear Test Clinics are held per month, with 25 women called and 18 on average attending.
The Clinics in Dundalk and Drogheda are staffed by three Public Health Nurses and the Smear Tests are sent to the Cytology Laboratory at Saint Luke's Hospital for examination.

b) Community Care Area - Navan.
Cervical Smear Test Clinics are held in this Community Care Area in the County Clinic, Navan, every six weeks. In Year 1985, 95 women attended for Smear examination and the demand is increasing at the present time. The Clinics are attended by two Public Health Nurses and the Smear Tests are sent to the Cytology Laboratory at Saint Luke's Hospital for examination.

c) Community Care Area - Cavan/Monaghan.
Specific Cervical Smear Test Clinics are not held in this Community Care Area. Tests are carried out at Obstetric
and Gynaecology Out-Patient Clinics and by General Practitioners. Smear Tests from these Hospital Clinics are sent to the Cytology Laboratory at Saint Luke's Hospital for examination.

OTHER CENTRES providing the Service for taking of Cervical Smears are the Family Planning Clinics, where 8,640 Cervical Smear Tests were carried out in Year 1985. A further 5,000 cervical smear tests were carried out at the Well Woman Centre in Dublin.

A Cancer Screening Clinic, financed by the Irish Cancer Society has been operating for a few months, but to date the Irish Cancer Society can only financially manage to operate the Clinic for one day each week. This Cancer Screening Clinic at Hume Street Hospital also offers testing for colo-rectal cancer, breast examination and instruction in the technique of breast-self examination, in addition to the Screening for Cervical Cancer.

THE IRISH CANCER SOCIETY.

This Society is a charitable organisation set-up to provide information and education on the control of cancer. It provides literature and information to the public and to the Medical and Nursing Professions on Cervical Screening.

Workshops are arranged for the Medical and Nursing Professions to learn the technique of taking cervical smears and to learn new information regarding the issues related to the situation regarding cervical smear testing.
Lectures are arranged also for the public on the importance of availing of cancer screening services.

The following is a List of the Cervical Smear Test Clinics supported by the Irish Cancer Society, at present:

Annual Clinics: Longford, Edenderry, Tullamore, Athlone.

Bi-Annually: Creeslough.

Bi-Monthly: Lifford, Carndonagh, Moville, Killybegs, Kilmallock, Newcastlewest.

Monthly: Southill (Limerick City), North Strand, Kilbarrack, Lucan, Coolock, Rathcoole, Drogheda and Dundalk.
CHAPTER 5
**********

COSTS AND STAFF NUMBERS INVOLVED IN PROVISION OF THE CERVICAL SCREENING SERVICE

In the Republic of Ireland, Cytology Services are available free of charge to all women and cervical smear tests are undertaken by many different agencies, e.g. Hospitals, Family Doctors, Health Board Clinics and Family Planning Clinics. However, women outside of the General Medical Service sector who opt to go to their General Practitioner for the smear test, are required to pay a Consultation Fee to the Doctor for taking the Cervical Smear. Saint Luke's Hospital, Dublin, provides the cervical screening testing Kits to Health Boards in all areas, free of charge and no charge is made for the test.

REGIONAL HOSPITAL, GALWAY.

The present staffing is:-
1 Medical Registrar.
3 Promotional Grade Medical Laboratory Technologists
4 Basic Grade Medical Laboratory Technicians
1 Laboratory Aide
3 Clerical Staff
1 Public Health Nurse.

Funding of the Laboratory Expenses is absorbed into the General Laboratory Budget and cannot be confirmed as a separate cost.

NATIONAL MATERNITY HOSPITAL, DUBLIN.

The present staffing in the Cytology Laboratory is:-
1 Senior Medical Laboratory Technician
1 Basic Grade Medical Laboratory Technician.
Reports are filed by a General Laboratory Administrative
Assistant and all staining and laboratory work is done by the
two cytology medical laboratory technicians. Details of
costs are absorbed into the overall Laboratory Budget.

SAINT LUKE'S HOSPITAL, DUBLIN.

