

ELEVENTH ANNUAL REPORT OF THE VICTORIAN
CYTOLOGY (GYNAECOLOGICAL) SERVICE
FOR THE YEAR ENDING 30th JUNE, 1976.

Once more this report records twelve months of considerable diagnostic activity. The work load has again increased and the existence of the Service is justified by the continued detection of unsuspected cases of cervical cancer in an early and hence potentially curable form.

DIAGNOSTIC ACTIVITIES:

From July 1st, 1975 to June 30th, 1976, 218,062 smears were examined bringing the total number of specimens examined since the inception of the Service in January, 1965, to 1,584,892. The number of smears examined in this financial year represents an increase of 8,697, or approximately four per cent., on that for the previous financial year. This increase is somewhat less than in previous years and possible explanations for this are given below.

In the financial year under discussion major abnormalities were detected in 837 women, bringing the total number of major abnormalities detected since the inception of the Service to 5,161. It is again emphasized that these figures refer to individual patients and not numbers of specimens, since a patient with an abnormality may have repeated smears for interpretation or confirmation of that abnormality. As in previous reports the term "major abnormalities" refers to all cases of invasive or established cancer and those conditions which are believed to immediately precede the development of invasive cancer, namely severe dysplasia and carcinoma-in-situ.

FINANCIAL ASPECTS:

For the year ending 30th June, 1976, the maintenance or operating costs of the Service were \$470,959. This represents an increased expenditure of \$129,086, or 38 per cent., on the previous financial year. The major component of the operating costs was that of salaries and wages this item accounting for \$349,921, or 74 per cent. of the total operating costs. Compared to the previous financial year salaries and wages rose by \$108,134, an increase of 45 per cent. The actual increase in staff numbers was only two but variations in Wages Boards' determinations and National wage increases led to the very significant rise in operating costs.

Despite these increases the Service is still maintaining a most efficient and economic level of operation. As already indicated the total number of specimens examined since the inception of the Service is 1, 584, 892. Excluding capital costs the total expenditure over this period has been \$2, 141, 949 and hence the average cost per smear has been \$1. 35.

This type of cost analysis is used to compile table 1 where the specimen costs for the financial year under consideration are compared with those of the previous financial year and also those for the "base" year, 1965/66.

Table 1

Details of Smear Costs

<u>Financial Year</u>	<u>No. of Smears</u>	<u>Expenditure</u>	<u>Average Salary per Staff Member</u>	<u>Salary Cost per Smear</u>	<u>Service and Materials</u>	<u>Total Cost per Smear</u>
1965-66	65, 859	\$76, 659	\$1, 725	\$0. 56	\$0. 60	\$1. 16
1974-75	209, 365	\$341, 873	\$6, 280	\$1. 15	\$0. 48	\$1. 63
1975-76	218, 062	\$470, 959	\$8, 640	\$1. 60	\$0. 56	\$2. 16

As in previous reports the "service and materials cost" comprises all the costs of running the Service with the exception of technical and clerical staff salaries. The cost of \$2. 16 per smear for the financial year just concluded represents an increase of 32. 5 per cent. on the previous financial year, but still compares very favourably indeed with the current Commonwealth Schedule fee for this examination. This latter aspect will be considered in greater detail below.

It is also possible to derive a figure for the cost of detecting a major abnormality, as defined above. During the financial year just concluded 837 cases of invasive or pre-invasive cancer were detected for an operating cost of \$470, 959, making the average cost per major abnormality detected \$563. Of interest also is the average cost per major abnormality detected since the inception of the Service, namely \$415. Of course, this simple financial analysis does not really reflect the true value of the screening programme: One cannot cost accurately the lessening of suffering and the prevention of death, resulting from the detection of cancer at an early and curable stage. Similarly the benefits of promoting regular medical examinations of a large segment of our population are very real but equally difficult to cost in terms of dollars saved. However, there is no doubt that the expenditure of approximately \$500 per case detected is extremely economical when one considers the cost of treating a case of advanced malignancy.

STAFF:

At June 30th, 1976 the following technical and clerical staff was employed:

Technical Staff:

<u>Full-time</u>	One (1) Assistant Director.
	Eight (8) Cytotechnologists.

