A STUDY OF MORBIDITY IN GENERAL PRACTICE,

WITH PARTICULAR REFERENCE TO THOSE ADULT PATIENTS

WHO ARE FREQUENT ATTENDERS.

A Thesis submitted to the University of Edinburgh for the Degree of Doctor of Medicine, 1964,

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I N T R O D U C T I O N

Some groups of patients obviously use the services provided by the general practitioner in the National Health Service more frequently than others. Frequent attenders can be divided into two main categories. There are those who have frequent consultations but do not necessarily have frequent episodes of illness, and on the other hand those who have frequent episodes of illness, the individual episodes not necessarily requiring frequent consultations. The use of the general practitioner services by patients is probably dependent on two main factors, these factors being the nature of the illness and the patient's reactions to that illness. The reactions to the illness may be influenced by the patient's personal characteristics and by his environmental conditions. This study attempts to evaluate the morbidity in adults in both groups of frequent attenders. The illnesses in these groups are compared with the pattern of morbidity in the practice as a whole, the findings regarding morbidity in this practice having first been compared with published findings from other practices in an attempt to ensure that the practice is fairly typical. Further studies have been conducted to try to assess the personal and social characteristics of the group of patients who have frequent episodes of illness.

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For this part of the study a control group paired by age and sex has been used. For the reason that with children the doctor-patient contact is usually initiated by the parent rather than the child, morbidity in patients under fifteen years of age has been omitted from this latter part of the study.

T H E P R A C T I C E.

The practice is entirely urban, situated in Middlesex, and had a total list of patients numbering 5,494 on 30th June, 1962, this date being the mid point of the survey year. All of the patients are on the National Health Service list. There are three principals, Dr. Jack Park, Dr. B.C.S. Slater and Dr. R.P. Carrington, who work from two separate surgery premises. Although both sides of the practice are fairly long established for this area, the two premises are comparatively new, being built in 1961. The building took place on or near the sites of the old surgeries. These surgeries are situated at a distance of 1.8 miles from each other, the one being in that area of Ealing known as Greenford and the other in the area of Harrow known as South Harrow. The areas are

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adjacent but the distance between surgeries practically ensures that there is no overlap of patients, the Greenford patients always attending the Greenford surgery and the South Harrow patients the surgery in that area. Drs. Park and Carrington work mainly at the Greenford surgery and Dr. Slater at the South Harrow one. On one morning per week Dr. Carrington holds a surgery at South Harrow and he also holds a child welfare clinic there on one afternoon per week. Dr. Park holds surgeries only at Greenford and Dr. Slater at South Harrow. The three partners have a rota for weekend and evening duties, the weekend being considered as from 1 p.m. on Saturday till 8 a.m. on Monday and the evenings as 8 p.m. till 8 a.m. The partners also stand in for each other at holiday times and on half days. The transfer call system operated by the General Post Office telephone exchange is used so that the practitioner on duty can take all incoming calls. In the Greenford surgery there is a full-time caretaker/ receptionist and at the South Harrow surgery a part-time secretary who is employed for approximately six to nine hours per week and also a part-time caretaker.

As this survey is of morbidity in the South Harrow practice the remainder of the description of the practice is limited to that only. The number of patients on this list on 30th June, 1962, was 2,769. The age-sex distribution of the practice population will be discussed in

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detail later. Surgeries are held on six mornings and four evenings each week. There is no appointment system. In addition a child welfare clinic is held on one afternoon each week and an antenatal clinic on another. For the antenatal clinic only, the patients are seen by appointment.

There is a local general practitioner hospital which has approximately 110 beds for the admission of medical, surgical, orthopaedic, gynaecological, ear, nose and throat, dermatological and paediatric cases. A physical treatment centre is attached to the hospital. There is open access to X-ray and clinical pathology departments and in addition to these facilities at Harrow Hospital there is open access to the X-ray department at the local chest clinic. Harrow Hospital is unique insofar as there is a consultant staff and a house officer staff, but the patients remain under the clinical control of the general practitioner. Patients admitted are seen by the consultant staff at the request of the general practitioner who remains responsible for the patient's care. No patient can be discharged from the hospital without the general practitioner's prior consent. Most of the patients from this practice who require outpatient appointments for general medical or surgical conditions are referred to the consultants at this hospital, except for chest conditions which are referred to the local chest clinic. For consultations in the "special subjects" such as orthopaedic

surgery /

surgery, ophthalmology and dermatology, the patient is more commonly referred to a specialist hospital in London as the waiting time for appointments in these subjects tends to be longer in the local hospitals. Patients requiring admission are usually sent to Harrow, Edgware General or Mount Vernon Hospitals. The area is zoned for obstetric and psychiatric care, the hospitals concerned being Edgware General Hospital and Shenley Hospital respectively.

H A R R O W.

Harrow is a borough in Middlesex and is part of Greater London, of which it is a fairly typical suburb with practically no heavy industry. Whilst Harrow-on-the-Hill, where Harrow School is situated, dates back for many centuries, there was a great influx of population to the borough in the decade prior to the Second World War, which is similar to the marked increase in the population of Middlesex as a whole during this period. This increase in population in the Thirties is reflected in the age structure of the Borough and of Middlesex which has its peak in the 45-64 years of age group, this being the group who would be moving into the area as young married couples in the Thirties. Figures regarding the population of

Harrow have been derived from the Census of England and Wales 1961 (County Report on Middlesex) conducted by the General Register Office and published by Her Majesty's Stationery Office. The population of Harrow in 1961 was 209,080, males numbering 99,208 (47.6%) and females 109,872 (52.4%).

When the age structure of Harrow is compared with that of England the following is found, the numbers in each age group being given as a percentage of the total population in each case:

Age Group (Years)	Harrow	England
0-4	6.56%	7.9%
5-14	13.17%	14.9%
15-24	13.17%	13.2%
25-34	10.86%	12.6%
35-44	13.03%	13.6%
45-54	17.01%	14.0%
55-64	14.16%	11.8%
65-74	6.97%	7.7%
75 and over	3.90%	4.3%

When compared with the population of England it is seen that Harrow has an increased proportion in the age group 45-64 and less in the younger age groups. When the population of Harrow is analysed by age and sex the findings are as follows, the numbers of each group being again given

as /

as a percentage of the total population:

Age Groups	Male (%)	Female (%)
Total	99,208 (47.6)	109,872 (52.4)
0-4	6,953 (3.33)	6,789 (3.25)
5-14	14,099,(6.72)	13,758 (6.57)
15-24	14,706 (7.02)	14,153 (6.74)
25-34	12,084 (5.80)	12,403 (5.92)
35-44	12,880 (6.16)	14,526 (6.93)
45-54	16,896 (8.08)	18,644 (8.92)
55-64	14,021 (6.70)	15,466 (7.42)
65-74	5,988 (2.67)	8,572 (4.10)
75-84	2,200 (1.06)	4,549 (2.18)
85-94	372 (0.18)	975 (0.47)
95 +	10 (0.005)	37 (0.02)

This table is shown in Figure 1 on page 30.

METHODS AND MATERIALS.

A morbidity study was designed to be carried out in the practice in 1962. A prerequisite of a morbidity study was the preparation of an age-sex breakdown of the practice. This was carried out in 1961. The Clerk of Middlesex Executive Council cooperated in the preparation of this age-sex register by allowing the practice secretary to

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have access to the files in his office. There might have been some criticism of this method as it is known that the size of list as calculated by the Executive Council does not always correspond to the actual list size and is usually inflated. The justification for this approach is the fact that the list of this practice was checked in 1959 on the death of the senior partner. At that time all of the patients received a letter from the Executive Council informing them of the alteration in arrangements for their medical care. In the usual way all of those patients whose letters were returned by the General Post Office as "non-delivered" were deleted from the list. There was therefore in 1961 little chance of inflation of the list of patients in the practice. After completion of the register it was kept up to date by the necessary additions and deletions as advised by the Executive Council each quarter. The register consists of a Twinlock Crown loose-leaf Binder No. 3. Each year of birth for each sex has been allocated a separate page and the details noted thereon are as follows:

1. Name and initials.
2. Date of birth.
3. Date of name being entered in register.
4. Date of name being removed from register.

The date of completion of this register was 31st October, 1961, and all patients whose names were registered on this date have it as being the date on which their names were

entered /

entered. New patients entering the practice since this date have the actual date of entry inserted on the appropriate page. When a patient leaves the practice the date of request for return of the medical records for that patient by the Executive Council is inserted and a horizontal line is drawn through the entry on the page. Thus a record can be kept of the numbers of patients with date of birth in any particular year by sex and the numbers calculated for any given quarter. Pages with male names are marked with a red star and those with females a blue star, the colours corresponding to those of the printing on the National Health Service Medical Record Cards.

A short pilot study of the method of recording morbidity was conducted in December 1961 and seemed to be practicable. The details given on the patients' medical record cards were unsuitable for analysis of morbidity. In addition to the impracticability of analysis from these cards, which are not designed for the purpose, the records have to be returned to the Executive Council when the patients leave the practice and so these records would not then be available. The day-book method was therefore used to supplement clinical details on the record cards. Twinlock sheets (No. 1½C Faint) were used, a separate sheet being allocated to each surgery session and each day's visiting. Reproduction of sample sheets are shown on pages 10 and 11, only the names used being fictitious.

VISITS 26 JAN. CO. FRI.

671 - 1 - 1	MURRAY M.	(F)	1956	R. [illegible]	F.
519 - 1 - 5	FITZALLAN B.	(M)	1951	[illegible]	24.1
51 - 1 - 5	HARRIS A.E.	(M)	1905	[illegible]	22.1
517 - 1 - 4	O'KEEFE D.	(M)	1918	[illegible]	22.1
130 - 1 - 7	GARDINER D.	(F)	1896	Angina / [illegible]	22.1
130 - 2 - 6			[illegible]	[illegible]	22.1
672 - 1 - 1	BARROW N	(F)	1884	Thyrotoxicosis	28.12.61
383 - 1 - 2	SHERIDAN F.	(F)	1888	Rheum. [illegible]	12.1
383 - 2 - 1				Uncon	F.
273 - 1 - 3	BORLAND C.	(M)	1882	PTB	12.1
207 - 2 - 4	LESLEY A.	(F)	1883	Rheumatoid arthritis	12.1
202 - 2 - 4	CHARLES M.	(F)	1881	Anxiety neurosis	19.1
14 - 1 - 6	JOHNSON A.	(F)	1887	Rheumatoid arthritis	19.1
654 - 1 - 2	RALSTON S.	(F)	1943	P.U.O.	25.1
204 - 1 - 4	RUSSELL A.	(F)	1880	Rheumatic deformities	19.1.

To re-order quote Twinlock sheet No. 1.1/2c fein

VISITS. 29 JAN 62 MON.

79-3-2	ALLAN R.	(F)	1884	Bronchitis	28.1.	
671-1-2 }	MURRAY M.	(F)	1956	{ R. otitis media	26.1.	
671-2-1 }				{ Urticaria	F.	
439-1-2	KANHAI V.	(M)	1931	Strain med. coll. lig. R knee	27.1	X-ray.
628-1-3	THOMSON R	(F)	1944	Influenza	25.1	
522-1-3	BLACK S.	(M)	1947	Burn R foot	25.1	
339-2-1	SMITH B.	(F)	1888	Sinusitis	F.	
299-2-3	BOLTON E	(F)	1919	Enteritis	27.1	
652-1-2	CREARY D.	(M)	1960	Laryngitis	27.1	
690-1-1	BANKS I	(F)	1905	D.S.	24.12.61	
7-1-7	CAHAN L	(M)	1916	Bilateral # scaphoid	22.1	
691-1-1	PARIS W	(F)	1919	Laryngitis	F.	
630-1-3	CORNISH R	(M)	1921	Influenza	27.1	
692-1-1	SEARLE F	(F)	1934	Abortion	F.	
676-1-2	CREARY W.	(F)	1956	Laryngitis Bronchitis	27.1	
693-1-1	TURNER A.	(M)	1900	Gastritis	F.	
274-1-3	CASTLE B.	(M)	1888	D.U.	19.1	
368-3-1	MASTERS W.	(M)	1961	Gastro-enteritis	F.	

To re-order quote Twinlock sheet No. 1.1/2c feint

Requests for prescriptions by telephone, etc., as described on page 18 were recorded on the sheets for surgery sessions but were kept separate. A numbering system was devised whereby the patient concerned, the episode concerned and the consultation for that particular episode could be discerned. The episode numbering was especially important as this study was partly related to the number of episodes of illness which each patient had during the course of the year. On his first consultation during the year each patient was allocated a number, these numbers being allocated in sequence. The first patient to be attended in 1962 was therefore allocated the number "1". This number he retained for the period of the survey. As this would be his first episode of illness during the year and his first consultation for that episode the number entered for that date would be "1-1-1", the first figure being the patient's number, the second indicating that it was his first episode of illness and the third that it was his first consultation for that episode. The next entry on a future date if he attended for the same episode would be "1-1-2", and if he attended for the first time for another episode would be "1-2-1". This number was also entered on the patient's Medical Record Card under the date of attendance so that the appropriate number could easily be calculated for the entry on his next attendance. The entry for each patient's attendance on the sheets included in addition to

his /

his number in the first column his name and initials, year of birth, sex and diagnosis. It was attempted to insert a diagnosis at each consultation but if this did not prove possible the main symptom of which the patient complained was inserted and if the patient required further investigation the space was left blank and the diagnosis inserted later. If the diagnosis was altered at a future attendance the sheets on which his previous attendances for that episode were recorded were traced and the diagnosis altered on each. In some episodes the illness first diagnosed developed into a more serious illness (for example, bronchopneumonia developing from bronchitis). In these cases the more serious diagnosis was ascribed to that condition throughout as it was obvious that the two conditions were part of the one episode of illness. The last column on the sheet was left blank for the recording, where required, of the following details:

1. Admission to hospital. Under this heading only those patients whose admission was arranged directly by the practitioner are included. If a patient was referred to a consultant as an outpatient and later admitted from the waiting list this patient's name would not be included as an admission. There are several reasons for this. This survey only takes into consideration the action taken by the general practitioner. In one case the action will be to have the patient admitted to

hospital /

hospital, whilst in the other the action will be to refer the patient for a consultant opinion. If the latter patient is then admitted it is due to the action of the consultant. When a patient is admitted from the waiting list the general practitioner is not always informed of this fact and it may be some time after his discharge that the practitioner receives the information.

2. Referral for consultation, usually in hospital, but occasionally elsewhere, e.g. to a consultant's private rooms.
3. Referral for X-ray, usually to the Radiology Department at Harrow Hospital or at Harrow Chest Clinic. It is the custom that if a patient is referred for X-ray at the Chest Clinic and if some abnormality is noted, the patient will be sent an appointment to attend. This will be noted therefore under "Referral for X-ray" and not under "Referral for Consultation".
4. Referral for laboratory investigation. This includes occasions when the patient was asked to attend the laboratory for investigation or when a specimen was taken from the patient and taken to the laboratory. It does not include blood tests and urine tests performed by the general practitioner.
5. Referral for physiotherapy.
6. Domiciliary consultation.

7. /

7. Late call. For the purpose of this survey a late call was considered as a request for the practitioner's services in the patient's residence made between 8 p.m. and 8 a.m. These hours coincided with the rota duty for the practitioners in the evenings. This will not include late calls which were requested earlier than 8 p.m. but were for various reasons done after 8 p.m.

It will be seen on the specimen sheets on pages 10 and 11 that Margaret Murray required a first visit on 26th January 1962 for acute right otitis media. Her number for that date was therefore 671-1-1. When a second visit was made on 29th January for this episode (671-1-2) she was found also to have urticaria and as this was the first consultation for urticaria, which was her second episode, the number for it was 671-2-1.

The method of numbering is also demonstrated on the specimen Medical Record Card on page 16.

YOB (1956)

FEMALE Surname: MURRAY. | Forenames: Margaret.

Address: 43 S. Crescent. S. Harrow. | National Health Service Number

DATE	*	CLINICAL NOTES
12.12.61.	A.	Cough +. Catarrhal. Feels well. RS ✓ T-N. Linct. pholcodine [illegible]
26.1.62.	V	Acute R. otitis media. T-99.4.
(671-1-1)		Rx Susp. penicillin V 125 [illegible]
		[illegible]
29.1.62	V	Better. Ear dry. TM ✓ T-N.
(671-1-2)		Cont.
(671-2-1)		Still urticaria – has had penicillin on several previous occasions with no reaction. Rx Elix. Phenergan [illegible]
30.1.62.	V.	Ear ✓. Urticaria cleared.
(671-1-3)		
(671-2-2)		
9.3.62.	A.	Laryngitis. T-N. RS ✓.
(671-3-1)		Rx Syr. [illegible] [illegible]

* This column has been provided for doctors to enter A, V or C at their discretion.

(87871) Wt. YP.10113/5042 2,000M 8/63 Hw. Form EC8

The duration of the study was one year, being the year 1962. It was thought that this was the minimum time necessary for a study of morbidity which varies considerably by season. It was realised that morbidity, especially that relating to infectious disease, varies also from year to year. However, this had to be balanced against the fact that the time consuming nature of the analysis of a year's recording material was probably as much as could be coped with unless mechanical methods of analysis were to be used.

The definition of a consultation is important in studies of morbidity as differences could invalidate figures for comparison with other studies. This is particularly so if the number of consultations for an episode of illness is being considered as one of the factors governed by the severity of that illness, the number of consultations being a reflection of the severity in terms of morbidity. A consultation in this study is defined as any contact between patient and practitioner at which medical treatment and/or advice were given. This therefore included consultations in the surgery and visits in the home. It also covered those occasions where advice or treatment were sought at other times such as a chance meeting in another patient's home or when the practitioner was visiting another member of the family. The telephone conversation is the situation which gives rise to most difficulties in this respect.

Some /

Some patients, who have had a diagnosis of a chronic complaint made previously, prefer to telephone or leave a note so that a prescription can be left at the surgery for this in order to save the patient's time in waiting. This is considered to be a reasonable procedure with some patients with certain conditions and it was decided to include this doctor/patient "contact" within the definition of a consultation for the purpose of this study as medical treatment was given. Rarely was medical advice given over the telephone as it is the habit to ask those patients who so request advice to attend the surgery or for the practitioner to visit them in the home. This type of call therefore did not come within the definition which also excluded those contacts for such purposes as signing passports, registering patients on the list, etc. All administrative work which did not involve a contact for the purpose of giving advice or treatment was excluded. Whilst this forms a fair proportion of the general practitioner's work it has no part in a study of morbidity. All consultations concerning temporary residents were excluded. Also excluded were the visits made to patients whilst in hospital.

The definition of an episode gives little difficulty except for cases where the illness is recurrent or on the verge of chronicity when it is sometimes difficult to decide when one episode finishes and the next one starts. An episode of illness was defined as an illness which was

continually /

continually present or continuously under treatment. This meant that a chronic bronchitic who had several acute exacerbations but whose symptoms were always to some extent present would be considered as having one episode of illness relating to his bronchitis, whilst another bronchitic who had several attacks but who had no symptoms or treatment between attacks would be considered as having several episodes relating to his bronchitis.

ANALYSIS OF MATERIAL.

The analysis of morbidity has occupied the major part of the time in this study. It could be argued that the analysis would have been done more quickly by mechanical means, which is undoubtedly true. On the other hand, one learns by doing a job oneself and the benefit of this experience for further research work has been invaluable. This experience has outweighed the saving of time which would have resulted from mechanical analysis. Another benefit in carrying out the analysis by hand was that the figures were being checked at each stage of the analysis so that any errors in recording could be put right without a great deal of trouble. The analysis of morbidity has been carried out in full for two reasons. If the study of frequent attenders in this practice is to be of any

consequence /

consequence the practice itself should be fairly typical of other practices. By analysing the morbidity in full it is possible to attempt to compare the morbidity and some other measurable factors such as attendance-visit ratio, hospital referral rate, etc., to those findings published from other practices. The morbidity findings from the practice have been used too as a control for the morbidity pattern shown by frequent attenders (as is further discussed on page122). It was decided to use the International Classification of Diseases (World Health Organisation 1955) as the basis of the analysis of morbidity and that only the eighteen main sub-headings of this classification would be utilised. The only exception to this is that consultations for routine antenatal care have been included in Group 11 (Deliveries and Complications of Pregnancy, Childbirth and the Puerperium) instead of under Group 18 (Special Examinations and Examination without Sickness). The reason for this is that the study concerns episodes of illness and it was considered that pregnancy with or without complication had to be considered as one episode. The analysis had to be done by sex and age groups. In previous studies of morbidity in practices the age groups chosen have varied considerably, thus making efforts at comparison difficult. It was decided in this survey to analyse the material in two ways. Firstly, it was analysed in ten-year groups except for the youngest group which was

0-4 years old, so that the groupings became 0-4; 5-14; 15-24, etc. Some of the groups were later amalgamated to bring them all into line with the "natural" age breakdown, i.e. 0-14; 15-44; 45-64; 65 and over. This grouping permits comparison with the findings published in "Morbidity Statistics from General Practice" (Logan and Cushion 1958), whilst the ten-year grouping gives greater flexibility when considering some other factors.

The first stage of the analysis was carried out by transferring data from the daily sheets to sheets which related illness to individual patients by year of birth and sex. For this and the subsequent stages of the analysis a Twinlock Multiring Analysis Book (A14/1) was used. Separate sheets were allocated to each sex and each year of birth. A specimen sheet is shown on page 23. Data was transferred to these sheets by the following method: When a patient's first consultation for his first episode was noted from the numbering system his name and number were entered on the appropriate yearly page along with the diagnosis for this episode. Subsequent consultations for the episode were recorded by using the "Cricket Score" method. Further episodes were noted on the same line. When completed, these sheets therefore showed by sex and year of birth the names and numbers of all patients who had attended at least once during the year with all the episodes of illness which they had had and the number of

consultations /

consultations for each episode. Also inserted by symbols were the illnesses for which referrals for consultation, X-ray, etc., had been arranged or which had necessitated late calls.

Following completion of this stage the data had then to be analysed using the eighteen main sub-headings of the International Classification of Diseases. This was again done by using separate sheets for each sex and each year of birth. A specimen sheet is shown on page 24. Numbers 1 - 18 were written across the top of the page and the patients' numbers down the lefthand side in the same order as they appeared on the previous sheets. Each episode of illness was then transferred to the appropriate classification column opposite the patient's number. The number which was actually written in the appropriate column was the number of consultations that the patient had had for the episode. The fact that there was any number in the appropriate column indicated that the patient had had an episode of illness whilst the number itself showed the number of consultations for that episode. The numbers of episodes and consultations were totalled vertically and horizontally so that by adding the vertical and horizontal totals a cross check was made.

YOB
1956 FEMALE.

ANALYSIS OF MORBIDITY - Stage 1.

NO.	NAME									
483	S.S.	① VACCINATION II	② CONJUNCTIVITIS I	③ TONSILLITIS II	④ CORYZA I.					
486	N.O.	① VACCINATION II	② OTITIS MEDIA IIII	③ BRONCHITIS III	④ F.B. L.EAR II	⑤ RUBELLA II	⑥ HERPES SIMPLEX I	⑦ CERVICAL ADENITIS I.	⑧ R.OTITIS MEDIA I	⑨ LARYNGITIS I	⑩ POLIO. IMMUN. I.
671	M.M.	① OTITIS MEDIA III	② URTICARIA II	③ CORYZA I	④ BRONCHITIS IIII	⑤ SCARLET FEVER III	⑥ FOOT STRAIN I	⑦ CERVICAL ADENITIS ~~III~~ I	⑧ EUSTACHIAN CATARRH II	⑨ ULCERATIVE STOMATITIS I	
676	W.G.	① BRONCHITIS III	② CORYZA III	③ CORYZA I	④ OTITIS MEDIA I						
749	C.S	① CORYZA II	② BRONCHITIS III	③ OSC I I	④ DIP-TET IMMUN. II	⑤ RUBELLA I	⑥ STRABISMUS I	⑦ CORYZA I	⑧ TONSILLITIS IIII		
758	C.W	① LIPODYSTROPHY II	② CONJUNCTIVITIS I								
1021	P.T	① TONSILLITIS II	② RUBELLA I	③ HAY FEVER I							
766	M.T	① WRIST SPRAIN I	② NOCTURNAL ENURESIS III	③ URINARY INFECTION I	④ URINARY INFECTION III	⑤ PHARYNGITIS I					
1453	F.W	① RUBELLA I	② TONSILLITIS I.								
1794	J.M.	① LARYNGITIS I									

ANALYSIS OF MORBIDITY - Stage 2.

1956 - FEMALE.

PATIENTS' NUMBER	DIAGNOSTIC CATEGORY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	EPIS.	CONS.
483						1		2,1										2	4	6
486	2,1					4,1	1	3,1									2	2,1	10	18
671	3		2			3,2	7	1,4	1								1		9	24
676						1		5,3,1											4	10
749	1					1,1		2,3,1,4										2	8	15
758			2			1													2	3
1021	1		1					2											3	4
766								1		1,3						5	1		5	11
1433	1							1											2	2
1794								1											1	1
EPIS.	6	0	3	0	0	9	2	17	1	2	0	0	0	0	0	1	3	4	(48)	
CONS.	9	0	5	0	0	15	8	36	1	4	0	0	0	0	0	5	4	7		(94)

FEMALE AGED 0–14

ANALYSIS OF MORBIDITY – Stage 3.

	DIAGNOSTIC CATEGORY																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
PATIENTS CONSULTING	67	2	12	2	5	50	5	106	39	4	0	26	5	4	1	42	21	88	
DITTO PER 1000 PATIENTS	304	9·1	54·6	9·1	22·7	227	22·7	482	177	18·2	0	118	22·7	18·2	4·54	191	95·1	400	
EPISODES	75	2	12	2	5	62	8	169	48	5	0	30	5	4	1	44	23	123	618
DITTO PER 1000 PATIENTS	341	9·1	54·6	9·1	22·7	282	36·4	765	218	22·7	0	136	22·7	18·2	4·54	200	104	558	
CONSULTATIONS	119	2	28	2	6	129	25	320	63	7	0	43	5	7	3	64	31	225	1019
DITTO PER 1000 PATIENTS	541	9·1	127	9·1	27·2	582	113	1180	286	31·8	0	195	22·7	31·7	13·6	290	141	1022	
CONS. PER EPIS.	1·6	1	2·3	1	1·2	2·1	3·1	1·5	1·3	1·4	0	1·4	1	1·7	3·0	1·4	1·3	1·8	1·65

TOTAL IN GROUP — 220

TOTAL CONSULTING — 204 (92·5%)

The next stage was to amalgamate the data into the age groups by sex for each of the sub-headings of the International Classification. As already stated this was first done in age groups 0-4; 5-14; 15-24, etc. The data that could be derived at this stage was as follows for each age group by sex:

1. The number of patients who had consulted at least once under each heading in the diagnostic classification. The total number of patients who had consulted at least once during the year was derived by adding the numbers of patients on each of the sheets in the age group. This total does not equal that derived by adding the number of patients who had consulted under each heading in the classification as some of these patients would consult under various diagnostic headings.
2. The number of episodes of illness under each diagnostic heading and the total number of episodes.
3. The number of consultations under each diagnostic heading and the total number of consultations.

The practice population in each group was obtained from the age-sex register of the practice.

For each age and sex group the number of patients consulting, the number of episodes and the number of consultations under each diagnostic heading were then converted to rates per thousand using the population in the group as the denominator in each case. The average number

of episodes per patient, the average number of consultations per patient and the percentage of patients in each group who had consulted at least once during the year were also calculated, as were the average number of consultations per episode in the group.

The findings in these age groups were then amalgamated into the larger age groups 0-14; 15-44; 45-64 and 65 and over, in a similar way and rates calculated as before. The average number of consultations per episode was also calculated for each diagnostic category in these age groups. A specimen sheet for the final stage of the analysis is shown on page 25.

F I N D I N G S

THE PRACTICE AGE-SEX STRUCTURE

The total practice population on 30th June, 1962, was 2,769, of whom 1,365 (49.4%) were male and 1,404 (50.6%) were female. The age-~~sex~~ structure is as follows:

Age Group (Years)	Actual Number	Percentage of Total List
0-4	177	6.39
5-14	285	10.27
15-24	348	12.53
25-34	321	11.60
35-44	363	13.06
45-54	431	15.57
55-64	425	15.30
65-74	274	9.88
75-84	122	4.40
85 and over	23	0.83

When compared with the age-~~sex~~ structure of Harrow given on page 6, it is seen that there is in the practice an increased population of patients in the age groups over 54 years, 30.41% being over this age, while in Harrow the corresponding figure is 24.13%. There is a corresponding reduction in the proportions in the three age groups under 24 years.

When /

When the practice population is analysed by age and sex the findings are as follows, the percentages shown being those of the total practice population:

	Male		Female	
Age Group (Years)	Actual Number	%	Actual Number	%
Total	1,365	49.4	1,404	50.6
0-4	96	3.46	81	2.93
5-14	146	5.27	139	5.00
15-24	170	6.12	178	6.41
25-34	157	5.68	164	5.92
35-44	176	6.33	187	6.73
45-54	226	8.18	205	7.39
55-64	219	7.90	206	7.40
65-74	125	4.50	149	5.38
75-84	45	1.63	77	2.78
85 and over	5	0.18	18	0.65

The comparison between the age-sex structure of the population in the practice and that in Harrow is shown in Figure 1 on page 30. This shows that the practice decrease in population in the younger age groups and increase in population in the older groups applies to both sexes.

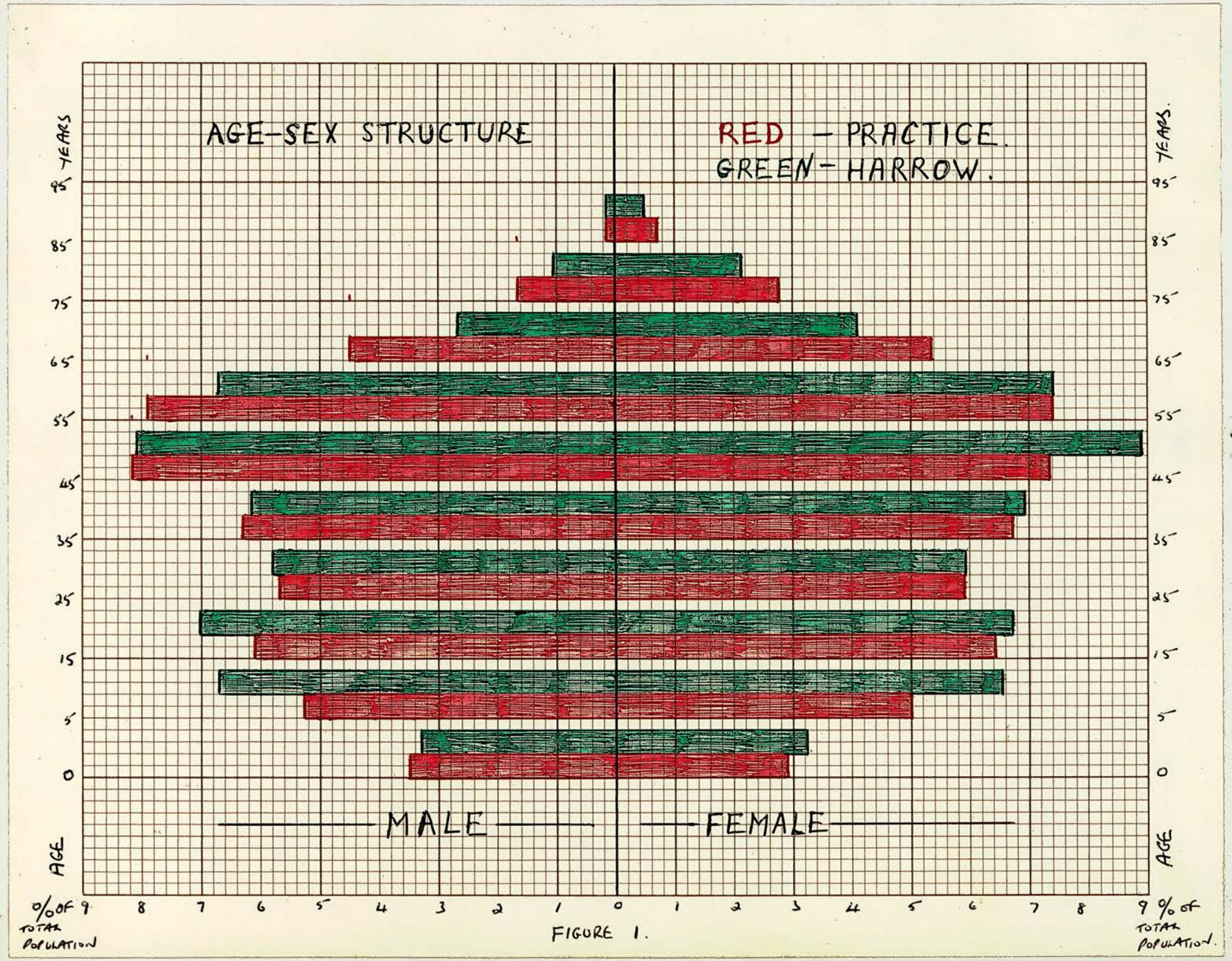
AGE-SEX STRUCTURE
RED - PRACTICE.
GREEN - HARROW.
AGE YEARS
95
85
75
65
55
45
35
25
15
5
0
MALE
FEMALE
9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9
% OF TOTAL POPULATION
% OF TOTAL POPULATION.