The present staffing is:-
1 Medical Laboratory Technologist
1 Senior Medical Laboratory Technician
6 Basic Grade Medical Laboratory Technicians
2 Clerical Staff

When the National Cytology Laboratory was set-up at Saint
Luke's Hospital in 1970, funding from the Department of Health
for the Laboratory was provided on a separate basis from the
General Hospital Budget. In recent years, the Department of
Health has included the costs of the Cytology Laboratory in
the General Hospital Budget, which has resulted in the necessity
for the Cytology Laboratory to be subjected to cutbacks in
services and staffing, e.g. non-employment of Locum Medical
Laboratory Staff to cover holiday periods or extended leave
periods such as Maternity Leave.

In addition to these cutbacks, it is considered that the
Cytology Laboratory is very much understaffed. A Cytology
Technician could be expected to examine the smears of 4,000
Patients per annum. With a current complement of eight
Laboratory Staff, the optimum number of tests which should be
handled annually is 32,000. However, the number of smear tests received in the Saint Luke's Hospital Cytology Laboratory in Year 1985 was 48,000 and therefore it is estimated that at least another four Technicians are needed to meet the current demand of the Service. When the total number of smears being received by the Laboratory is in excess of Staff numbers available in the Laboratory, a backlog of smears awaiting examination and reporting will exist.

The cost of providing the National Cytology Laboratory Service at Saint Luke's Hospital, Dublin, has risen from £8,544 in Year 1971 to £219,294 in Year 1985. The costs are divided under three main headings, i.e. salaries, materials and miscellaneous (postage etc.). The main cost involves salaries, as the screening procedure is quite labour intensive.

Cost of Providing the Cervical Screening Laboratory Service at Saint Luke's Hospital.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SALARIES</th>
<th>MATERIALS</th>
<th>MISCELLANEOUS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>£22,996</td>
<td>£7,668</td>
<td>£1,131</td>
<td>£31,765</td>
</tr>
<tr>
<td>1980</td>
<td>£56,506</td>
<td>£13,700</td>
<td>£1,604</td>
<td>£72,232</td>
</tr>
<tr>
<td>1983</td>
<td>£147,838</td>
<td>£31,784</td>
<td>£4,863</td>
<td>£184,485</td>
</tr>
<tr>
<td>1984</td>
<td>£161,755</td>
<td>£32,257</td>
<td>£6,009</td>
<td>£200,021</td>
</tr>
<tr>
<td>1985</td>
<td>£165,419</td>
<td>£47,114</td>
<td>£6,761</td>
<td>£219,294</td>
</tr>
</tbody>
</table>

(Source - Records of Saint Luke's Hospital).
COSTS AND BENEFITS.

In the United Kingdom, the Department of Health and Social Security does not record expenditure on cervical screening and the relative costs of the different ways in which the Service is provided have not been assessed. Nor has the D.H.S.S. attempted the difficult calculation of the benefits of the screening programme in terms of avoided treatment, suffering, deaths, social and other costs.

In 1976, the D.H.S.S. estimated the cost of the Programme in England and Wales in 1975-1976 was about £8 million, covering medical, nursing, pathology and administrative costs, cytology kits, recall forms and fees to General Medical Practitioners. On this basis and taking into account the increased number of smears taken annually, the current cost of the Programme is likely to be about £20 million per year.

Also in the United Kingdom, the cost of preventing one death by screening was estimated as a minimum of £300,000, on the basis that the test costs £5.00. (Ref.2).

Based on the Cost of Providing the Cervical Screening Laboratory Service at Saint Luke's Hospital (See page 26), the average cost per Smear Test examined in the Laboratory is £5.13. It should be noted that this average cost per smear test relates only to the Laboratory Work and cost of Cytology Kits. As cytology screening services provided in the various Health Board areas are met by the Health Boards concerned, an estimate of the amount of staff time and cost thereof cannot be easily arrived at. In one Community Care Area, the Director of Community Care and Medical Officer of Health, estimated that the
cost of a Clinic is £86.00, based on a Clinic staffed by a Doctor and one Nurse, with Clerical support.

