Periodic health examination combined with multiple screening tests in general practice

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EARLY diagnosis is, and has long been, a concern of the general practitioner, but his main efforts have been directed to satisfying the wants of his patients at their request. Any screening for asymptomatic or early disease has been a by-product of routine clinical practice, during which the patient, having presented himself with his complaints, has had a routine history taken, a physical examination, and often measurement of blood pressure, urinalysis, and blood tests, whether these related to his problem or not.

To approach the asymptomatic or uncomplaining patient, in an attempt to detect early disease is a new departure in general practice. Considerable expenditure in effort, time and money is required to provide such a service, and with the exception of the fee for cervical cytology the rewards though they exist, are not yet clear, and they are not financial.

With the changes and improvements in general practice in recent years; the increasing numbers of group practices, health centres, local authority attachments and use of ancillary staff it has become feasible to consider including screening for disease in routine general practice.

Since the work of Donaldson and Howell (1965) in Rotherham describing a local authority Multiple Screening Clinic, further reports have appeared from general practice. Cope and Smith (1967) describe a health week in general practice during which eight tests were offered on six evenings; 1,711 people attended. Scott and Robertson (1968) reported on a multiple screening programme offered to 1,800 women, 15 years and over, in a university teaching practice. The acceptance rate was 43 per cent. Hode (1968) from a group practice describes schemes administered by a computer file on 16,000 patients, providing screening tests to all patients over 35, and special clinics for the middle-aged and elderly. Evans, Wilkes and Dalrymple-Smith (1969) have reported on a two-day multiple screening clinic in general practice in rural Derbyshire.

The principles and practice of screening for disease are set out clearly by Wilson and Junger (1967) who restate the definition of screening made by the "Conference on Preventive Aspects of Chronic Disease" held by the Commission on Chronic Illness 1951. Screening is:

> The presumptive identification of unrecognized disease or defect by the application of tests, examinations or other procedures which can be applied rapidly. Screening tests sort out the apparently well persons who probably have a disease from those who probably have not. A screening test is not intended to be diagnostic. Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment.

They point out, that by definition, unrecognized symptomatic disease is included, that rapid physical examination may be part of the procedure, and that the term 'other procedures' may embrace the use of questionnaires.

This report describes the organization and some of the findings of a continuing screening programme in an urban group practice which has close links with a local

district hospital. The programme includes the use of questionnaires, limited physical examination and multiple screening tests, with the intention of making the maximum use of ancillary staff and limiting the involvement of the doctor to the minimum.

The data obtained were analysed by computer. The programmes were originally written on "Cobol" and were tested on an I.B.M. 360 computer. They were later modified to run on a Honeywell 200 series computer which printed out the final reports. Hardware requirements are 32,000 positions of core storage, two tape drives, a printer and card reader.

Organization

The practice is urban, compact, and has three partners caring for 5,600 patients who are mainly situated within two miles of the practice premises. These are purpose-built, and stand about half a mile from the local district hospital. Clinical assistantships are held in obstetrics by two of the partners, one of whom also holds a clinical assistantship in general medicine. The third partner, a married woman, works approximately 25 hours per week in the practice.

The ancillary staff are composed of four secretary-receptionists, and one state registered nurse. A health visitor is attached by the local authority.

In addition to routine practice work, continuous morbidity recording is carried out using the disease classification of the Royal College of General Practitioners, and an age-sex register is kept.

Using the age-sex register two main groups of patients were identified for invitation. A random third of all men and women between 35 and 64 years of age and all patients over 65. A circular letter of invitation together with a reply paid card was sent to those patients selected. These invitations were sent out in batches to provide a steady flow of patients attending for examination. Only one invitation was issued, but in March 1969 a questionnaire was sent to a number of patients who had not accepted to determine their reasons. A number of patients were excluded for reasons such as intercurrent illness or infirmity. Those patients responding to the invitation were given an appointment and sent a questionnaire which they were asked to complete and bring with them when they attended.

In addition to the patients selected from the age-sex register, two other groups were included but later analysed separately. These were a 'self-invited' group of patients, often relatives of the selected groups, who asked if they too could have a check up. The other group were a number of patients referred from the normal surgery or by the health visitor or nurse because for one reason or another a full examination was thought desirable, and this was a convenient way of arranging it. The local ambulance services provided transport for patients who were unable to make their own way to the surgery.

