

while the possibility of pulmonary bilharziasis as a main or contributory factor should also be borne in mind.

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THE INCIDENCE OF CANCER OF THE UTERINE CERVIX

BY

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Although cancer of the uterine cervix when taken early is to a large extent curable, the proportion of cases coming to treatment at an early stage is so small that little impression is being made on its mortality rate. Not one case in ten reaches hospital with the disease confined to the uterus, and many come with such extensive lesions that only palliative treatment is possible. In spite of the efforts expended in educating the public on cancer, and the emphasis placed on the subject in our medical schools, much delay is still due to ignorance and neglect, but late diagnosis is also attributable in large measure to the insidious manner in which the disease develops. In cancer of the cervix there is no close correlation between the length of history and the extent of the disease, and more than half the women seen at Cardiff Royal Infirmary within three months of the first symptom are classified as having a stage 3 or stage 4 cancer (Maliphant, 1947).

Whereas early cervical cancer is usually symptomless, many cases are devoid of symptoms until they are far advanced, and this clinically mute phase is one of the main obstacles to early diagnosis. It is for this reason that in some countries, and notably in the U.S.A., women of cancer age are now being encouraged to undergo periodic gynaecological examination as the best and often the only means of ensuring prompt diagnosis. Cancer detection clinics have been established in most large centres, and the number of cases of cancer discovered in presumably well individuals has been so high that the representative character of the persons attending the clinics has been questioned (Jones and Cameron, 1947).

In the extensive literature on cancer of the cervix very little information is available on the number of living persons afflicted with the disease, and the purpose of this inquiry is to ascertain its incidence rate, together with the relative probabilities of the disease developing in the various age, civil state, and parity groups of the population. Such data would not only provide information on the number of new cases that would be expected in a particular group of women but may also have a practical bearing on problems relating to the aetiology and control of the disease.

Women who develop cancer of the cervix are measurably different from other women, and an attempt is first made to ascertain the degree to which the cancer hazard is affected

by such variants as age, marital status, and parity. Many reports have shown the distribution of such characteristics in women who develop or die of the disease, but they have rarely shown the distribution of the same characteristics in the community from which the cancer patients have been drawn. It is with this object in view that our patients have been examined against the background of the local population. At Cardiff Royal Infirmary 1,200 consecutive cases seen during the 25-year period 1922-46 have been analysed: 80% were residents of Glamorgan. As 1931 was close to the middle year of this observation period the 1931 Census figures were used in the main as the standard of comparison. The age, civil state, and child-bearing experiences of the community are then correlated with the tendency to develop cervical cancer.

Age

In this series 98.5% of the patients were married, and their ages ranged from 20 to 80 years. Their distribution by age is shown in Table I, together with that of married (widowed and divorced) women in Glamorgan at the 1931 Census.

TABLE I.—Distribution by Age

Age Group (Years)	Cancer of Cervix. C.R.I., 1922-46		Married Women of Glamorgan: 1931 Census		Estimated Relative Risk of Contracting the Disease (a) as % of (b) (c)
	No.	% (a)	No.	% (b)	
20-24	5	0.4	15,877	5.2	7
25-29	14	1.2	32,306	10.7	11
30-34	53	4.4	38,399	12.7	35
35-39	123	10.2	38,540	12.7	80
40-44	162	13.5	35,692	11.8	114
45-49	205	17.1	33,164	11.0	155
50-54	211	17.6	30,214	10.0	176
55-59	187	15.6	25,443	8.4	186
60-64	126	10.5	19,798	6.5	161
65-69	75	6.2	14,603	4.8	129
70+	39	3.5	18,509	6.2	56 ?
	1,200	100	302,485	100	

Although cancer of the cervix may be seen at extremes of age, it is predominantly a disease of middle life, and only 20% of the patients had reached the age of 60. A little less than one-third (30%) were under 45, a little over one-third (36%) were 55 or over, and the remaining one-third (34%) were in the decade 45-54 years. It is not so much the age of the individual as the senescence of the uterus which determines the occurrence of the disease, and if regard be paid to the number of women living at a given age it is observed that the cancer hazard continues to rise until the age of 60. The risk in the various age groups may be expressed by showing column (a) of Table I as a percentage of column (b). It is noted that the relative risk of the disease developing increases enormously from age groups 25-29 to 30-34, and at ages 35-39 it is more than twice as high as at ages 30-34. The rate of increased relative risk continues to rise until the peak is reached at ages 55-59. From this point it shows a steady decline, the rate becoming steeper and steeper in older women. Beyond the age of 70 this gradient is probably fictitious, as our series, in common with others compiled from hospital figures, is likely to be deficient in women over this age.