Details of Average Cost of Laboratory Service for each Smear examined at Saint Luke's Hospital Cytology Laboratory.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL NUMBER OF SMEARS</th>
<th>TOTAL LABORATORY COSTS</th>
<th>AVERAGE COST PER SMEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>6,000</td>
<td>£8,544</td>
<td>£1.42</td>
</tr>
<tr>
<td>1975</td>
<td>20,800</td>
<td>£31,765</td>
<td>£1.53</td>
</tr>
<tr>
<td>1980</td>
<td>34,400</td>
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<td>£2.10</td>
</tr>
<tr>
<td>1983</td>
<td>35,942</td>
<td>£184,485</td>
<td>£5.13</td>
</tr>
<tr>
<td>1984</td>
<td>42,989</td>
<td>£200,021</td>
<td>£4.65</td>
</tr>
<tr>
<td>1985</td>
<td>47,988</td>
<td>£219,294</td>
<td>£5.13</td>
</tr>
</tbody>
</table>

(Source - Records of Saint Luke's Hospital).

* * * * * * * *
CHAPTER 6

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AN ASSESSMENT OF THE EFFICIENCY OF
THE PRESENT SCREENING SERVICE

An examination of the present situation in Ireland concerning cervical smear screening, shows that while there is much well meaning activity in this area, the impact in relation to mortality statistics has been negligible.

While considerable effort and resources are expended on cervical smear screening, the organisation of an adequate programme, in so far as it exists at all, is haphazard. At present about 100,000 smear tests are carried out annually, but with the current administration of the Screening Programme, there is little or no data available to indicate:

1) the total number of women screened, their age or socio-economic group.

2) how many of the smear tests carried out were for diagnostic reasons, as opposed to general screening.

3) how many of the smear tests carried out were repeat tests on women already tested.

4) the follow-up of the women with positive smear tests and the incidence and prevalence of carcinoma of the cervix in the Irish female population.

The Cervical Screening Laboratory Service has developed over the years into three main regions - Dublin, Galway and Cork, but there is no overall co-ordination between the three Centres. There is a need for better liaison between the many groups
involved in cervical screening, i.e. Cytology Laboratories, Health Boards, Screening Clinics and General Practitioners.

There are three broadly defined sets of circumstances under which cervical cytology can be carried out:

1) scheduled population screening (by way of a population-based call and recall system, cancer screening clinics) for all women in specific age groups.

2) ad-hoc screening of sexually active women attending General Practitioners or Clinics, where it is convenient to take a Smear in the course of consultation for other purposes (e.g. Family Planning, Post-Natal).

3) Diagnostic investigations relating to the presence of specific symptoms.

The major failing of our cervical screening system is that a population based call and recall system is still not available in Ireland. Essential to any such system would be the establishment of adequate computerised information systems, so as to enable satisfactory monitoring and evaluation of screening.

A further drawback of the existing Service is the long delay in processing of the smear tests in the Cytology Laboratories. In the Saint Luke's Hospital Laboratory in June 1986, the backlog of smear tests awaiting examination was 8,400, which represented a delay of approximately 8 weeks for examination and reporting on tests. In the Galway Regional Hospital, the present delay in examination and
reporting on tests is 6 weeks.

In September 1985, in Saint Luke's Hospital, the backlog was 14,000 smear tests awaiting examination, representing a delay in examination and reporting of 15 weeks, following which the Department of Health made a Special Grant available to Saint Luke's Hospital to cover the clearing of the backlog by Laboratory Staff and to cover the purchase of Automated Equipment needed for the Laboratory, in an effort to make the Cytology Laboratory more efficient and release staff to devote more time to examination of slides. However, whilst this backlog of 14,000 Smears was being cleared during the period October 1985 to April 1986, a further backlog of 6,000 smears had accumulated, representing a delay in examination and reporting of 7 weeks in April 1986. One of the main problems in the Saint Luke's Laboratory is that the Laboratory has absolutely no control over the ever increasing number of smears being submitted to the Cytology Laboratory for examination. A Cytology Technician could be expected to examine the smears of 4,000 Patients per annum and if the total number of smears being received by the Laboratory is in excess of Staff numbers available in the Laboratory, the backlog of smears for examination will exist, so this problem is mainly concerned with a shortage of medical laboratory staff.