Method

The examinations were carried out between April 1968 and April 1969 in the practice premises on two afternoons a week. Men and women were seen at different sessions. Three rooms were used for the physical examinations and two other rooms for screening tests and clerical tasks. All physical and gynaecological examinations were carried out by one doctor, and all screening tests, with the exclusion of the cervical smear, were undertaken by nursing staff or other ancillary staff. Chest x-rays were taken at the M.M.R. Unit at Doncaster Royal Infirmary.

The following procedures were carried out:

Questionnaire. On arrival the self-administered questionnaire was checked over with the patient by one of the secretarial staff. This questionnaire has 90 questions and is intended to screen and to draw the attention of the physician to positive replies, but not to be diagnostic. It owes some of its form to the Cornell Medical Index; the M.R.C. questionnaire on respiratory symptoms (1966); the questionnaire on ischaemic heart

pain and intermittent claudication (G. A. Rose 1962) and a screening questionnaire designed by Dr A. E. Bennet for the South-east London Screening Study (personal communication). It also included questions intended to screen for depression and anxiety states.

Height and weight measurement. The height was measured without shoes, and the patient weighed in indoor clothes. Measurements were also taken of the chest on inspiration and expiration, and of the abdomen at the level of the umbilicus.

Respiratory function. Peak expiratory flow was measured using the Wright Peak Flow Meter by secretarial staff trained in its use.

Visual acuity. This was determined using Snellens test types, with the patient wearing spectacles if these were normally used.

Blood pressure was measured with the patient sitting, only one reading was taken, this was done by the practice nurse or health visitor, who carried out vene-puncture at the same time. Blood samples were tested at Doncaster Royal Infirmary.

Haematology. Haemoglobin and examination of the film.

Biochemistry. Urea, serum electrolytes and, blood sugar.

Tonometry. This was measured using a Schiotz tonometer and was carried out by nursing staff trained in its use.

Urine examination. After suitable explanation each patient was asked to provide a clean mid-stream sample of urine preceded by simple mechanical cleansing with sterile water. The samples were collected in sterile containers and refrigerated until the end of the session. The urine was then tested with Labstix for blood, glucose, ketones, protein and pH. A semiquantitative bacterial count was set up (using a standard wire loop), the plates were incubated at 37°C overnight on the surgery premises. Significant growths on culture were referred to the hospital bacteriological department for identification and sensitivity testing.

Cervical smears were taken by the doctor during his general examination of all women who agreed to have it done, and who had not had it done in the previous year. The surprisingly large number of patients who had undergone total hysterectomy were excluded as were a small group in whom it was technically impossible.

Chest x-*rays* were arranged for all patients who had not had a chest x-ray in the previous year.

Physical examination. This was divided into two parts. The first was a fairly brisk general appraisal, with inspection of the skin and mucous membranes, auscultation of the heart and chest, and the eliciting of the knee and ankle jerks. There was no elaboration unless indicated by the answers to the questionnaire, or in response to other complaints by the patient.

Secondly, there were a number of specific examinations; inspection of the ears for wax; a clinical assessment of acuity of hearing; inspection and palpation of the breasts; inspection and palpation of the abdomen and hernial orifices; vaginal speculum examination with the taking of a cervical smear; bimanual palpation of the pelvis; and rectal examination. In addition the presence of varicose conditions, need for chiropody and loss of mobility were noted as being of particular interest in the elderly.

Immediately prior to the examination the patients' questionnaire was looked at and a brief summary made of the patients past medical history. During the examination patients were encouraged to raise and discuss any problems they had about their health.

After the completion of the examination and tests, patients were given a form to attend at the hospital for chest x-ray and an appointment was made for them to see the doctor after two weeks to discuss the results. An assessment was made of the benefit

of any new diagnoses made by placing them in one of the following categories:

(a) Diagnosis needing treatment or advice and considered of definite benefit.

(b) Diagnosis in which treatment was not needed but which it was of value to the patient for it to be known about.

(c) Diagnosis knowledge of which of doubtful value to the patient.

The results were summarized on a card suitable for inclusion in the standard medical envelope.

Results

Response

Of the sample selected for invitation by circular, 13 were found to have left the district and 18 (10 men and 8 women) were excluded for medical reasons such as infirmity or illness. Six hundred and thirty-seven patients were eventually sent letters and 436

TABLE I
RESPONSE TO CIRCULAR

	Age of patient	*No. of patients circularized*	*Patients accepting*	
			Number	*Percentage*
Men	35–64	257	176	*68.5*
	> 65	95	58	*61*
	TOTAL	352	234	*66.5*
Women	35–64	201	149	*73.8*
	> 65	84	53	*63*
	TOTAL	285	202	*71*
Men & Women	All ages	637	436	*68.5*

(68.5 per cent) replied accepting, 410 of these were finally examined (64.5 per cent). Table I gives the response of patients according to age and sex. The highest acceptance rate (73.8 per cent) was for women between the ages of 35 and 64 years.