FIGURE 1.

MORBIDITY IN THE PRACTICE.

Patient Consulting Rate.

The total number of patients who consulted at least once during 1962 was 2,132, which is 77.0% of the practice total. 74.3% (1,014) of males consulted and 79.6% (1,118) of females. When the findings concerning patients' consulting rates are examined by sex and by decades the results are as follows:

Age (Years)	Male (%)	Female (%)
0-4	100.0	100.0
5-14	84.8	88.4
15-24	85.4	85.6
25-34	79.6	86.3
35-44	60.2	79.9
45-54	63.4	73.2
55-64	65.8	65.4
65-74	68.0	62.9
75 and over	82.0	84.2

This table is shown diagramatically in Figure 2 on page 32.

It is noted that the highest patient consulting rate is in the under 5 year old group. With males the rate reduces gradually till the age of 45 and then increases again with each advancing decade. In females the rate starting with 100% in the under 5 year old group reduces more gradually from then until the age of 75 when it rises steeply. The rate for the three decades 25-54 is consistently higher in females than in males, the greatest difference being 19.7% in the 35-44 years of age group.

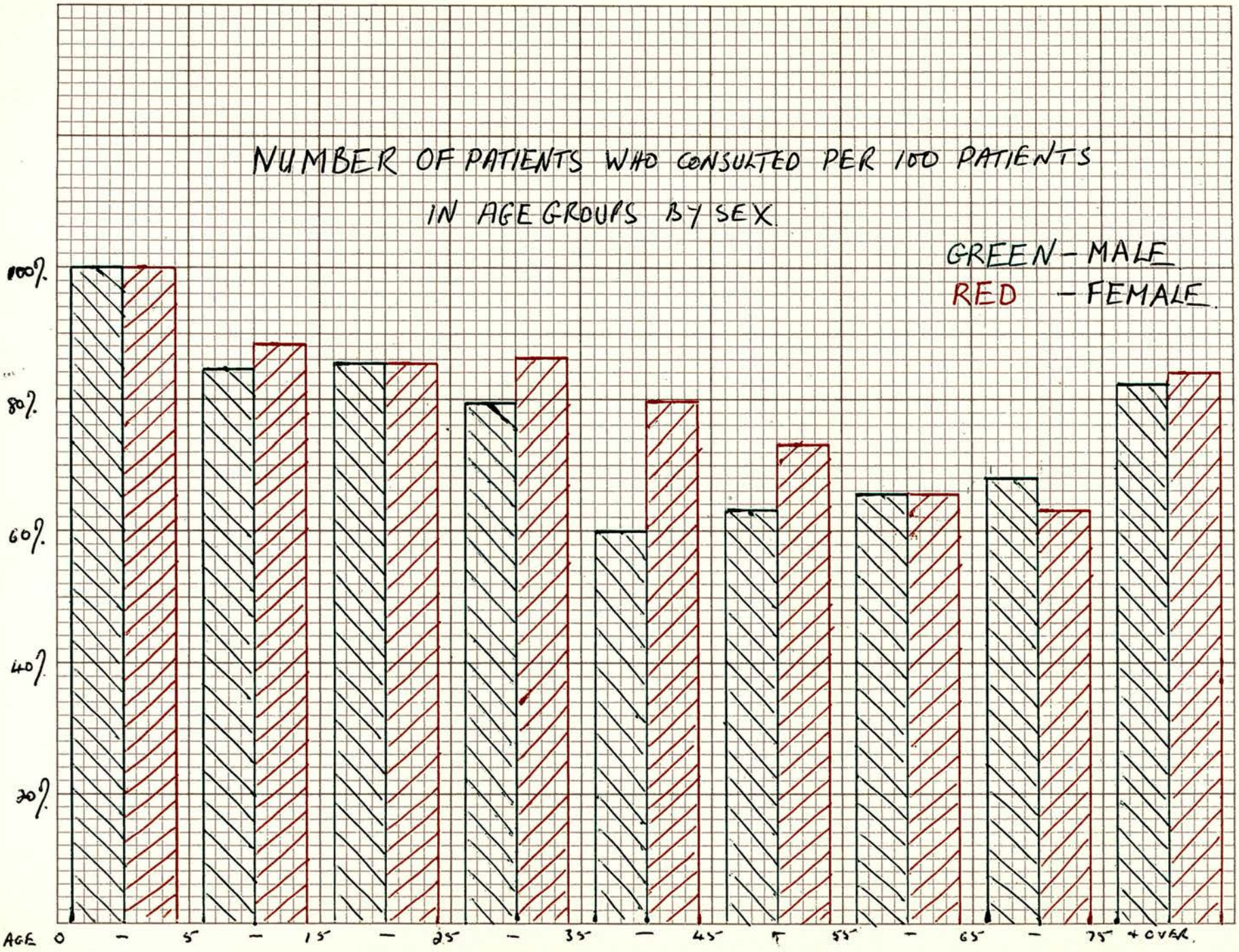
NUMBER OF PATIENTS WHO CONSULTED PER 100 PATIENTS
IN AGE GROUPS BY SEX.
GREEN - MALE
RED - FEMALE
100%
80%
60%
40%
20%
AGE 0 - 5 - 15 - 25 - 35 - 45 - 55 - 65 - 75 + OVER.

FIGURE 2.

Attendance-Visit Ratio.

For the purpose of this part of the study, each time a patient was attended either in the surgery or at home or each time he made a telephone or other contact as defined previously was counted as one consultation whether one or several conditions were being considered at the particular occasion. Thus, the total number of consultations given here will be lower than the total given, for example, when discussing consultation rates as when considering the latter each consultation for each condition is counted separately.

During the year there was a total of 12,092 attendances, of which 7,983 (66%) were surgery attendances; 3,225 (26.7%) were home visits and 884 (7.3%) were "telephone or other" contacts. The attendance-visit (7,983-3,225) ratio is therefore 2.47-1.

When analysed by month the findings are as follows:

Surgery /

	Surgery Attendances	Home Visits	"Telephone or other" contacts
January	915	401	66
February	715	369	67
March	789	408	78
April	629	289	66
May	778	273	72
June	651	223	76
July	551	213	77
August	591	170	69
September	576	151	88
October	671	194	70
November	616	251	81
December	501	283	74
	7,983	3,225	884

The high number of surgery attendances during January is undoubtedly explained by the large number of patients who attended during this month for vaccination following the outbreak of smallpox in Wales.

The Episode of Illness Rate.

The total number of episodes of illness for all patients in the practice during the year was 5,100, giving a rate of 1.83 per patient. 2,285 of these episodes were for male patients, giving a rate of 1.67 per male patient,

and /

and 2,815 episodes were for female patients, giving a rat e for females of 2.00 per patient.

For the comparison of morbidity in the practice and morbidity in adult frequent attenders these rates have to be calculated for patients in the practice aged 15 years or over. These are as follows:

No. of episodes for patients aged 15 or over - 3,817 (1.66 per patient).

No. of episodes for males aged 15 or over - 1,620 (1.44 per patient).

No. of episodes for females aged 15 or over - 2,197 (1.86 per patient).

When analysed by decade and sex the following is found:

Age	Male	Female
0-4	3.54	3.50
5-14	2.3	2.4
15-24	1.73	2.29
25-34	1.42	2.56
35-44	1.28	1.98
45-54	1.32	1.72
55-64	1.34	1.42
65-74	1.54	1.64
Over 75	1.84	2.03

This table is shown diagramatically in Figure 3 on page 36.

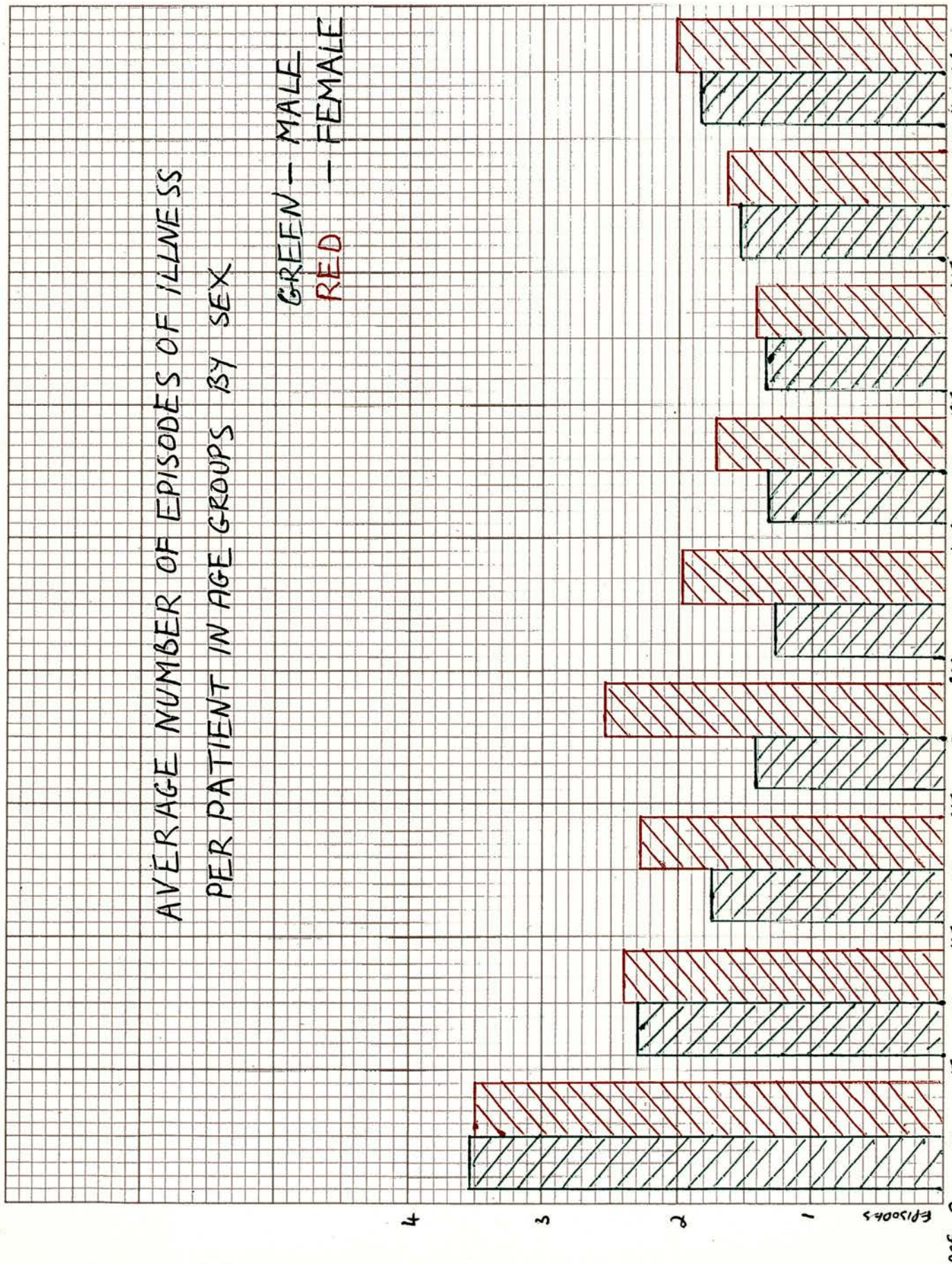
AVERAGE NUMBER OF EPISODES OF ILLNESS
PER PATIENT IN AGE GROUPS BY SEX
GREEN - MALE
RED - FEMALE
EPISODES
0
1
2
3
4
AGE
5
15
25
35
45
55
65
75 & OVER

FIGURE 3.

The episode rate is found to be highest for the 0-4 year old group which is the only group in which the rate is higher in males than females. The rate in males gradually reduces till the age of 44 years and then increases each decade but does not again reach the rate found in childhood.

The female rate reduces till the age of 64 with the exception of the 25-34 year old group where it is higher than expected. After the age of 65 it rises again but, as in males, does not reach the rate found in childhood. The greatest increase over the male rate is found in females aged 15-54.

An analysis of the proportion of adult patients by sex who had a specified number of episodes resulted in the following:

No. of Episodes	0	1	2	3	4	5	6	7	8	9	10 or Over
Per cent. of Male Adults	29.6	31.8	17.6	10.4	5.2	2.3	0.70	0.6	0.5	0.1	0.0
Per cent. of Female Adults	22.2	27.6	20.7	15.0	6.7	3.7	2.1	1.0	0.3	0.2	0.3

A greater proportion of adult male patients have no episodes of illness or one episode of illness in the year, whilst in those patients with two or more illnesses in the year females consistently predominate.

Consultation Rate.

There was a total of 13,014 consultations during the year, which gives a consultation rate of 4.70 per patient. 5,777 of these consultations were for male patients, giving a rate of 4.23, and 7,237 of the consultations for females, giving a rate of 5.15.

For patients aged 15 or over there was a total number of 10,923 consultations, giving a rate of 4.73 per patient. Of these, 4,705 were for male patients, with a rate of 4.18, and for female patients 6,218 with a rate of 5.25.

When analysed by decades and sex the findings are as follows:

	Consultation Rate	
Age	Male	Female
0-4	5.76	5.69
5-14	3.47	3.99
15-24	3.04	4.51
25-34	2.56	5.03
35-44	2.93	4.39
45-54	3.76	4.16
55-64	5.14	4.18
65-74	6.28	7.19
75 and over	10.00	10.70

This table is shown in Figure 4 on page 39.

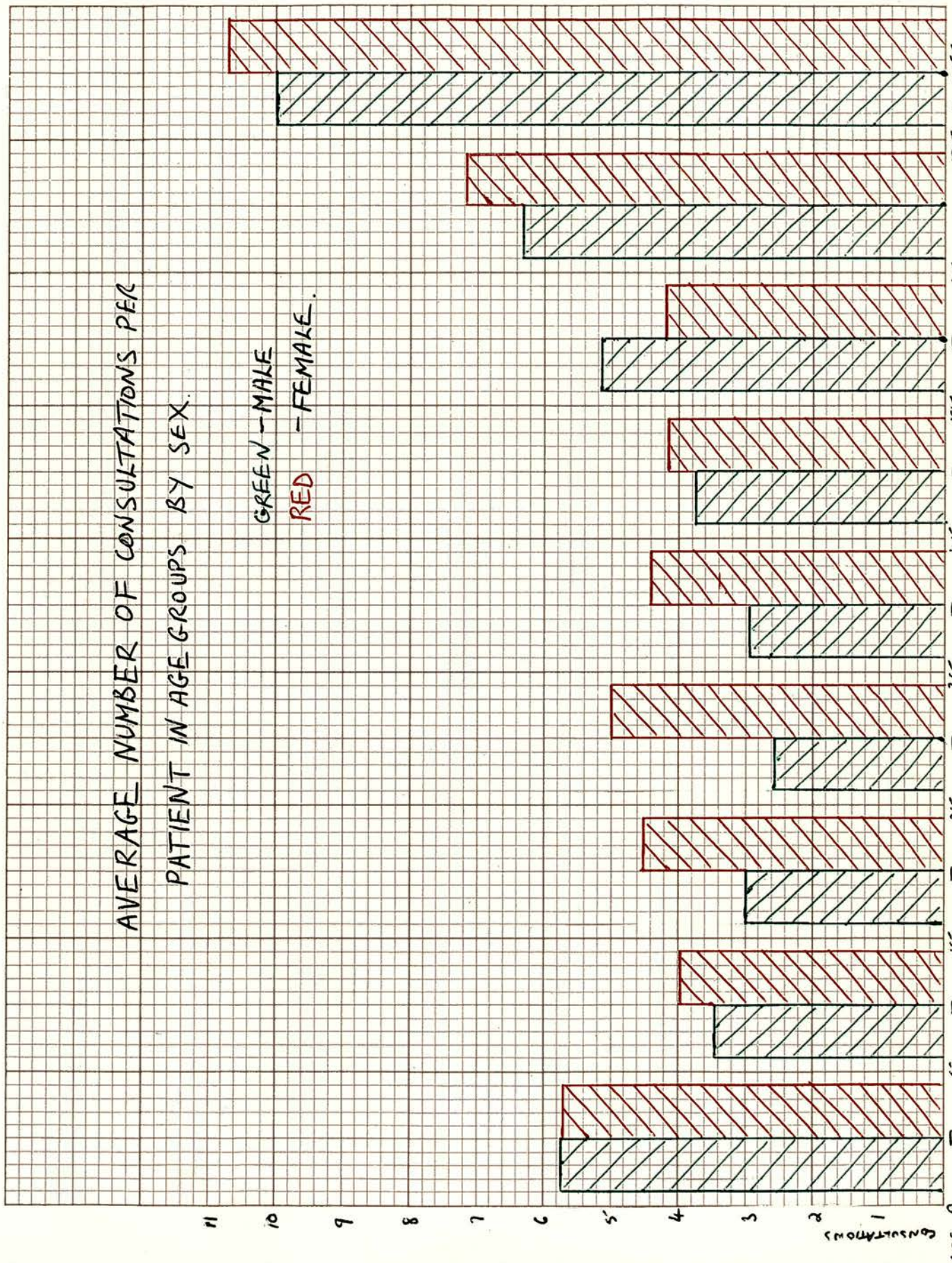
AVERAGE NUMBER OF CONSULTATIONS PER PATIENT IN AGE GROUPS BY SEX.
GREEN - MALE
RED - FEMALE.
CONSULTATIONS
AGE
0
1
2
3
4
5
6
7
8
9
10
11
5'
15'
25'
35'
45'
55'
65'
75' + OVER

FIGURE 4.

The consultation rate is consistently higher for females in each group except in the patients under 5 years of age AND AGED 55-64.

In males it decreases in each decade from the 0-4 year group till the age of 34 years, and then gradually rises reaching the maximum in the elderly. In females it decreases till age 54, with the exception of the 25-34 year old group, and after 54 it increases till it reaches its maximum in the elderly.

Consultations per Episode.

The total number of episodes of illness in the practice during the year was 5,100 and these required 13,014 consultations, so that the average number of consultations per episode was 2.55. In the male practice population there were 2,285 episodes requiring 5,777 consultations, giving an average for males of 2.53, and in females 2,815 episodes with 7,237 consultations, giving an average for females of 2.57.

When episodes and consultations in children under the age of 15 are excluded the figures are as follows:

Total number of episodes	-	3,817
Total number of consultations	-	10,923
Average number of consultations per episode in adults	-	2.86
Number of episodes relating to male adults		1,620
Number of consultations relating to male adults		4,705
Average number of consultations per episode in male adults		2.90

Number /

Number of episodes relating to female adults	-	2,197
Number of consultations relating to female adults	-	6,218
Average number of consultations per episode in female adults		2.83

When analysed by age and sex the following is found:

	Consultations per episode	
Age	Male	Female
0-4	1.66	1.63
5-14	1.56	1.67
15-24	1.76	1.97
25-34	1.89	2.42
35-44	2.28	2.25
45-54	2.85	2.41
55-64	3.77	2.95
65-74	4.07	4.25
75 and over	5.42	5.23

This table is shown in Figure 5 on page 42.

There is no consistency shown in the sex ratio of the average number of consultations per episode. Thus, when considering the total practice population the average number of consultations per episode is slightly higher in females than in males but when adults only are considered the position is reversed. When analysed in decades there is similarly little consistency. It is noted, however, that in the 25-34 year old group, which has already been commented on when considering episode rate and consultation rate, the average number of consultations per episode is high for females.

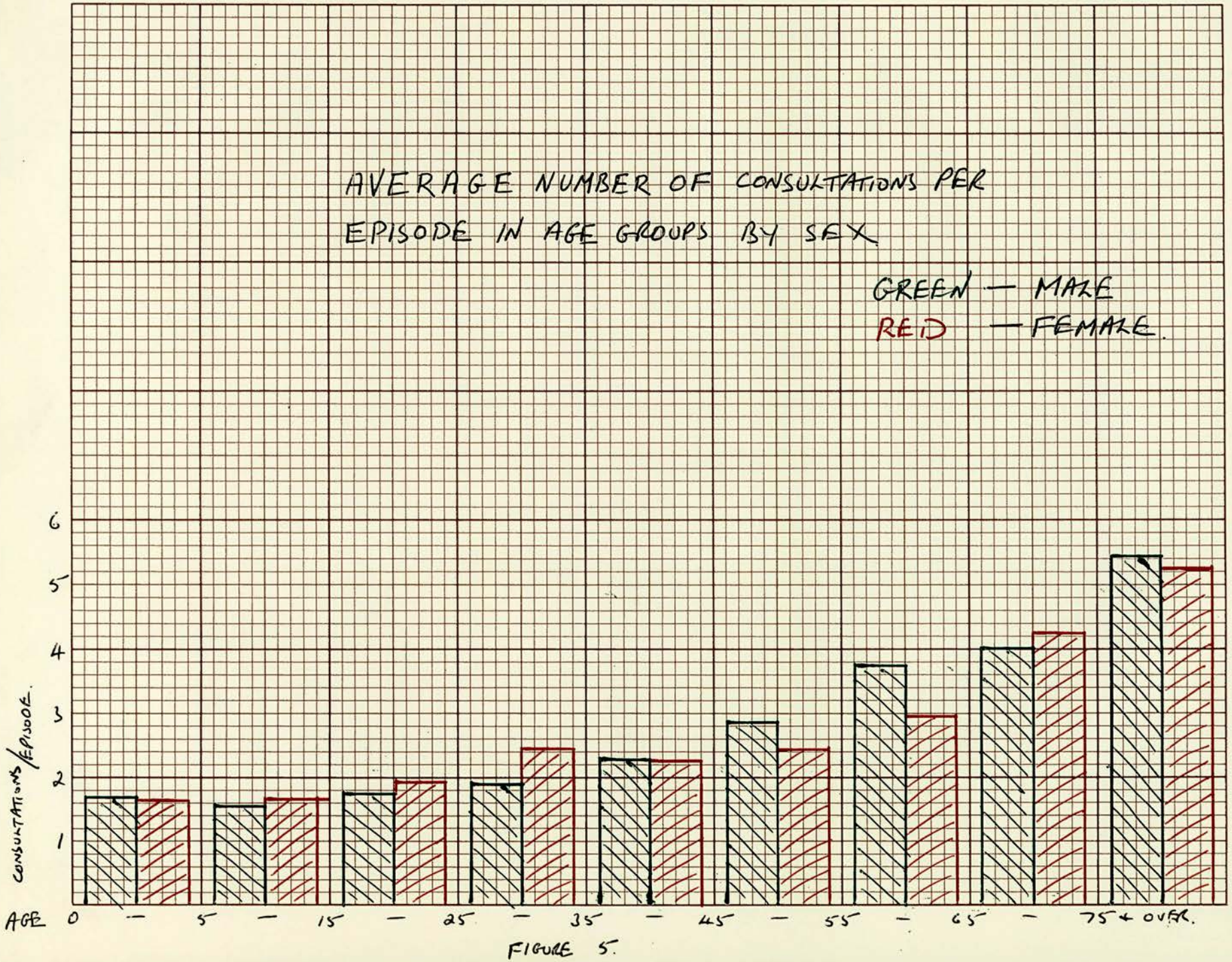
AVERAGE NUMBER OF CONSULTATIONS PER EPISODE IN AGE GROUPS BY SEX.
GREEN — MALE
RED — FEMALE.
CONSULTATIONS/EPISODE.
1
2
3
4
5
6
AGE 0 — 5 — 15 — 25 — 35 — 45 — 55 — 65 — 75+ OVER.

FIGURE 5.

In males, with the exception of the 5-14 year old group, which is low, the average number of consultations per episode gradually increases with advancing age. The same can be said of females with the exception of the 25-34 year old group where the average is high in comparison. When in the practice adult population the number of episodes is analysed by specified number of consultations per episode by sex the findings are as follows:

Consultations per Episode	1	2	3	4	5 or over
Per cent of male adult episodes	48.9%	22.6%	9.0%	4.7%	15.0%
Per cent of female adult episodes	50.05%	21.4%	8.7%	5.5%	13.6%

It is seen that there is little difference in the proportion of males to females who have episodes of illness with a low or high number of consultations per episode and there is no consistency in the changes of proportions.

Referrals in the Practice.

Referrals of patients were mainly to various hospital consultants or departments. 193 referrals were for male patients and 227 for females, making a total of 420. When these are analysed by type of referral in age and sex groups the findings are as follows:

Referrals in male patients by age group.

Age	Out-patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit	Patients in Group	Episodes in Group
0-4	9	2	1	2	0	0	0	96	340
5-14	11	2	3	0	2	0	0	146	325
15-24	7	2	6	0	1	0	0	170	293
25-34	3	1	4	1	1	1	0	157	223
35-44	9	1	4	1	3	2	0	176	225
45-54	18	0	7	2	3	1	1	226	300
55-64	27	5	13	0	1	5	2	219	294
65-74	16	5	1	0	1	0	0	125	193
75 & over	7	7	1	0	1	0	0	50	92
Total	97	25	40	6	13	9	3	1,365	2,285

Referrals in female patients by age group.

Age	Out-patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit	Patients in Group	Episodes in Group
0-4	4	0	1	0	0	0	0	81	284
5-14	11	0	3	2	0	0	0	139	334
15-24	23	3	4	4	1	1	0	178	407
25-34	19	8	7	10	2	0	0	164	342
35-44	18	4	5	1	1	0	0	187	365
45-54	22	1	0	3	2	2	0	205	353
55-64	15	3	3	1	2	1	1	206	294
65-74	4	4	2	3	1	3	0	149	243
75 & over	8	9	1	2	0	1	1	95	193
Total	124	32	26	26	9	8	2	1,404	2,815

To permit comparison with other published findings the figures have been converted to rates per 100 patients in each age-sex group. The total referrals in the practice is equivalent to a rate of 15.07 per 100 patients, the male rate being 14.08 and the female 16.09. The full findings in rates per 100 patients are as follows:

Referrals per 100 male patients by age-group.

Age	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
0-4	9.3	2.1	1.1	2.1	0.0	0.0	0.0
5-14	7.5	1.4	2.1	0.0	1.4	0.0	0.0
15-24	4.1	1.2	3.5	0.0	0.6	0.0	0.0
25-34	1.9	0.6	2.5	0.6	0.6	0.6	0.0
35-44	5.1	0.5	2.3	0.5	1.7	1.1	0.0
45-54	8.0	0.0	3.1	0.9	1.3	0.4	0.4
55-64	12.3	2.3	5.9	0.0	0.5	2.3	0.9
65-74	12.8	4.0	0.8	0.0	0.8	0.0	0.0
75 and over	14.0	14.0	2.0	0.0	2.0	0.0	0.0
Totals	7.1	1.8	2.9	0.4	0.9	0.7	0.2

Referrals per 100 female patients by age-group.

Age	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
0-4	5.0	0.0	1.2	0.0	0.0	0.0	0.0
5-14	7.9	0.0	2.2	1.4	0.0	0.0	0.0
15-24	12.9	1.7	2.2	2.2	0.6	0.6	0.0
25-34	11.6	4.9	4.3	6.1	1.2	0.0	0.0
35-44	9.6	2.1	2.7	0.5	0.5	0.0	0.0
45-54	10.7	0.5	0.0	1.5	1.0	1.0	0.0
55-64	7.3	1.5	1.5	0.5	1.0	0.5	0.5
65-74	2.7	2.7	1.3	2.0	1.3	2.0	0.0
75 and over	8.4	9.5	1.0	2.1	0.0	1.0	1.0
Total	8.9	2.3	1.9	1.9	0.6	0.6	0.1

Patients were referred much more frequently for outpatient consultation than any other type of referral, the next most frequent being for X-ray, followed closely by direct admission to hospital. The lower referral rates for physio-therapy, domiciliary consultations and to the casualty department can probably be explained. There is a fairly long waiting list for physio-therapy so that there is a certain amount of reluctance to refer patients to this department. It is the custom in this area for accident cases to go straight to the casualty department of hospitals and as in these cases there is no intervention by the general practitioner these are not considered as referrals in this survey. The choice of hospitals in the area and the proximity to the London teaching hospitals where patients can be seen with little waiting time for outpatient appointments possibly accounts for the low domiciliary consultation rate.

In male patients the referral rate for outpatient consultations is twice as high in the 0-4 year old group than it is for females. It then reduces gradually till it reaches the lowest in the 25-34 year old group, after which it increases to reach its peak in the elderly. In females the referral rate for outpatient consultations follows a different pattern, increasing from infancy till it reaches its maximum in the 15-24 year old group. It then stays relatively high till age 54 when it reduces

until /

until age 75. After this it rises abruptly but still does not reach the rate for adult males.

With direct admissions to hospital of male patients the rate per 100 patients falls from 2.1 in the 0-4 year old group gradually till it reaches 0 in the 45-54 year old group, after which it gradually rises to reach its maximum in the elderly. With females there were no direct admissions under the age of 15, after which age it remained fairly low till the age of 65, with the exception of the 25-34 year old group. After 75 the rate rises steeply.

With referrals for X-ray the peak rate in males is in the 55-64 year old group, which probably reflects the awareness concerning bronchial carcinoma in this group. In the female the peak is in the 25-34 year old group.

The higher referral rate in females for pathological investigation probably reflects the higher incidence of blood disorders in females.

There is little comment to be made concerning other referrals.

For the comparison with the group of frequent attenders it was considered more suitable to use the referral rate per 1,000 episodes as follows for the adult patients in the practice.

Referral Rate per 1,000 Episodes of Illness.

	Out patient Consultation	Direct Admission	X-ray	Pathology	Casualty	Physiotherapy	Domiciliary Visit
Adult Males	47.5	12.9	22.2	2.5	6.8	5.5	1.9
Adult Females	49.5	14.5	10.0	10.4	4.1	3.6	0.9
Total Adults	48.6	13.8	15.1	7.3	5.2	4.4	1.3

The total number of referrals is equivalent to a rate of 95.7 per 1,000 episodes in adults.

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Late Calls.

During the year there were 45 requests for the practitioner's services made between the hours of 8 p.m. and 8 a.m. 18 of these were for male patients and 27 for females. The 45 calls give a rate of 1.62 per 100 patients, or 8.8 per 1,000 episodes. 0.37% of all attendances required a late call.