Lane-Clayton (1927) has drawn attention to the divergence between the age incidence of uterine cancer as shown by hospital figures and by mortality rates. The older the individual the less likely is she to attend hospital, but Mackenzie (1939) has shown that it is not until the age of 70 is reached that age as such acts as a serious deterrent to obtaining treatment. The inclusion of missing cases at ages of 70 and over in the above series would mean an adjustment throughout the entire percentage distribution, and

this in turn would reflect on the relative risks given in column (c), but it is unlikely that the main deductions would be falsified.

Civil State and Child-bearing

Of the cancer patients 18 (1.5%) were unmarried and non-parous. Two single women who had borne children were regarded as "married" for the purposes of this inquiry. At the 1931 Census 22% of Glamorgan women over 20 years were unmarried, and at ages 35-64 years—the time of life in which cervical cancer is most common—10% were unmarried. The low incidence of the disease in single women is probably attributable to the comparative infrequency of cervical infection in this group. That cervical cancer does occur in single women, and apparently in virgins, recalls the inherent tendency of some individuals to develop malignant disease in the absence of any recognizable extrinsic predisposition.

That the increased risk in married women is due solely to child-bearing has been disputed, and sexual intercourse has been indicated as a factor of some aetiological importance. Here an attempt has been made to measure the relative importance of these two factors—sexual intercourse and child-bearing—by comparing the relative risks of the cancer developing in single women, nulliparous married women, and parous married women. The proportions of the cancer patients falling into these three groups were known directly, but the numbers in the community were estimated in the following manner. In March, 1946, a Family Census was conducted by the Royal Commission on Population, and on request the secretary of the Commission supplied Dr. Greenwood Wilson, medical officer of health for the City of Cardiff, with a duplicate set of those Census cards which related to Cardiff women. From an analysis of these by age, social class, and number of live births the proportion of married women in Cardiff who were childless in 1946 was calculated. It was found to vary within the limits of 13 to 18%, according to age and social class, but the mean figure for those over 40 in all classes was precisely 15%. The 1931 Census returns for the County of Glamorgan showed 21,613 unmarried women and 182,851 married women of cancer age (35-64 years), and on the assumption that 15% of the married women were childless the proportions of single women, childless married women, and parous married women in the community were obtained (see Table II).

TABLE II.—Comparison of Civil State and Parity of Glamorgan Women of Cancer Age (35-64 years) (1931 Census), with 1,114 Women of Same Age Group with Cancer of Cervix

	Cancer of Cervix (a)	Community (b)	Estimated Relative Risk of Contracting the Disease (a) as % of (b)
Unmarried	15 (1.3%)	21,613 (10.5%)	12
Married	45 (4.0%) nulliparous	27,428 (13.4%)	30
	1,054 (94.7%) parous	155,423 (76.1%)	125
	1,114 (100%)	204,464 (100%)	

From this it may be seen that for women of 35-64 years (1) approximately 99% of the cancer patients were married, as compared with only 90% of the community; (2) of 60 nulliparous women in the cancer series only 25% were unmarried, the corresponding figure for all nulliparous women in the community being 44%; (3) 94.7% of the cancer patients, as compared with 76% of the women of the community, gave a history of one or more confinements; and (4) only 4% of the married women with cancer were childless, as compared with 13.4% of the women of the community. The figures showing the relative risks run by the three groups indicate that when a woman has reached

the age of 35 or more her risk of contracting cancer of the cervix is twice as great if she has been married, and ten times as great if she has also had children, than if she were single.

Repeated Child-bearing

As child-bearing is so closely correlated with cancer of the cervix some addition to the risk would be expected after each confinement, but previous studies have failed to establish any association between the number of pregnancies and the supervention of cancer (Lane-Clayton, 1927).