<u>Part-time</u>	Thirty-one (31) Cytotechnologists and Screeners.
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Clerical Staff:

<u>Full-time:</u>	Fourteen (14) Typists, Clerks and Key Punch Operators.
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<u>Part-time:</u>	Two (2) Typist/Clerks.
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The efficiency and effectiveness of the Service, as exemplified in the figures already given, is due primarily to the enthusiasm and technical competence of all staff members.

For the first time since the inception of the Service stability appears to have been achieved in the area of medical staffing. No change has occurred since the last annual report, the medical staff still comprising:

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|------------------------------|--------------|
| Dr. Michael Drake (Director) | Quarter-time |
| Dr. Gabriele Medley | Half-time |
| Dr. Tang Siew Khin | Full-time. |

The residue of Drs. Drake and Medley's time is spent within the Prince Henry's Hospital Department of Anatomical Pathology.

In April, 1976, the Director, Dr. Drake, presented a paper at the "Third International Symposium on Detection and Prevention of Cancer", held in New York, U.S.A. This paper detailed the results of the first decade of activity of the Service. A second paper, also based largely on the work of the Service, was presented at the University of Stellenbosch, Cape Town, South Africa. In addition, visits were made to a number of other cytology centres including those conducting cervical cancer screening programmes in British Columbia, Canada, and Aberdeen, United Kingdom. The unit in British Columbia is of particular interest since it has been operating since 1955 and represents the prototype of most cytological screening laboratories. Results now available from this centre are very impressive indeed with, in particular, evidence of a very significant fall in the death rate from cervical cancer in the province of British Columbia.

ASSISTANCE FROM OTHER ORGANIZATIONS:

Again we acknowledge with very sincere appreciation the assistance received from the Anti-Cancer Council of Victoria and the Floral Group of the Prince Henry's Hospital Auxiliaries.

The Anti-Cancer Council continues to promote the activities of the V. C. (G.) S. by way of its professional and public educational programmes. Each week a group of dedicated Auxiliary members spend many hours packing the kits of materials sent to medical practitioners. This contribution throughout the years has saved the Service a considerable amount of money and is acknowledged with gratitude.

TEACHING AND EDUCATIONAL ACTIVITIES:

An active teaching programme has been maintained by members of the senior staff of the Service in association with those of the Prince Henry's Hospital Cytology Department. Training has been provided for technologists from other hospitals and laboratories in Victoria and other states, whilst the subjects Clinical Cytology I and II continue to be taught in collaboration with the Royal Melbourne Institute of Technology.

Currently Dr. Saw Lwin from Burma and Mr. Hla Sein, a technologist also from that country, are studying cytology as Colombo Plan Fellows. On completion of their twelve month period of training they will return to Mandalay to assist with the cancer control programme being developed within the Union of Burma.

RESEARCH ACTIVITIES:

The previous annual report concluded with a reference to the need to establish research activities within the laboratories of the Service. It is a matter of considerable concern that this has not been possible.

When the V. C. (G.) S. was established it was clearly envisaged that it would serve a wider function than to provide a diagnostic service only. In the By-laws of this Service the first "object" reads as follows:

"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" (By-law 3. a).

More importantly perhaps the Service now has a considerable potential to "undertake research and investigation". A very large number of specimens has been examined and these specimens have come from a significant proportion of the women of Victoria. The results of these

examinations are stored in a form suitable for computer analysis as is the large volume of data derived from a vigorous and detailed follow-up programme. Excellent relationships have been established with clinicians and pathologists throughout Victoria and hence the Service has access to cells and tissues from women in whom abnormalities have been detected cytologically. An outstanding opportunity exists, therefore, for research into the life history of cervical cancer and improved methods of detection of this disease. However, unless finance is made available there appears no possibility of undertaking any research. Since the inception of the Service financial restrictions have been considerable and only by exercising maximum efficiency and economy has it been possible to cope with the diagnostic work load.

CONCLUSION:

It is a matter of considerable concern that the Victorian Cytology Service has been subject to financial difficulties since its inception and that there is every indication that these difficulties will be even greater in future years. The problems created by these financial restrictions have been accentuated by the universal insurance provided by Medibank and the fairly recent introduction of bulk-billing as a part of the Medibank arrangements. Those medical practitioners who refer smears to laboratories who utilize bulk-billing are able to provide, as far as the patient is concerned, a "free" laboratory service as do those who use the V. C. (G.) S. Indeed there is the added inducement that the private laboratory will arrange the collection of specimens and hence the doctor is not responsible for postal charges. It is believed that the increased usage of such laboratories by doctors who formerly used the V. C. (G.) S. is responsible, to a large extent, for the relatively slight increase in workload for the financial year just concluded as compared to previous years. It could be argued, of course, that provided the test is carried out it does not matter which laboratory interprets the test. There are a number of reasons why this attitude is not acceptable.