When using rate per 100 patients and analysed by age-sex groups the findings concerning these late calls are as follows:

Age	Male	Female
0-4	3.54	3.50
5-14	2.3	2.40
15-24	1.73	2.29
25-34	1.42	2.56
35-44	1.28	1.98
45-54	1.32	1.72
55-64	1.34	1.42
65-74	1.54	1.64
75 and over	1.84	2.03

The greatest difference in the sex ratio is seen to be in the 25-44 year old group. In both sexes the highest late call rate is in the youngest age group. With males the rate gradually decreases till age 45 then increases, but even in the elderly the rate is still only half of that pertaining to the under 5 year old group. In females, with the exception of the 25-34 year old group, the rate

decreases /

decreases till the age of 65 and then increases in the older groups.

Analysis of Morbidity in the Practice by Age, Sex and Diagnostic Group.

Throughout this analysis the diagnostic grouping used is that of the eighteen main headings of the International Classification of Diseases, 1955, published by the World Health Organisation. As previously stated, there is one exception to this. All attendances for obstetrics, including attendances for routine care, are included under Group 11, which normally only includes "Deliveries and Complications of Pregnancy, Childbirth and the Puerperium". The age groups chosen for the analysis are those of the "natural" age groups, being 0-14 years, 15-44 years, 45-64 years and over 64 years. Under each diagnostic group for each age and sex group will be given:

1. The actual number of patients in the age group who attended for each diagnostic heading and the same figures converted to the number attending per 1,000 patients in the age-sex group.
2. The actual number of episodes of illness which occurred under each diagnostic heading in each age-sex group and the same figures converted to the number of episodes of illness per 1,000 patients in the age-sex group.

3. /

3. The actual number of consultations which took place under each diagnostic heading in each age-sex group and the same figures converted to the number per 1,000 population in the age-sex group.
4. For patients over the age of 14 years the number of episodes under each diagnostic heading in each age-sex group has also been converted to a percentage of the total number of all episodes in that age-sex group to give the proportion of episodes in the group under each diagnostic heading.
5. A similar analysis to (4) has been carried out using consultations instead of episodes.
6. The average number of consultations per episode has been calculated in all adult age-sex groups for each diagnostic heading.

The findings of this part of the analysis are shown in the Tables on pages 55 - 62.

ANALYSIS OF PRACTICE MORBIDITY - Males aged 0 - 14 years.

Total in group - 242.

Total who consulted - 224 (92.2%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	
1. INFECTIVE + PARASITIC DISEASES	56	232	67	277	93	384	1·4
2. NEOPLASMS	0	0	0	0	0	0	0
3 ALLERGIC ENDOCRINE METABOLIC + NUTRITIONAL DISORDERS	17	70·0	18	74·2	23	95	1·3
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	4	16·5	4	16·5	12	49·6	3·0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	5	20·6	5	20·6	6	24·8	1·2
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	44	182	50	206	82	338	1·6
7 DISEASES OF CIRCULATORY SYSTEM	10	41·3	11	45·4	29	120	2·6
8 DISEASES OF RESPIRATORY SYSTEM	116	478	195	805	303	1300	1·7
9 DISEASES OF DIGESTIVE SYSTEM	29	120	36	149	54	223	1·5
10 DISEASES OF GENITO-URINARY SYSTEM	6	24·8	6	24·8	9	37·1	1·5
11 PREGNANCY	0	0	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	49	203	58	239	108	445	1·9
13 DISEASES OF BONES + ORGANS OF MOVEMENT	3	12·4	3	12·4	3	12·4	1·0
14 CONGENITAL MALFORMATIONS	6	24·8	6	24·8	11	45·4	1·8
15 CERTAIN DISEASES OF EARLY INFANCY	2	8·3	2	8·3	2	8·3	1·0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	14	57·8	26	108	36	149	1·4
17 ACCIDENTS, POISONING + VIOLENCE	37	153	46	190	60	248	1·3
18 NON-SICKNESS	94	387	132	542	241	996	1·8

ANALYSIS OF PRACTICE MORBIDITY - Females aged 0 - 14 years.

Total in group - 220.

Total who consulted - 204 (92.5%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	
1. INFECTIVE + PARASITIC DISEASES	67	304	75	341	119	541	1.6
2. NEOPLASMS	2	9.1	2	9.1	2	9.1	1.0
3 ALLERGIC ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	12	54.6	12	54.6	28	127	2.3
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	2	9.1	2	9.1	2	9.1	1.0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	5	22.7	5	22.7	6	27.2	1.2
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	50	227	62	282	129	582	2.1
7 DISEASES OF CIRCULATORY SYSTEM	5	22.7	8	36.4	25	113	3.1
8 DISEASES OF RESPIRATORY SYSTEM	106	482	169	765	260	1180	1.5
9 DISEASES OF DIGESTIVE SYSTEM	39	177	48	218	63	286	1.3
10 DISEASES OF GENITO-URINARY SYSTEM	4	18.2	5	22.7	7	31.8	1.4
11 PREGNANCY	0	0	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	26	118	30	136	43	195	1.4
13 DISEASES OF BONES + ORGANS OF MOVEMENT	5	22.7	5	22.7	5	22.7	1.0
14 CONGENITAL MALFORMATIONS	4	18.2	4	18.2	7	31.7	1.7
15 CERTAIN DISEASES OF EARLY INFANCY	1	4.54	1	4.54	3	13.6	3.0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	42	191	44	200	64	290	1.4
17 ACCIDENTS, POISONING + VIOLENCE	21	95.1	23	104	31	141	1.3
18 NON-SICKNESS	88	400	123	558	225	1022	1.8

ANALYSIS OF PRACTICE MORBIDITY - Males aged 15 - 44 years.

Total in group - 503.

Total who consulted - 376 (74.8%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING.		EPISODES			CONSULTATIONS			CONS. PER. EPIS.
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	% OF EPIS.	ACTUAL NO.	PER 1000 PATIENTS	% OF CONS	
1. INFECTIVE + PARASITIC DISEASES.	25	49.5	25	49.5	3.36	77	153	5.34	3.1
2. NEOPLASMS.	4	7.9	4	7.9	0.54	15	29.7	1.04	3.7
3. ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	36	71.4	37	73.3	4.97	58	175	4.03	1.6
4. DISEASES OF BLOOD + BLOOD-FORMING ORGANS	1	1.98	1	1.98	0.13	1	1.98	0.07	1.0
5. MENTAL, PSYCHONEUROTIC, + PERSONALITY DISORDERS	31	61.6	32	63.4	4.3	100	198	6.93	3.1
6. DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	50	99.2	57	113	7.67	84	167	5.7	1.5
7. DISEASES OF CIRCULATORY SYSTEM	15	29.7	16	31.7	2.15	30	59.6	2.08	1.9
8. DISEASES OF RESPIRATORY SYSTEM	130	258	171	338	22.9	325	645	22.6	1.9
9. DISEASES OF DIGESTIVE SYSTEM	61	125	69	137	9.3	125	248	8.7	1.8
10. DISEASES OF GENITO-URINARY SYSTEM	8	15.8	8	15.8	1.08	19	37.6	1.32	2.4
11. PREGNANCY	0	0	0	0	0	0	0	0	0
12. DISEASES OF SKIN + CELLULAR TISSUE	64	127	72	143	9.7	145	288	10.4	2.0
13. DISEASES OF BONES + ORGANS OF MOVEMENT	29	57.3	30	59.6	4.05	73	145	5.08	2.4
14. CONGENITAL MALFORMATIONS.	0	0	0	0	0	0	0	0	0
15. CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0	0	0	0	0
16. SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	29	57.3	31	61.6	4.17	51	101	3.54	1.7
17. ACCIDENTS, POISONING. + VIOLENCE	71	141	73	145	9.85	151	299	10.48	2.1
18. NON-SICKNESS	103	204	115	228	15.25	183	363	12.7	1.6

ANALYSIS OF PRACTICE MORBIDITY - Females aged 15 - 44 years.

Total in group - 529.

Total who consulted - 453 (85.6%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING.		EPISODES			CONSULTATIONS			CONS. PER EPIS
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO	PER 1000 PATIENTS	% OF EPIS.	ACTUAL NO.	PER 1000 PATIENTS	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	29	55	31	58·8	2·28	65	123	2·65	2·0
2 NEOPLASMS	2	3·8	2	3·8	0·18	4	75·8	0·16	2·0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	52	98·2	54	103	4·24	143	272	5·85	2·65
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	14	26·6	13	24·6	1·14	26	49·2	1·06	2·0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	48	91·2	51	96·4	4·56	198	375	8·05	3·9
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	57	108	61	116	5·47	125	236	5·1	2·1
7 DISEASES OF CIRCULATORY SYSTEM	32	63·4	35	66·4	3·08	94	174	3·75	2·7
8 DISEASES OF RESPIRATORY SYSTEM	176	334	245	464	21·2	452	856	18·4	1·8
9 DISEASES OF DIGESTIVE SYSTEM	59	112	68	129	6·0	162	308	6·6	2·4
10 DISEASES OF GENITO-URINARY SYSTEM	82	155	90	172	8·06	172	326	7·01	1·9
11 PREGNANCY	68	129	70	133	6·28	382	724	15·6	5·5
12 DISEASES OF SKIN + CELLULAR TISSUE	71	134	82	155	7·36	136	258	5·54	1·7
13 DISEASES OF BONES + ORGANS OF MOVEMENT	39	74	39	74	3·5	55	104	2·24	1·4
14 CONGENITAL MALFORMATIONS	0	0	0	0	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	55	104	60	114	5·38	101	191	4·12	1·7
17 ACCIDENTS, POISONING + VIOLENCE	70	133	75	142	6·82	104	197	4·4	1·4
18 N.D.I - SICKNESS)	124	236	138	262	12·4	234	442	9·54	1·7

ANALYSIS OF PRACTICE MORBIDITY - Males aged 45 - 64 years.

Total in group = 445.

Total who consulted - 288 (64.6%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES			CONSULTATIONS			CONS PER EPIS
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	% OF EPIS	ACTUAL NO.	PER 1000 PATIENTS	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	8	17.9	8	17.9	1.35	20	44.8	1.01	2.5
2 NEOPLASMS	6	13.5	6	13.5	1.04	28	62.8	1.42	4.7
3 ALLERGIC ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	24	53.8	26	58.4	4.36	82	182	4.13	3.15
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	4	8.98	4	8.98	6.74	22	49.2	1.11	5.5
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	31	69.6	34	76.4	5.7	142	318	7.16	4.2
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	55	123	64	144	10.74	129	289	6.0	2.0
7 DISEASES OF CIRCULATORY SYSTEM	31	69.6	34	76.4	5.7	222	496	11.2	6.5
8 DISEASES OF RESPIRATORY SYSTEM	116	262	142	318	23.8	551	1244	27.8	3.9
9 DISEASES OF DIGESTIVE SYSTEM	62	139	71	159	11.9	215	482	10.08	3.0
10 DISEASES OF GENITO-URINARY SYSTEM	9	20.2	10	22.4	1.68	53	119	2.66	5.3
11 PREGNANCY	0	0	0	0	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	34	76.4	36	80.8	6.04	104	234	5.23	2.9
13 DISEASES OF BONES + ORGANS OF MOVEMENT	57	128	66	148	11.1	190	426	9.6	2.9
14 CONGENITAL MALFORMATIONS	0	0	0	0	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	21	47.2	22	49.2	3.7	48	108	2.42	2.2
17 ACCIDENTS, POISONING + VIOLENCE	46	103	49	110	8.25	135	304	6.8	2.3
18 NON-SICKNESS	22	49.2	22	49.2	3.7	37	83.1	1.87	1.7

ANALYSIS OF PRACTICE MORBIDITY - Females aged 45 - 64 years.

Total in group - 411.

Total who consulted - 287 (69.8%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES			CONSULTATIONS			CONS PER EPIS.
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO.	PER 1000 PATIENTS	% OF EPIS	ACTUAL NO	PER 1000 PATIENTS	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	6	14.6	6	14.6	0.93	15	36.5	0.87	2.5
2 NEOPLASMS	3	7.3	3	7.3	0.46	3	7.3	0.17	1.0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	26	63.2	26	63.2	4.02	96	233	5.6	3.7
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	5	12.4	5	12.4	0.77	17	41.3	0.99	3.4
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	52	126	53	129	8.2	246	598	14.34	4.6
6 DISEASES OF NERVOUS SYSTEM + SENSE-ORGANS	52	126	56	136	8.64	136	332	7.96	2.4
7 DISEASES OF CIRCULATORY SYSTEM	42	101	43	104	6.57	198	480	11.54	4.6
8 DISEASES OF RESPIRATORY SYSTEM	111	268	142	345	22.0	297	722	17.3	2.1
9 DISEASES OF DIGESTIVE SYSTEM	58	141	62	150	9.6	170	413	9.9	2.7
10 DISEASES OF GENITO-URINARY SYSTEM	45	109	47	114	7.24	116	282	6.76	2.5
11 PREGNANCY	0	0	0	0	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	41	99.5	43	104	6.57	83	201	4.85	1.9
13 DISEASES OF BONES + ORGANS OF MOVEMENT	65	158	71	173	11.0	168	408	9.76	2.4
14 CONGENITAL MALFORMATIONS	0	0	0	0	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY IN FAMILY	0	0	0	0	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	26	63.2	26	63.2	4.02	56	136	3.26	2.2
17 ACCIDENTS, POISONING + VIOLENCE	33	80.2	39	94.8	6.02	65	158	3.78	1.7
18 NON-SICKNESS.	24	58.4	25	60.8	3.86	50	124	2.92	2.0

ANALYSIS OF PRACTICE MORBIDITY - Males aged 65 and over.

Total in group - 175.

Total who consulted - 126 (72.0%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES			CONSULTATIONS			CONS. PER EPIS
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO	PER 1000 PATIENTS	% OF EPIS.	ACTUAL NO.	PER 1000 PATIENTS	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	5	28.6	5	28.6	1.8	31	177	2.3	6.2
2 NEOPLASMS	7	40.0	7	40.0	2.5	58	332	4.5	8.3
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	0	0	0	0	0	0	0	0	0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	13	74.2	13	74.2	4.6	38	217	2.9	3.0
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	25	143	28	160	9.8	108	617	8.4	3.9
7 DISEASES OF CIRCULATORY SYSTEM	33	188	33	188	10.8	315	1800	24.4	9.5
8 DISEASES OF RESPIRATORY SYSTEM	56	322	80	457	28.2	322	1840	24.9	4.0
9 DISEASES OF DIGESTIVE SYSTEM	34	194	36	206	12.6	143	816	11.1	4.0
10 DISEASES OF GENITO-URINARY SYSTEM	8	45.7	8	45.7	2.8	58	332	4.5	7.25
11 PREGNANCY	0	0	0	0	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	18	103	21	120	7.3	73	407	5.7	3.5
13 DISEASES OF BONES + ORGANS OF MOVEMENT	18	103	19	109	6.7	43	246	3.3	2.3
14 CONGENITAL MALFORMATIONS	0	0	0	0	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	11	62.8	12	68.6	4.2	37	212	2.9	3.1
17 ACCIDENTS, POISONING + VIOLENCE	14	80.0	15	85.6	5.2	52	297	4.0	3.5
18 NON-SICKNESS	8	45.7	8	45.7	2.8	10	57.4	0.8	1.25

ANALYSIS OF PRACTICE MORBIDITY - Females aged 65 and over.

Total in group - 244.

Total who consulted - 174 (71.3%)

DIAGNOSTIC CATEGORY	PATIENTS CONSULTING		EPISODES			CONSULTATIONS			CONS. PER EPIS.
	ACTUAL NO.	PER 1000 PATIENTS	ACTUAL NO	PER 1000 PATIENTS	% OF EPIS.	ACTUAL NO.	PER 1000 PATIENTS	% OF CONS.	
1. INFECTIVE + PARASITIC DISEASES	5	20.5	5	20.5	1.1	7	28.7	0.3	1.4
2. NEOPLASMS	3	12.3	3	12.3	0.7	33	186	1.6	11.0
3. ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISORDERS	8	32.8	8	32.8	1.8	48	197	2.3	6.0
4. DISEASES OF BLOOD + BLOOD-FORMING ORGANS	8	32.8	8	32.8	1.8	85	348	4.1	10.5
5. MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	23	94.4	27	111	6.2	191	782	9.3	7.0
6. DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	41	168	51	209	11.8	170	698	8.3	3.3
7. DISEASES OF CIRCULATORY SYSTEM	47	193	52	214	12.0	375	1540	18.3	7.2
8. DISEASES OF RESPIRATORY SYSTEM	65	266	81	333	18.5	253	1038	12.4	3.1
9. DISEASES OF DIGESTIVE SYSTEM	36	148	39	161	8.9	151	620	7.3	3.9
10. DISEASES OF GENITO-URINARY SYSTEM	14	57.4	14	57.4	3.2	38	156	1.8	2.7
11. PREGNANCY	0	0	0	0	0	0	0	0	0
12. DISEASES OF SKIN + CELLULAR TISSUE	19	78	20	82.2	4.6	56	230	2.7	2.8
13. DISEASES OF BONE + ORGANS OF MOVEMENT	66	270	67	275	15.3	367	1510	17.9	5.5
14. CONGENITAL MALFORMATIONS	0	0	0	0	0	0	0	0	0
15. CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0	0	0	0	0
16. SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	26	107	28	115	6.4	174	714	8.5	6.2
17. ACCIDENTS, POISONING + VIOLENCE	26	107	27	111	6.2	76	76	3.7	2.8
18. NON-SICKNESS	6	24.6	6	24.6	1.4	25	25	1.2	4.2

When attempting to discuss morbidity in one practice in such a way as to make it comparable to findings published from other practices difficulties immediately present. This applies particularly if one is comparing the proportion of rates of any kind amongst the various diagnostic headings. The rates under these headings are affected by so many factors that it is not surprising that there is a marked discrepancy in the figures published. The particular year of the survey will have some effect, especially in the seasonal, climate dependent and infectious illnesses. The area in which the practice is situated may have some effect and the special interests of the practitioner will do so also. Nevertheless, there are some points of interest which arise from a comparison between rates under the diagnostic headings.

The patient consulting rate, episode rate and consultation rate for every age and sex group is highest for diseases of the respiratory system, with one exception. In female patients over the age of 64 years the patient consulting rate in diseases of bones and organs of movement is slightly higher, and in the same group the consultation rate is higher for both diseases of the circulatory system and for diseases of bones and organs of movement.

In children of both sexes the second highest rates are produced under the heading of "Non-Sickness". Almost 50% of both sexes in this age group attended at least once

with /

with a respiratory illness and approximately 40% attended under the heading of "Non-Sickness", this being explained by the numbers attending the Child Welfare Clinic for immunization procedures. This rate in itself is probably higher than expected due to the increased number of requests for vaccination due to the Welsh smallpox outbreak which occurred early in 1962. This factor possibly explains too the high patient consulting rate for "Non-Sickness" in the 15-44 years of age group. Not only was there a demand for vaccination at the time of the outbreak but several foreign countries for some time after requested International Certificates of Vaccination as a condition of entry. In children there are also high rates for infectious diseases, diseases of the nervous system and sense organs, the majority of the latter being related to otitis media, diseases of the skin especially in males, symptoms or ill-defined conditions which produced higher rates in females, and diseases of the digestive system.

In patients between the ages of 15 and 44, 25% to 30% attended at least once for a respiratory illness and just over 20% for non-sickness. In males there was a high proportion of consultations due to diseases of the skin and alimentary system and to accidents. In females the second highest consultation rate was under the heading of "Pregnancy", the other diagnostic headings having high rates being diseases of the genito-urinary system,

alimentary system and skin. Psychiatric conditions occupied a high proportion of the consultations in females and in a group where the average number of consultations per episode is generally low the average for psychiatric conditions is only exceeded by that of neoplasms in the male and for pregnancy in the female.

In the 45-64 years of age group the rates under the heading of Diseases of the Circulatory System begin to assume greater proportions in both sexes, taking the second highest consultation rate for males and third for females. In females the consultation rate for psychiatric conditions comes between that for respiratory disease and for diseases of the circulatory system. The rates for diseases of bones and organs of movement also increase. Approximately 25% of all patients had a respiratory illness. In patients over 64 years of age diseases of the circulatory system come into even greater proportions in both sexes, and although the patient consulting rate is much lower than that for disease of the respiratory system in both sexes the consultation rate for these two diagnostic groups is almost equal in males and 50% higher for circulatory disease in females. This is shown too by the high average number of consultations per episode in circulatory diseases. Diseases of the alimentary system have high rates in both sexes. In males diseases of the genito-urinary system, although having a relatively low patient consulting rate

have /

have a high proportion of consultations as compared with females. In females particularly there are high rates in this age group under the heading of "Diseases of Bones and Organs of Movement".

When one considers the pattern of morbidity in all age and sex groups under each individual diagnostic heading rather than the pattern of morbidity in all diagnostic headings under one age-sex group there would appear to be the possibility of having more grounds for comparison with findings from other practices. If factors such as the particular year chosen for the study, the area in which the practice is situated and the personal interests of the practitioner might alter the rates under each diagnostic heading, they would seem less likely to influence to the same extent the proportions of illness between different age groups and between the sexes under each individual diagnostic heading. In most studies no episode rates are given and for purposes of this comparison the patient consulting rate has been chosen as the main criterion. The patient consulting rate is patient-initiated, whilst the consultation rate can be influenced by the habits of the practitioner. The patient consulting rate, however, gives no clue to the degree of severity of the illness and in an attempt to remedy this the average number of consultations per episode in each diagnostic heading for each age and sex group has been studied. Patient consulting rates

for /

for each diagnostic heading by age and sex groups and the average number of consultations per episode for these headings by age and sex group are shown in figures 6 - 23 on pages 68 - 73. The patient consulting rates are given as the number per 1,000 patients in the group.

With infective and parasitic diseases the highest incidence is as expected in the under 15 year olds with females (304 per 1,000) having a higher rate than males (232). The main cause of morbidity under this heading in 1962 was rubella, of which the mild nature and comparative lack of complications explained the low number of consultations per episode (1.5). There is a very low patient consulting rate (less than 20 per 1,000) under this heading in the 45-64 years of age group and then the rate increases slightly in the over 64 years group. The most common diagnoses in the elderly group were herpes zoster or herpes simplex. The higher average number of consultations in the elderly males than in females is due to the fact that there were two cases of pulmonary tuberculosis requiring frequent consultations in this group.

There is a low patient consulting rate for neoplasms. Even in the oldest age group only ten patients consulted, seven of whom were male. The highest average number of consultations per episode is in the elderly where most of the neoplasms were malignant (8.3 in males and 11.0 in females).

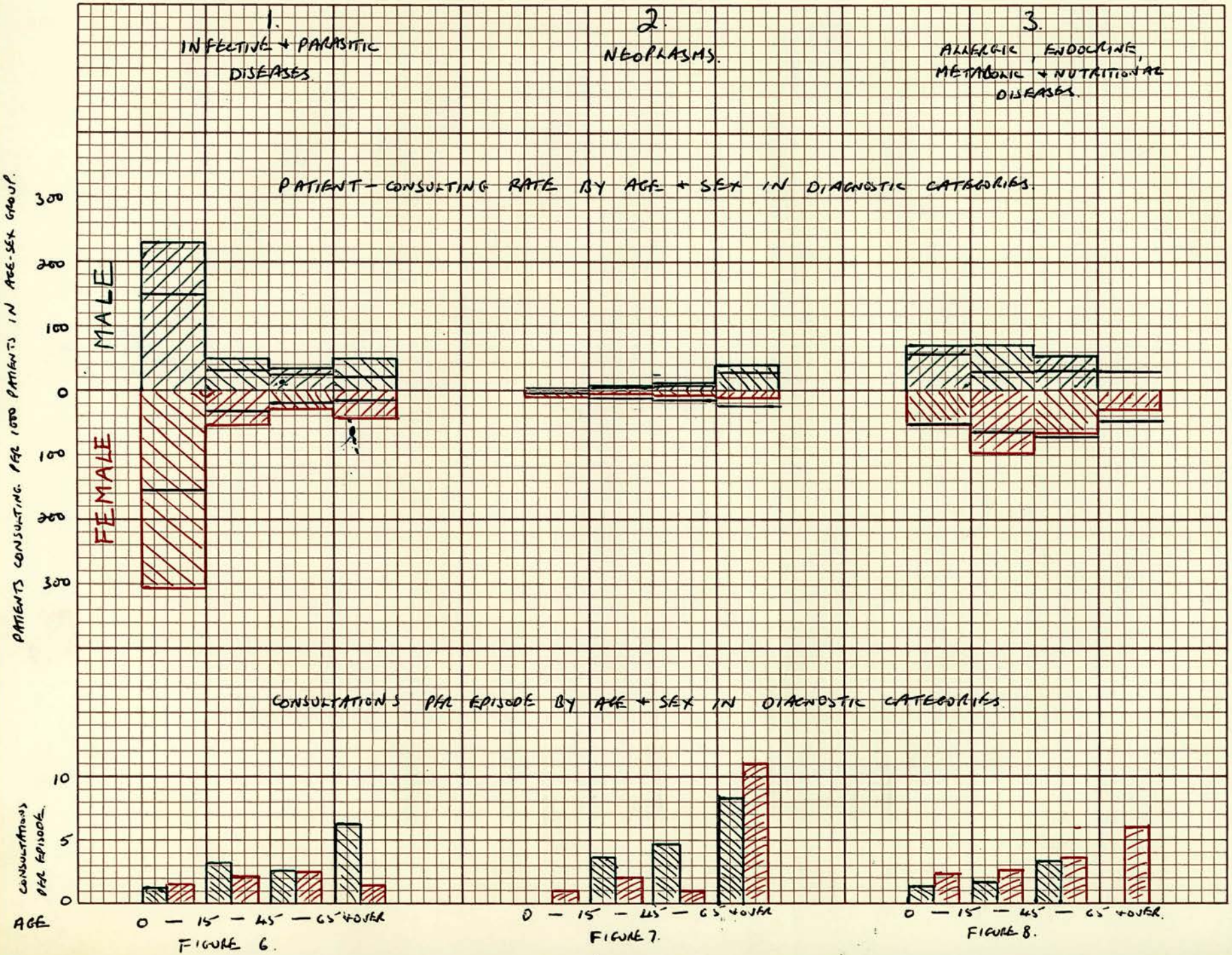


FIGURE 6.

FIGURE 7.

FIGURE 8.

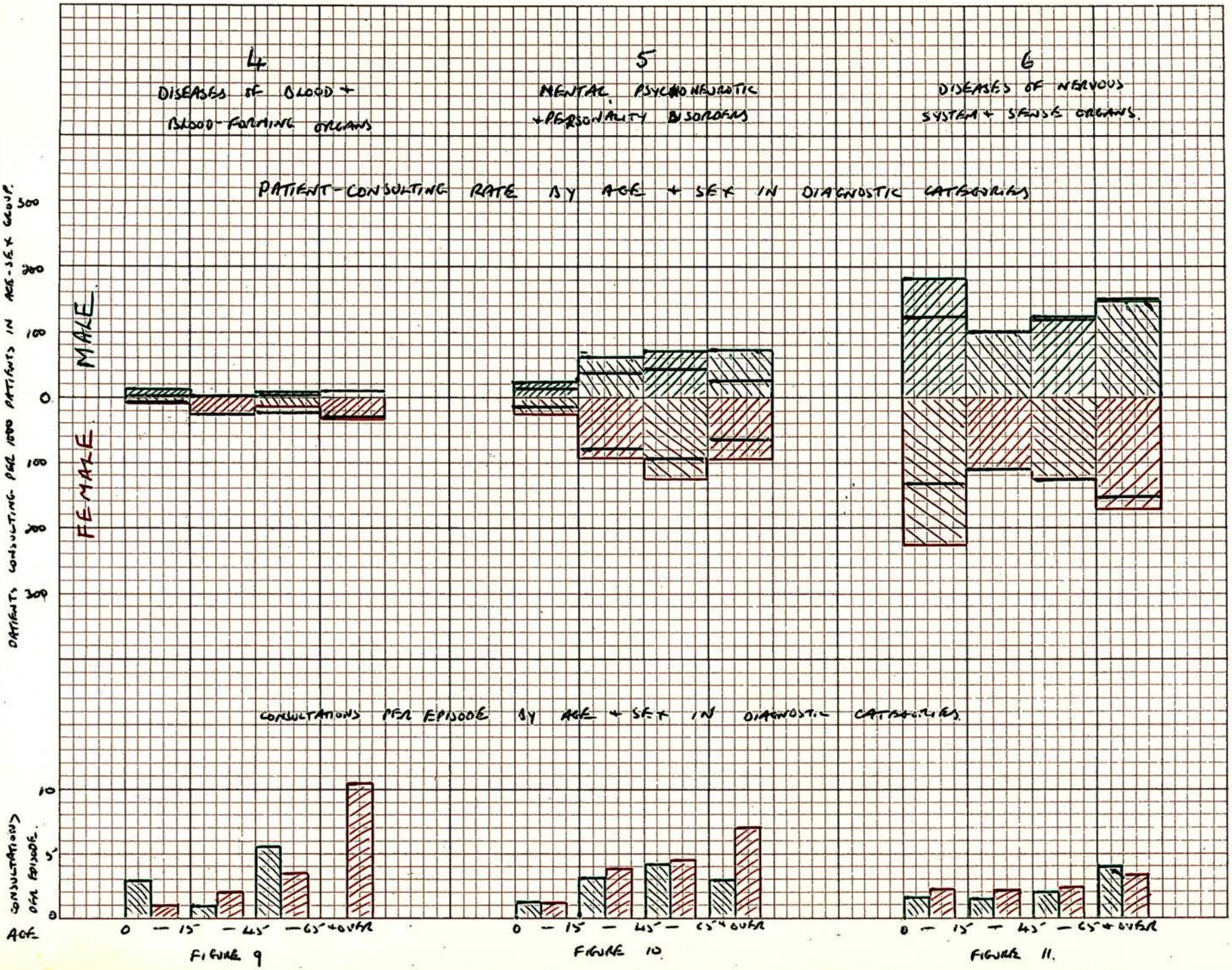


FIGURE 9

FIGURE 10

FIGURE 11.