The Working Party on Womens' Affairs and Family Law Reform referred to this long delay in processing of tests in their Report "Irish Women - Agenda for Practical Action", which was published in February 1985. In relation to adequacy of service, this Working Party pointed out also that only 29 Health Centres throughout the Country carry out smear
tests and that sizeable areas of the Country do not have access through the Health Centres to cervical smear testing services. While it is up to each Health Board to decide their own priorities it would be desirable to have this Service available throughout the Country.

It is estimated that most cytological examinations are conducted on young women, who may have had a number of examinations over a short period of time and that many older women have never been examined. In addition, it is thought that many women are not aware that the examination is directed to the detection of pre-cancerous lesions which can be easily cured or aware of the relative simplicity with which it can be carried out.

Repeated studies have shown that those who are at greatest risk of carcinoma of the cervix, such as the older woman of high parity in the lower socio-economic group, are least likely to attend, while those at least risk show the most ready response to an offer of screening.

Tussing found in his Study of Utilisation of General Practitioner Services, that only one woman in ten had had a cervical smear. He stated that the most important influence on this form of preventive care appears to be low social class. Low income and working class women are much less likely to avail of this Test. (Ref.6).

It seems that in Ireland, as in England, the inverse care law applies - those in the high risk group are those least likely to avail of the cervical screening service. (Ref.7).
The possibility of eradication of cervical cancer by the extensive use of exfoliative cytology has aroused a great deal of discussion since its introduction in 1941 and much has been written on the subject.

The objective of cervical screening is to find those women whose cervix shows pre-cancer stages (carcinoma in-situ) and for this to be removed by operation, as a preventive measure against true cancer.

Death rates from carcinoma of the cervix uteri have been low in the Republic of Ireland at 3.3 per 100,000 women in 1982. In a Case Control Study of the Epidemiology of Preinvasive and Invasive Carcinoma of the Uterine Cervix in Ireland, Herity et al (Ref. 3) noted that well recognised risk factors, such as early age at first coitus, first marriage and first pregnancy and multiple partners were significantly more common in the women studied, both those with Cervical Intraepithelial Neoplasia and Squamous Cell Carcinoma.

One aspect of cervical cytology militates strongly against it being anything like as effective as it might be and that is that while the overall response to an invitation to be screened is about 50% to 60% in the United Kingdom for example, the response rate falls off sharply with increasing age and with lower social class and increasing family size. Yet it is the older woman and those in the lower social classes who have the highest mortality from cervical cancer. Women in the population who are at greatest risk of carcinoma of the Cervix
Uteri are therefore the least likely to present for screening, while those least at risk show the most ready response. (Ref.4).

Failed Screening Programmes have a number of characteristics in common. They do not have reduction in mortality as a specific objective, but instead their aim is "to provide a cytology service". No named individual is in overall charge of the programme and it is not specifically aimed at older women and there is no population-based call and recall system.

Unfortunately, cervical screening activities in Ireland manifests many of these undesirable traits. Although there is evidence that the risk of invasive cancer is more than doubled in women with little education in Ireland, there is little doubt that screening facilities are more likely to be used by women in the higher social classes. (Ref.4).

Dr. Petr Skrabanek in his Article on 'Cervical Cancer Screening: The Time for Reappraisal', states that "considering the low prevalence of cervical cancer, the predictive value of a positive smear is extremely low. Extrapolations from the ideal situation with adequate smears, competent laboratories to interpret them and experienced gynaecologists who can take advantage of the results, to the real world of mass screening are unjustified". He points out that "no randomised controlled trial of the effectiveness of cervical screening has ever been carried out and there is no prospect of one - it would be deemed unethical". In relation to Cost Effectiveness of cervical screening, Dr. Skrabanek states that "even if cervical
screening does save lives", which he believes remains to be shown, "the impact on the burden of cancer in society would not be statistically detectable. In the United Kingdom and Ireland, cervical cancer deaths account for 2% - 3% of all female cancer deaths, i.e. about 0.5% of all deaths in women. This means that even if all cervical cancer were to be eliminated, it would make no noticeable impact on overall cancer mortality".