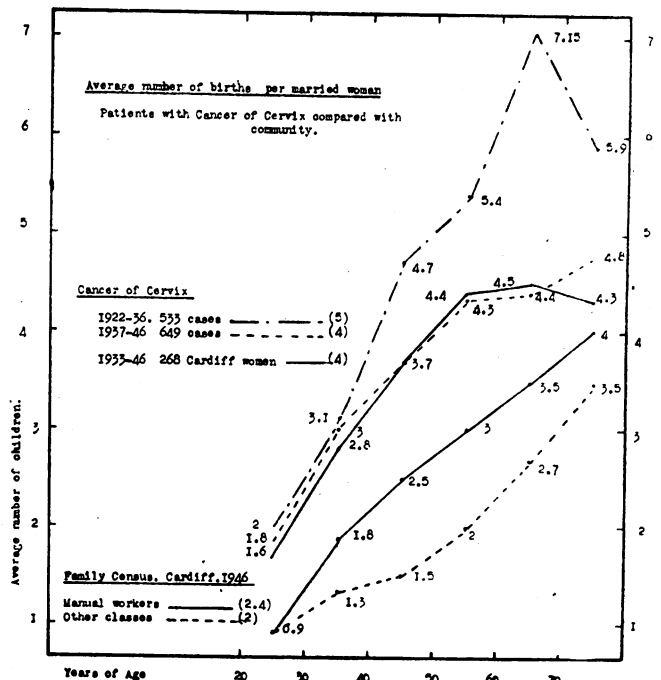
The average number of births (excluding abortions) among 1,182 married women with cervical cancer was 4.5, while the general average fertility of married women aged 40 and over in the community was 2.8 (Cardiff, 1946). But the deduction from this evidence that cancer of the cervix is related to large families could be challenged on three grounds:

1. The two series differ in point of time—the cancer series relating to a 25-year period, 1922-46, and the Family Census to the end-point of this period. During the interval covered by the cancer series there has been a decline in the average size of family, and the difference between the two means may reflect merely this decline in fertility.

2. The Family Census figures, which formed the only available standard of comparison as regards parity, relate to Cardiff women, whereas 80% of the cancer patients came from outside

TABLE III.—Average Number of Births per Married Woman. Three Groups of Patients with Cervical Cancer Compared with the Wives of Manual Workers in Cardiff generally (Family Census 1946)

Age Group	Family Census 1946		Women Suffering from Cancer of Uterine Cervix					
			Glamorgan Women				Cardiff Women Only	
	No. of Women	Mean No. of Births	1922-36		1937-46		1933-46	
			No. of Women	Mean No. of Births	No. of Women	Mean No. of Births	No. of Women	Mean No. of Births
20-29	699	0.93	6	2.0	9	1.8	3	1.6
30-39	1,135	1.83	88	3.1	83	3.0	29	2.83
40-49	1,082	2.55	170	4.7	206	3.7	91	3.7
50-59	959	3.0	163	5.4	210	4.3	84	4.4
60-69	698	3.5	91	7.15	118	4.4	38	4.5
70+	443	4.0	15	5.9	23	4.8	23	4.3
	5,016	2.4	533	5.0	649	4.0	268	4.0



the city boundaries, so the differences could be explained if it were shown that the average size of family was greater among women outside the boundaries, from which most of the patients were drawn.

3. The Family Census figures relate to all social classes, while the cancer cases were patients seen in hospital, so the larger families in the cancer series could be attributed to their belonging to the lower-income groups.

To meet the first two points a separate analysis is made, subdividing the cancer series into three parts: those seen before 1937, those seen during the period 1937-46, and a separate group relating to Cardiff women only (Table III). For each group the average number of births per woman was calculated, and a comparable standard is provided from the Family Census. To meet the social class objection the Family Census figures were formed into two groups: (a) the wives of professional men, salaried workers, and employers of labour (1,765); and (b) the wives of skilled and unskilled manual workers (5,016). This second group is considered to be a suitable standard of comparison for the hospital patient series.