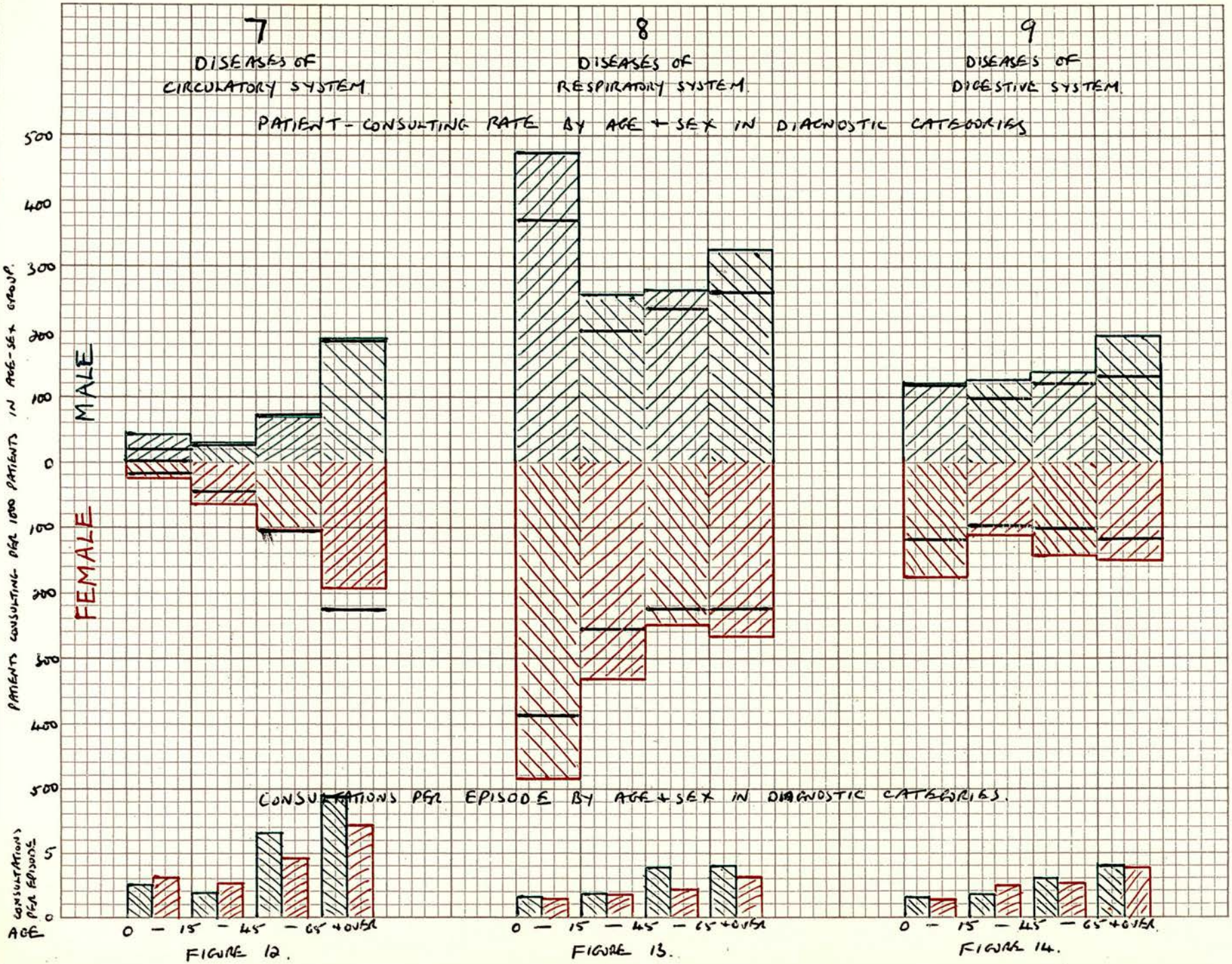


FIGURE 12.

FIGURE 13.

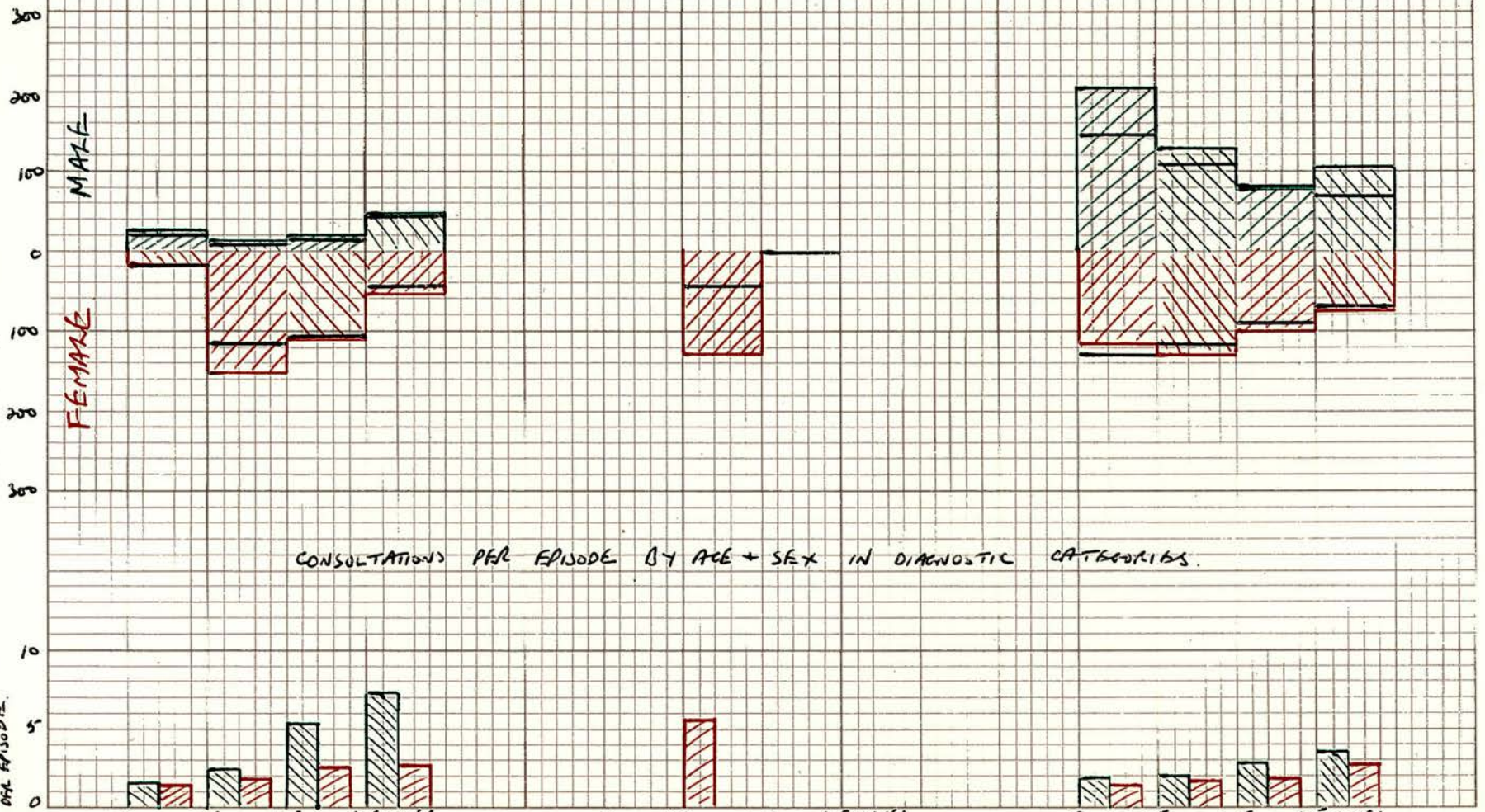
FIGURE 14.

10
DISEASES OF GENITO-URINARY SYSTEM

11
PREGNANCY

12
DISEASES OF SKIN + CELLULAR TISSUE

PATIENT-CONSULTING RATE BY AGE + SEX IN DIAGNOSTIC CATEGORIES.



CONSULTATIONS PER EPISODE BY AGE + SEX IN DIAGNOSTIC CATEGORIES.

FIGURE 15.

FIGURE 16.

FIGURE 17.

13
DISEASES OF BONES
& ORGANS OF MOVEMENT

14
CONGENITAL MALFORMATIONS

15
CERTAIN DISEASES
OF EARLY INFANCY

PATIENT-CONSULTING RATE BY AGE + SEX IN DIAGNOSTIC CATEGORIES

PATIENTS CONSULTING PER 1000 PATIENTS IN AGE-SEX GROUP

300
200
100
0
100
200
300

CONSULTATIONS PER EPISODE BY AGE + SEX IN DIAGNOSTIC CATEGORIES

CONSULTATIONS PER EPISODE

10
5
0

0 — 15 — 45 — 65 + OVER

FIGURE 18.

0 — 15 — 45 — 65 + OVER

FIGURE 19.

0 — 15 — 45 — 65 + OVER

FIGURE 20.

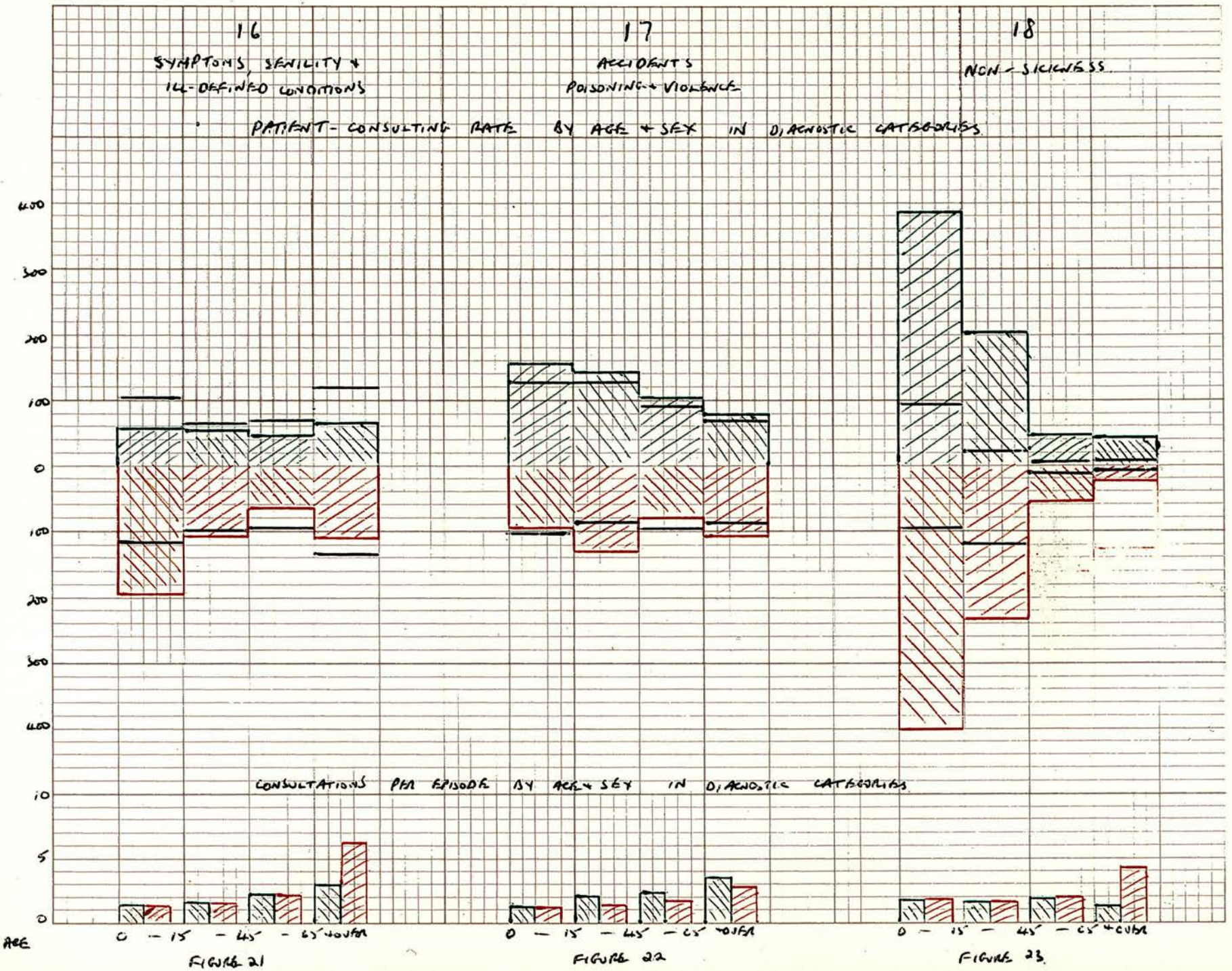


FIGURE 21

FIGURE 22

FIGURE 23

Under the heading of "Allergic Endocrine Metabolic and Nutritional Diseases" the patient consulting rate remains fairly steady in the 55-70 range per 1,000 patients in the group under 65 years of age, except in the 15-44 year old females where the rate rises to 98.2. The high rate in this age group is probably explained by the number who attend for treatment of obesity. No male patients over the age of 65 consulted under this heading during the year and the rate for females in this group was low. The number of consultations per episode rose proportionately with age and at all ages was higher in females than in males.

In diseases of the blood and blood-forming organs females predominate at all ages except in childhood. The male rate remains low throughout while in females the rate is higher in the 15-44 year old group (26.6) and the over 64 year old group, being at its maximum in the latter (32.8). The highest average number of consultations per episode is in the elderly female group (10.5). In the 45-64 year old group the number of consultations per episode was higher in males (5.5) than in females (3.4) although the patient consulting rate was lower.

In Mental, Psychoneurotic and Personality Disorders the patient consulting rate is, as expected, lowest in children, where the rates are similar in both sexes. In each other age group the rate for females is higher than for males and also entails a higher number of consultations per episode.

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The latter increase with age in the females and also in males except in the elderly, where in the male there is a lower number of consultations per episode than in the 15-44 year olds. The peak patient consulting rate is in the 45-64 year old females, in which group one patient in every eight consults for a diagnosis included under this heading.

In Diseases of the Nervous System and Sense Organs the patient consulting rate is highest in the group of female children (227 per 1,000). At this age the female rate is higher than males, but in each other age group the rate is fairly similar. The rate falls in the 15-44 year old group in both sexes and then increases by age. The average number of consultations is highest in the elderly, but even in this group is less than 4 per episode.

In diseases of the circulatory system there is a very obvious increase in the patient consulting rate in the 65 and over age group both for females (193) and males (188). In females the rate increases by steps from childhood but rises abruptly in the over 65 group. In males there is a low rate in the 15-44 group but otherwise the pattern is similar to females. In the elderly approximately one patient in every five attended for an illness in this diagnostic category. At each age group, except in children, the female rate is higher than the male. The average number of consultations per episode rises abruptly in the 45-64 group (male 6.5; female 4.6), and becomes higher still in

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the elderly (male 9.5; female 7.2). In both of the latter groups it is noted that the average number of consultations per episode is higher in males than in females.

Diseases of the respiratory system have by far the highest overall patient consulting rate. The highest rate for the group is in the female children where it reaches 482 per 1,000 and this is almost equalled (478) by that in male children. The female rate (334) also exceeds the male rate (258) in the 15-44 year old group, but in the two older age groups the male rate is in excess of the female (45-64 262: 248, and over 64, 322: 266). The rate is lowest for males in the 15-44 year old group and for females in the 45-64 year old group. In both sexes the rate in the elderly patients is higher than in the preceding age group. The number of consultations per episode is similar in both sexes in children and in the 15-44 group being less than 2 in eage age-sex group. In females it rises slightly by age to 3.1 in the elderly. In males it doubles in the 45-64 year group to 3.9 and is similar in the elderly. In view of the frequent attendances for chronic bronchitis in some older males these figures must mean that these frequent attendances are masked in the total group by the frequent occurrence of minor respiratory illness in the older groups as well as in the younger.

In diseases of the digestive system there is no consistent sex predominance either in the patient consulting

rate /

rate or the average number of consultations per episode. In males the lowest patient consulting rate (120 per 1,000) is in the children and this gradually increases to 194 in the elderly. In females children have the highest patient consulting rate (177 per 1,000) and the lowest is in the 15-44 group (112). The rate thereafter increases slightly by age to 148 in the elderly. The average number of consultations per episode rises from 1.4 in children to 4.0 in the elderly and is fairly similar in both sexes.

The most obvious feature concerning diseases of the genito-urinary system is the marked excess of females consulting in the middle age group. The highest patient consulting rate is for females in the 15-44 group (155 per 1,000) and it decreases by age to 57.4 in the elderly females. The lowest rate in females occurs in children (18.2) and in this group only is slightly exceeded by males (24.8). There is a low rate in the middle ages in male patients and a rise to 45.7 per 1,000 in the elderly. The female average number of consultations per episode rise slightly by age from 1.4 to 1.7, whilst in males the average rises more steeply in each age group to 7.25 in the elderly from 1.5 in children.

As previously noted the group under the heading "Deliveries and Complications of Pregnancy, Childbirth and the Puerperium" has been extended in this survey to include all obstetric attendances. All pregnancies were in the

15-44 years of age group and the patient consulting rate was 129 per 1,000, with an average number of consultations per episode of 5.5. The majority of the patients had hospital confinement and therefore hospital or clinic antenatal care.

In the diseases of skin and cellular tissues males had a higher patient consulting rate in children and the elderly, whilst in the middle age groups females slightly predominated. The highest patient consulting rates are in children and then the rates decrease with age. In male elderly patients there is a slightly higher rate than in the previous age group. The average number of consultations per episode increases with age both in males (1.9 to 3.5) and in females (1.4 to 2.8), and is slightly lower in females of all ages.

The patient consulting rates by age and sex for diseases of bones and organs of movement are fairly similar in pattern to diseases of the circulatory system, both probably reflecting the degenerative process. At all ages the rate is higher in females than males and the rate increases by steps in each age group as age advances. The exception is in the over 65 year old males where the rate is similar to that in the 45-64 year old males. In the 15-44 year old group the average number of consultations per episode in males (2.4) exceeds that in females, whilst in the elderly, where the patient consulting rate in females (270)

is /

is more than double that in males (125) the average number of consultations per episode in females (5.5) is also more than double the male average (2.3).

Few patients consulted under the heading "Congenital Malformations" or "Certain Diseases of Early Infancy". In congenital malformations the patient consulting rate for males and females is fairly similar (24.8 and 18.2 per 1,000) and the average number of consultations per episode is also similar (1.8 and 1.7). In the other group the patient consulting rate for males was double that for females (8.3 and 4.5), whilst the average number of consultations per episode in females was treble that for males (3.0 and 1.0).

Under the heading "Symptoms Senility and Ill-defined Conditions" female patient-consulting rates exceed those for males in all age groups, the most obvious discrepancy being in children where the male rate is 57.8 and the female 191.0. The lowest rates for both sexes are in the 45-64 year old group (47.2 for males and 63.2 for females). The average number of consultations per episode is fairly consistent in both sexes in all age groups (approximately 1.5 to 2) except in the elderly where the average rises in males to 3.1 and females to 6.2.

Under the diagnostic category of "Accidents, Poisoning and Violence" the highest patient consulting rate in males is in the youngest age group (153 per 1,000) and in females in the 15-44 year old group (123). The rate in males

gradually reduces by age till in the elderly it is 80 per 1,000. In females the lowest rate is 80.2 per 1,000 in the 45-64 year old group. The average number of consultations per episode gradually rises (1.3 to 3.5 in males and 1.3 to 2.8 in females) with age and at all age groups except the youngest the rate is higher in males than in females.

Under the group of "Non-Sickness" the patient consulting rates for the sexes are fairly similar except in the 45-64 year old group where females predominate. The highest rates are, as expected, in children (387 per 1,000 for males and 400 per 1,000 in females), and reduce by age to 45.7 for males and 24.6 for females in the elderly. The average number of consultations per episode remains below 2.0 in all age groups except in the elderly females when it rises to 4.2.

For comparison with morbidity in the frequent attenders the number of episodes and consultations and the average number of consultations per episode under each diagnostic heading had to be calculated for the total group of patients over the age of 15 years and also the total groups by sex. The percentages of episodes expressed are those of the total number of episodes in the group under consideration, and the percentages for consultations those for the total number of consultations in the group. The findings are given on pages 81 - 83 and are also shown in Figures 24, 25 and 26 on pages 131-133

ANALYSIS OF MORBIDITY IN PRACTICE ADULTS.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO	% OF CONS	
1 INFECTIVE & PARASITIC DISEASES	80	2·08	215	1·96	2·7
2 NEOPLASMS	25	0·65	141	1·29	5·6
3 ALLERGIC, ENDOCRINE, METABOLIC & NUTRITIONAL DISEASES	151	3·95	429	3·9	2·8
4 DISEASES OF BLOOD & BLOOD-FORMING ORGANS	31	0·81	151	1·38	4·9
5 MENTAL, PSYCHONEUROTIC & PERSONALITY DISORDERS	210	5·5	915	8·4	4·6
6 DISEASES OF NERVOUS SYSTEM & SENSE ORGANS	317	8·3	752	6·9	2·4
7 DISEASES OF CIRCULATORY SYSTEM	213	5·6	1234	11·3	5·8
8 DISEASES OF RESPIRATORY SYSTEM	861	22·5	2200	20·2	2·5
9 DISEASES OF DIGESTIVE SYSTEM	345	9·03	966	8·8	2·8
10 DISEASES OF GENITO-URINARY SYSTEM	177	4·62	456	4·2	2·6
11 PREGNANCY	70	1·83	382	3·5	5·4
12 DISEASES OF SKIN & CELLULAR TISSUE	274	7·16	597	5·45	2·2
13 DISEASES OF BONES & ORGANS OF MOVEMENT	292	7·6	896	8·2	3·1
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY & ILL-DEFINED CONDITIONS	179	4·66	467	4·27	2·6
17 ACCIDENTS, POISONING & VIOLENCE	278	7·25	583	5·3	2·1
18 NON-SICKNESS	314	8·2	539	4·9	1·7

ANALYSIS OF MORBIDITY IN MALE PRACTICE ADULTS.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	38	2.34	128	2.7	3.4
2 NEOPLASMS	17	1.24	101	2.15	5.9
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	63	3.9	142	3.0	2.3
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	5	0.31	23	0.49	4.6
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	79	4.86	280	5.95	3.5
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	149	9.2	321	6.8	2.1
7 DISEASES OF CIRCULATORY SYSTEM	85	5.1	567	12.0	6.8
8 DISEASES OF RESPIRATORY SYSTEM	393	24.3	1198	25.6	3.04
9 DISEASES OF DIGESTIVE SYSTEM	176	10.8	483	10.2	2.7
10 DISEASES OF GENITO-URINARY SYSTEM	26	1.6	130	2.75	5.0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	129	7.95	322	6.83	2.5
13 DISEASES OF BONES + ORGANS OF MOVEMENT	115	7.1	306	6.5	2.7
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	65	4.0	136	2.9	2.1
17 ACCIDENTS, POISONING + VIOLENCE	137	8.4	338	7.2	2.5
18 NON-SICKNESS	145	8.99	230	4.9	1.6

ANALYSIS OF MORBIDITY IN FEMALE PRACTICE ADULTS.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO	% OF EPISODES	ACTUAL NO	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	42	1·91	87	1·4	2·06
2 NEOPLASMS	8	0·36	40	0·64	5·0
3 ALLERGIC ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	88	3·95	287	4·6	3·25
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	26	1·18	128	2·05	4·9
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	131	5·95	635	10·2	4·85
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	168	7·6	431	6·9	2·6
7 DISEASES OF CIRCULATORY SYSTEM	130	5·9	667	10·7	5·1
8 DISEASES OF RESPIRATORY SYSTEM	468	21·2	1002	16·0	2·1
9 DISEASES OF DIGESTIVE SYSTEM	169	7·68	483	7·75	2·9
10 DISEASES OF GENITO-URINARY SYSTEM	151	6·85	326	5·22	2·2
11 PREGNANCY	70	3·17	382	6·1	5·4
12 DISEASES OF SKIN + CELLULAR TISSUE	145	6·56	275	4·4	1·9
13 DISEASES OF BONES + ORGANS OF MOVEMENT	177	8·05	590	9·46	3·3
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	114	5·18	331	5·3	2·9
17 ACCIDENTS, POISONING + VIOLENCE	141	6·4	245	3·9	1·7
18 NON-SICKNESS	169	7·66	309	4·95	1·8

It is seen that for the adults in the practice the proportion of episodes and consultations for respiratory illness exceeds by far the proportion for any other diagnostic category. Concerning episodes the second highest proportion is for disease of the digestive system and third for disease of the nervous system and sense organs. With consultations the second highest proportion is for diseases of the circulatory system and third for disease of the alimentary system. The highest average number of consultations per episode is for disease of the circulatory system followed by neoplasms and then pregnancy. When considered by sex the proportions are different in some respects. In males the highest proportion of episodes is for diseases of the respiratory system followed by diseases of the digestive system and then disease of the nervous system and sense organs, whilst for females respiratory illness is followed by orthopoedic conditions and then by disease of the alimentary system and non-sickness. The highest proportion of consultations in males is for respiratory illness followed by diseases of the circulatory system and then disease of the digestive system. In females the highest is for diseases of the respiratory system followed by diseases of the circulatory system and then orthopoedic conditions. In males the highest number of consultations per episode is for diseases of the circulatory system followed by neoplasms and diseases of

the genito-urinary system, and for females the highest is for pregnancy, then circulatory diseases and neoplasms.

D I S C U S S I O N

PRACTICE FINDINGS

Age-Sex Breakdown

The age-sex structure of the practice was calculated as on 30th June, 1962, which was the mid point of the survey year. This is the method used by Fry (1952) and Logan and Cushion (1958) and is intermediate between using only the patients who were registered for the full year and all of the patients who were registered at any time during the year. The use of this method means that all rates given will be higher than they should be as patients who left the practice before the mid point of the year and all of those who joined the practice after the mid point and who attended at least once during the part of the year in which they were registered will have their morbidity recorded but will not be included in the Age-Sex Register on 30th June 1962. 313 patients joined the practice list during 1962 and 174 patients left. The list size therefore increased by 139 during the year. Thus, approximately 6.3% of the practice population left during 1962 but the net increase in the list was 5.0%. For every 1,000 patients on the list at the mid point of the year there would therefore be approximately 1,113 at

risk /

risk at some time during the year. This is a common difficulty in morbidity statistics from general practice and one which cannot be overcome for the purposes of comparing findings until such time as the methods for calculating rates for the different aspects of morbidity are standardised.

Patient Consulting Rate

77.0% of the total practice consulted at least once during 1962. 74.3% of males consulted and 79.6% of females. There is a large variation in the figures published from other practices concerning the patient consulting rate, the percentages varying from approximately 50% to approximately 85%. In addition to variations between practices there are variations within practices as reported by Fry (1957), who gave percentages varying between 68% and 77% in his practice over a period of five years. Logan and Cushion (1958) in the study of 106 practices gave patient consulting rates by age and sex and it is noted from this that females have a higher patient consulting rate than males. This was a consistent finding in all regions. It is noted too that the highest patient consulting rate was in children, as it was in this practice, and in each age group the females had a higher rate with the largest difference between male and

female /

female rates being in the 15-44 year old age group. These findings compare with the findings from this practice. The high percentage of children seen during the year in this practice has already received comment. It can be said that the percentage of the list seen during 1962 is within the limits reported from other practices but may be a little on the high side. When analysed by age and sex it follows a fairly similar pattern to the findings of Logan and Cushion.

Attendance-Visit Ratio.

The attendance-visit ratio in this practice during 1962 was 2.47:1. 26.7% of all consultations took place in the patient's home. If "telephone or other " contacts had not been included this figure would have been higher (28.8%). There is again great variation in the percentage of consultations taking place in the home as reported from other sources. In reviewing this, Lees and Cooper (1963) state that although there is a great variation 40% of the practice findings reviewed had home visit percentages between 20% and 29%.

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The Episode of Illness Rate.

The average number of episodes of illness per patient during the year in this practice was 1.83, being 1.67 for males and 2.00 for females.

As in most aspects of the morbidity studies in general practice comparison is made difficult due to the fact that different denominators are used in the calculation of rates. The episode rate is no exception and the two most commonly used denominators are the population in the age-sex group and the patients consulting in the age-sex group. This choice of denominator is an important factor and in the instances given the rates will vary according to the percentage of patients in the practice who consulted at least once during the period of the study. Brotherston and Chave (1956) give an episode rate of 2.6 per person based on the average registered population, whilst this figure rose to 3.1 when given as the average per person consulting. Similarly, McGregor (1950) gave a figure of 1.01 for males and 1.42 for females based on the practice population and 1.84 for males and 2.06 for females based on the number of patients consulting. To complicate matters further, Logan and Cushion (1958) gave rates of 1.9 for males and 2.4 for females per patient consulting, but in this study different episodes of illness under the same diagnostic category occurring in the same patient have all been considered as one episode. The lowest rates appear to be

those /

those reported by McGregor (1950) who found a rate of 1.01 for males and 1.42 for females per patient on his list, and by Crombie and Cross (1956) who gave figures of 1.3 for each sex using a similar denominator. The highest rates reported are by Brotherston and Chave (1956) who found a rate of 2.6 per person based on the average registered population, and by Scott et al. (1960) who found a rate of 2.45 per person based on a similar denominator. In the present study the rates of 1.67 per male patient and 2.00 per female patient using the practice population at the mid point of the study year as the denominator seems to occupy an intermediate position. In all studies where there is a sex breakdown of the episode rate the female rate is higher than the male, except in that reported by Crombie and Cross (1956) where the rates were equal. In studies where the episode rate has been analysed by age and sex there seems to be fairly general agreement that the highest rates are found in the young and the elderly in both sexes and that the lowest rates are found in the males in the intermediate age groups. In the analysis of episodes by age and sex in this present study the findings are generally in accordance with these findings from other practices. A fairly similar pattern is found too in the proportion of patients who had a specified number of episodes of illness during the year when compared to the findings of Brotherston and Chave (1956),

McGregor /

McGregor (1953) and Logan and Cushion (1958). McGregor analyses these patients with a specified number of illnesses in the year by sex and his findings agree with those in this study that for all numbers of specified illnesses over two females predominate.

It is seen, therefore, that when considering episodes of illness the findings in this study are in general agreement with those published from other practices.

Consultation Rate.

The patients in this practice had an average number of consultations during the year of 4.70, males having 4.23 and females 5.15.

Lees and Cooper (1963) reviewed the published findings concerning consultation rates per person and found large differences, the lowest (2.87) being for one of the practices studied by Logan (1953) and the highest (7.2) being reported by Scott and McVie (1962). Lees and Cooper state that half of the studies reviewed have consultation rates between 3.0 and 4.0 per person, whilst 45% of the remainder have rates which are higher.

In all of the studies the consultation rate for females is higher than that for males and when studied in age-sex groups there is general agreement that the highest consultation rates are found in the young and elderly of both

sexes. There is agreement too that the lowest consulting rates are found in the males of the middle age groups (15-44) and it is in this age group that there is the greatest discrepancy between male and female rates. The only large group which fairly consistently shows a higher rate in males than in females is the 0-5 year olds, e.g. as shown in the findings of Fry (1957), Brotherston and Chave (1956). These findings are in accord with the findings on consultation rates in age and sex groups in the present study. Backett et al. (1954) found that 4% of the practice population had twenty or more consultations in the year whilst in the present study 4.57% of the adult practice population had a similar number of consultations.

It can be said that the findings concerning consultation rates in this practice are in agreement with the findings from other practices.

Consultations per Episode.

The average number of consultations per episode in the total practice population was 2.55, being 2.53 for males and 2.57 for females.

Crawford (1954) gave findings for two years of study during which the average number of consultations per episode was for males 2.06 and 2.17 and for females 2.11 and 2.10.

Scott et al. (1960) quoted an average number of 2.9. McGregor found an average of 3.88 for males and 4.14 for females but gave reasons for these figures being high. When analysed in age-sex groups Brotherston and Chave (1956) noted that there was an increase in the average number of consultations per episode in both sexes with advancing age. Crawford (1954) also found this and noted that although there were some slight differences between sexes in different age groups no consistent pattern was shown. The findings in this practice are in agreement with these findings.

Referrals.

Referral rates have been reported from several practices but these are given in such a way as to make comparison difficult. Some have used the practice population as the denominator whilst others have used the patients consulting and yet others the consultations. In some reports only some types of referral are included. Logan (No. 9, 1953) gave figures for referral rates from nine practices in which the total referral rate per 100 practice population varied from 5.9 to 31.7. For the total of the combined practices, however, the rate per 100 practice population for all referrals was 16.1, for in-patient referrals 2.0 and for outpatient referrals 11.8. The comparable rate for all referrals from the present study is 15.07, being

14.08 for males and 16.09 for females. For in-patient referrals the figure was 1.8 for males and 2.3 for females and for outpatient referrals 7.1 for males and 8.9 for females. These figures from this practice are thus seen to be very close to Logan's figures for the combined total of the nine practices in his study.

Late Calls.