However, a Report of a Committee formed by the Directors of Community Care and Medical Officers of Health in the Eastern Health Board, published in April 1986, confirmed that having reviewed the literature and given due consideration to the apparent small number of notified deaths from carcinoma of the Cervix in Ireland (i.e. 61 in Year 1981; 57 in Year 1982; 57 in Year 1983 and 52 in Year 1984), the Committee nevertheless considers a National Screening Programme is justified for this preventable disease.

In addition, a cervical screening service serves a function in identifying women who have other conditions, e.g. in Year 1985, out of 48,000 cervical smears examined at Saint Luke's Hospital, Dublin, there were 88 positive tests. However, this figure only represents the number of clearcut positives. The rate for abnormal smears is 20 per 1,000 and certain other conditions are picked up, including pelvic inflammations often involving Intra-Uterine Devices and viral herpes.
The Table below shows the Target Group of women age 18 years and upwards for which Smear Testing could be employed if a comprehensive Screening Programme was in operation in Ireland.


<table>
<thead>
<tr>
<th>AGE GROUPS</th>
<th>FEMALE POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 19</td>
<td>64,040</td>
</tr>
<tr>
<td>20 - 24</td>
<td>141,500</td>
</tr>
<tr>
<td>25 - 29</td>
<td>128,700</td>
</tr>
<tr>
<td>30 - 34</td>
<td>119,500</td>
</tr>
<tr>
<td>35 - 39</td>
<td>106,500</td>
</tr>
<tr>
<td>40 - 44</td>
<td>89,100</td>
</tr>
<tr>
<td>45 - 49</td>
<td>77,400</td>
</tr>
<tr>
<td>50 - 54</td>
<td>73,300</td>
</tr>
<tr>
<td>60 - 64</td>
<td>71,900</td>
</tr>
<tr>
<td>65 - 69</td>
<td>67,800</td>
</tr>
<tr>
<td>70+</td>
<td>139,800</td>
</tr>
<tr>
<td>TOTAL 18 - 70+</td>
<td>1,153,340</td>
</tr>
</tbody>
</table>

(Source - Central Statistics Office, Dublin).

There are grounds for believing that a well organised Programme of Cervical Cytological Screening would lead to a substantial reduction in mortality from invasive cancer of the cervix. In those Scandinavian Countries that have such a Programme, the incidence of invasive disease has fallen by up to half of 1965 levels, while otherwise similar Countries...
without organised programmes have experienced either a negligible fall or a rise over the same period, despite a similar number of smears taken per women. (Ref.5). Iceland, Sweden and Finland all introduced countrywide screening programmes in which women were personally invited to participate, while Denmark, which achieved a smaller proportionate fall, introduced programmes with greater local diversity and personally invited 40% of women. Norway is the exception with proves the rule, no system for screening of pre-symptomatic women was organised there and cervical cancer incidence rates have continued to rise.

It has been shown that where Countries implemented a properly organised cervical screening programme, the main objective was achieved, i.e. the reduction of mortality associated with Cancer of the Cervix.
CERVICAL SCREENING SERVICES PROVIDED IN
THE UNITED KINGDOM AND OTHER COUNTRIES

UNITED KINGDOM.

In the United Kingdom, Policy of the Department of Health and Social Security (D.H.S.S.) is based on advice from the Committee on Gynaecological Cytology. The D.H.S.S. issues information and guidance on screening matters to health authorities and cervical screening is undertaken by Community Health and Family Planning Clinics, Hospitals and General Medical Practitioners.

Priority is given in the United Kingdom to screening all women aged 35 and over and younger women who have had three or more pregnancies. Epidemiologically those at greatest risk from cervical cancer are women aged 50 to 60 years, who have not been previously screened (the "Priority Group"). Although "recall" of women for testing has been a problem in the United Kingdom, recruiting women at most risk for their first smear has proved even more intractable. While screening activity has soared, less than half of the smears in 1984 involved women over 35 years, yet 94% of the deaths were in this group. 28 million smears were taken in a twelve year period from 1968 to 1980. In Year 1965, the estimated total number of cervical smears was 687,000 and in Year 1982 was nearly 2.928 million and in Year 1985 was approximately 3.5 million.

