

VICTORIAN CYTOLOGY (GYNAECOLOGICAL) SERVICE

236 - 254 St. Kilda Road,

Melbourne. 3004.

SECOND ANNUAL REPORT : 1ST JULY, 1966 - 30TH JUNE, 1967.

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The First (Annual) Report of this Service, which covered the period from inception of the Service to 30th June, 1966 referred to the high standard of achievement on the one hand, and a depressing financial picture on the other.

I am very happy to be able to report herein that during the twelve months under review, the high standard of achievement previously referred to has been maintained, and the previously existing financial fog cleared away. In this latter regard, and without going into any detail, suffice to say that during the financial year just closed, the source of Government funds for the maintenance of the Service was transferred from the Hospitals and Charities Commission to the Health Department. This transfer was followed by a grant of \$73,650 from the Health Department, which enabled the Service not only to "wipe out" the deficit of \$24,664 which had accrued at 30th June, 1966, but also to finish the year to 30th June, 1967, almost square. The financial statements show a deficit of \$424 at this date.

Offering as it does to the women of Victoria a free gynaecological cancer detection Service, and being completely devoid of any income earning activities, it is not easy - it is in fact almost impossible - for the Service to complete a financial year without either a surplus or a deficit. That the deficit this year is a mere \$424 is, I believe, a tribute to those persons charged with the responsibility of preparing and watching financial budgets.

STATISTICS.

	<u>1.7.1966 to</u> <u>30.6.1967</u>	<u>Prior to</u> <u>1.7.1966</u>	<u>Total to</u> <u>30.6.1967</u>
No. of smears examined	95,336	70,787	166,123
Cost per smear *	85¢	108¢	97¢
Positive cases detected **	235	213	448

(Notes:

* Costs per smear are arrived at after excluding from expenditure costs of a capital nature.

** For a definition of a "positive" case, see page 6 of this Report; item (a) under the sub-heading of Diagnostic Activities).

STAFFING.

Undoubtedly the major difficulty encountered in further development has been the problem of adequate staffing.

STAFFING. (Continued)

Initially the staff for the Service was recruited largely from school-leavers, preference being given to girls with Matriculation and some knowledge of the biological sciences. Although these girls did cope with the work very adequately the high turnover of technical staff has been a matter of major concern. Thus, of the present staff of twenty-five technicians, only nine were recruited prior to the commencement of 1967. This high wastage of trained technicians has quite serious financial implications. As indicated in the previous report, cytology is a new branch of laboratory medicine and hence there is no "pool" of trained cytotechnicians in Australia; thus all technicians must be trained after appointment. For this reason technicians contribute nothing to the work of the laboratory for the first four to six months of employment and, in fact, they represent a burden as senior technician time must be expended in training activities.

The reasons for this high level of staff wastage would appear to be:-

1. The general instability of junior staff that is experienced by all institutions and large organisations.
2. The relatively poor working conditions -
 - (a) The present working areas are unfavourably situated, are over-crowded, and extremely noisy due to the proximity of the building operations.
This problem is, of course, unavoidable at the moment. However, there is no doubt that the completion of the new Prince Henry's Hospital building now under construction, incorporating as it does laboratories and office space for the Service will contribute greatly to staff stability.
 - (b) Salaries for technical staff are relatively low. This is a difficult problem to overcome since there is at present, no "recognised qualification" for trained cytotechnicians.
3. The nature of the work - this is undoubtedly the greatest problem. As indicated in the previous report intelligent, highly motivated and responsible technicians are required to perform a task that is repetitious and frequently tedious.

As already indicated, completion of the new building will do much to promote staff stability. In addition, the participation of staff in minor investigational projects, regular discussions of cases of interest, utilizing closed circuit television equipment, the use of recorded symposia and other educational activities, have all tended to increase staff interest and motivation.

STAFFING. (Continued)

More recently, a division of the technical staff into two separate categories has been proposed. Thus it is envisaged that a small nucleus of "career" cytotechnicians will occupy key positions in the Service. These technicians will need to be carefully selected and then retained by adequate salaries, status and responsibility.

In addition, a larger group of cytotechnicians, or "scanners", will be utilized for the initial screening of the specimens only. A relatively high turn-over is inevitable in this group but this may be reduced by the employment of married women on a part-time basis.

Early in the new financial year a number of half-time cytotechnicians will be employed. These will all be married women, all with previous experience in biological laboratories, nursing, or some allied field. It is hoped that the employment of part-time technicians will be a successful experiment.

On the 30th June, 1967, the technical staff consisted of:-

Three (3) full-time Cytotechnologists.

(These are senior technical staff who are required to check and supervise the work of the screeners).

Twenty (20) Screeners.

Two (2) Preparation technicians.

Total = 25

EDUCATIONAL PROGRAMME.

The educational programme has been continued most energetically by the Anti-Cancer Council of Victoria. Public meetings, organized in collaboration with various women's organizations, Shire and Municipal Councils, political and social groups, have been utilized to inform the population at risk of the existence of the Service and of the value of participation in the screening programme. These meetings have created considerable interest and have attracted large groups of women.

In addition, the various advertising media have been utilized and, in particular, television advertising, has been most successful in informing the women of Victoria of the benefits of prophylactic examination for cancer.