In this practice the late call (8 p.m. to 8 a.m.) rates are 16.2 per 1,000 patients, 8.8 per 1,000 episodes or 0.37% of all consultations. Rates published from other practices and which are comparable from the definition of a late call being from 8 p.m. to 8 a.m. vary from 0.46% of all consultations (Brotherston and Chave 1956) to 0.79% of all consultations (Backett et al. 1954). The rate of 0.37% of all consultations in this study is therefore the lowest rate so far reported. Brotherston et al. (1959) gave a rate of 17 per 1,000 patients for late calls between 11 p.m. and 8 a.m., whilst Scott and McVie (1962) gave a rate of 104.6 per 1,000 patients between 8 p.m. and 8 a.m. (This latter rate appears high and although there was a high consultation rate in this practice [7.2] the late call rate when expressed as a percentage of all consultations remains high at 1.44.) The late call rate of 16.2 per 1,000 patients in this practice still appears low when expressed in this way.

Morbidity in the Practice.

As has already been stated, there is more likelihood of finding grounds for comparison between one practice and other practices for which findings have been reported when one considers morbidity in each separate diagnostic category by age and sex rather than when considering all diagnostic categories within one age-sex group.

The findings from this practice are given in this form in Figures 6 - 23 on pages 68 to 73. The findings from MORBIDITY STATISTICS FROM GENERAL PRACTICE (Logan and Cushion 1958) have been used as the basis for comparison. This latter study, in which the eighteen main headings of the International Classification of Diseases are used, incorporated the morbidity findings from 106 practices and is therefore the largest study undertaken. The fact that there are so many practices should cancel out many of the differences in morbidity findings which could be due to the personal idiosyncracies of each individual participating practitioner and also these due to geographical location and the nature of the practice. The findings from Logan and Cushion's survey have been inserted in black lines on Figures 6 - 23 on pages 68 to 73 to facilitate comparison. The patient consulting rates per 1,000 in each age-sex group have been used, the age groups being 0-14, 15-44, 45-64 and 65 years and over.

1. /

1. Infective and Parasitic Diseases. It is seen in Figure 6 on page 68 that in this diagnostic category the patient consulting rates in all ages and both sexes except in the 45-64 year old groups are higher in this practice than expected and that this applies predominantly in the younger age groups. The sex ratio within each age group and the proportion of patients consulting between age groups are fairly similar.
2. Neoplasms. Each group under this diagnostic category is numerically small but it is evident that the sex ratio within each age group and the proportion of patients consulting between age groups is similar to the findings of Logan and Cushion.
3. Allergic, Endocrine, Metabolic and Nutritional Diseases. In this category more patients than expected consulted in the 15-44 year old group in both sexes in this practice, whilst fewer consulted in both sexes in the elderly. The sex ratio within each age group is as expected from the findings of Logan and Cushion.
4. Diseases of Blood and Blood-forming Organs. The findings in this category are similar to those expected in all groups.
5. Mental, Psychoneurotic and Personality Disorders. In all age-sex groups more patients consulted in this category than is expected from the findings of Logan and Cushion. Sex ratios within age groups and the proportion of patients consulting between age groups is, however, fairly similar.

6. /

6. Diseases of Nervous System and Sense Organs. More patients consulted in this practice in children of both sexes under this diagnostic heading, but otherwise the findings are very similar to those of Logan and Cushion.

7. Diseases of Circulatory System. More males in the age groups 0-44 consulted under this diagnostic heading than expected from the findings of Logan and Cushion but in other respects the findings are similar.

8. Diseases of Respiratory System. More patients in this practice in every age and sex group consulted under this heading than expected but in all other respects the findings are similar.

9. Diseases of Digestive System. Again more patients in every age-sex group consulted under this diagnostic category. Females in the 0-14 year old group and males over 65 seem to have high patient consulting rates. Otherwise, the patterns are fairly similar.

10. Diseases of Genito-Urinary System. The findings in this diagnostic category compare fairly closely with those of Logan and Cushion, only the females aged 15-44 having a higher patient consulting rate.

11. Pregnancy. There was a high patient consulting rate for this category in the practice but the practice findings included all patients attending for pregnancy including those attending for routine care.

12. /

12. Diseases of Skin and Cellular Tissue. More patients consulted in this diagnostic category than expected in males in the 0-14 years of age group and the 65 and over group. Otherwise, the patterns are similar.

13. Diseases of Bones and Organs of Movement. The pattern of morbidity in the two studies under this diagnostic heading is similar except that more females aged 0-14 and over 64 consulted for these conditions in this practice.

14. Congenital Malformations.
15. Certain Diseases of Early Infancy. In both studies few patients consulted in these diagnostic categories.

16. Symptoms Senility and Ill-Defined Conditions. In all age groups except in females 0-44 fewer patients consulted in this practice in this diagnostic category. Otherwise, in considering the sex ratios within each group and the proportion between age groups the patterns are fairly similar.

17. Accidents, Poisoning and Violence. The only difference in the patterns of morbidity in this diagnostic category is that more females in this practice in the 15-44 age group consulted than was expected.

18. Non-Sickness. There is a much higher patient consulting rate in all age-sex groups in this practice than in the findings of Logan and Cushion under this diagnostic heading. This applies particularly in all age groups

under /

under 64 except the males aged 45-64. Routine antenatal care in the 15-44 year old female group has been excluded from the practice findings in this category so that otherwise the differences in this group would have been greater. The differences must to some extent be due to the high number of vaccinations carried out during 1962.

It is seen that when examined in this way the pattern of morbidity in this practice is similar to that found by Logan and Cushion whose study included the findings from 106 practices combined. The main exception to this is in the diagnostic category headed "Non-Sickness".

CONCLUSIONS REGARDING THE PRACTICE FINDINGS.

When considering patient consulting rates, attendance to visit ratio, episode of illness rates, consultation rates, consultations per episodes, referral rates and morbidity in the diagnostic categories, the findings from this practice are similar to those published from other practices. Only in the late call rate is this practice unusual in that the late call rate is lower than those rates published from other sources.

FREQUENT ATTENDERS

The frequent attenders who are to be studied are of two types, that is, those who attended frequently for different episodes of illness and who do not necessarily have frequent consultations per episode, and those who have frequent consultations but who do not necessarily have frequent episodes of illness. Only those frequent attenders who are adults, that is of the age of 15 years or older are being studied. Children are known to have frequent episodes of illness and in these episodes the doctor-patient contact is usually initiated by the parent or guardian.

The mean number of episodes per adult patient in the practice for the year was 1.66 (males 1.44; females 1.86). The mean number of consultations per year in the adult practice population was 4.7 (males 4.23 and females 5.15). Patients who are frequent attenders are considered for the purpose of this study to have had either six or more episodes of illness during the year or to have had twenty or more consultations during the year. It is noted that both of these figures are approximately four times the average. The two types of frequent attenders are studied separately.

ADULT /

ADULT PATIENTS WITH TWENTY OR MORE CONSULTATIONS IN THE YEAR.

A total of 106 adult patients had twenty or more consultations during the course of the year. This is 4.57% of the practice adult population. These 106 patients had 396 episodes of illness (10.4% of all adult episodes) and 3,145 consultations (28.8% of all consultations in adults). 4.57% of the adult patients were therefore responsible for 28.8% of adult consultations during the year. Their average number of episodes was 3.7 and consultations 29.6. The average number of consultations per episode was 7.9.

For convenience, the adult patients who had twenty or more consultations in the year will hereafter be referred to as "F.A.20" (Frequent Attenders 20 Consultations).

F.A.20 by Age and Sex.

Of the 106 patients in the group 41 (38.6%) were males and 65 (61.4%) were females. When these patients are analysed by age and sex the findings are as follows, the percentages being those of the population in the age and sex group in the practice:

	Male		Female	
Age (Years)	Actual No.	%	Actual No.	%
15-24	0	0.0	6	3.37
25-34	1	0.63	6	3.66
35-44	1	0.57	7	3.75
45-54	7	3.1	5	2.44
55-64	13	5.93	4	1.94
65 and over	19	10.4	37	15.2

Two factors are made clear in this analysis. Patients who have frequent consultations are most commonly in the older age groups. The pattern of the age structure of these F.A.20 is different in males and females. With males few patients are below the age of 45 and after this age the percentage who are frequent attenders increases with age. In females the percentage is almost ten times higher than in males in the 15-44 year old group. It then decreases till the age of 65 when there is a steep increase.

Number of Episodes per F.A.20 by Age and Sex.

These 106 patients had 396 episodes of illness during the year. This represents 10.4% of all episodes of illness in adult patients. The 41 male patients had 145 episodes (8.96% of all adult male episodes) and the 65 females had 251 episodes (11.4% of all adult female episodes). Males in the group had an average of 3.53 episodes of illness and

females /

females 3.86. When analysed by age and sex the findings are as follows:

Average number of episodes per patient by age and sex.

Age	Male	Female
15-24	0	5.8
25-34	2 (1 patient only)	3.3
35-44	5 (1 patient only)	5.6
45-54	3.4	4.6
55-64	3.7	3.7
65 and over	3.5	3.2

There appears to be little consistency in the pattern of the average number of episodes of illness per patient in the F.A.20 when analysed by age and sex. It does seem, however, that there is a tendency for those females in the 15-44 group to have a higher average number than in the elderly of both sexes and after the age of 45 in females the average number decreases by age.

Number of Consultations per F.A.20 by Age and Sex.

The 106 patients had 3,145 consultations during the year, this total being 28.8% of all consultations in adults in the practice. The 41 male patients had a total of 1,298 consultations (27.5% of all adult male consultations), whilst the 65 females had a total of 1,847 consultations (29.7% of all adult female consultations). When the average number of

consultations in the F.A.20 are analysed by age and sex the findings are as follows:

Age	Male	Female
15-24	0.0	22.0
25-34	28.0 (1 patient only)	23.6
35-44	20.0 (1 patient only)	29.7
45-54	30.6	30.8
55-64	30.8	24.7
65 and over	33.4	30.0

In both sexes the average number of consultations per patient tends to increase slightly with age.

Consultations per Episode in F.A.20.

The 106 patients had 396 episodes of illness with 3,145 consultations. The average number of consultations per episode is therefore 7.9. For males the average is 8.9 and for females 7.35.

When the average number of consultations per episode is analysed by age and sex the findings are as follows:

Age	Male	Female
15-24	0.0	3.76
25-34	14.0 (1 patient only)	7.10
35-44	4.0(1 patient only)	5.32
45-54	8.88	6.7
55-64	8.36	6.6
65 and over	9.6	9.3

With /

With these average number of consultations per episode there is again the tendency for it to increase with age. The exception is in females in the 25-34 year old group where the average number is higher than one might expect.

Referrals in F.A.20.

In the 106 patients in this group there was a total of 69 referrals. There were 396 episodes of illness in the group so that this gives a referral rate of 174 per 1,000 episodes. The rate per 100 patients in the group is not comparable with that of the practice as in the practice not all of the patients in the group attended. When analysed in a similar way to the referrals in the practice and then converted to rates per 1,000 episodes the findings under the appropriate headings are as follows:

Actual Number of Referrals in F.A.20.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	13	9	6	1	1	0	1
Female	12	11	3	7	1	2	2
Total	25	20	9	8	2	2	3

Referral Rates per 1,000 Episodes in F.A.20.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	89.6	62.0	41.4	6.88	6.88	0.0	6.88
Female	47.8	43.7	11.9	27.8	3.98	7.98	7.96
Total	63.0	50.3	22.6	20.2	5.03	5.03	7.50

It is not possible to compare the referral rates per 1,000 episodes in the F.A.20 with the referral rates per 1,000 episodes in the practice as a whole, the reason being that the group of F.A.20, as has been shown, is heavily loaded with elderly patients who, as shown on pages 47 and 48, have a higher referral rate than younger patients. If this comparison had been carried out it would have meant that the F.A.20 by the age construction of the group would be expected to have a higher referral rate than that of the practice. On the other hand, there were too few referrals in the F.A.20 to divide them into ten-year age groups to compare them with the practice in this way. A sample control group had therefore to be constructed as follows. The number of referrals in the practice per 100 population in each ten-year age group by sex is known (pages 47 and 48), as is also the number of referrals per 1,000 episodes in each ten-year group by sex. The number of F.A.20 in each ten-year age group by sex is also known. The number of referrals for a corresponding number from each 10-year group by sex of F.A.20 was therefore calculated from the practice ten-year group. When the number of referrals from these ten-year groups was added it gave the referrals which would have been expected in a sample from the practice paired to the F.A.20 by age and sex. The number of episodes of illness which this sample group would have hadwas also calculated in a similar way and so the referrals could be translated into referrals per 1,000 episodes. When this was done the referrals from a paired sample of the practice were as follows:

Referrals from Practice Sample Control Group.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit	Episodes
Male	4.71	1.60	1.30	0.07	0.39	0.35	0.15	59.76
Female	4.80	2.59	1.09	1.39	0.39	0.71	0.17	123.6
Total	9.51	4.19	2.39	1.46	0.78	1.06	0.32	193.36

Referrals from Practice Sample per 1,000 Episodes.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	79.0	26.8	21.8	1.2	6.8	5.8	2.4
Female	38.8	20.9	8.9	11.3	3.2	5.8	1.4
Total	49.3	21.6	12.4	7.6	4.1	5.4	1.6

Late Calls in F.A.20.

For the 106 patients in the group ten late calls were requested, five of these being for male patients and five for females. This is equivalent to 34.4 per 1,000 episodes for males, 19.8 per 1,000 for females and 25.3 per 1,000 episodes for the whole group. Late calls for a sample control group were calculated as described under the heading of "Referrals in F.A.20" on page 108 and resulted as follows:

	Male	Female	Total
Actual No. of late calls	0.99	1.58	2.57
No. of related episodes	59.76	123.6	193.4
No. of late calls per 1,000 episodes	16.5	12.8	13.3

Morbidity in F.A.20.

For comparison of morbidity in the F.A.20 with that in the practice adult population as a whole the following factors were used:

1. The proportion of episodes under each diagnostic heading expressed as a percentage of the total number of episodes in the group under discussion.
2. The consultations under each diagnostic heading are used in a similar way.
3. The average number of consultations per episode under each diagnostic heading.

These /

These factors have been analysed for the total group of F.A.20, the male patients in that group, the female patients in that group and also for the age groups by sex. The findings are as follows, the findings concerning episodes and consultations per episode also being shown in Figures 24-32 on pages 131 - 139.

ANALYSIS OF MORBIDITY IN TOTAL GROUP OF F.A.20.

No. of Patients in Group - 106.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO	% OF EPIS.	ACTUAL NO.	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	3	0.76	22	0.69	7.3
2 NEOPLASMS	2	0.50	44	1.39	22.0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	11	2.22	59	1.87	5.4
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	5	1.26	68	2.16	13.6
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	32	8.05	320	10.8	10.0
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	34	8.57	201	6.36	6.2
7 DISEASES OF CIRCULATORY SYSTEM	50	12.6	693	22.1	13.9
8 DISEASES OF RESPIRATORY SYSTEM	84	21.1	605	19.2	7.2
9 DISEASES OF DIGESTIVE SYSTEM	49	12.4	304	9.64	6.2
10 DISEASES OF GENITO-URINARY SYSTEM	21	5.3	130	4.12	6.2
11 PREGNANCY	6	1.51	105	3.34	17.5
12 DISEASES OF SKIN + CELLULAR TISSUE	21	5.3	63	2.0	3.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	28	7.05	240	7.6	8.6
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	19	4.79	160	5.06	8.4
17 ACCIDENTS, POISONING & VIOLENCE	24	6.06	103	3.27	4.3
18 NON-SICKNESS	7	1.86	28	0.86	4.0

ANALYSIS OF MORBIDITY IN TOTAL MALE F.A.20.

No. of Patients in Group - 41.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS	ACTUAL NO.	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	1	0·69	8	0·68	8·0
2 NEOPLASMS	1	0·69	18	1·59	18·0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	4	2·76	12	0·92	3·0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	11	7·6	91	7·0	8·3
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	14	9·65	76	5·82	5·4
7 DISEASES OF CIRCULATORY SYSTEM	22	15·2	340	26·2	15·4
8 DISEASES OF RESPIRATORY SYSTEM	38	26·2	400	30·7	10·5
9 DISEASES OF DIGESTIVE SYSTEM	17	11·7	124	9·52	7·6
10 DISEASES OF GENITO-URINARY SYSTEM	6	4·13	65	5·0	10·8
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	11	7·6	35	2·7	3·2
13 DISEASES OF BONES + ORGANS OF MOVEMENT	9	6·2	68	5·23	7·6
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	3	2·07	14	1·04	4·7
17 ACCIDENTS, POISONING + VIOLENCE	6	4·13	43	3·32	7·2
18 NON-SICKNESS	2	1·37	4	3·07	2·0

ANALYSIS OF MORBIDITY IN TOTAL FEMALE F.A.20.

No. of Patients in Group - 65.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER. EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	2	0.79	14	0.7%	7.0
2 NEOPLASMS	1	0.39	26	1.4	26.0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	7	2.8	47	2.54	6.7
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	5	1.95	68	3.6%	13.6
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	21	8.35	229	12.4	10.8
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	20	7.9	125	6.72	6.25
7 DISEASES OF CIRCULATORY SYSTEM	28	10.6	353	19.1	12.6
8 DISEASES OF RESPIRATORY SYSTEM	46	18.4	205	11.1	4.45
9 DISEASES OF DIGESTIVE SYSTEM	32	12.8	180	9.7	5.6
10 DISEASES OF GENITO-URINARY SYSTEM	15	5.9%	65	3.5	4.3
11 PREGNANCY	6	2.38	105	5.6%	17.5
12 DISEASES OF SKIN + CELLULAR TISSUE	10	3.95	28	1.5	2.8
13 DISEASES OF BONES + ORGANS OF MOVEMENT	19	7.5%	172	9.3	9.0
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	16	6.3%	146	7.9	9.1
17 ACCIDENTS, POISONING + VIOLENCE	18	7.16	60	3.25	3.3
18 NON-SICKNESS	5	1.95	24	1.3	4.8

ANALYSIS OF MORBIDITY IN MALE F.A.20 AGED 65 AND OVER.

Nol of Patients in Group - 19.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS	ACTUAL NO	% OF EPIS.	
1 INFECTIVE + PARASITIC DISEASES	1	1·52	8	1·26	8.0
2 NEOPLASMS	1	1·52	18	2·83	18.0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	0	0	0	0	0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	4	6·05	9	1·42	2.25
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	8	12·1	48	7·56	6.0
7 DISEASES OF CIRCULATORY SYSTEM	11	16·6	227	35·6	20.6
8 DISEASES OF RESPIRATORY SYSTEM	16	24·2	159	25·0	9.9
9 DISEASES OF DIGESTIVE SYSTEM	7	10·6	77	12·06	11.0
10 DISEASES OF GENITO-URINARY SYSTEM	2	3·04	32	5·03	16.0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	9	13·6	32	5·03	3.6
13 DISEASES OF BONES + ORGANS OF MOVEMENT	4	6·05	18	2·83	4.5
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	0	0	0	0	0
17 ACCIDENTS, POISONING + VIOLENCE	2	3·03	5	0·78	2.5
18 NON-SICKNESS	1	1·52	2	0·31	2.0

ANALYSIS OF MORBIDITY IN FEMALE F.A. 20 AGED 65 AND OVER.

Nol of Patients in Group - 37.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS PER EPIS
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	0	0	0	0	0
2 NEOPLASMS	1	0.84	26	2.31	26.0
3 ALLERGIC, ENDOCRINE METABOLIC NUTRITIONAL DISEASES	2	1.68	19	1.7	9.5
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	4	3.36	66	5.9	16.5
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	10	8.4	114	10.2	11.4
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	12	10.1	80	7.15	6.7
7 DISEASES OF CIRCULATORY SYSTEM	21	17.7	250	22.3	11.9
8 DISEASES OF RESPIRATORY SYSTEM	19	15.9	103	9.2	5.4
9 DISEASES OF DIGESTIVE SYSTEM	12	10.1	74	6.6	6.2
10 DISEASES OF GENITO-URINARY SYSTEM	3	2.52	9	0.80	3.0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	4	3.36	20	1.8	5.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	13	10.9	150	13.4	11.5
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	9	7.52	138	12.3	15.3
17 ACCIDENTS, POISONING + VIOLENCE	8	6.7	46	4.1	5.75
18 NON-SICKNESS	1	0.84	17	1.52	17.0

ANALYSIS OF MORBIDITY IN MALE F.A.20 AGED 45 - 64.

No. of Patients in Group - 20.

Diagnostic Category	Episodes		Consultations		Cons. per Epis.
	Actual No.	% of Epis.	Actual No.	% of Cons.	
1 Infective + parasitic diseases	0	0	0	0	0
2 Neoplasms	0	0	0	0	0
3 Allergic, endocrine, metabolic + nutritional diseases	4	5.55	12	1.96	3.0
4 Diseases of blood + blood-forming organs	0	0	0	0	0
5 Mental, psychoneurotic + personality disorders	7	9.72	82	13.3	10.7
6 Diseases of nervous system + sense organs	6	8.33	28	4.55	4.7
7 Diseases of circulatory system	11	15.3	113	18.4	10.3
8 Diseases of respiratory system	18	25.0	210	34.0	11.7
9 Diseases of digestive system	10	13.9	47	7.62	4.7
10 Diseases of genito-urinary system	4	5.55	33	5.37	8.25
11 Pregnancy	0	0	0	0	0
12 Diseases of skin + cellular tissue	2	2.76	3	0.49	1.5
13 Diseases of bones + organs of movement	4	5.55	47	7.62	11.75
14 Congenital malformations	0	0	0	0	0
15 Certain diseases of early infancy	0	0	0	0	0
16 Symptoms, senility + ill-defined conditions	3	4.16	14	2.28	4.7
17 Accidents, poisoning + violence	3	4.16	26	4.24	8.7
18 Non-sickness	0	0	0	0	0

ANALYSIS OF MORBIDITY IN FEMALE F.A.20 AGED 45 - 64.

No. of Patients in Group - 9.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	0	0	0	0	0
2 NEOPLASMS	0	0	0	0	0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	0	0	0	0	0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	4	10.5	43	17.0	10.75
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	2	5.25	29	11.5	14.5
7 DISEASES OF CIRCULATORY SYSTEM	5	13.32	59	23.4	11.8
8 DISEASES OF RESPIRATORY SYSTEM.	7	18.3	41	16.2	5.9
9 DISEASES OF DIGESTIVE SYSTEM	7	18.3	25	9.9	3.6
10 DISEASES OF GENITO-URINARY SYSTEM	2	5.25	28	11.05	14.0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	1	2.62	1	0.39	1.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	5	13.32	21	8.3	4.2
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	1	2.62	1	0.39	1.0
17 ACCIDENTS, POISONING + VIOLENCE	3	7.9	3	1.09	1.0
18 NON-SICKNESS	1	2.62	2	0.79	2.0

ANALYSIS OF MORBIDITY IN MALE F.A.20 AGED 15 - 44.

No. of Patients in Group - 2.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES					
2 NEOPLASMS					
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES					
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS					
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS					
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS					
7 DISEASES OF CIRCULATORY SYSTEM					
8 DISEASES OF RESPIRATORY SYSTEM	4		31		7.75
9 DISEASES OF DIGESTIVE SYSTEM					
10 DISEASES OF GENITO-URINARY SYSTEM					
11 PREGNANCY					
12 DISEASES OF SKIN + CELLULAR TISSUE					
13 DISEASES OF BONES + ORGANS OF MOVEMENT	1		3		3.0
14 CONGENITAL MALFORMATIONS					
15 CERTAIN DISEASES OF EARLY IN FANCY					
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS					
17 ACCIDENTS, POISONING + VIOLENCE	1		12		12.0
18 NON-SICKNESS	1		2		2.0

ANALYSIS OF MORBIDITY IN FEMALE F.A.20 AGED 15 - 44.

No. of Patients in Group - 19.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	2	2.13	14	2.9	7.0
2 NEOPLASMS	0	0	0	0	0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	5	5.3	28	5.8	5.6
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	1	1.06	2	0.41	2.0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	7	7.42	72	14.9	10.3
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	6	6.38	16	3.31	2.7
7 DISEASES OF CIRCULATORY SYSTEM	2	2.13	44	9.1	22.0
8 DISEASES OF RESPIRATORY SYSTEM	20	21.3	61	12.6	3.05
9 DISEASES OF DIGESTIVE SYSTEM	13	13.8	81	16.8	6.2
10 DISEASES OF GENITO-URINARY SYSTEM	10	10.6	28	5.8	2.8
11 PREGNANCY	6	6.38	105	21.8	17.5
12 DISEASES OF SKIN + CELLULAR TISSUE	5	5.3	7	1.44	1.4
13 DISEASES OF BONES + ORGANS OF MOVEMENT	1	1.06	1	0.21	1.0
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	6	6.38	7	1.44	1.2
17 ACCIDENTS, POISONING + VIOLENCE	7	7.42	11	2.28	1.6
18 NON-SICKNESS	3	3.18	5	1.04	1.7

In the total group the highest proportion of episodes is for diseases of the respiratory system with circulatory diseases and alimentary disease following in that order. For consultations the highest proportion is for circulatory disease followed by respiratory diseases and then psychiatric illness. The highest average number of consultations per episode is for neoplasms followed by pregnancy, circulatory disease and diseases of the blood and blood-forming organs. In male patients in the F.A.20 group the highest proportion of episodes was for respiratory illness, circulatory disease and alimentary disease, whilst in females it was highest in respiratory disease, alimentary disease and circulatory disease in that order.

For consultations, the highest proportion in males was for respiratory diseases followed closely by diseases of the circulatory system and third, well behind, were diseases of the alimentary system. In females the highest proportion was for diseases of the circulatory system followed by psychiatric conditions and diseases of the alimentary system. In males the highest average number of consultations per episode was for neoplasms followed by circulatory disease and genito-urinary conditions. In females the highest was for neoplasms, pregnancy and diseases of the blood and blood-forming organs. The details concerning morbidity by sex and age groups are discussed further in the section where the morbidity in the F.A.20 is compared to that in the practice.

DISCUSSION ON FREQUENT ATTENDERS

A control group had to be found with which to compare the morbidity findings in the frequent attenders. There were two possibilities for this control group - that is, either the practice adult population as a whole or the practice adult population minus the frequent attenders. The findings regarding morbidity in the practice as a whole had to be calculated in order to compare the findings in the practice with those findings published from other practices. Therefore, it is obviously more convenient to use the practice as a whole as the control group for comparison with the findings concerning morbidity in the frequent attenders. Convenience is not sufficient reason for using the method, however, and if to be used this method has to be justified on other grounds. There are two other reasons justifying the use of the practice adult population as the control group, although this population minus the frequent attenders would have been a more pure control group and one possibly more satisfying to the statistician. Firstly, whether considering the number of patients, the number of episodes or the number of consultations the practice adult population is a very much larger group than the group of frequent attenders and so there is less dilution of the control group by the

frequent /

frequent attenders than if this had not applied. Secondly, when considering the pattern of morbidity and the average number of consultations per episode, these two being the main comparisons made, any differences noted when using the practice as a whole for the control group would be accentuated if the practice minus the frequent attenders had been used. Thus, any differences in morbidity noted by the more crude method would be made more significant by using the more pure method. On the other hand, minor differences are likely to be masked by using the crude method. Minor differences in morbidity pattern are, though, not likely to be of significance in this study. With a view to showing the actual differences which it would have made by using the more pure control group, some comparisons were made using both types of control groups. This was done for the F.A.6 and the F.A.20. This confirmed the fact that any differences noted by using the practice as the control group are accentuated if using the practice less the frequent attenders and so the findings for the practice adult population has been used as the control group throughout.

Having decided on the control group the factors between the control group and the study group with which one could compare morbidity had to be decided. There are two main factors to be considered in the pattern of morbidity between the groups. Firstly, there is the

pattern of morbidity with which term is meant the proportion of illness in each group occurring in the various diagnostic categories. Secondly, some indication has to be given of the severity of the illnesses occurring under each diagnostic heading. To compare the pattern of morbidity in this study, the number of episodes of illness occurring under each diagnostic heading has been used. The number of episodes occurring under the individual diagnostic headings have been expressed as a percentage of the total number of episodes in the group being studied, thus making comparison between groups possible. As an indication of the severity of the episodes occurring under each diagnostic heading in each group, the average number of consultations per episode has been used.

D I S C U S S I O N

THE GROUP OF FREQUENT ATTENDERS WHO HAD 20 OR MORE CONSULTATIONS IN THE YEAR.

Age and Sex Ratio.

This group are responsible for a vast amount of the work in general practice. Although the number in the group comprised less than 5% of the total adult population in the practice they are responsible for 10.4% of all adult episodes of illness and for 28.8% of all adult consultations. This shows that as well as having a high consultation rate they had more than the average number of episodes of illness.

Females outnumbered males approximately in the proportion of three to two. Between the ages of 15 and 44 females outnumbered males in the proportion of about ten to one and after this age the proportion dropped to approximately nine to eight.

In the group aged 65 or over 10% of all adult males and 15% of all adult females come into this category. It is clearly seen, therefore, that frequent attenders with more than twenty consultations in the year fall mainly into two categories. Primarily, the elderly of both sexes, and to a lesser extent the females in the younger adult age group. Emphasis will have to be laid on these two sections when studying the morbidity in the group of frequent attenders.

Episodes /

Episodes of Illness in F.A.20.

These patients had an average of 3.74 episodes of illness in the year, whilst the average for the practice adult population was 1.66. The higher average number of episodes per patient applies in the group of frequent attenders in all ages and in both sexes. This could be explained in two ways. Firstly, this group of patients, as will be noted later, are on the whole attending for illness which requires on average more consultations per episode than is general in the practice. They have, therefore, ample opportunity whilst attending to mention other causes of morbidity which they might not have mentioned if this opportunity had not arisen. Another factor that will help to raise the average number of episodes in the group is that the group actually contains 16 of the patients who had six or more episodes of illness in the year. This would help to raise the average number of episodes per patient in the group who had 20 or more consultations in the year. It is of interest to see the distribution of those patients who had six or more episodes of illness and twenty or more consultations within the total group of patients who had twenty or more consultations in the year.

Age	Sex	No. of Patients in both F.A.6 and F.A.20 Groups.	No. of Patients in Age-Sex Group of F.A.20.
15-24	Male	0	0
25-34		0	1
35-44		0	1
45-54		0	7
55-64		3	13
Over 64		2	19
15-24	Female	2	6
25-34		0	6
35-44		3	7
45-54		2	5
55-64		1	4
Over 64		3	37

It is seen that the greatest proportion of F.A.6 in the F.A.20 group occurs in the females aged 15-24, 35-44 and 45-54 and it is precisely in these age groups in females that there is found the highest average number of episodes per patient in the F.A.20 group. It does seem, therefore, that this may be a factor in producing a higher average number of episodes in the F.A.20 than in the practice as a whole.

Consultations in F.A.20.

The average number of consultations in the F.A.20 tends to increase with advancing age and in this respect follows the pattern shown in the practice as a whole. The F.A.20 have an average which exceeds that in the practice by approximately three to four times but this is, of course, expected by the definition of the group.

Consultations per Episode in F.A.20.

Although the F.A.20 have an increased average number of episodes this does not rise in the same proportion as the consultations. This is shown by the fact that this group had 28.8% of all adult consultations but only 10.4% of episodes. In the total group the average number of consultations per episode is 7.9 as opposed to 2.86 in the practice and the increase is fairly proportionate for males and females. The average number increases with age, again a pattern shown by the practice as a whole, and in both this group and the practice there is a higher number than would be expected in females in the 25-34 year old group.

Referrals in F.A.20.

When the referral rate per 1,000 patients is compared with that in the sample group as devised on page 108, it is

seen /

seen that the referral rate of 174 per 1,000 episodes in the F.A.20 compares with that of 102 per 1,000 in the control group. When examined in more detail it is noted that for every type of referral, except to Casualty and to Physiotherapy, there is a higher rate in the F.A.20 than in the control group. In referrals to Casualty the rate is only slightly higher in the F.A.20 and to Physiotherapy is slightly lower. In referrals for direct admission to hospital, X-ray and pathological investigation the referral rate in the F.A.20 is double that in the control group. When examined by sex it is interesting to note that the sex ratio on referrals in the F.A.20 approximates to that in the control group, e.g. for referrals for consultations there were 89 per 1,000 episodes for male patients and 47 for female, whilst in the control group there were 79 for males and 38.8 for females, and for direct admissions 62 for males and 44 for females in the F.A.20 against 26.8 and 20.9 in the control group.