Despite the introduction of a National Cervical Screening Scheme in Britain in 1964, there has been little overall
reduction in mortality in that Country. Deaths in women below the age of 35, though still well below those of older women, have virtually doubled over the last 20 Years.

In 1981, a Working Party of the Committee on Gynaecological Cytology submitted a Report to the Department of Health and Social Security relating to the age and frequency of cervical cytology. In the introduction, the Working Party noted that "in some countries and regions, screening appears to have brought about a considerable decrease in mortality from cervical cancer. In Britain, this effect has not, in general, been observed in spite of an extensive screening programme. In younger women there has, in fact, been an increase in mortality from the disease although the actual numbers involved are very small".

The Report notes that when compared with performance of services in some other Countries and with computed expectations in the United Kingdom, the Screening Service must be regarded as a relative failure. The Working Party was of the view that the fundamental reason for this was a lack of co-ordinated mechanisms for the development and management of a screening service, through which it might respond sensitively and promptly to a continuous assessment of its own performance.

It is now felt that the United Kingdom Screening Programme failed mainly because of administrative problems and not scientific or technical problems.

The main administrative problems were identified as:

1. Lack of a co-ordinated mechanism for the development
of a screening programme, its management and particularly
in the design of the system and its implementation.

2. There was no national system for ensuring that women were
individually called for screening.

3. The recall procedure was unsatisfactory in its design.

4. The system was unable to provide information for
monitoring purposes.

5. There was lack of continuing research into the natural
history of cervical pathology and of error rates.

6. The system was non-computerised and there was no
information linkage facilities.

The Report from the Comptroller and Auditor General in
February 1986 on the National Health Service: Preventive Medicine,
considers the Department of Health and Social Security strategy
for preventive health services and against this background,
records the results of an examination by the National Audit Office
of arrangements in England for screening for cervical cancer in
women. Annual Expenditure on the Programme is not readily
identifiable, but it is of the order of £20 million.

The National Audit Office found that since the introduction
of the Programme for Screening for cervical cancer in 1967, it
has had little demonstrable impact on the number of deaths
arising from this disease. Since 1973, although the number
of smears taken annually has risen by about 35%, the group of
women most at risk were screened the least and the extent of
screening varied widely between regions. A number of Health
Authorities still have no comprehensive arrangements for inviting
or re-inviting women to attend for screening. The D.H.S.S. has been particularly concerned to improve the uptake of the Programme by older women, who are most at risk; to remedy delays in the processing of smears in some districts caused by a backlog of work in laboratories; and to ensure that results of tests are effectively followed up. In April 1985, the D.H.S.S. announced that discussions would be held with the authorities and professions concerned with a view to:

(a) increasing the uptake of smear tests by older women who have not been tested in the past five years by encouraging them to undergo tests when visiting doctors or hospitals for other purposes.

(b) improving the effectiveness of laboratory facilities for processing smears, in the shorter term by perhaps giving priority to smears from the high risk group, and in the longer term, by ensuring that the right number of trained and qualified staff become available.

(c) ensuring that abnormal test results are followed up more effectively, with all authorities moving to a system whereby all women are notified that their test has been done and told whom to contact for the result.
FINLAND.

Mass screening for the detection of cervical cancer was introduced to Finland in the early 1960's by the Cancer Society of Finland, which founded eleven Cytology Laboratories in different parts of the Country.

A nationwide mass screening Register was established in 1968, by the Finnish Cancer Registry. There is also a National Population Register.

An organised mass screening programme now covers (with few exceptions) all women between the ages of 30 and 55, every fifth year. Names of those eligible to be screened are taken from the National Population Register and the women are invited by a personal letter. The Registers are computerised, which allows for an organised call/recall system and also information linkage. The central feedback system makes it possible also to identify high risk women or groups of women. They can be identified by demographic variables from the National Population Register or by variables recorded at previous screening. 350 new cases of cervical cancer are diagnosed annually, giving an incidence of 14.8 per 100,000 population.