In addition to this sample, 99 patients (66 women and 33 men) were invited directly by the doctor, practice nurse, or health visitor, and 26 patients (15 men and 11 women) invited themselves. Of the original 561 who had accepted from all three sources 498 had been examined by the end of April 1969 (table II), 17 men had defaulted or cancelled,

TABLE II
PATIENTS EXAMINED (ALL SOURCES) BY END OF APRIL 1969

	Accepted circular		*Self invited*		*Referred by doctor nurse or health visitor*		*Total*
	Number	*Percentage of total*	*Number*	*Percentage of total*	*Number*	*Percentage of total*	
Men	210	*83.6*	15	*6*	26	*10.4*	251
Women	188	*76.2*	9	*3.6*	50	*20.2*	247
TOTAL Men & Women	398	*80*	24	*4.8*	76	*15.2*	498

one fled during the medical examination, and eight women cancelled or defaulted; the remainder were examined subsequently.

An attempt to relate response to social grouping (Registrar General I-V) has been hampered by incomplete data on the non-responding patients. It is possible only to say that 5.8 per cent of women and 5.7 per cent of men attending were in SG IV and V, and that at least 9.5 per cent of women and 7.8 per cent of men not attending were in these groups.

A questionnaire sent to 111 patients, 80 of whom had failed to reply to the original invitation and 31 of whom had replied refusing, yielded the following information. Four had left the district, and from the remaining 107, 46 (43 per cent) completed questionnaires were received. Twelve patients (11.2 per cent) declared themselves willing to have an examination. This questionnaire consisted of seven questions designed to find the reasons patients had for not accepting. Seventeen (37 per cent) "did not like the idea of being examined", 16 (35 per cent) "felt quite well and did not think an examination necessary", 10 (21.8 per cent) "thought it would be a waste of the doctor's time", 14 (30.2 per cent) "preferred not to know if there was anything the matter with them", 8 (17.4 per cent) "had been too busy"; and 12 (26 per cent) just "hadn't got around to replying to the invitation".

The results that follow relate to those patients from all sources examined by the end of April, 1969 (table II). These groups, from different sources, were analysed separately, and together. The self-invited group was too small to enable any conclusions to be drawn. The doctor-nurse-invited group had more abnormalities, since the suspicion of illness was their reason for inclusion. The circularized group, however, did not differ very much from the combined groups. Unless stated otherwise the results that follow will be from the circularized group.

Results were printed out by the computer in the form of tables. Table III is a summary of the main results from the screening tests and examinations. In addition all diagnoses previously made or newly discovered were printed out according to age and sex using the disease classification of the Royal College of General Practitioners. Table IV is an extract of some important diagnoses from an extensive print out of over 80 conditions recorded on the circularized group of patients.

Of the new diagnoses recorded half were considered important enough to require treatment or advice, and a further 47 per cent were worth knowing. The importance of the different parts of the programme in yielding new diagnoses was also evaluated by considering which parts had been essential in reaching a diagnosis and which parts had contributed to diagnosis even though not essential. Table V gives the findings in the circularized group. Comments are made in the appropriate sections.

Screening questionnaire

This was completed satisfactorily by 96 per cent of patients, three-quarters of them completing it in ten minutes or less. It was considered to have been essential in finding 20 per cent of previously undetected disease. Its particular value lay in diagnosing chronic bronchitis, angina of effort, depressive illness, anxiety states and urinary tract conditions.

Chronic bronchitis varying in severity from simple bronchitis to obstructive chronic bronchitis, using questions on cough and phlegm production, was present in 25 per cent of the men examined and 12.8 per cent of the women. Many of them were already known (table IV).

Obesity

Thirty-two per cent of men and 31 per cent of the women were over ten per cent overweight. This criterion although useful for comparison does not always have much

relevance for the particular patient, for whom a keen appraisal undressed has probably more meaning. The overweight were generally aware of their problem and a number were more successful in reducing weight following their examination than they had been in the past.