It is reasonable to assume that this is an indication that illness in the group of F.A.20 is of a more serious nature than that in the practice adults considered as a whole.

Late /

Late Calls in F.A.20.

When late calls in the group are compared to those in the sample control group the rate per 1,000 episodes is approximately double in the F.A.20.

	Male	Female	Total
F.A.20	34.4	19.8	25.3
Control Group	16.5	12.8	13.3

This too could be taken to show the more serious nature of illness in the F.A.20.

Morbidity in the F.A.20.

As previously stated, the factors used to compare the morbidity in the F.A.20 with that of the practice are the proportions of episodes occurring under each diagnostic heading and the average number of consultations per episode under each diagnostic heading. To facilitate comparison these factors for the practice and the F.A.20 are shown in Tables 24 - 32 on pages 131 to 139

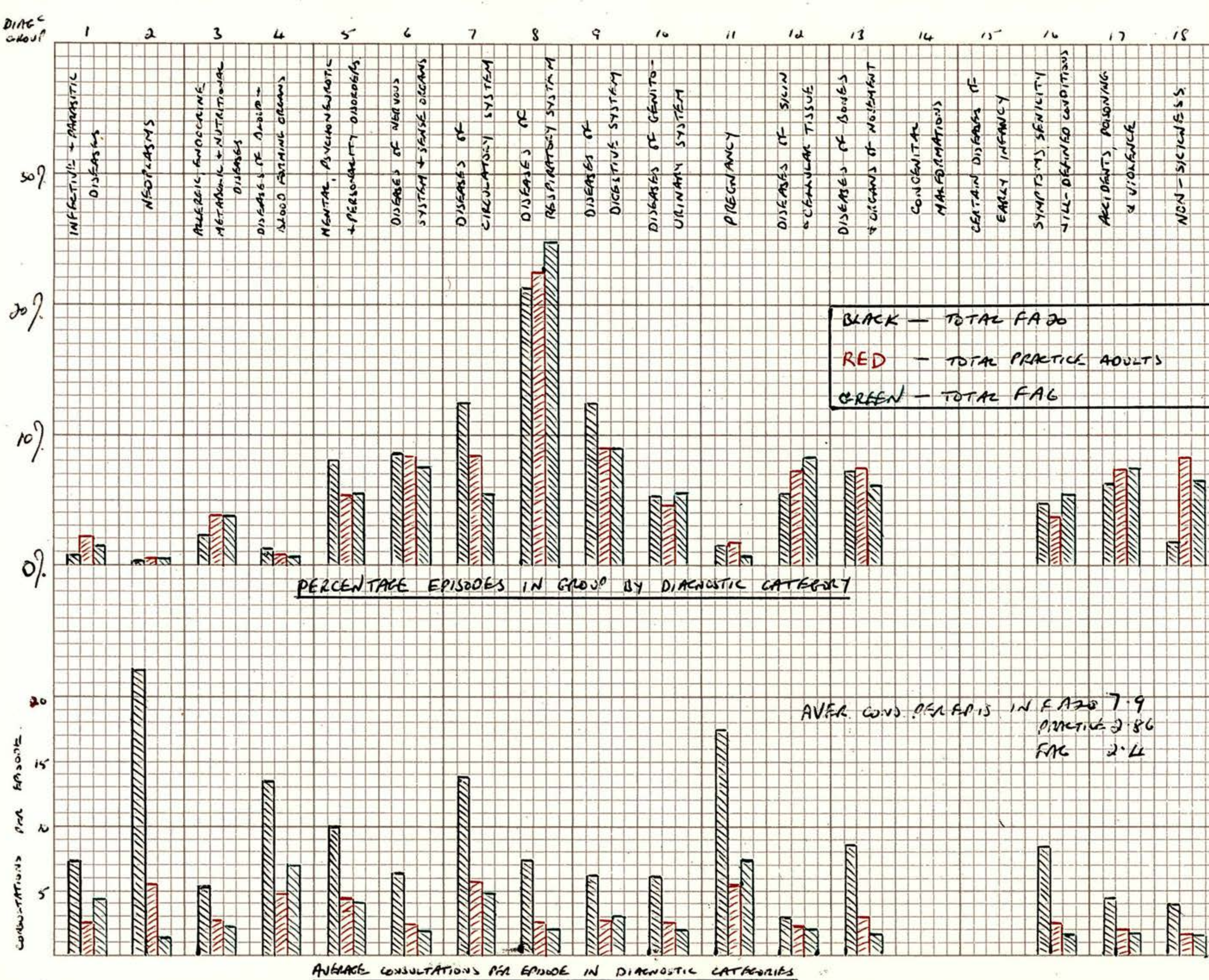

DIAG GROUP
1 INFECTIVE + PARASITIC DISEASES
2 NEOPLASMS
3 ALLERGIC ENDOCRINE METABOLIC + NUTRITIONAL DISEASES
4 DISEASES OF BLOOD + BLOOD FORMING ORGANS
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS
7 DISEASES OF CIRCULATORY SYSTEM
8 DISEASES OF RESPIRATORY SYSTEM
9 DISEASES OF DIGESTIVE SYSTEM
10 DISEASES OF GENITO-URINARY SYSTEM
11 PREGNANCY
12 DISEASES OF SKIN + CELLULAR TISSUE
13 DISEASES OF BONES + ORGANS OF MOVEMENT
14 CONGENITAL MALFORMATIONS
15 CERTAIN DISEASES OF EARLY INFANCY
16 SYMPTOMS SENILITY + ILL-DEFINED CONDITIONS
17 ACCIDENTS, POISONING + VIOLENCE
18 NON-SICKNESS
0% 10% 20% 30%
BLACK — TOTAL FA20
RED — TOTAL PRACTICE ADULTS
GREEN — TOTAL FAG
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
CONSULTATIONS PER EPISODE
5 10 15 20
AVER. CONS. PER EPIS IN FA20 7·9
PRACTICE 2·86
FAG 2·4
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 24.

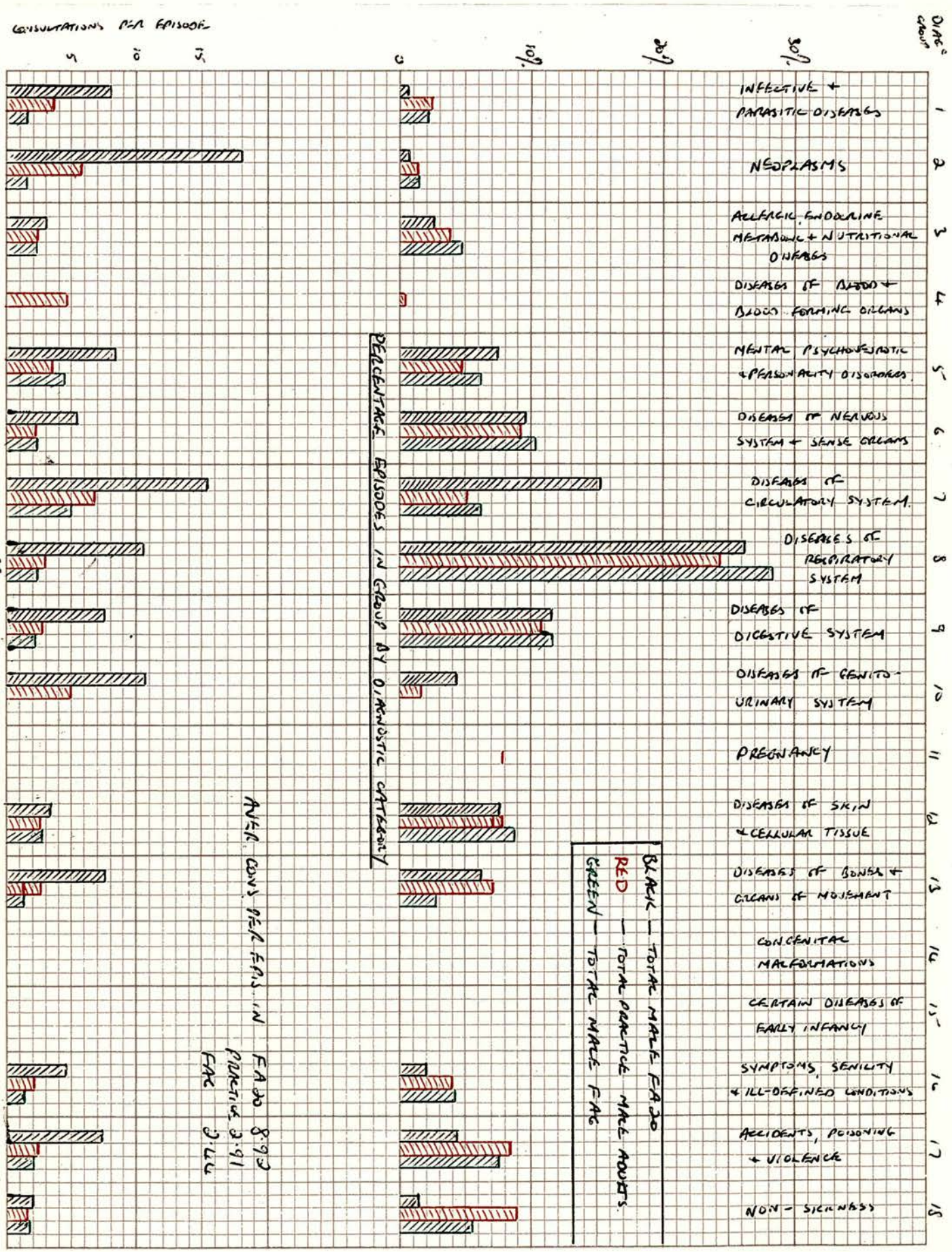
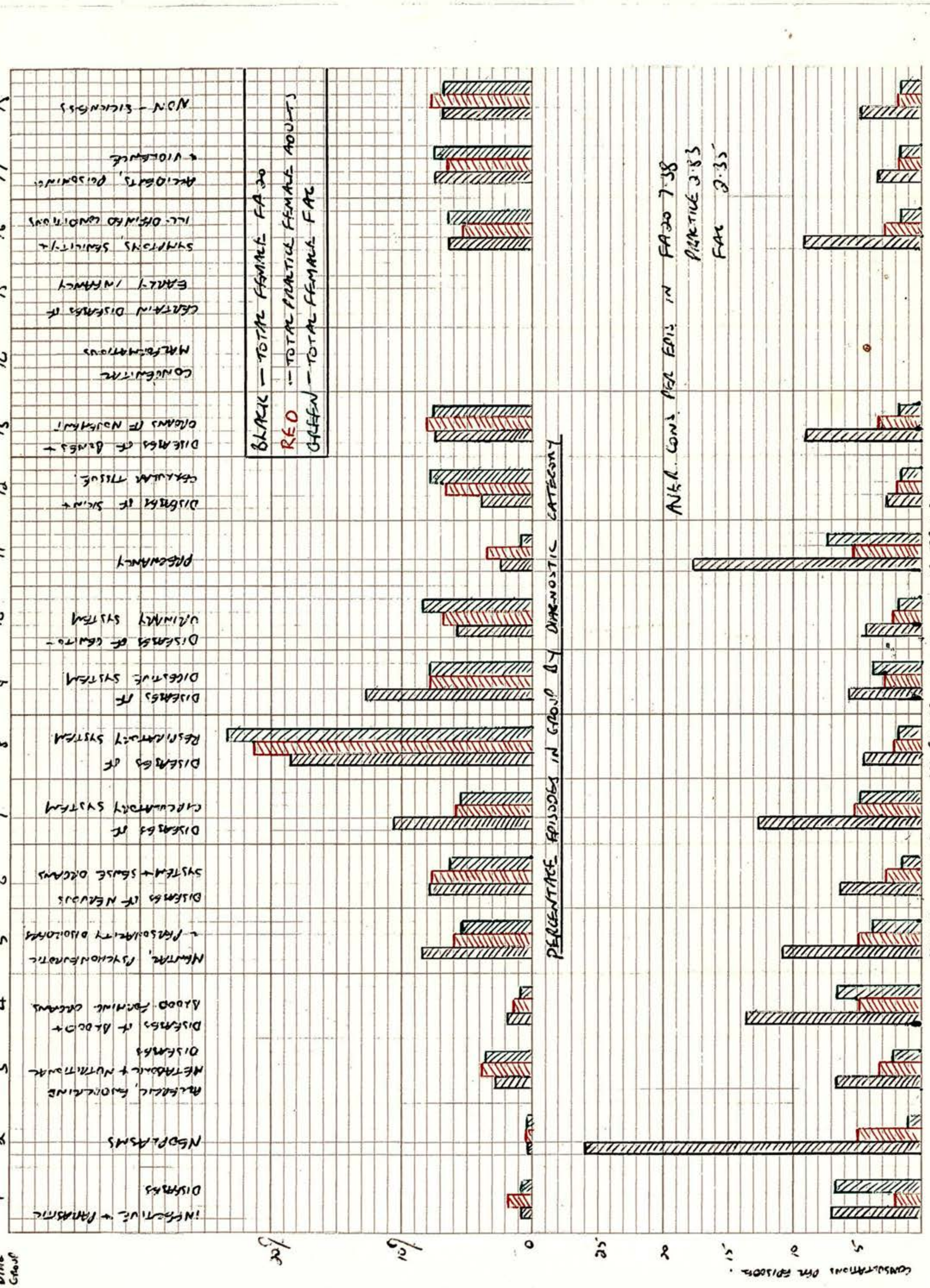
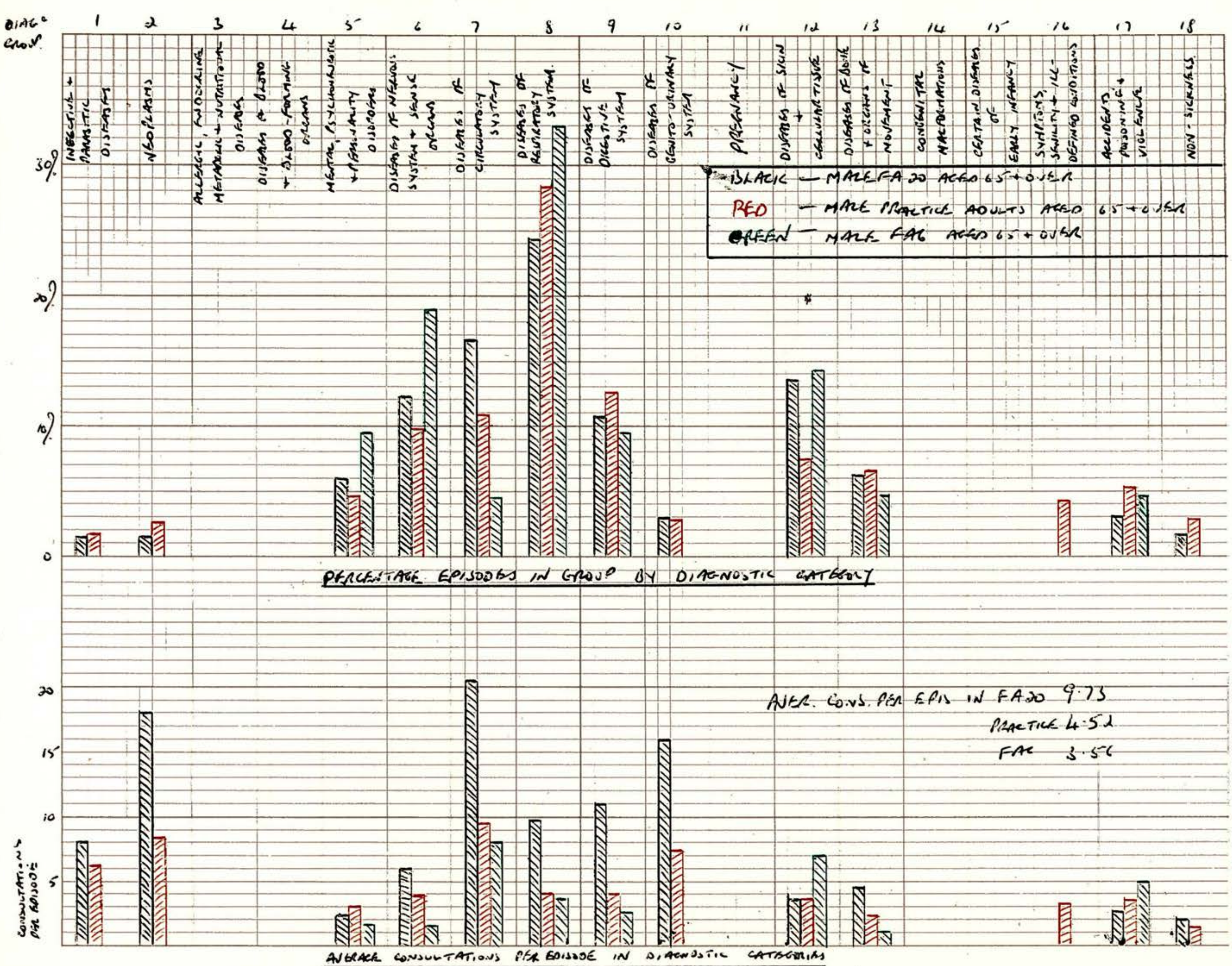

CONSULTATIONS PER EPISODE
5
10
15
0
10%
20%
30%
DIAG. GROUP
INFECTIVE + PARASITIC DISEASES
NEOPLASMS
ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES
DISEASES OF BLOOD + BLOOD FORMING ORGANS
MENTAL PSYCHOSES + PERSONALITY DISORDERS
DISEASES OF NERVOUS SYSTEM + SENSE ORGANS
DISEASES OF CIRCULATORY SYSTEM
DISEASES OF RESPIRATORY SYSTEM
DISEASES OF DIGESTIVE SYSTEM
DISEASES OF GENITO-URINARY SYSTEM
PREGNANCY
DISEASES OF SKIN + CELLULAR TISSUE
DISEASES OF BONES + ORGANS OF MOVEMENT
CONGENITAL MALFORMATIONS
CERTAIN DISEASES OF EARLY INFANCY
SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS
ACCIDENTS, POISONING + VIOLENCE
NON-SICKNESS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
BLACK — TOTAL MALE FAM
RED — TOTAL PARTICIPANT MALE ADULTS
GREEN — TOTAL MALE FAM
AVER. CONS PER FAM IN FAM 8.93
PARTICIPANT 3.91
FAM 3.44
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 35


BLACK — TOTAL FEMALE FA 20
RED — TOTAL PRACTICE FEMALE ADULTS
GREEN — TOTAL FEMALE FAC
AVER. CONS PER EPIS IN FA 20 7.38
PRACTICE 3.83
FAC 3.35
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES
FIGURE 26
CONSULTATIONS PER EPISODE
DIAG GROUP
NON - SICKNESS
NEOPLASMS
PREGNANCY



DIAG. GROUP
1 INFECTIVE + PARASITIC DISEASES
2 NEOPLASMS
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS
7 DISEASES OF CIRCULATORY SYSTEM
8 DISEASES OF RESPIRATORY SYSTEM
9 DISEASES OF DIGESTIVE SYSTEM
10 DISEASES OF GENITO-URINARY SYSTEM
11 PREGNANCY
12 DISEASES OF SKIN + CELLULAR TISSUE
13 DISEASES OF BONE + ORGANS OF MOVEMENT
14 CONGENITAL MALFORMATIONS
15 CERTAIN DISEASES OF EARLY INFANCY
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS
17 ACCIDENTS, POISONING + VIOLENCE
18 NON-SICKNESS
BLACK — MALE FA20 AGED 65 + OVER
RED — MALE PRACTICE ADULTS AGED 65 + OVER
GREEN — MALE FA6 AGED 65 + OVER
0
10%
20%
30%
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
CONSULTATIONS PER EPISODE
5
10
15
20
AVER. CONS. PER EPIS IN FA20 9·73
PRACTICE 4·52
FA6 3·56
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 27

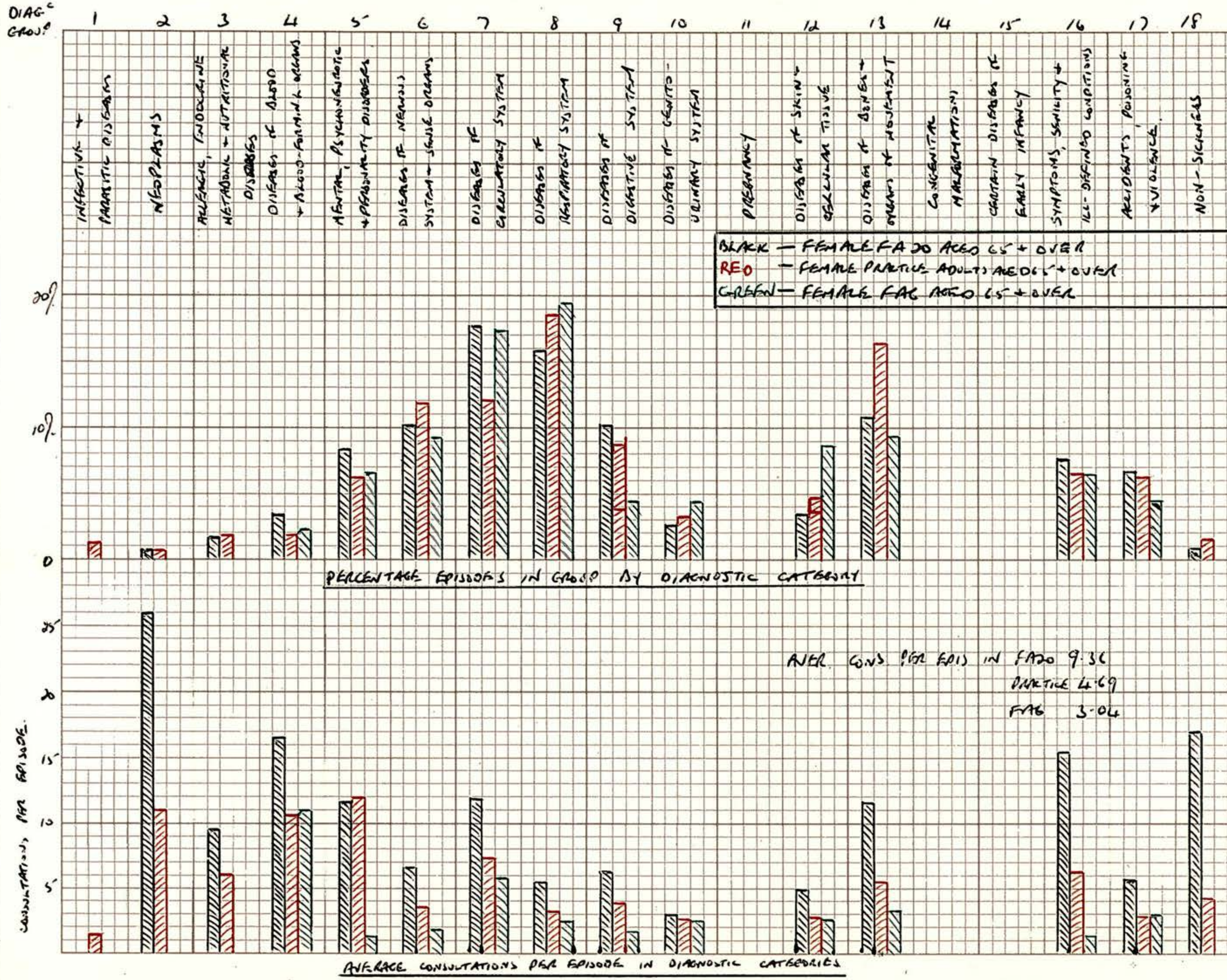

DIAG^c GROUP
1 INFECTIVE + PARASITIC DISEASES
2 NEOPLASMS
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS
7 DISEASES OF CIRCULATORY SYSTEM
8 DISEASES OF RESPIRATORY SYSTEM
9 DISEASES OF DIGESTIVE SYSTEM
10 DISEASES OF GENITO-URINARY SYSTEM
11 PREGNANCY
12 DISEASES OF SKIN + CELLULAR TISSUE
13 DISEASES OF BONES + ORGANS OF MOVEMENT
14 CONGENITAL MALFORMATIONS
15 CERTAIN DISEASES OF EARLY INFANCY
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS
17 ACCIDENTS, POISONING + VIOLENCE
18 NON-SICKNESS
BLACK — FEMALE FA 20 AGED 65 + OVER
RED — FEMALE PRACTICE ADULTS AGED 65 + OVER
GREEN — FEMALE FAG AGED 65 + OVER
20%
10%
0
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
25
20
15
10
5
CONSULTATIONS PER EPISODE
AVER. CONS. PER EPIS IN FA20 9.36
PRACTICE 4.69
FAG 3.04
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 28

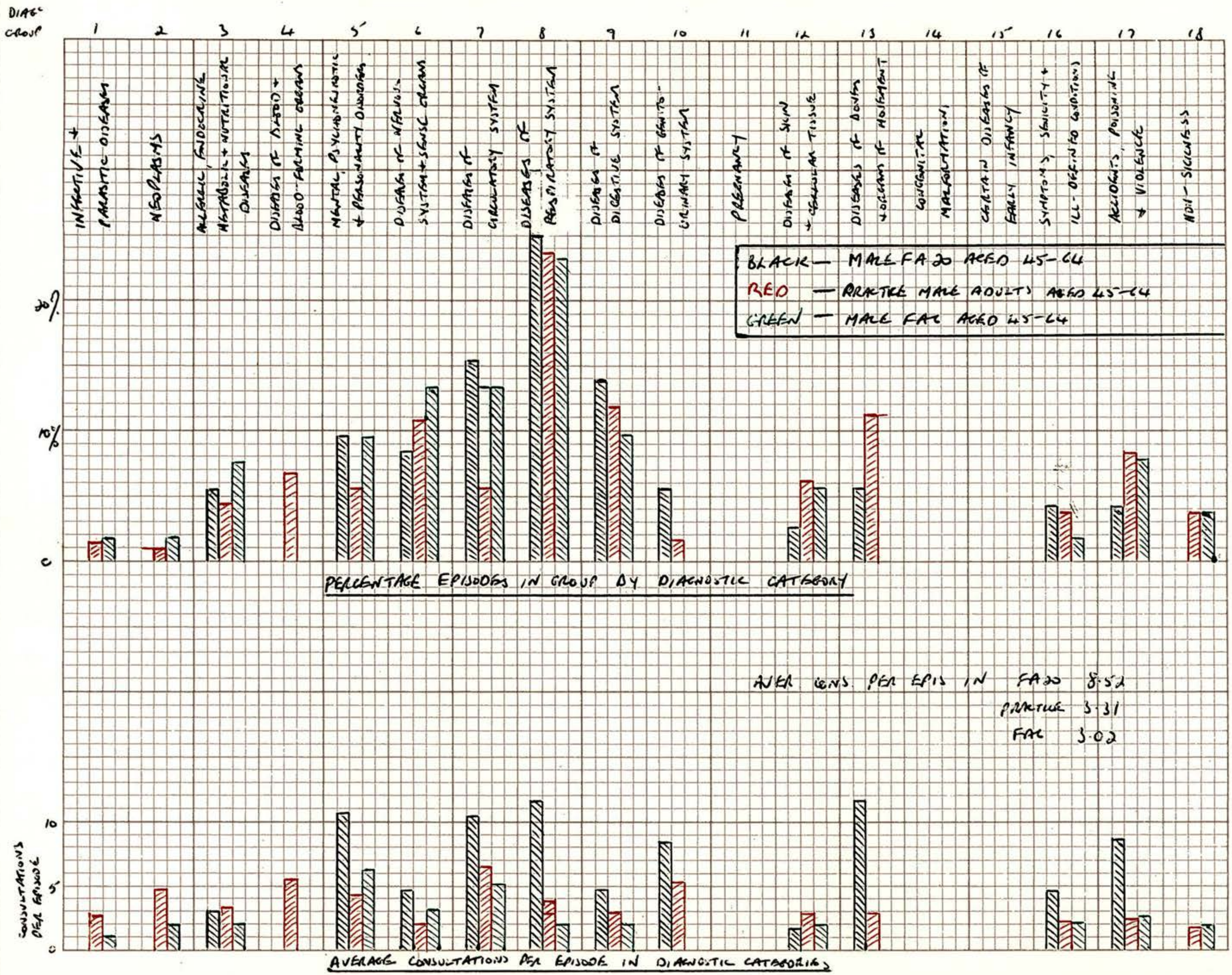

DIAG GROUP
1 INFECTIVE + PARASITIC DISEASES
2 NEOPLASMS
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS
7 DISEASES OF CIRCULATORY SYSTEM
8 DISEASES OF RESPIRATORY SYSTEM
9 DISEASES OF DIGESTIVE SYSTEM
10 DISEASES OF GENITO-URINARY SYSTEM
11 PREGNANCY
12 DISEASES OF SKIN + CELLULAR TISSUE
13 DISEASES OF BONES + ORGANS OF MOVEMENT
14 CONGENITAL MALFORMATIONS
15 CERTAIN DISEASES OF EARLY INFANCY
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS
17 ACCIDENTS, POISONING + VIOLENCE
18 NON-SICKNESS
BLACK — MALE FA 20 AGED 45-64
RED — PRACTICE MALE ADULTS AGED 45-64
GREEN — MALE FAC AGED 45-64
0
10%
20%
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
AVER CONS PER EPIS IN FA 20 8·52
PRACTICE 3·31
FAC 3·02
CONSULTATIONS PER EPISODE
0
5
10
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 29

DIAG. GROUP
INFECTIVE & PARASITIC DISEASES
NEOPLASMS
ALLERGIC, ENDOCRINE, METABOLIC & NUTRITIONAL DISEASES
DISEASES OF BLOOD & BLOOD FORMING ORGANS
MENTAL, PSYCHONEUROTIC & PERSONALITY DISORDERS
DISEASES OF NERVOUS SYSTEM & SENSE ORGANS
DISEASES OF CIRCULATORY SYSTEM
DISEASES OF RESPIRATORY SYSTEM
DISEASES OF DIGESTIVE SYSTEM
DISEASES OF GENITO-URINARY SYSTEM
PREGNANCY
DISEASES OF SKIN & CELLULAR TISSUES
DISEASES OF BONES & ORGANS OF MOVEMENT
CONGENITAL MALFORMATIONS
EARLY INFANCY
SYMPTOMS, SENILITY & ILL-DEFINED CONDITIONS
ACCIDENTS, VIOLENCE & POISONING
NON-SICKNESS
BLACK — FEMALE FA 30 AGED 45-64
RED — FEMALE PARITY ADULTS AGE 45-64
GREEN — FEMALE FAE AGED 45-64
PELICAN-TAKE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
AGE 0 10 30 45 60 75
CONSULTATIONS/1000
AFFAIR CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES
FIGURE 30
AFFAIR CONSULTATIONS PER EPISODE IN FA 30 64 PARITY 2.53 FAE 2.53

Disease Group
Consultations per 10,000
Infectious & parasitic diseases
Neoplasms
Allergic, endocrine, nutritional, metabolic & immunity disorders
Diseases of blood & blood-forming organs
Mental, psychoneurotic, personality disorders
Diseases of nervous system & sense organs
Diseases of circulatory system
Diseases of respiratory system
Diseases of digestive system
Diseases of genito-urinary system
Deliveries & complications of pregnancy, childbirth & puerperium
Diseases of skin & subcutaneous tissue
Diseases of bones & organs of movement
Congenital anomalies
Certain diseases of early infancy
Symptoms, senility & ill-defined conditions
Accidents, poisonings & violences
Non-sickness
F-Ab not included - 3 Mares over Meso 15-44
PEO — Mare Practice Routes Meso 15-44
Cyclical — Fare Marks Meso 15-44
Pfeiffer — Episodes in Labor at Dimensitic Centers
Alph. Lows Perfect in Fabo c.s
Dimetic 1.95
Fare 1.49
Alphabe Consultations per Episode in Dimensitic-Centers
Figure 31