It is to be observed that no difference in fertility is apparent between Cardiff women suffering from cervical cancer and those residing in other parts of Glamorgan. When the fertility of the more recent group of cancer patients is compared with that of the lower-income groups of the community it is noted that the average size of family is always slightly greater in women with cancer, and this is true whether women of the same age groups are compared or whether cancer patients are compared with Census figures applicable to women ten years older. The consistency of the excess in every age group obviates the need for any arithmetical tests of significance.

In Table IV the relative risk of incurring the disease is calculated in women of 40 and over according to parity. Women under 40 have been excluded from this table, as the community figures would be weighted by large numbers whose families would not be complete and in whom the hazard of cancer would be small. These figures indicate

TABLE IV.—Percentage Distribution by Number of Children for (a) Married Women Suffering from Cervical Cancer and (b) Wives of Manual Workers (Cardiff, 1946). Women of Completed Fertility Only, Aged 40 and Over

No. of Children	Cancer of Cervix Glamorgan, 1937-46 (a)	Family Census Cardiff, 1946 (b)	Estimated Relative Risk of Developing Cancer (a) as % of (b)
0	32 (5.1%)	464 (14.5%)	35
1	84 (13.5%)	549 (17.2%)	78
2	115 (18.5%)	596 (19.0%)	97
3	95 (15.2%)	463 (14.5%)	105
4	69 (11.1%)	342 (10.7%)	104
5	58 (9.3%)	228 (7.1%)	130
6 and over	171 (27.3%)	540 (17.0%)	160
	624 (100%)	3,182 (100%)	

that women with many children suffer from cervical cancer more frequently than do women with few children or only one child, and the relative risk increases slightly with each confinement, so that the woman who has had six or more children is exposed to a risk twice as great as the woman who has had only one child. They do not support the view that one childbirth is as effective a cause of cancer of the cervix as repeated labours.

It is generally acknowledged that cancer of the cervix also has social and racial distinctions, but these have not been explored in this survey. There can be little doubt that the disease is more common in the poor of any community (Stocks, 1947), and this is not attributable solely to increased child-bearing. As the social scale is descended there is a small increase in the number of children per family, but other factors are probably operative in the lower-income

groups, and more would seem to depend on bad environmental conditions and defective personal hygiene than on the bearing of larger families. It has also been claimed that habits and customs are responsible for the relative infrequency of the disease in women of the Hebrew race. If Jewesses were as susceptible as Gentiles to cervical cancer the local Jewish women might have been expected to contribute to the series under review, but not one of the 1,200 patients was Jewish. The relative immunity of Jewesses to cervical cancer is not clearly understood. It has been attributed to the observance of the Mosaic Code by married Jewesses, with its laws of separation and insistence on genital cleanliness, and it has also been ascribed to the practice of ritual circumcision, but the view that it is a fundamental racial character acquired through inheritance is perhaps still the most acceptable.

Estimated Incidence

The incidence rate of the disease—the relative number of new cases occurring annually—may be determined on the basis of mortality or morbidity records, but mortality tables for cervical or uterine cancer are still difficult to interpret. Neither is it easy to obtain data directly concerning the number of living persons suffering from the disease. The number of women with cancer is larger than the number with diagnosed cancer, and still larger than the number seen at hospitals. In country districts relatively more persons with cancer fail to obtain hospital attention, and, in order to keep the number of such persons as small as possible, an estimate is best made in an area with good hospital facilities, reasonably accessible to all groups of the community.

Cardiff, with its relatively compact population, seemed to lend itself to this form of inquiry. Its sick and infirm are received by three large hospitals, and from their combined records it was found that during the 12-year period 1935-46 the mean annual number of new cases of cancer of the cervix diagnosed in Cardiff women was 22. This figure required adjustment to allow for the few cases which may have been treated elsewhere, and also for those who may have died at home, untreated or undiagnosed. With these adjustments, it was computed that 30 new cases of the disease develop each year in the women of Cardiff. As no evidence was found that patients coming to the Infirmary from outside Cardiff made the series less representative of cancer of the cervix cases in Cardiff, the distribution by age, marital status, and fertility of these 30 women is assumed to correspond with that of the main series as shown in Tables I and II. Relating the distribution so obtained to the population as recorded in the 1939 Register, the cancer hazard in women of ages 35 to 64 years, according to civil state and parity, is shown in Table V.