Respiratory function

A peak expiratory flow rate of less than 300L per minute in women and less than 350L per minute in men was classed as abnormal. This reading was useful in evaluating patients with chronic chest disease but performance is related to physique, age, and ability to perform the test satisfactorily as well as to airways obstruction. Since many

TABLE III

SCREENING TEST RESULTS

	Abnormal results (circularized patients)		*Abnormal results all groups*	
Test	*Number*	*Percentage of those having test*	*Number*	*Percentage of those having test*
Hearing loss	125	*31.4*	157	*31.6*
Exam. abdomen	7	*1.7*	13	*2.6*
Pelvic exam.	2	*1.3*	3	*1.5*
Vaginal spec. exam.	49	*32.5*	66	*33*
Rectal exam.	43	*11.4*	56	*11.9*
Obesity (men)	67	*32*	84	*33.5*
Obesity (women)	58	*31*	74	*30*
Bacteriuria (women)	13	*6.9*	15	*6.1*
Bacteriuria (men)	2	*0.8*	3	*1.2*
Anaemia (women)	7	*3.7*	14	*5.7*
Anaemia (men)	2	*0.96*	2	*0.5*
Blood sugar > 160 mgm	10	*2.9*	11	*2.2*
Blood urea > 50 mgm per cent	13	*3.3*	23	*4.6*
Chest x-ray	48	*13.5*	62	*14*
Raised BP	46	*11.5*	60	*12*
Raised intra-ocular tension	28	*7.2*	31	*6.25*
Reduced PEF	98	*25*	127	*25.8*
DVA Distant vision	117	*29.5*	144	*29*
Near vision	37	*9.4*	47	*9.5*

older patients were examined a high proportion (25 per cent) of abnormal results was recorded.

Raised blood pressure

A raised blood pressure defined as a diastolic pressure of 100 mm Hg or above was found in 46 (11.5 per cent) patients. Eighteen patients were already known to have raised blood pressure but not all of these had a raised diastolic at the time of examination. Sixteen patients, after checking and consideration of other clinical criteria were considered to require treatment or surveillance.

Anaemia

A haemoglobin of 11.5 Gm per 100 ml for women or 12.0 Gm per 100 ml for men

TABLE IV

EXTRACT OF SOME DIAGNOSES COMPARING NEW DIAGNOSES TO PREVIOUSLY KNOWN (CIRCULARIZED GROUP)

Diagnosis R.C.G.P. classification	*Number old diagnoses*		*Number new diagnoses*		*Total with diagnosis*
	Men	*Women*	*Men*	*Women*	
091 Diabetes mellitus	1	5	3	3	12
101 Obesity	18	27	44	24	113
111 Anaemia	0	1	2	8	11
134 Depression	3	13	3	2	21
212 Angina/Isch. ht. disease	17	9	6	8	40
218 Hypertension	7	11	10	6	34
248 Chronic bronchitis	26	17	27	7	77

TABLE V

EVALUATION OF SCREENING PROGRAMME AND NEW DIAGNOSES

	Essential to diagnosis		*Contributed to diagnosis*	
	No of new Diagnoses	*Percentage of total*	*No of new Diagnoses*	*Percentage of total*
Questionnaire	56	*20*	20	*7*
Screening tests	129	*47*	19	*7*
Dr's general examination	12	*4*	71	*26*
Dr's specific examination	71	*26*	4	*1*

was taken as the lower level of normal. All the anaemias found were hypochromic in type. Seven women (3.7 per cent) and two men (0.96 per cent) were found to be anaemic.

Diabetes

Glycosuria, or a blood glucose level of 160mg per 100ml or over on a sample taken at the time of examination was accepted as an indication for further investigation. Ten patients were found in this group. There were 12 diabetics in the sample, six previously known and six new cases (table IV).

Biochemistry

Blood urea levels of 50 mg per 100 ml or over were found in 13 patients. One patient was found to be hypokalaemic. This was due to treatment with diuretics for heart failure. She had discontinued taking her potassium supplements on her own initiative.

Tonometry

An intra-ocular tension of 22 mm Hg or over in either eye was taken as an indication for further investigation. Twenty-eight patients (7.2 per cent) were therefore referred to a consultant ophthalmologist for further evaluation.