Mortality and morbidity from cervical cancer have decreased in the age groups covered by the screening. Hakama, an eminent researcher in this field (Ref. 8) estimated that with the continuance of the mass screening programme, a reduction of 58% could be expected in the risk of cervical cancer in the female population age 30 - 59 years in Finland, a prediction which has since been verified by the observed trends in Cervical Cancer in Finland.
DENMARK

Cervical Cancer is a more frequent disease in Denmark than in most European Countries. However, there has been a decline in both incidence and mortality since the late 1960's. The incidence decreased from 31.7 per 100,000 women in 1963-67, to 22.3 per 100,000 women in 1973-77. Studies show that this decrease is related in time to the initiation of organised cervical screening programmes, which commenced in 1963.

SWEDEN.

Sweden has a good cervical screening programme. The incidence of cervical carcinoma in Sweden was 21 per 100,000 women in 1960, when smear screening became common in the Country. The incidence was largely unaltered for about ten years, but has slowly decreased during the last ten years to about 16 per 100,000 women at present.

Sweden has a Population Register, whereby it is possible to follow-up the entire population during their lifetime. In most Swedish Counties, every PAP Smear taken has been computer recorded since 1971 and linked on an individual level to a Cancer Registry.

ICELAND.

Mass screening in this Country started in 1964. More than 85% of women in the age group 25-59 years have been screened at least once. Mortality from cervical cancer was increasing in Iceland, unlike other Countries prior to the introduction of mass
screening and continued to rise during the first few years of cervical screening. Since 1970, however, a more than two-fold reduction in mortality has been observed among women aged 25-59.

All histological examinations are done at the same Department of Pathology, the only one in the Country. The treatment of Patients with cervical cancer is now centralised and this ensures close co-operation between the Screening Centre and the sector in charge of treatment and follow-up of gynaecological cancer.

Lists of women who have never attended the Clinic are regularly produced by matching the detection chain file against the National Register. So for each year of operation, the population of screened and re-screened women is known with precision.

JAPAN.

There has been a substantial downward trend in mortality in Japan. (Ref. 9). In 1955, the mortality rate from cervical cancer was 16 per 100,000 women. With the introduction of cervical screening programmes in the early 1960's, however, they steadily gained popularity throughout the Country and there has been a reduction in mortality to 10.7 per 100,000 women in 1975.

Three Screening Programmes are currently in use:

1. A Mobile Programme provides a car staffed by one or two gynaecologists and paramedical staff to visit target areas.

2. A Detection Centre Programme provides a screening service at a Cancer Detection Centre.
3) A Private Physician Programme, in which subjects visit gynaecologists licenced by the Japan Association for Maternal Welfare in the Community.

In Japan, the three Programmes enjoy more or less equal popularity, the Mobile Programme being a representative type in rural areas and the other two more common in urban areas. These Programmes cover all women of 30 years and older. The total number of women screened and re-screened in each Programme is notified and it has been possible to do a cost benefit analysis and screening efficiency on each Programme.
CHAPTER 9
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CONCLUSIONS

An examination of the successful screening programmes suggests that a successful cervical screening service must have the following requirements:-

1. Adequate resources for taking, examining and reporting on smears.

2. Arrangements for making and keeping appointments for examination.

3. Arrangements acceptable to women for the actual taking of smears, for example, the availability of choice between one's own General Practitioner, or a Clinic staffed by women.

4. A list of women in the target population which can be updated, required to achieve complete initial call of all eligible women and ensure regular recall.

5. An informed client population, whose Members know and understand the function of the procedure.

6. A continuing scrutiny of the records of examinations, to ensure that appropriate actions are taken on the results.

7. The ability to monitor the efficiency and effectiveness of the programme and to adjust policies and procedures accordingly.

The requirements are not unlike those for a well managed programme of immunisation for infants and young children, for which computer aided management has been very successful.
The present cervical screening service has evolved over a number of years and there has been a considerable investment of resources in its development. However, the establishment of a comprehensive screening service would involve a substantial increase, estimated at approximately 70%, in the number of cervical smears to be processed annually. It is difficult to calculate what costs this would entail, but there would have to be more money provided by the Department of Health and allocated locally to ensure that the laboratory facilities and staffing (medical, technical and clerical) are adequate to meet the requirements of a comprehensive screening policy.