TABLE V.—Estimated Risk of Cancer of the Cervix Developing at Ages 35-64 Years for Single and Married, and for Parous and Non-parous, Women

Civil State and Parity	Cardiff C.B. Population, 1939 Register	Estimated No. of New Cases of Cervical Cancer per Annum		Estimated Annual Risk of the Disease Developing at Ages 35-64 Years
		No.	% of Total	
Married women:				
Non-parous ..	7,294	1-128	4	1 in 6,500
Parous ..	41,333	26-705	94.7	1 in 1,500
Total married women	48,627	27-833	98.7	1 in 1,700
Single women ..	7,907	0-367	1.3	1 in 21,500
Total women ..	56,534	28.2	100	1 in 2,000

From the foregoing it would seem that the probability of the disease developing in any one year in women of this age group ranges from 1 in 1,500 in parous women to

1 in 21,000 in single women. In Table VI a more detailed examination of the risk in married women is made according to age, against the 1931 Census figures.

TABLE VI.—*Estimated Risk of Cancer of the Cervix Developing in Married Women at Increasing Years of Age*

Age	Cardiff C.B. Population, 1931 Census	Estimated No. of New Cases of Cervical Cancer per Annum	Estimated Annual Risk of the Disease Developing
20-29	8,131	0.48	1 in 17,000
30-34	7,147	1.32	5,400
35-39	7,022	3.06	2,300
40-44	5,522	4.05	1,360
45-49	6,113	5.13	1,190
50-54	5,690	5.28	1,080
55-59	4,724	4.68	1,000
60-64	3,932	3.15	1,250
65-69	3,117	1.86	1,700
70-74	2,103	0.75	2,800 ?
75-79	1,214	0.18	6,730 ?
80	865	0.06	14,400 ?
		30.00	

It will be observed that the cancer hazard is maximal during the sixth decade, when it is of the order of 1 in 1,000. Attention has been drawn earlier to the probable deficiency of patients of 70 and over in this series. This may require some adjustment of the number of new cases—increasing the numbers at ages 70 and over, and lowering by a corresponding amount the numbers under 70. As a result the risk of the disease developing at 70 and over is probably greater than the figures in Table VI suggest, but it is unlikely that the small adjustments required at ages under 70 would materially affect the calculated risks.

Discussion

Although cancer of the cervix does occur in unmarried women, and apparently in virgins, it is predominantly a disease of married life, showing a predilection for women who have borne children. What influence child-bearing has on the cervix to render it especially susceptible to cancer is not known, but the operative factor, whether traumatic, infective, or hormonal, has to exert its action for many years before the specific effect is shown. In this series 157 of the cancer patients were confined on only one occasion, and a mean interval of 20 years elapsed before the malignancy was discovered.

In 11% cancer appeared within 10 years of parturition, in 17% the interval exceeded 30 years, and in the remaining 72% the interval between the confinement and the cancer ranged from 10 to 30 years. The length of this interval had no influence on the morbid anatomy of the lesion or on the clinical course of the disease (Maliphant, 1947). Neither did the nature of the confinement seem to be significant: 82% of the parous cancer patients had normal obstetric histories, with an average of over four unassisted deliveries per patient; 15% had at least one instrumental delivery; and in 3% one or more of the confinements were described as difficult. It is highly probable that figures of this order would be found in a control series of women not suffering from cancer, which would not lend support to the view that trauma itself is an important causative factor in cervical malignancy.

Although the severe tears which may accompany a difficult instrumental delivery do not seem to be any more likely to lead to cancer in later years than the small lacerations concomitant with natural birth, they both allow organisms easy access to the cervical tissues. Infection, by stimulating hyperplasia, heteroplasia, and heterotopia of the glandular epithelium, disturbs the epithelial equilibrium at the squamo-columnar junction, and the resulting erosion has been described as a battlefield on which two types of

epithelium are the contestants. Erosions are commonly inflammatory in origin, but similar epithelial changes may result from hormonal influences, and, once established, such areas of epithelial restlessness seem to be of paramount importance as forerunners of cancer. Nevertheless, the percentage of erosions which become cancerous is very small. It has been estimated that more than half the adult female population have infected cervixes, and for every woman with an infected cervix who develops cancer there would appear to be approximately a thousand who do not (Table V).