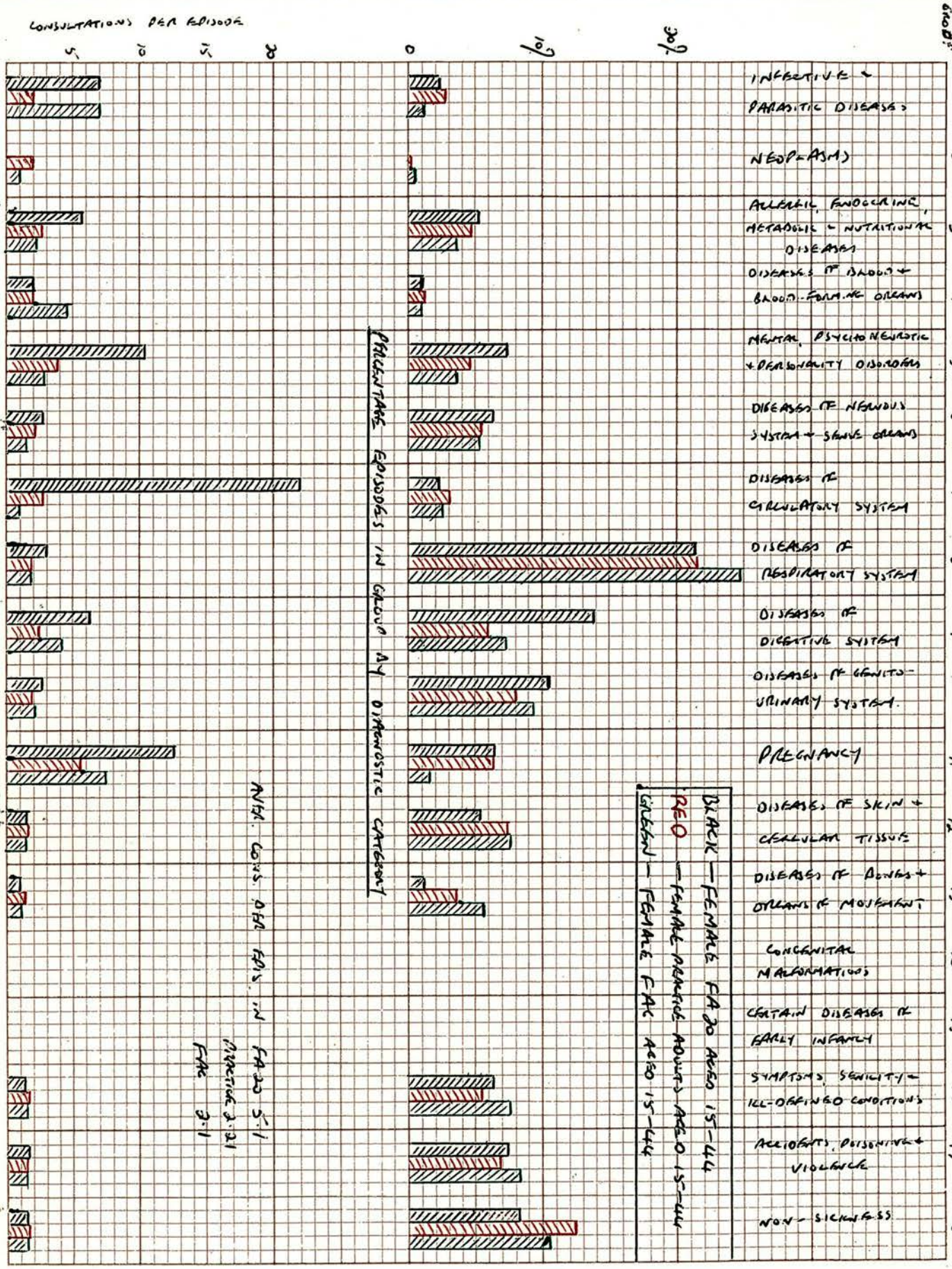

CONSULTATIONS PER EPISODE
5
10
15
20
0
10%
30%
DIAG. GROUP
1 INFECTIVE & PARASITIC DISEASES
2 NEOPLASMS
3 ALLERGIC, ENDOCRINE, METABOLIC & NUTRITIONAL DISEASES
4 DISEASES OF BLOOD & BLOOD-FORMING ORGANS
5 MENTAL, PSYCHONEUROTIC & PERSONALITY DISORDERS
6 DISEASES OF NERVOUS SYSTEM & SENSE ORGANS
7 DISEASES OF CIRCULATORY SYSTEM
8 DISEASES OF RESPIRATORY SYSTEM
9 DISEASES OF DIGESTIVE SYSTEM
10 DISEASES OF GENITO-URINARY SYSTEM
11 PREGNANCY
12 DISEASES OF SKIN & CELLULAR TISSUE
13 DISEASES OF BONES & ORGANS OF MOVEMENT
14 CONGENITAL MALFORMATIONS
15 CERTAIN DISEASES OF EARLY INFANCY
16 SYMPTOMS, SENILITY & ILL-DEFINED CONDITIONS
17 ACCIDENTS, POISONING & VIOLENCE
18 NON-SICKNESS
BLACK — FEMALE AGED 20 AGED 15–44
RED — FEMALE PRIVATE ADULTS AGED 15–44
GREEN — FEMALE FAM AGED 15–44
PERCENTAGE EPISODES IN GROUP BY DIAGNOSTIC CATEGORY
AVGE. CONS. PER EPIS. IN FAM 3.1
PRIVATE 3.21
FAM 3.1
AVERAGE CONSULTATIONS PER EPISODE IN DIAGNOSTIC CATEGORIES

FIGURE 32

The purpose of comparing the morbidity in the F.A.20 and in the adult practice population as a whole is to find out if the cause of the higher consultations in the F.A.20 can be attributed to any particular diagnostic categories. The first point noted in Figure 24 is that for the total group of F.A.20 the pattern of morbidity as shown by the proportion of episodes under each diagnostic category is fairly similar to that of the practice adult population but for every diagnostic category there is a higher average number of consultations per episode in the F.A.20. It is seen, therefore, that to some extent every diagnostic category plays a part in increasing the number of consultations in the F.A.20. It is obvious, however, that some diagnostic categories will have a more important part in increasing the consultations per patient than others and in attempting to elucidate this some general principles had to be considered.

It had to be shown which diagnostic categories in the F.A.20 had the greatest increase in consultations per episode. In order to do this the number of times by which the total group of F.A.20 under consideration had increased its consultations per episode over that of the appropriate control group was used as a base line. Those individual diagnostic categories in the group of F.A.20 which had increased their consultations per episode over

the /

the corresponding control diagnostic categories by more than this figure will have the highest increases in consultations per episode for that group. For example, when considering the total group of F.A.20 it is noted that the average consultations per episode is 7.9, while the corresponding figure for the total adult practice population is 2.86. This total group of F.A.20 therefore has an average number of consultations per episode which is 2.75 ($\frac{7.9}{2.86}$) times higher than that of the total control group. The individual diagnostic categories which have the highest increase in consultations per episode in the total group of F.A.20 must therefore have a figure at least 2.75 times that of the appropriate diagnostic category in the control group.

Having noted the diagnostic categories which have the highest increases in consultations per episode it is necessary too to consider the proportion of episodes in the F.A.20 for which these diagnostic categories were responsible. It is obvious that if one of these categories has 20% of episodes it will make a greater contribution to the increases in consultations in the F.A.20 than another diagnostic category which has a similar increase in its consultations per episode but which is only responsible for 1% of episodes.

In addition to the above consideration of the proportion of episodes occurring under the various

diagnostic categories within the F.A.20, the proportion under each diagnostic category has to be compared with the proportion occurring under the same category in the control group. If any diagnostic category in the F.A.20 has a higher proportion of episodes than has that category in the control group then this fact may make a contribution to the increase in consultations in the F.A.20 whether the particular diagnostic category has a high increase in its consultations per episode or not. The fact that it has a higher proportion of episodes than the control means that illness in this diagnostic category is occurring relatively more frequently in the F.A.20. Unless it is also associated with an increase in consultations per episode, however, it is unlikely to be a major contributory factor.

In the total group of F.A.20 the diagnostic categories which had the highest increases in consultations per episode were neoplasms, diseases of blood and blood-forming organs, diseases of circulatory system, diseases of respiratory system, diseases of digestive dystem, pregnancy, diseases of bones and organs of movement and symptoms senility and ill-defined conditions.

In order to see in which sexes and in which age groups these increases take place, it is necessary to examine the total groups by sex and the age-sex groups.

In the total male group of F.A.20 diagnostic

categories /

categories which had the highest increases in consultations per episode were neoplasms and diseases of the respiratory system, the latter of which has much the higher proportion of episodes, this proportion being slightly higher than in the control group. In addition, mental, psychoneurotic and personality disorders, diseases of the circulatory system and diseases of the genito-urinary system had a fairly high increase in proportion of episodes over the appropriate control categories and each of these had a fairly high increase in consultations per episode.

In male F.A.20 aged 65 or over the diagnostic categories which had the highest increases in consultations per episode were neoplasms and diseases of the circulatory system, respiratory system, digestive system and genito-urinary system. Of these, diseases of the respiratory system had the highest proportion of episodes followed by diseases of the circulatory system and diseases of the digestive system. Diseases of the circulatory system had a higher proportion of episodes than the control group.

In male F.A.20 aged 45-64 the diagnostic categories with the highest increases in consultations per episode were diseases of respiratory system, psychiatric conditions, diseases of bones and organs of movement and accidents, poisoning and violence. Diseases of the respiratory system had much the highest proportion of episodes of these three categories. It is also noted that diseases of the

circulatory /

circulatory system system and diseases of the nervous system and sense organs had a higher proportion of episodes than the control categories and each of these two categories, particularly diseases of the circulatory system, had a fairly high increase in consultations per episode.

In the group of male F.A.20 aged 15-44 the main increases in consultations were due to diseases of the respiratory system and to accidents, poisoning and violence, but as there were only two patients in this group no diagnostic category in the group can play a major part in the increases in consultations in the F.A.20 as a whole.

In the total female group of F.A.20 the diagnostic categories which had the highest increases in consultations per episode were infective and parasitic diseases, neoplasms, diseases of blood and blood-forming organs and pregnancy, diseases of bones and organs of movement, symptoms senility and ill-defined conditions and non-sickness. Of these categories diseases of bones and organs of movement had the highest proportion of episodes followed by symptoms senility and ill-defined conditions and non-sickness. It is noted too that mental, psycho-neurotic and personality disorders, diseases of the circulatory system and diseases of the digestive system increased their proportion of episodes and also had a

fairly /

fairly high increase in consultations per episode.

In the female F.A.20 aged 65 or over the diagnostic categories with the highest increases in consultations per episode were neoplasms, diseases of the nervous system and sense organs, diseases of bones and organs of movement, symptoms senility and ill-defined conditions, accidents, poisoning and violence and non-sickness. Of these the highest proportions of episodes were in diseases of bones and organs of movement, diseases of nervous system and sense organs, symptoms senility and ill-defined conditions and accidents, poisoning and violence. It is noted too that there was an increased proportion of episodes in diseases of the circulatory system and digestive system when compared to the control group, and that in these categories there was also a fairly high increase in the consultations per episode. Diseases of blood and blood-forming organs also have a fairly high increase in consultations per episode.

In females aged 45-64 the highest increases in consultations per episode were in diseases of the nervous system and sense organs, diseases of the circulatory system, diseases of the respiratory system and diseases of the genito-urinary system. Of these, the highest proportions of episodes occurred in diseases of the respiratory system followed by diseases of the circulatory system. It is seen too that mental,

psychoneurotic and personality disorders increased both in its proportion of episodes and consultations per episode and that this applies to a lesser extent also to diseases of bones and organs of movement.

In females aged 15-44 the categories with the highest increases in consultations per episode were infective and parasitic diseases, mental, psychoneurotic and personality disorders, diseases of the circulatory system, diseases of the digestive system and pregnancy. Of these, the category with the highest proportion of episodes was diseases of the digestive system followed by mental, psychoneurotic and personality disorders and pregnancy. In no other category was there in this group an increase in the proportion of episodes compared to the control accompanied by a high increase in consultations per episode.

When considered by individual diagnostic categories the following is found:

1. Infective and Parasitic Disorders. This diagnostic category is not a major contributory factor in increasing consultations in the F.A.20. In no age-sex group does it increase its proportion of episodes when compared to the control group and only in females aged 15-44 does it have a high increase in consultations per episode.
2. Neoplasms. Neoplasms do not increase their proportion of episodes in any group but have a high increase in

consultations /

consultations per episode in both sexes aged 65 and over. Neoplasms are not common in general practice when compared with other causes of morbidity, but when they do occur they contribute to this increase in consultations in the F.A.20, especially in the elderly.

3. Allergic, Endocrine, Metabolic and Nutritional Disorders. This diagnostic category does not make an important contribution to the increase in consultations in the total group of F.A.20 although in some age-sex groups it has a slight increase in its proportion of episodes and in others an increase in its consultations per episode.

4. Diseases of Blood and Blood-forming Organs. Although this is one of the diagnostic categories which has been shown to make a high contribution to the increase in consultations in the total group of F.A.20, when analysed by age and sex it is found that it only makes a contribution in elderly females where it increases its proportion of episodes and also to quite a high extent its consultations per episode.

5. Mental, Psychoneurotic and Personality Disorders. This diagnostic category increases its proportion of episodes in all age-sex groups and increases its consultations per episode in all groups except elderly males. The greatest increase in consultations per episode is in females aged 15-44, and males aged 45-64.

6. /

6. Diseases of the Nervous System and Sense Organs.

This category increases its average number of consultations per episode in all age-sex groups except elderly males and most significantly in females aged 45 or over. It also increases its proportion of episodes in elderly male patients and in females aged 15-44.

7. Diseases of the Circulatory System. This category increases its proportion of episodes in all age-sex groups over the age of 44 and its average number of consultations per episode in all age-sex groups, the latter most significantly in females aged 15-64 and males aged 65 or over. The rise in consultations per episode in the younger group of females can almost entirely be attributed to the frequent attendance due to varicose veins or their complications.

8. Diseases of the Respiratory System. This diagnostic category only increases its proportion of episodes in males aged 45-64, but in all male age groups it has a high increase in consultations per episode. As this is accompanied by a very high proportion of episodes when compared to other diagnostic categories illness under this diagnostic category obviously plays a major part in increasing the consultations in the male group of F.A.20. In females there is a high increase in consultations per episode in the 45-64 year old group.

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9. Diseases of the Digestive System. This category increases its proportion of episodes in all age-sex groups except the elderly males. It also increases the average number of consultations per episode in all groups, most significantly in elderly males and in females in the 15-44 year old group.

10. Diseases of the Genito-Urinary System. This diagnostic category has an increase in consultations per episode in all age-sex groups, the increase being high in elderly males (probably due to prostatic conditions) and females aged 45-64 (probably due to gynaecological conditions). There is also an increase in proportion of episodes in males aged 45-64 and females aged 15-44.

11. Pregnancy. In this category all attendances were in the female age group 15-44. The proportion of episodes in the group does not increase but the average number of consultations per episode has a high increase.

12. Diseases of Skin and Cellular Tissue. This category does not play a prominent part in increasing the consultations in the F.A.20, although in elderly females there is an increase in the consultations per episode.

13. Diseases of Bones and Organs of Movement. With this category there is an increase in the average number

of /

of consultations per episode in all age-sex groups over the age of 44, the increases being highest in female patients over 64 and in males aged 45-64.

14. Congenital Malformations.
15. Certain Diseases of Early Infancy. There were no patients in the group of F.A.20 who consulted under these diagnostic headings.

16. Symptoms Senility and Ill-defined Conditions. The highest increase in consultations per episode in this category is in the elderly female group. The proportion of episodes is increased in males aged 45-64 and females aged 15-44.

17. Accidents, Poisoning and Violence. Any increases in proportion of episodes in age-sex groups for this diagnostic category are slight but there are high increases in consultations per episode in males aged 15-64 and in females aged 65 or over.

18. Non-Sickness. This category has a highly increased number of consultations per episode in the female elderly group, this probably being explained by what Scott terms "social pathology".

CONCLUSIONS REGARDING F.A.20.

When examining the age-sex structure of the group of adult patients who had twenty or more consultations in the year it is seen that females outnumber males in the proportion of 3-2. The majority of the patients were in the older age groups, but in the 15-44 years of age group females outnumber males by 10-1.

These patients have a higher average number of episodes than do the patients in the adult practice population as a whole. This is probably explained by the fact that some of the patients who are studied in the group with six or more episodes of illness in the year are included also in this group of F.A.20, thus increasing the average, and by the fact that when these patients are attending more frequently for an illness in one category they have more opportunities to mention an illness in another category which they might not have mentioned otherwise.

The average number of consultations per patient in the group tends to increase with age.

The average number of consultations per episode in this group is higher than that in the practice adult population as a whole and this too increases with age.

There was a higher late call rate per 1,000 episodes of illness in this group than in the practice as a whole.

When the morbidity in the F.A.20 was analysed and

compared /

compared to that in the practice adult population it was found that every diagnostic category had to some extent an increase in average consultations per episode and so every diagnostic category plays some part in increasing the consultations in the F.A.20. Some diagnostic categories obviously contributed more to those increases in consultations in the F.A.20 than others. In males in all age groups diseases of the respiratory system played a major part. In addition, in males over 65 the categories which contributed most were diseases of the circulatory system, digestive system and genito-urinary system and neoplasms.

Besides diseases of the respiratory system in males aged 45-64, diseases of bones and organs of movement, / psychiatric conditions, and accidents, poisoning and violence had a major contributory part and diseases of the circulatory system and nervous system and sense organs were also important.

In females aged 65 or over the major part seems to be contributed by diseases of bones and organs of movement followed by diseases of the nervous system and sense organs, symptoms senility and ill-defined conditions, accidents, poisoning and violence, non-sickness and neoplasms, while diseases of the circulatory system, digestive system and blood and blood-forming organs also contribute.

In females aged 45-64 the major contributions are made by diseases of the respiratory system, circulatory

system /

system, nervous system and sense organs and genito-urinary system, and to a lesser extent by mental, psychoneurotic and personality disorders and diseases of bones and organs of movement.

In females aged 15-44 the most important diagnostic categories affecting the increase in consultations are diseases of the digestive system, mental, psychoneurotic and personality disorders, pregnancy, diseases of the circulatory system and infective and parasitic diseases.

In view of the fact that the majority of this group of patients who had twenty or more consultations in the year are elderly, that there is a high number of consultations per episode and that this applies to every diagnostic category, that there is a high hospital referral rate and late call rate, it seems likely that the severity of illness accounts for the high number of consultations in this type of frequent attender. This severity of illness applies to every diagnostic category, but some diagnostic categories have a greater contributory factor in this cause of the high consultation rate than others. As the nature of the illness therefore explains the increased consultations per patient, it is unnecessary to look further for a cause of frequent attendance in these patients.

ADULT PATIENTS WITH SIX OR MORE EPISODES OF ILLNESS IN THE YEAR.

67 patients aged 15 years or over had at least six episodes of illness during 1962. These patients had a total of 464 episodes of illness which necessitated 1,104 consultations. The 67 patients represent 2.91% of the practice adult patients and they had 12.2% of all adult episodes of illness and 10.9% of all adult consultations. The average number of episodes per patient was 6.9 and the average number of consultations per patient 16.5. The mean number of consultations per episode was 2.39.

Of the 67 patients 21 were males (1.86% of adult males in the practice). These 21 males had 145 episodes of illness requiring 354 consultations. Thus, 1.86% of the practice male adult population had 8.94% of adult male episodes and 7.50% of adult male consultations. The average number of episodes of illness in this male group was 6.9 and of consultations 16.8. The average number of consultations per episode was 2.44.

46 of the patients in the group were females, this number representing 3.87% of adult females in the practice. 46 female patients had 319 episodes of illness and 750 consultations. 3.87% of the practice adult female population therefore had 13.44% of all adult female episodes and 12.1% of all adult female consultations.

The /

The average number of episodes per adult female in this group was 6.9 and of consultations 16.2. The average number of consultations per episode in the females of the group was 2.35.

For convenience, the adult patients who had six or more episodes of illness in the year will hereafter be referred to as "F.A.6" (Frequent Attender, 6 Episodes).

F.A.6 by Age and Sex.

The total number of patients was 67, of whom 21 (31.4%) were males and 46 (68.6%) were females.

When the group is analysed by age and sex the following is found, the percentages being those of the population in the appropriate age and sex group in the practice:

	Male		Female	
Age (Years)	Actual Number	%	Actual Number	%
15-24	4	2.35	8	4.47
25-34	1	0.63	9	5.50
35-44	5	2.84	10	5.34
45-54	3	1.32	7	3.41
55-64	5	2.28	5	2.43
65 and over	3	1.72	7	2.87
Total	21	1.86	46	3.87

It is seen that more than two-thirds of this group are females. When the sex groups are analysed by age there is little /

little consistency in the male group where the highest percentage occurred in the 35-44 year old group and the lowest in the preceding decade where there was only one patient. The female percentage is higher in every age group than the male. It is particularly high in the 15-44 years of age group and then decreases with advancing age by approximately half. Only in the 55-64 year old group does the male rate approach the female.

Average Number of Episodes of Illness in F.A.6.

The 67 patients in the group had 464 episodes of illness, the 21 males having 145 episodes and the 46 females having 319. When analysed by age and sex groups the following is found:

Average number of Episodes of Illness in F.A.6 by Age and Sex.

Age	Male	Female
15-24	7.0	7.9
25-34	7.0 (1 patient only)	6.6
35-44	7.4	7.1
45-54	6.3	6.6
55-64	6.6	6.6
65 and over	7.0	6.6

It is seen that the average number of episodes of illness per patient in the age groups by sex is fairly consistent with a slight tendency for the rate to be lower

in /

in the older age groups than in the younger. The highest average is found in the female 15-24 year old group. There is little difference in averages between sexes in each age group.

Consultations in F.A.6 by Age and Sex.

The 67 patients in the group had 1,104 consultations, which gives an average of 16.5. 21 male patients had 354 consultations with an average of 16.8 and the 46 females had 750 consultations with an average of 16.2. When analysed by age and sex the findings in the group are as follows:

Age	Male	Female
15-24	11.5	14.3
25-34	13.0 (1 patient only)	12.0
35-44	12.6	18.4
45-54	10.0	19.1
55-64	25.4	13.2
65 and over	25.0	20.4

There is little consistency in the sex ratio of the average number of consultations when analysed by age groups. In males the highest number was found in the two oldest age groups and in females in the oldest. The number in the female age group 35-54 appears high.

Consultations per Episode.

The average number of consultations per episode in the group is 2.38, being 2.44 in males and 2.35 in females. When analysed by age and sex the following is found:

Age	Male	Female
15-24	1.64	1.82
25-34	1.85	1.80
35-44	1.70	2.58
45-54	1.57	2.92
55-64	3.85	2.00
65 and over	3.56	3.04

As is to be expected, due to the fact that the average number of episodes in the different age groups is fairly consistent and the average number of consultations in the age groups varies, the average number of consultations per episode varies in the age groups in a similar pattern to that of the average consultations. Thus, the highest number in males is in the two oldest groups and in females in the oldest with the number in the 35-54 year old females being high.

Referrals in F.A.6.

In the 67 patients in this group there were 29 referrals in 464 episodes of illness. This gives a referral rate for the total group of 62.05 per 1,000 episodes of illness.

When analysed by different types of referral and then each figure converted to rates per 1,000 episodes the findings are as follows:

Actual Number of Referrals in F.A.6.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	4	1	3	0	0	0	0
Female	9	4	3	4	1	0	0
Total	13	5	6	4	1	0	0

Referral Rates per 1,000 Episodes by Sex in F.A.6.

	Out patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	27.6	6.9	20.6	0.0	0.0	0.0	0.0
Female	28.2	12.5	9.4	12.5	3.1	0.0	0.0
Total	28.0	10.4	12.9	8.6	2.15	0.0	0.0

For comparison with the referral rates in the practice adult population as a whole, a sample group has been constructed in a similar way to that described on page 108 with the following findings:

Actual Numbers of Referrals in Sample Control Group.

	Out-patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit	Episodes
Male	1.69	0.40	0.46	0.06	0.21	0.19	0.06	30.18
Female	4.50	1.27	0.99	1.05	0.34	0.22	0.11	94.00
Total	6.19	1.67	1.43	1.13	0.55	0.41	0.17	124.18

Referrals per 1,000 Episodes in Sample Control Group.

	Out-patient Consul-tation	Direct Admission	X-ray	Pathology	Casualty	Physio-therapy	Domi-ciliary Visit
Male	55.9	13.3	14.5	2.0	7.0	6.3	2.0
Female	47.8	13.5	10.6	11.2	3.6	2.4	1.2
Total	49.5	13.4	11.3	8.9	4.4	3.3	1.3

Late Calls in F.A.6.

For the 67 patients in this group there were five late calls, three being for males and two for females. This is equivalent to a rate of 20.6 late calls per 1,000 episodes in the males, 6.3 for females and 10.4 per 1,000 episodes in the total group. Late calls were calculated for the sample control group and resulted as follows:

	Male	Female	Total
No. of late calls	0.29	0.80	1.09
No. of related episodes	30.18	94.00	124.18
Late calls per 1,000 episodes	9.5	8.4	8.75

Morbidity in the F.A.6.

Morbidity in this group of patients who had six or more episodes of illness in the year has been analysed in a similar way to the analysis of morbidity in the F.A.20 as described on page 130. The findings are as follows, the findings concerning proportion of episodes and consultations per episode also being shown in Figures 24 - 32 on pages 131 - 139.

ANALYSIS OF MORBIDITY IN TOTAL GROUP OF F.A.6.

No. of Patients in Group - 67.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPISODES	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	6	1.09	25	2.26	4.2
2 NEOPLASMS	3	0.64	4	0.36	1.3
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	18	3.9	38	3.45	2.1
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	3	0.64	21	1.9	7.0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	26	5.6	104	9.8	4.0
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	35	7.5	65	5.9	1.9
7 DISEASES OF CIRCULATORY SYSTEM	26	5.6	127	11.5	4.9
8 DISEASES OF RESPIRATORY SYSTEM	115	24.8	239	21.6	2.0
9 DISEASES OF DIGESTIVE SYSTEM	42	9.05	130	11.6	3.1
10 DISEASES OF GENITO-URINARY SYSTEM	26	5.6	51	4.6	2.0
11 PREGNANCY	3	0.64	22	2.0	7.3
12 DISEASES OF SKIN + CELLULAR TISSUE	38	8.2	77	7.0	2.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	28	6.05	48	4.35	1.7
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	26	5.6	40	3.6	1.5
17 ACCIDENTS, POISONING + VIOLENCE	35	7.5	63	5.7	1.8
18 NON-SICKNESS	30	6.4	51	4.6	1.7

ANALYSIS OF MORBIDITY IN TOTAL MALE GROUP OF F.A.6.

No. of Patients in Group - 21.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	3	2·06	5	1·4	1·7
2 NEOPLASMS	2	1·38	3	0·85	1·5
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	7	4·8	15	4·23	2·1
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	9	6·2	39	10·5	4·3
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	15	10·3	35	9·9	2·3
7 DISEASES OF CIRCULATORY SYSTEM	9	6·2	45	12·7	5·0
8 DISEASES OF RESPIRATORY SYSTEM.	41	28·2	89	25·0	2·2
9 DISEASES OF DIGESTIVE SYSTEM	17	11·7	35	9·9	2·1
10 DISEASES OF GENITO-URINARY SYSTEM	0	0	0	0	0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	13	8·92	37	10·2	2·8
13 DISEASES OF BONES + ORGANS OF MOVEMENT	4	2·75	5	1·4	1·25
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	6	4·12	8	2·26	1·3
17 ACCIDENTS, POISONING + VIOLENCE	11	7·6	23	6·5	2·1
18 NON-SICKNESS	8	5·5	15	4·23	1·9

ANALYSIS OF MORBIDITY IN TOTAL FEMALE GROUP OF F.A.6.

No. of Patients in Group - 46.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS
	ACTUAL NO.	% OF EPIS.	ACTUAL NO	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	3	0.94	20	2.66	6.6
2 NEOPLASMS	1	0.31	1	0.13	1.0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	11	3.45	23	3.05	2.1
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	3	0.94	20	2.66	6.6
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	17	5.3	65	8.65	3.8
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	20	6.26	30	4.0	1.5
7 DISEASES OF CIRCULATORY SYSTEM	17	5.3	82	10.9	4.8
8 DISEASES OF RESPIRATORY SYSTEM	74	23.2	150	20.0	2.0
9 DISEASES OF DIGESTIVE SYSTEM	25	7.82	95	12.6	3.8
10 DISEASES OF GENITO-URINARY SYSTEM	26	8.15	51	6.8	2.0
11 PREGNANCY	3	0.94	22	2.93	7.3
12 DISEASES OF SKIN + CELLULAR TISSUE.	25	7.82	40	5.3	1.6
13 DISEASES OF BONES + ORGANS OF MOVEMENT	24	7.51	43	5.7	1.8
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	20	6.26	32	4.27	1.6
17 ACCIDENTS, POISONING + VIOLENCE	24	7.51	40	5.3	1.7
18 NON-SICKNESS	22	6.89	36	4.78	1.6

ANALYSIS OF MORBIDITY IN MALE F.A.6 AGED 65 and OVER.

No. of Patients in Group - 3.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	0	0	0	0	0
2 NEOPLASMS	0	0	0	0	0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	0	0	0	0	0
4 DISEASES OF BLOOD + BLOOD FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	2	9.5	3	4.0	1.5
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	4	19.0	6	8.0	1.5
7 DISEASES OF CIRCULATORY SYSTEM	1	4.7	8	13.3	8.0
8 DISEASES OF RESPIRATORY SYSTEM	7	33.0	26	34.6	3.7
9 DISEASES OF DIGESTIVE SYSTEM	2	9.5	5	6.6	2.5
10 DISEASES OF GENITO-URINARY SYSTEM	0	0	0	0	0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	3	14.3	21	28.0	7.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	1	4.7	1	1.3	1.0
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	0	0	0	0	0
17 ACCIDENTS, POISONING + VIOLENCE	1	4.7	5	6.6	5.0
18 NON-SICKNESS	0	0	0	0	0

ANALYSIS OF MORBIDITY IN FEMALE F.A.6 AGED 65 AND OVER

No. of Patients in Group - 7.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	0	0	0	0	0
2 NEOPLASMS	0	0	0	0	0
3 ALLERGIC, ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	0	0	0	0	0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	1	2·2	11	7·7	11·0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	3	6·5	4	2·8	1·3
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	6	9·2	11	7·7	1·8
7 DISEASES OF CIRCULATORY SYSTEM.	8	17·3	46	32·1	5·75
8 DISEASES OF RESPIRATORY SYSTEM.	9	19·5	22	15·4	2·4
9 DISEASES OF DIGESTIVE SYSTEM.	2	4·4	3	2·1	1·5
10 DISEASES OF GENITO-URINARY SYSTEM	2	4·4	5	3·5	2·5
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE.	4	8·7	11	7·7	2·75
13 DISEASES OF BONES + ORGANS OF MOVEMENT.	6	9·2	20	14·0	3·3
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY IN FANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	3	6·5	4	2·8	1·3
17 ACCIDENTS, POISONING + VIOLENCE	2	4·4	6	4·2	3·0
18 NON-SICKNESS	0	0	0	0	0

ANALYSIS OF MORBIDITY IN MALE F.A.6 AGED 45 - 64.