Funds would have to be provided for Computerisation of Laboratories and Health Board records. A comprehensive follow-up service and an evaluation of positive smears in relation to geographic areas could only be provided by computer facilities. Computerised, person-based, long-term records can serve for both patient recruitment and recall, for ensuring follow-up, for assessing the efficiency of different components of the system and for providing information on which to base Policy change. A good record system which will alert doctors, repeatedly if necessary, to failures of follow-up so that non-attenders are traced and further counselled is essential. Failure to ensure that women with abnormal smears received adequate further investigation and treatment has been highlighted, in Britain, as frequent and sometimes serious. (Ref.10).

Additional funds would have to be made available to Health Boards for employment and training of additional staff, e.g. Directors of Programmes, Computer Operators, Public Health Nurses.

Also, it is necessary to ensure that gynaecological
facilities are available for the further investigation of positive smears. In due course, some savings in those same resources can be expected from reduction in the need for the investigation and treatment of invasive disease. Prevention is something which will in the long term save lives and will cut down on hospital and treatment costs.

The majority of deaths from Cancer of the Cervix occur in older women and as the present screening service is not reaching many women at risk, a publicity campaign should be organised to encourage all women aged 35 and over, who have never had a smear taken, i.e. those most at risk, to attend for screening. This publicity campaign should advertise the benefits and availability of cervical screening and General Practitioners should be encouraged to take smears. There should be more education in respect of cervical smear examinations and the Health Education Bureau could have a very useful role in this area.

Authorities should be asked to discourage strongly the practice of taking unnecessary repeat smears from younger, symptomless women, as such repeat smears can overload the Laboratory Services for examination of cervical smears.

There could perhaps be a Pilot Programme of intensive screening in one Health Board Area, to assess the feasibility of the system recommended.

* * * * * * * * *
CHAPTER 10

RECOMMENDATIONS

1. A National Committee should be appointed and charged with organising an effective programme for Cervical Cancer Control. It must be specifically organised as a Public Health Cancer Control Programme, directed towards a significant reduction in mortality from cervical cancer.

2. Health Boards should tackle the arrangements for cervical screening in their areas with energy and enthusiasm. A designated officer should accept responsibility for its management in each Health Board area.

3. A Population Register of women in relevant age groups should be established. In the interim, the G.M.S. Computer Data could be utilised to reach all Members of a target female population and to establish Regional Population Registers. Access to other sources (e.g. General Practitioners, Hospital and Family Planning Clinics) and nationalisation of Population Registers could be sought at a later date.

4. Women should be called individually for screening and a Computerised call and recall system should be organised.

5. Cervical Screening must be widely available through General Practitioners, Hospitals, Health Board Clinics and Cancer Screening Clinics.

6. Records must be computerised in each Health Board area and Information Systems must be such as to enable satisfactory monitoring and evaluation of the Scheme.
7. Well organised Cytology Laboratory Services for reporting on smear tests must be provided in each Health Board area. These Laboratory Services must be computerised, with a Computer Terminal which would be linked to the Health Board Computer facilities.

8. All tests, positive or negative, should be reported to the referral Agency. Women should be informed of the outcome of their examination, whether positive or negative and arrangements should be made to ensure that each woman with a positive or suspicious finding is followed-up and offered further investigation.

9. Women should know that it is recommended that they should be examined regularly. (The current recommendation is every five years).

10. Frequent Screening of low risk young women should be discouraged for the present, as a means of controlling the numbers of smears.

11. Screening should be routinely offered to the following groups:
   (a) women attending ante-natal, gynaecological and family planning clinics, especially those of high parity and low socio-economic groups.
   (b) all women over 35 years admitted to Hospital, who have not been screened recently.
   (c) women attending Clinics for sexually transmitted diseases.

12. An intensive promotion and publicity programme, directed at high risk groups, is essential.
REFERENCES