Chronic cervicitis is a precursor of cancer only if it exists in conjunction with some unknown factor of individual susceptibility. This may be some form of hereditary predisposition or be dependent upon some underlying metabolic or nutritional disturbance. In this connexion it is noteworthy that Ayre (1947) found evidence of excessive tissue oestrogens coupled with low thiamin excretion in women suffering from cancer of the cervix, and he suggests that the disease may prove to be the abnormal response of cervical epithelium to chronic infection when it exists in the presence of nutritional deficiency of thiamin and a consequent excess of the specific growth hormone, oestrin. In any event, chronic cervicitis may be regarded as only one of several aetiological factors, and, even if it were established that clearing up cervical infection would prevent cancer, to prevent one case it would be necessary to maintain in a healthy state the cervixes of about a thousand women. It is probable that the medical profession, by treating cervicitis, is daily making a small contribution to prophylaxis, but there can be little prospect of any appreciable reduction in the incidence of the disease by such measures.

The only immediate hope of reducing the persistently high mortality from cervical cancer is by discovering more cases at an early stage. There is room for further educational effort to persuade women to report symptoms and to see that every woman who reports suspicious symptoms is thoroughly investigated. Diagnosis at the earliest phase could be possible only by routine examination of the apparently healthy. The annual or semi-annual examination of parous women over 35—the age at which the prevalence of the disease shows a rapid rise—could not fail to lead to the discovery of many cancers still in their silent phase, but the practical difficulties in instituting such measures for the community are evident. On the basis of the incidence rate found in this inquiry, it would seem that even in the more vulnerable fraction of the community—parous women aged 35 to 64—only one cervical cancer would be found annually in every 1,500 women examined, although no doubt other lesions, both benign and malignant, of the exposed sites would also be discovered.

Considerable interest is being shown in the various smear techniques as developed by Papanicolaou and Traut (1943) for the diagnosis of malignant disease of the genital tract, and in their applicability to mass surveys. In suspect cases these cytological methods cannot displace biopsy, but they may make an important contribution to the control of cancer as a screening test for the detection of symptomless cancer in the community.

Summary

The distribution of certain characteristics in a series of 1,200 women suffering from cancer of the uterine cervix is compared with the distribution of the same characteristics in the community, and the differences are considered to measure the differences in the risk of incurring the disease.

Cancer of the cervix is a disease of middle life, but the risk of contracting the disease continues to rise until the age of 60.

Beyond this age the risk shows a steady decline: while the female population is decreasing, the incidence of cervical cancer is decreasing at a faster rate.

The cancer hazard is increased by marriage irrespective of child-bearing, but the disease shows a predilection for women who have borne one or more children. Its occurrence seems to be independent of the nature of the confinement, but each pregnancy adds slightly to the risk of cancer developing in later years. Whether the responsible agent associated with child-bearing is infective or hormonal, it takes an average period of 20 years to produce its effect.

In women of cancer age (35-64 years) the probability of the disease developing in any one year seems to range from 1 in 21,000 single women, through 1 in 6,500 in childless married women, to 1 in 1,500 in parous women.

There is little prospect of effecting any appreciable reduction in the incidence of the disease by prophylactic measures, and the pressing need is diagnosis at a stage when cure is not only possible but probable by existing therapeutic methods. The role of periodic health examinations in the detection of symptomless cervical cancer in the community is discussed.

I am indebted to Dr. Lewis-Faning, statistician to the Department of Preventive Medicine of the Welsh National School of Medicine, for invaluable advice on the statistical aspects of this paper. My thanks are also due to Dr. Greenwood Wilson and to his chief clerk, Mr. Brain, for analysing the Family Census returns; to Dr. D. G. Morgan for details of cancer admissions to Llandough and St. David's Hospitals; and to my colleagues in the department of obstetrics and gynaecology for access to their case records.