The use of many different laboratories destroys the concept of a co-ordinated State-wide screening programme. This has considerable implications in the accumulation and analysis of data. There is no doubt that the information produced by the cytology service in the Canadian province of British Columbia is of great value because it represents the cytological experience of the whole of that province. If the tests are spread over a large number of laboratories, many of whom do not keep detailed records, and most of whom do not have a comprehensive follow-up

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Much more important, however, is the financial burden on the health resources of the community. In any screening programme for a disease

process the cost benefit factor is critical; for a screening programme to be viable it must be reasonably efficient and economical. As already indicated, the average cost per smear since the inception of the Service has been considerably less than \$2 whilst even during the past financial year it was only \$2.16. The current medical benefits schedule fee for the examination of a gynaecological smear for cancer cells is \$9.60 whilst an additional charge of \$8.30 can be made for hormonal assessment. It would appear that in over 80 per cent. of cases the combined fee of \$17.90 is charged for the interpretation of a gynaecological smear. If these figures were applied to the activities of the V.C.(G.)S. during the past financial year the cost of a year's operation at the lower fee would have been approximately \$2,100,000 whilst at the combined, and more usually charged fee, it would have been nearly \$4,000,000. It is true that the Service does not report routinely on the presence of microorganisms nor is an hormonal assessment performed. However, both may be commented upon when they appear relevant to the overall interpretation of the specimen. Indeed it is impossible to assess a smear adequately without taking note of the patient's hormonal status and the presence or absence of infection. The relatively high fee charged by other laboratories does not necessarily indicate an overcharge for the examination. Rather the low cost achieved by the V.C.(G.)S. is a reflection of the very marked efficiency with which the Service operates. This efficiency is due to its internal organization and, of course, to the benefits of "mass production" techniques that are applicable to this branch of laboratory medicine.

In view of these facts it is alarming to note the continuing cuts in the budget allocation for the operation of the V.C.(G.)S. Since the activities of the Service are confined entirely to the interpretation of specimens there is no way in which budget cuts can be absorbed and hence such cuts have a direct effect on the efficiency and reliability of the Service. Notification of budget reductions have been accompanied by the statement that the allocation will "fund the Service at present levels of activity". It must be stressed that the Service does not control its level of activity, the work being generated by the medical practitioners and the women of Victoria. It might be argued that the Service could diminish its work load by creating a delay in the interpretation of specimens of such an order as to discourage medical practitioners from referring specimens to the Service, and presumably encourage them to refer them elsewhere. This would obviously be disastrous on economic grounds. In addition it seems most unlikely that those senior people associated with the Service would be prepared to operate under these conditions. There is a very

considerable moral obligation on the part of the Service to provide a reasonably rapid diagnostic facility. It would be totally unacceptable to delay reporting on a smear for a period of several months recognizing that any particular smear may indicate the presence of an unsuspected cancer in a patient who requires early investigation and treatment. Indeed the very fact that a smear has been taken may well delay a patient from seeking medical attention, or a doctor from proceeding with further investigation, pending receipt of the report on that smear.

There is no doubt that a serious situation is developing. Already the diagnostic efficiency of the Service has been impaired by the repeated budget cuts. This impairment is due to an inability to employ and train staff at the appropriate time to meet predicted increases in the work load. The various factors referred to above will lead inevitably to more specimens being referred to private laboratories and this process will be accelerated if continuing budget cuts impair further the efficiency of the V. C. (G.) S. It seems anomalous to promote vigorously the concept of cervical cancer screening, and so persuade women to have regular cervical smears, when the interpretation of those smears is so expensive in terms of community health resources. It would be even more anomalous, indeed tragic, if an organization such as the V. C. (G.) S. should be prevented from achieving its research potential and have its very existence as a diagnostic facility threatened by financial restrictions that are so totally and obviously illogical.

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CHAIRMAN
Professor Sir Lance Townsend

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SECRETARY
W. A. Cross