The work of the unit was depicted in the television programme "Four Corners" and it has also been presented to a number of meetings of members of the Medical Profession. The latter included two symposia conducted by the Postgraduate Medical Committee of Victoria in conjunction with the Anti-Cancer Council.

RECORD AND FILING PROBLEMS.

Progress has been made in the solution of these problems. Initial experience has shown that the record and filing problems can be divided into two categories:

- (a) Those involved in the daily operation of the Service. These have now been largely overcome and a most efficient filing system is operating. This has been made possible by the installation of mechanized filing equipment.
- (b) Those involved in the analysis of data.

The analysis of the data derived from a population cancer screening programme is essential for quality control of the programme, but it is also of great value in an investigational sense. Thus it is important to realise that the activities of the Service will yield a vast amount of data relating to the natural history of cervical cancer, and that information gained from the study of this data may assist in the understanding of cancer of other areas of the body.

A considerable amount of work has already been done in evolving a method of storage and analysis of data. The main difficulties to overcome are not related to the complexity of the data but rather to its volume. Hence it is inevitable that computer facilities be utilized. It is hoped that assistance in this area may be given by a public body such as a Government Department or University Centre. In this context it is of interest to note that the Division of Vital Statistics in the Canadian Province of British Columbia provides computer facilities for the Cytology Laboratories of that province, the prototype of all cervical cancer screening laboratories. The Director of this Government Department has stated that his department's collaboration in the cancer detection programme has been the most rewarding project they have ever undertaken.

RESEARCH PROGRAMME.

When the Service was formed it was commissioned to "provide in Victoria facilities for research and investigation with respect to the cytological examination of gynaecological specimens associated with cancer detection and to undertake such research and investigation".

Investigational work has been restricted to date by the shortages of space, staff and equipment. In addition, it was felt that first priority must be given to ensuring that the diagnostic work was carried out at full efficiency.

However, preliminary work on a research project is now being carried out, this work being aided by a grant received from the Anti-Cancer

RESEARCH PROGRAMME. (Continued)

Council of Victoria for the purchase of equipment. This project involves the study of the chromosomal content of cells in cancer and pre-cancerous lesions of the uterine cervix.

A major difficulty in assessing the significance of epithelial lesions of the uterine cervix, such as dysplasia and carcinoma in situ and, in particular, their relationship to invasive carcinoma, lies in the histological diagnosis of these conditions. Thus opinions on the histological diagnosis of any particular lesion may vary considerably from Pathologist to Pathologist.

It has been suggested that studies of chromosome patterns may yield a reliable means of distinguishing between a cervical dysplasia with an uncertain prognosis, and a "true" carcinoma in situ that will usually progress to invasive carcinoma if left untreated.

The purpose of this study, therefore, is to carry out chromosomal analyses on tissue removed from cases of cervical dysplasia, carcinoma in situ and invasive carcinoma, the pre-operative diagnosis being achieved by cytological techniques.

The initial work has been confined to the standardization of techniques of chromosome analysis using blood, bone marrow, and tumour tissue. In addition, techniques of tissue culture have been studied with the aim of carrying out chromosome studies on cultured tumour tissue.

DIAGNOSTIC ACTIVITIES.

Over 1,500 medical practitioners throughout Victoria are now using the Cytology Service.

From July 1st, 1966, to June 30th, 1967, 95,336 smears were examined. Thus a total of 166,123 smears have been examined since the inception of the cytology service. Until facilities for the analysis of the records, as outlined above, are available it is impossible to state what proportion of these were "repeat" smears i.e. how many women this figure of 166,123 smears represents. However, it would appear that between 10% and 15% of the adult female population of Victoria has now been screened.

In the period covered by this report 235 "positive" cases were detected, making a total of 448 since the commencement of the Service.

As stressed in the previous report this figure must be evaluated with the realisation:

DIAGNOSTIC ACTIVITIES. (Continued)

- (a) That all cases reported as "cells strongly suggestive of Malignancy" (i.e. "Class 4") and "malignant cells identified" (i.e. "Class 5") are regarded as "Positive" cases for statistical purposes. This is a standard procedure in other units throughout the world. Actually it would probably be legitimate to include in this figure, in addition to those categories listed above, those cases reported as "cells suggestive, but by no means diagnostic of malignancy" (i.e. "Class 3") when histological examination is carried out as a result of this abnormal report.

- (b) That, as yet, follow-up information is incomplete, and hence the validity of the cytological findings is yet to be established. However, the follow-up material that is available indicates a high degree of reliability of the cytological findings. A considerable number of individual cases illustrate the value of cytology in the detection of pre-invasive or early invasive cervical cancer in women who have no symptoms at all and who appear completely normal on clinical examination.

Despite the difficulties outlined above it must be stressed that the outlook of the senior laboratory staff is one of considerable confidence and, indeed, optimism. It is felt that the routine diagnostic procedures can now be carried out with efficiency and accuracy and that the solution of any developmental problems that do still exist is now available.

There is no doubt that the Cytology Service has been accepted widely by the members of the medical profession and by the population at risk and that this acceptance should lead to the achievement of the objectives of the Service.

S. L. TOWNSEND (Chairman)