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PSYCHIATRIC PATIENTS AND THE DISABLED PERSONS (EMPLOYMENT) ACT

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In December, 1946, a system of weekly conferences between us and the disablement rehabilitation officers of the Camberwell Labour Exchange was instituted at the Maudsley Hospital for all patients presenting problems in the finding and choice of work.

The patient was prepared for the conference by at least one preliminary interview with the psychiatric social worker in which the purpose of registration under the Disabled Persons (Employment) Act was explained and his aspirations in the field of possible employment discussed. At the subsequent conference, when the medical and social aspects of the patient's needs could be explained to the D.R.O., doctor and social worker were able to contribute suggestions which seemed indicated as the interview proceeded. This arrangement was of particular value, as the D.R.O. alone would not have been in a position to judge what concessions he should make to the patient's objections or hesitations. It was also useful for the hospital team to be able to modify the plans and recommendations for the patient when, as a result of listening to the

interview, it became apparent that the type of work suggested was, not in fact suitable or readily available.

As a result of early experience in the working of the scheme a form was introduced for all in-patients in which sections were to be filled in by the doctor, the occupational therapist, and the remedial gymnast, the aim being to collect all possible information concerning the patient's employability. The information available for out-patients was necessarily much more scanty.

Results

A follow-up inquiry was made not less than six months after the conference, chiefly by means of a questionnaire filled up by the patients. This paper is based on an analysis of the patients dealt with in this way who were first seen by the D.R.O. before Dec. 31, 1947.

Table Showing Results of a Follow-up

Diagnosis	In Employment				Unemployed		Untraceable		Total
	Settled		Pre-carious		Men	Women	Men	Women	
	Men	Women	Men	Women					
Depression	16	3	1	3	4	2	1	0	30
Anxiety state .. .	9	2	4	2	3	2	1	0	23
Hysteria	4	0	4	0	1	3	0	1	13
Obsessional state ..	0	0	0	0	1	0	0	0	1
Psychopathic personality .. .	3	0	4	1	6	1	4	1	20
Mania	1	0	0	0	0	0	0	0	1
Schizophrenia .. .	7	3	3	0	7	4	0	1	25
Organic states, including epilepsy ..	2	1	0	0	3	2	0	1	9
Total	42	9	16	6	25	14	6	4	122
Age:									
Under 20	5	0	2	0	5	3	0	1	16
20-30	20	5	4	1	7	4	5	2	48
30-40	6	2	4	4	7	3	1	0	27
40-50	6	1	6	1	4	3	0	0	21
Over 50	5	1	0	0	2	1	0	1	10
In-patient ?									
Yes	35	7	10	4	15	9	4	3	87
No	7	2	6	2	10	5	2	1	35
Civil state:									
Married	19	2	8	1	8	3	3	0	44
Single	23	7	8	5	17	10	3	4	77
Widowed (women) ..	0	0	0	0	0	1	0	0	1
Occupational therapist's report:									
Favourable	21	3	4	1	3	2	0	0	34
Doubtful	4	0	3	0	1	0	0	0	8
Poor	2	1	1	1	6	1	0	1	13
Previous work record:									
Good	28	7	6	2	7	6	1	0	57
Fair	3	0	3	0	0	0	0	1	7
Poor	11	1	7	3	18	6	3	1	50
Recommendations of hospital:									
Carried out	36	7	12	3	7	6			71
Not carried out .. .	6	1	4	3	16	8			38
No specific rec. made ..	0	1	0	0	2	0			3

Of the men 31 had changed their occupations and 27 were doing the same type of work as they did before their breakdown; 23 of the former were well settled and eight were in precarious work, and 19 of the latter were well settled and eight precariously employed. There is no evidence, therefore, that change of occupation in itself has any particularly harmful or beneficial effect. Two reverted to their previous occupation after attempts had been made to settle them in something thought to be more suitable. Eight were well settled in work of a type inferior to that they had undertaken before their illness. Ten were tradesmen and artisans, seven clerical and shop workers, 12 outdoor agricultural workers, drivers, etc., 18 labourers and unskilled workers, four were in training, and seven were following miscellaneous occupations. There were eight