No. of Patients in Group - 8.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS
	ACTUAL NO	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	1	1.92	1	0.64	1.0
2 NEOPLASMS	1	1.92	2	1.27	2.0
3 ALLERGIC ENDOCRINE METABOL + NUTRITIONAL DISEASES	4	7.7	8	5.1	2.0
4 DISEASES OF BLOOD + BLOOD FORMING ORGANS	0	0	0	0	0
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	5	9.6	31	19.7	6.2
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	7	13.23	22	14.0	3.1
7 DISEASES OF CIRCULATORY SYSTEM	7	13.23	36	22.8	5.1
8 DISEASES OF RESPIRATORY SYSTEM	12	23.1	24	15.3	2.0
9 DISEASES OF DIGESTIVE SYSTEM	5	9.6	10	6.35	2.0
10 DISEASES OF GENITO - & URINARY SYSTEM	0	0	0	0	0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	3	5.74	6	3.82	2.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	0	0	0	0	0
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL - DEFINED CONDITIONS	1	1.92	2	1.27	2.0
17 ACCIDENTS, POISONING + VIOLENCE	4	7.7	11	7.0	2.75
18 NON - SICKNESS	2	3.86	4	2.55	2.0

ANALYSIS OF MORBIDITY IN FEMALE F.A.6 AGED 45- 64.

No. of Patients in Group - 12.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS.	
1 INFECTIVE + PARASITIC DISEASES	1	1.27	6	3.0	6.0
2 NEOPLASMS	0	0	0	0	0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	4	5.07	8	4.0	2.0
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	0	0	0	0	0
5 MENTAL PSYCHONEUROTIC + PERSONALITY DISORDERS	7	8.86	41	20.5	5.9
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	4	5.07	4	2.0	1.0
7 DISEASES OF CIRCULATORY SYSTEM	4	5.07	31	15.5	7.75
8 DISEASES OF RESPIRATORY SYSTEM	21	26.6	35	17.5	1.7
9 DISEASES OF DIGESTIVE SYSTEM	9	11.4	23	11.5	2.6
10 DISEASES OF GENITO-URINARY SYSTEM	6	7.6	9	4.5	1.5
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE	6	7.6	6	3.0	1.0
13 DISEASES OF BONES + ORGANS OF MOVEMENT	7	8.86	11	5.5	1.6
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	2	2.53	2	1.0	1.0
17 ACCIDENTS, POISONING + VIOLENCE	6	7.6	10	5.0	1.7
18 NON-SICKNESS	2	2.53	4	2.0	2.0

ANALYSIS OF MORBIDITY IN MALE F.A.6 AGED 15 - 44.

No. of Patients in Group - 10.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS. PER EPIS.
	ACTUAL NO.	% OF EPIS.	ACTUAL NO.	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	2	2.77	4	3.27	2.0
2 NEOPLASMS	1	1.39	1	0.81	1.0
3 ALLERGIC ENDOCRINE, METABOLIC + NUTRITIONAL DISEASES	3	4.16	7	5.73	2.3
4 DISEASES OF BLOOD + BLOOD FORMING ORGANS	0	0	0	0	0
5 MENTAL PSYCHONEUROTIC + PERSONALITY DISORDERS	2	2.77	5	4.1	2.5
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	4	5.56	7	5.73	1.75
7 DISEASES OF CIRCULATORY SYSTEM	1	1.39	1	0.81	1.0
8 DISEASES OF RESPIRATORY SYSTEM	22	30.6	39	32.0	1.8
9 DISEASES OF DIGESTIVE SYSTEM	10	13.9	20	16.4	2.0
10 DISEASES OF GENITO-URINARY SYSTEM	0	0	0	0	0
11 PREGNANCY	0	0	0	0	0
12 DISEASES OF SKIN + CELLULAR TISSUE.	7	9.7	10	8.18	1.4
13 DISEASES OF BONES + ORGANS OF MOVEMENT	3	4.16	4	3.28	1.25
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	5	6.95	6	4.9	1.2
17 ACCIDENTS, POISONING + VIOLENCE.	6	8.34	7	5.73	1.2
18 NON-SICKNESS	6	8.34	11	9.0	1.8

ANALYSIS OF MORBIDITY IN FEMALE F.A.6 AGED 15 - 44.

No. of Patients in Group - 27.

DIAGNOSTIC CATEGORY	EPISODES		CONSULTATIONS		CONS PER EPIS
	ACTUAL NO	% OF EPIS.	ACTUAL NO	% OF CONS	
1 INFECTIVE + PARASITIC DISEASES	2	1.03	14	3.43	7.0
2 NEOPLASMS	1	0.52	1	0.25	1.0
3 ALLERGIC, ENDOCRINE METABOLIC + NUTRITIONAL DISEASES	7	3.61	15	3.67	2.1
4 DISEASES OF BLOOD + BLOOD-FORMING ORGANS	2	1.03	9	2.21	4.5
5 MENTAL, PSYCHONEUROTIC + PERSONALITY DISORDERS	7	3.61	20	4.9	2.9
6 DISEASES OF NERVOUS SYSTEM + SENSE ORGANS	10	5.14	15	3.67	1.5
7 DISEASES OF CIRCULATORY SYSTEM	5	2.57	5	1.22	1.0
8 DISEASES OF RESPIRATORY SYSTEM	48	24.8	93	22.8	1.9
9 DISEASES OF DIGESTIVE SYSTEM	14	7.22	59	12.02	4.2
10 DISEASES OF GENITO-URINARY SYSTEM	18	9.28	37	9.08	2.1
11 PREGNANCY	3	1.54	22	5.4	7.3
12 DISEASES OF SKIN + CELLULAR TISSUE	15	7.72	23	5.64	1.5
13 DISEASES OF BONES + ORGANS OF MOVEMENT	11	5.68	12	2.95	1.1
14 CONGENITAL MALFORMATIONS	0	0	0	0	0
15 CERTAIN DISEASES OF EARLY INFANCY	0	0	0	0	0
16 SYMPTOMS, SENILITY + ILL-DEFINED CONDITIONS	15	7.72	26	6.39	1.7
17 ACCIDENTS, POISONING + VIOLENCE	16	8.23	24	5.88	1.5
18 NON-SICKNESS	20	10.3	32	7.85	1.6

In the total group the highest percentages of episodes are for diseases of the respiratory system, diseases of the digestive system and skin conditions, whilst for consultations the highest percentages are for respiratory illness, diseases of digestive system and cardiovascular disease. The highest average numbers of consultations per episode were for pregnancy, blood disorders and cardiovascular disease. In the male patients in the group the highest proportion of episodes is for respiratory illness followed by diseases of the alimentary system and the nervous system and sense organs. For consultations the highest proportion is for respiratory disease followed by circulatory disease and psychiatric disorders. The highest average numbers of consultations per episode were for diseases of the circulatory system, psychiatric disorders and skin diseases. In females in the group the highest proportion of episodes was for respiratory disease followed by genito-urinary disease, alimentary and skin diseases. For consultations the highest proportions were for respiratory disease, alimentary disease and cardiovascular disease. The highest average numbers of consultations per episode were for pregnancy, infectious diseases and blood disorders.

D I S C U S S I O N

GROUP OF FREQUENT ATTENDERS WHO HAD SIX OR MORE EPISODES OF ILLNESS IN THE YEAR.

Age and Sex Ratio.

This group has a total of 67 patients and females outnumber males in the ratio of approximately 2-1. Although the group only represents 2.9% of the practice adult population, they were responsible for 12.2% of episodes of illness and 10.9% of consultations in adult patients. The fact that the percentage of consultations is lower than the percentage of episodes indicates that there were less consultations per episode in this group than in the practice adult population.

When analysed by age and sex it has been noted that in every age group the females exceed the males and the largest number of patients is found to be in the female age group 15-44. When compared to the group of F.A.20, where the majority of the patients were in the elderly age groups, it is seen that there is a more even spread of F.A.6 throughout the age groups.

Average Number of Episodes of Illness in F.A.6.

The 67 patients had an average of 6.9 episodes of illness during the year, males and females both having

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the same average. The average number of episodes in the practice adult population was 1.66, being 1.44 for males and 1.86 for females. When analysed by age-sex groups, it was noted that there is little difference in the average number of episodes between sexes. This is different from the position found in the adult practice population where females had a higher number of episodes than males, not only in the total group but also in each age-sex group.

Consultations in the F.A.6.

The average number of consultations per patient in the group was 16.5, being 16.8 in males and 16.2 in females. No consistent pattern was found when the average consultations were examined in age and sex groups but the highest average was found in the elderly. In the practice adult population the average number of consultations per patient was 4.73, being 4.18 for males and 5.25 for females. This increase in the female average over the male average applied in all age groups. In this respect the consultations in the F.A.6 differ, but in both groups there is an increased average number in the elderly.

Consultations /

Consultations per Episode in the F.A.6.

The average number of consultations per episode in this group was 2.38, being 2.44 in males and 2.35 in females. This compares with corresponding figures of 2.86, 2.90 and 2.83 in the practice adult population. When considering the total group, therefore, there are less consultations per episode in the F.A.6 than in the practice adult population and this applies in both sexes where the sex ratio is similar in both groups. Although this difference may seem minor the significance to the practitioner can be shown by the fact that if all adult episodes had had an average of 2.38 consultations instead of 2.86 there would have been 1,839 (16.8%) fewer consultations for adults in the practice during the year. When examined in age-sex groups by decade little consistency is found when comparing the F.A.6 with the practice adults as regards consultations per episode, but when examined in the "natural" age groups, as shown in Figures 24 - 32 on pages 131 - 139 , the average number is less in each age-sex group than in the practice adult population. As in the practice adult population, the average number of consultations per episode increases with advancing age.

Referrals /

Referrals in F.A.6.

When the referrals per 1,000 episodes in this group are compared with those in the sample control group it is seen that the referral rates in the F.A.6 group are lower than in the control group. The total referral rate (that is for any type of referral) in the F.A.6 was 62.05 per 1,000 episodes, whilst in the control group it was 92.1. The rates were lower in the F.A.6 for all types of referral except that for X-ray in which the rate in the F.A.6 was slightly higher.

Late Calls in F.A.6.

There were 10.4 late calls per 1,000 episodes in the F.A.6, the rate for males being 20.6 and for females 6.3. This compares with corresponding figures of 8.75, 9.5 and 8.4 in the control group, so that in the total group the late call rate is slightly higher in the F.A.6, being considerably higher in males and slightly lower in females.

Morbidity in the F.A.6.

The same factors, viz. the proportion of episodes in each diagnostic category and the average number of consultations per episode, are used to compare morbidity in the F.A.6 with that in the practice adult population

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as was done in the case of the F.A.20. The findings are shown in Figures 24-32 on pages 131 - 139

When the total group of F.A.6 is compared with the total adult population as seen in Figure 24 on page 137, it is noted that the pattern of morbidity is very similar in both groups when the proportion of episodes in each diagnostic category are examined. The group with the greatest difference is that for Diseases of the Respiratory System where the difference is only 2.3%. In this category the F.A.6 have a higher proportion than the practice adults. The only other differences which amount to more than 1% are in Pregnancy, where the practice adults have a proportion of 1.83% of episodes in this category and the F.A.6 0.64%; Diseases of Bones and Organs of Movement, where the practice has 7.6% against the F.A.6 6.05%; and in Non-Sickness where the practice has 8.2% and the F.A.6 6.4%. When consultations per episode are examined it is seen that in only four diagnostic categories the F.A.6 have a higher average number than the practice adult population. Those four diagnostic categories are Infective and Parasitic Diseases; Diseases of Blood and Blood-forming Organs; Diseases of the Digestive System and Pregnancy, and it is noted that three of these (namely, Infective and Parasitic Diseases, Diseases of Blood and Blood-forming Organs and Pregnancy) each have a very small proportion of episodes.

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In the male patients in the F.A.6 there is a higher proportion of episodes for Diseases of the Respiratory System and otherwise the pattern of morbidity is similar to that in the practice, the only other marked variations being in Mental, Psychoneurotic and Personality Disorders where the F.A.6 have a higher proportion of episodes; Diseases of Bones and Organs of Movement where the F.A.6 have a lower proportion of episodes; and Non-Sickness where again the F.A.6 have a lower proportion. When the average number of consultations per episode is examined the only categories where the F.A.6 have a higher average are Mental, Psychoneurotic and Personality Disorders, and, to a lesser extent, Diseases of the Nervous System and Sense Organs, Diseases of the Skin and Cellular Tissues and Non-Sickness. In female patients there is a lesser increase in the proportion of episodes under respiratory diseases as against the practice adults than there was in males. The only other diagnostic categories to increase the proportions compared to the practice adult females are Diseases of Genito-Urinary System, Diseases of Skin, Symptoms and Ill-Defined Conditions and Accidents, and in none of these does the difference amount to more than 1.83%. With consultations per episode, only in Diseases of Blood and Blood-forming Organs, Diseases of the Digestive System and Pregnancy are the average numbers higher in the F.A.6 than in the practice adult females.

When /

When the F.A.6 are divided into age and sex groups more discrepancies reveal themselves when comparing the proportion of episodes under each diagnostic category with the proportions in the practice adult population. This is probably to be expected owing to the much smaller numbers involved. It is noted, however, that the increase in the proportion of episodes under respiratory illness applies in all age-sex groups except in males aged 45-64 and that the increases on the whole are greater in males. In the male total group it was noted that the only other diagnostic category to have any marked increase in proportion of episodes was Psychiatric Disorders and it is seen by examination of the age-sex groups that this is limited to those patients over the age of 44 and is most marked in those patients over 64, but it is in the 45-64 year old group of males that there is an increase in the average number of consultations per episode. In the female total group it was noted that the only other diagnostic categories to have any marked increase in the proportion of episodes were Diseases of the Genito-Urinary System, Diseases of the Skin, Symptoms and Ill-Defined Conditions and Accidents. It is noted from the analysis by age that there was a slightly higher proportion of episodes for Diseases of the Genito-Urinary System in each age group. The main increase in the proportion of episodes for Diseases of the Skin was in the elderly and in both Symptoms and Ill-Defined Conditions and Accidents the main increase is in the 15-44 year old group of females.

CONCLUSIONS REGARDING F.A.6.

The group of F.A.6 differs from the practice adult population mainly in the following ways.

1. The average number of consultations per episode is less in the F.A.6 than in the practice adult population. This applied not only to the total group but is consistently shown in total sex groups and in each "natural" age-sex group. When examined by diagnostic category it is also consistently shown for almost all of the diagnostic categories. In the majority of the few which showed the reverse the categories were numerically small.
2. The pattern of morbidity in the F.A.6 and the practice adult population when judged by the proportion of episodes in each diagnostic category is similar. The main difference is in Diseases of the Respiratory System where in the F.A.6 total group there is a proportion of episodes which is 2.3% higher. In this diagnostic category the increase is fairly consistently shown in age-sex groups and the difference is greater on the whole in males than females. In males Psychiatric Disorders also show a slight increase and this increase is greatest in the elderly. In females, in addition to Respiratory Diseases, Diseases of the Genite-Urinary System showed a slight increase

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in all age groups, Diseases of the Skin showed a slight increase in the elderly and Symptoms and Ill-Defined Conditions and Accidents showed a slight increase in the 15-44 year old group.

3. There is a much lower referral rate in the F.A.6 than in the sample control group. There was a slightly higher late call rate in the F.A.6 than in the sample.

The conclusions reached concerning the group of frequent attenders who had six or more episodes of illness in the year is therefore that the pattern of morbidity is on the whole similar to that in the practice adult population. The fact that there are fewer consultations per episode and that the referral rates are lower in the F.A.6 indicates that the illnesses suffered by this group are more minor in nature than the illnesses in the practice adult population.

Stocks (1949) reported that only 23% of people who had an illness or an injury during the course of a month reported that illness to the doctor during the month. This finding was confirmed by Horder and Horder (1954) who found that less than one-third of all episodes of illness ever reach any medical agency. It seems likely that as patients who have medical attention for frequent episodes of illness are shown to have a similar morbidity pattern to the practice but that their illnesses are more minor in nature they therefore have a lower threshold for doctor attendance

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than other patients and are attending for illnesses that the rest of the population probably suffer but treat themselves.

No explanation can be offered for the frequent attendance of this group on the grounds of the nature of the illness and therefore further study had to be made. As stated in the Introduction, patients' requests for the doctor's services are likely to be influenced by the nature of the illness, and/or the patient's reaction to that illness. His reaction to his illness could be influenced by his personal characteristics or his social conditions and so those two aspects of the group of F.A.6 have been investigated.

PERSONAL AND SOCIAL CHARACTERISTICS OF THOSE PATIENTS WHO HAD SIX OR MORE EPISODES OF ILLNESS DURING THE YEAR.

METHODS AND MATERIALS.

In order to examine the personal and social characteristics of those patients who had six or more episodes of illness during the year a control group of patients had to be used. This control group was constructed by pairing each member of the group of F.A.6 with another patient of similar age and sex but who had had two episodes of illness during the year. Those patients with two episodes during the year were chosen because two is the nearest whole number to the average number of episodes per patient in adults in the practice for the year (the average for the practice adult population was 1.66, being 1.44 for males and 1.86 for females).

The controls were chosen by finding the names of the frequent attenders in the Age-Sex Register and then, starting with that name, going through the names on that page systematically until the name of the first patient who had had two episodes of illness in the year was reached. This patient was then the control for that frequent attender. If no such patient of the same sex was found on the corresponding page of the Register then the page for the same sex born one year later was examined and if still no patient with two episodes of illness was

found /

found the corresponding page for patients born one year previously was searched. In few cases was this necessary and in no case was it necessary to have a control who was more than two years older or younger than the frequent attender.

It was found that five of the patients who had had six or more episodes of illness during the year had left the area either before the end of the survey year or shortly after it and that one of the frequent attenders had died early in 1963. This latter patient was a man aged 59 who was found to have a mass in his liver which was shown at laparotomy to be malignant. He died shortly after and the site of the primary was not discovered. During 1962 he had had coryza; right inguinal hernia, on which he had an operation; superficial thrombophlebitis of leg which developed several weeks after the operation; "habit" insomnia for which he had been treated for some years following alcoholism; wax in the ears and dyspepsia, for which there had only been one consultation during the year. With the exception of this consultation for dyspepsia, it was unlikely that any of his frequent episodes during the year were directly connected with his neoplasm. There were therefore six of these frequent attenders who could not be examined for personal or social characteristics and for these six no controls were chosen. There remained 61 in the group to be examined.

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All of the remaining frequent attenders and the control group were invited to complete the Heron Two-part Personality Inventory (Heron 1956). The first part consists of 74 items, 20 of which count towards a score of emotional maladjustment and the second part 36 items of which 12 count towards a score of sociability. Both scores are said to be independent of age and intelligence.

For the examination of the social characteristics the following points were chosen for comparison with the control group:

1. Marital Status. Six categories, viz. married without a family; married with a family; single; widowed; divorced or separated, were included under this heading.
2. Social Status. The occupation was noted for each patient and graded according to the General Register Office Classification of Occupations 1960 (published by Her Majesty's Stationery Office). If the patient was a housewife who was not otherwise occupied the occupation of her husband or late or divorced husband was noted.
3. Financial Status. Three categories were used under this heading. The patient was asked whether he was more than satisfied, satisfied or not satisfied with his financial position. There were two reasons for adopting this procedure. It was primarily felt that it may be damaging to the doctor-patient relationship

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and embarrassing to the patient if the family doctor enquired too closely into the financial position of the patients. On the other hand, it was considered that to enquire only about the wage or salary level might not be a true indicator of financial position without considering such factors as capital, outside sources of income or support, hire purchase debts and other financial commitments. To obtain these details was not considered suitable in the content of this study.

4. Housing.

(a) It was determined whether the house was owned, privately rented furnished, privately rented unfurnished or rented from the Borough Council. The house was considered to be owned if it was owned or being bought by any member of the patient's family residing there.

(b) It was asked whether the house was unshared, shared by relatives or shared by others. It was considered unshared if only one immediate family resided in it (i.e. mother and/or father and/or offspring).

(c) In order to estimate the possibility of over-crowding the number of rooms in the house and the number of adults and children staying there were determined.

(d) /

(d) The question of whether there was a bathroom in the house was determined and, if so, if the bathroom was shared by any people other than the immediate family.

(e) A similar question to (d) was asked in respect of a kitchen. If the house was shared by relatives the kitchen was only considered as being shared if meals were cooked separately for different sections of the family.

5. Finally, the age at school leaving was determined as a means of indicating educational attainment.

F I N D I N G S

SOCIAL CHARACTERISTICS.

MARITAL STATUS:

	Married without family.	Married with family.	Single	Widowed	Divorced	Separated.
F.A.6	13	25	16	4	3	0
Control Group	7	31	18	4	0	1

There is no statistically significant difference between the two groups as regards their marital status. It is worthy of note, however, that three of the frequent attenders were divorced as against none in the control group and that there were more patients married but with no family in the frequent attenders.

SOCIAL STATUS:

Grades	1	2	3	4	5	At School
F.A.6	4	7	31	15	2	0
Control Group	2	9	35	9	3	5

There is no statistically significant difference in the findings regarding social status in the two groups.

FINANCIAL /

FINANCIAL STATUS:

	More than Satisfied	Satisfied	Not Satisfied	At School and not Considered.
F.A.6	1	45	15	0
Control Group	1	45	10	5

It was decided that the five people in the control group who were still at school could not reasonably be asked to answer this question. It is obvious that there is no significant difference between the two groups as regards financial status.

HOUSING:

1. House Ownership.

	Owned	Rented Furnished	Rented Unfurnished	Council
F.A.6	33	1	13	14
Control Group	48	2	4	7

It is seen that a higher number in the control group owned or were buying their houses, whilst fewer were renting unfurnished houses or renting from the Borough Council. This finding is not quite significant at the 5% level.

($X^2 = 7.212$ $n = 3$ $P < 0.10$)

2. /

2. House Sharing.

	Unshared	Shared Relations	Shared Others
F.A.6	42	15	6
Control Group	45	11	5

There are no differences between the groups when considering whether the house was shared or not.

3. Overcrowding.

	Staying in accommodation with 1 person per room or less.	Staying in accommodation with more than 1 person per room.
F.A.6	54	7
Control Group	55	6

For the purposes of this comparison 1 person was considered to be an adult or a child and a bedroom or public room was considered to be "a room". There is no difference between the frequent attenders and the control group when considering the problem of overcrowding.

4. Bathroom in House.

	Bathroom in House	
	Yes	No
F.A.6	58	3
Control Group	58	3

There is seen to be no difference between groups regarding whether there was a bathroom in the house or not, and similarly there was little difference in considering whether the bathroom was shared or not.

5. /

5. Sharing Kitchen.

	Kitchen Shared.	Kitchen not Shared.
F.A.6	7	54
Control Group	4	57

There was no significant difference between groups in considering whether the kitchen was shared or not.

6. Children in House.

	Children in House	No Children in House
F.A.6	22	39
Control Group	22	39

There is no difference between the two groups.

SCHOOL LEAVING AGE.

Of the 61 patients in the control group five were still at school during the survey year. These five did actually stay at school till 16 years or older and so are included in this section of the group. As the minimum school leaving age is now 15 years this age was taken as the dividing line in the group. Some older patients, of course, left at the age of 14 or even younger. Those aged 16 or over have had at least one year of education more than the minimum.

	School leavers aged 15 or younger.	School leavers aged 16 or over.
F.A.6	47	14
Control Group	36	25

($X^2 = 4.54$ $n = 1$ $P < 0.05$)

It is seen that in the F.A.6 less of the group stayed at

school /

school after the age of 15 than in the control group. This difference is statistically significant.

The only statistically significant finding as regards social characteristics of the frequent attenders who had six or more episodes of illness in the year is that fewer in this group stayed at school till age 16 or over than in the control group. This may be taken to indicate that lower educational attainment plays a part in causing these patients to attend frequently for minor illness.

Fewer of the control group owned or were buying their houses but this difference did not quite realise statistical significance at the 5% level.

PERSONAL CHARACTERISTICS.

EMOTIONAL STABILITY.

Heron states that in the use of his personality inventory a score of 1 - 7 indicates that a person is emotionally stable. A score of 8 or 9 indicates doubtful mental stability and a score of 10 or more indicates emotional instability. When using this scoring the findings in the group of F.A.6 and in the control group were as follows:

	Emotionally Stable	Doubtful	Emotionally Unstable
F.A.6	22	14	25
Control Group	35	7	19

This indicates that in the group of F.A.6 there are more patients who are emotionally unstable or whose mental stability is in doubt than there are in the control group. These findings are statistically significant.

($X^2 = 6.10$ $n = 2$ $P < 0.05$)

SOCIABILITY.

In this Heron states that a score of 1 or 2 indicates that a person is very sociable, 3, 4 or 5 indicates that a person is sociable, and 6 or over indicates that a person is very unsociable. When using this scoring the findings are as follows:

	Very Sociable	Sociable	Very Unsociable
F.A.6	8	24	29
Control Group	12	24	25

This indicates that the F.A.6 are slightly less sociable than the control group but the findings have no statistical significance.

($X^2 = 1.06$ $n = 2$ $P < 0.50$)

In their personal characteristics a statistically significant finding of emotional instability in the group of F.A.6 was found. Cause and effect have not been established but it does seem likely that emotional instability plays a

part /

part in causing patients to attend the practitioner for illnesses which are minor in nature. Although there are more females in the group than males it does not follow that females are more emotionally unstable than males. Females in the practice have a higher average number of episodes and consultations than males. The higher episode rate applies for all specified numbers of episodes over one. There is little difference in the sex ratio for consultations per episode either in the average for the total sex groups or in the average for age-sex groups or when analysed according to the proportion of episodes having a specified number of consultations per episode. If females have more episodes, therefore, they must have more of every type of episode from minor to more serious if one can use the number of consultations per episode as a criterion for the severity of illness. If females do have more episodes of all degrees of severity this explains the fact that they have more episodes of minor illness. If males and females have an equal proportion of mental instability and this causes them to attend for minor illness it follows that there will be more females than males in the group of patients who attend for frequent episodes that are minor.

CONCLUSIONS OF THE STUDY

When the age-sex structure of Harrow was compared to that of England it was noted that there was in Harrow an increased proportion of people between the ages of 45 and 64 and less in the younger age groups. This also applies to the practice age-sex structure and when this is compared to that of Harrow it is seen that there is a greater proportion of the practice population over the age of 54 years and less in the younger age groups.

The findings from this operational and morbidity study in the practice were compared to those findings reported from other practices. Consulting rates, attendance-visit ratio, episode of illness rates and referral rates in the practice are within the limits of those reported from other practices. The late call rate in the practice appears to be unusually low. It was noted that the most likely way of finding grounds for comparison between morbidity in different practices was to examine the pattern of morbidity in age-sex groups under each individual diagnostic heading. When this was done the findings from this practice were fairly similar to those reported by Logan and Cushion (1958) whose study incorporated the findings from 106 practices. The only diagnostic category where there was a marked

difference /

difference was in that headed "Non-Sickness".

Two types of frequent attenders, viz. those patients who have frequent consultations in the year and those patients who have frequent episodes of illness, not necessarily requiring frequent consultations, have been studied.

In the study of those adult patients who had twenty or more consultations in the year it was noted that whilst the proportion of episodes of illness occurring under each diagnostic heading was fairly similar to that of the practice as a whole, in every diagnostic category the average number of consultations per episode was increased in these frequent attenders. This shows that every diagnostic category plays a part to some extent in increasing the consultations in these patients. Some diagnostic categories, however, are more important in this respect. In males of all age groups diseases of the respiratory system were a major contributory factor. In males over the age of 65, diseases of the circulatory system, digestive system and genito-urinary system and neoplasms were also important factors. In males aged 45 - 64, besides diseases of the respiratory system, the other important categories were diseases of bones and organs of movement, mental, psychoneurotic and personality disorders and accidents, poisoning and violence, and, to a lesser extent, diseases of the circulatory and nervous

systems /

systems. In females over the age of 65 the major part seemed to be contributed by diseases of bones and organs of movement, followed by diseases of the nervous system, symptoms senility and ill-defined conditions, accidents, poisoning and violence, non-sickness and neoplasms, while diseases of the nervous system, digestive system and blood also contributed. In females aged 45 - 64 the most important categories were diseases of the respiratory, circulatory, nervous and genito-urinary systems, and, to a lesser extent, psychiatric conditions and diseases of bones and organs of movement. In females aged 15 - 44 the major contributory categories were diseases of the digestive system, psychiatric conditions, pregnancy, diseases of the circulatory system and infective and parasitic diseases. In addition to the fact that every diagnostic category had an increased average number of consultations per episode in the group of frequent attenders who had twenty or more consultations in the year, they had a high hospital referral rate and late call rate and the majority of the group were elderly. These facts indicated that the severity of the illness accounted for the high consultation rate in these patients.

When the group of adult patients who had frequent episodes of illness during the year were examined, it was noted that there was a more even spread of these patients throughout the age groups in the practice than there was

with the group of patients who had twenty or more consultations in the year although there were more females than males, particularly in the younger age groups. Again the pattern of morbidity in this group of frequent attenders was fairly similar to that in the practice as a whole, but in this case there was a lower average number of consultations per episode. There was also a low hospital referral rate in this group and it was concluded that those patients were attending for illnesses that were minor. It seems likely that the total population suffer similar illnesses but that the threshold for doctor-attendance in this group of frequent attenders is low. Contrasting to the group of patients who had twenty or more consultations in the year, the frequent attendance of patients in this group could not be accounted for by the nature of the illness and so their personal and social characteristics were compared to those of a control group. It was found that the patients who had frequent episodes of illness were more emotionally unstable than the control group and that they tended to leave school earlier, indicating lower educational attainment. These two factors may play a part in causing those patients to attend the general practitioner for illnesses which seem to be minor.

S U M M A R Y.

A joint operational and morbidity study was carried out in a general practice in Harrow, Middlesex, in 1962.

The age-sex structure of the practice is compared to that of Harrow and England.

The findings from the practice appear to be within the limits of those findings reported from other practices, indicating that this practice seems to be fairly typical.

Those adult patients who had frequent consultations or frequent episodes of illness have been studied. It was found that the frequent attendance of the patients who had twenty or more consultations in the year could be explained by the severity of the illnesses suffered by those patients. The eighteen main sub-headings of the International Classification of Diseases (1955) were used as the basis of the morbidity analysis and it was noted that in this group of frequent attenders every diagnostic category played a part in increasing the consultations per patient. An attempt has been made to assess the relative importance of the individual diagnostic categories in contributing to this increase in consultations. In those patients who had frequent episodes of illness in the year it was found that the overall pattern of morbidity in the group is similar to that in the practice adult population but that the illnesses in this group were, on

the /

the whole, minor. As the nature of the illness, therefore, did not explain the frequent attendance their personal and social characteristics were compared to those of a control group. It was noted that thisgroup of frequent attenders were more emotionally unstable than the control group and that they tended to leave school at an earlier age than the control group, this being an indication of lower educational attainment. It seems likely that this group of patients suffer the same illnesses as the general population, but whilst the general population do not attend the general practitioner for their minor illnesses the group of frequent attenders have a lower threshold for doctor-attendance which may be related to emotional instability and lower educational attainment.

I wish to record my thanks to my partners, Drs. Jack Park and R.P. Carrington, who maintained my record keeping in my absence and gave me every cooperation in this study; to Professor Alastair Heron (lately of the University of Liverpool), who gave me permission to use his Two-Part Personality Inventory and arranged to have copies of this duplicated for me; and to my wife who has typed the thesis.

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