Bacteriuria

A count of 100,000 bacteria per ml was regarded as significant (Kass 1956). Thirteen (6.9 per cent) women and two (0.8 per cent) men were found to have bacteriuria. In several of these patients it has been difficult to eradicate infection even in the absence of any demonstrable urinary-tract abnormality. Further episodes of infection sometimes involved different organisms. At the beginning of this study, screening for asymptomatic urinary-tract infection seemed to offer tempting prospects of perhaps preventing or halting the progress of chronic pyelonephritis. That asymptomatic bacteriuria predisposes to the development of acute pyelonephritis in pregnancy and that its treatment can reduce this complication has been established (Turner 1961, Kass 1962, Little 1965). Recent studies on non-pregnant women (Sussman *et al* 1969, Asscher *et al* 1969) indicate that screening for bacteriuria in many instances fails to detect urinary-tract infection at an early and reversible stage and that treatment by methods suitable for large scale use is ineffective.

Chest x-ray

Three hundred and fifty-five patients (89 per cent of the sample) had chest x-ray examinations, most of the remainder had had chest radiography in the previous year. Forty-eight (13.5 per cent) had abnormal radiographs, 13 of these showed old scarring, calcification or fibrosis, 12 had pneumoconiosis (all male and all previously known), six had emphysema. The remainder included varying degrees of cardiac enlargement, one case each of dextrocardia (already known), hiatus hernia, retrosternal goitre, and bronchiectasis.

Physical examination

The limited general examination was only essential in reaching a diagnosis in four per cent of new diagnoses, and included such conditions as clinical myxodema, and congestive heart failure. This and the specific examinations gave an opportunity to talk with the patient. The stethoscope may have yielded the least amount of information in this survey, but it was anticipated that none of the participants would have felt that they had had a proper check up without it.

Hearing loss

Including minor unilateral hearing loss, assessed clinically and usually agreed by

the patient, 125 (31.5 per cent) patients were affected. A number of the more severely affected were later provided with hearing aids.

Examination of the breasts

There were no significant abnormalities in any of the women, all of whom accepted examination. Four patients had previously undergone mastectomy, three for carcinoma and one for chronic mastitis.

Abdominal examination

The only abnormalities were herniae at various sites, mostly, but not all known by their owners.

Pelvic examination and cervical smear

There were no abnormal cervical smears although trichomonas organisms were reported present in several specimens. One hundred and twenty-three patients (65 per cent) of the women in the circularized sample had this test done, the main reasons for exclusion were: that it had already been done in the previous 12 months, or because patients had had hysterectomies (18.4 per cent of patients). There were very few refusals, and a few cases in which it was technically out of the question. Vaginal examination was carried out on 80 per cent of patients, and a large number of these (32.5 per cent) had gynaecological abnormalities, 19 patients had utero-vaginal prolapse, 12 of which were already known, ten had cervical polypi, 18 had cervical erosions mostly small and not necessarily treated, ten had troublesome post-menopausal vaginitis, seven trichomonas vaginitis, seven had other types of vaginitis, and one patient had fibroids. Much of this pathology was minor but causing considerable distress; it was clear that many of these women had put up with quite troublesome symptoms rather than face the embarrassment of seeking medical advice. The gratitude of some of these women after they had had treatment for their problems was most striking.

Rectal examination

Forty-three patients (11.4 per cent) had abnormalities, mainly internal haemorrhoids well known to the sufferers. Two women had quite marked anal stenosis, a complication of haemorrhoidectomy done many years previously. They benefited from dilatation. Three men had anal polypi. Thirteen men had clinically enlarged prostates.

Effect on work load

It was found possible to examine between five and eight patients (average six) on each of two afternoons a week. Each patient spent about 45 minutes at the surgery, about 10–15 minutes of this being spent with the doctor. On average the doctor spent 1½ hours on each session and a further hour a week in follow up, giving a total of four hours a week. Ancillary staff, nursing and secretarial, spent 2½ hours at each session, and a further 8–10 hours of secretarial work per week were required.

There was also a small increase in the long term work load in the continuing surveillance of patients with newly discovered illness. A few patients with anxiety neurosis appear to have attended less frequently since having the reassurance of a full medical with negative findings.

Cost

The cost in staff wages to run the programme is estimated at about £9 per week. The approximate cost for manpower including the doctor's time would be about £15 per week or 25/- per patient. There are no figures available for local hospital costs except for mass miniature radiography which in 1967–68 cost approximately 5/3d per test.

Discussion

The main purpose of this study was to examine the problems in carrying out routine

medical examinations in general practice. The second objective was that of case finding, that is, detecting previously undiagnosed disease, presymptomatic or symptomatic, with the intention of benefiting the individual patient, and not with the expectation of drawing any epidemiological conclusions. The main clinical findings are discussed in the sections above.

Medical care on request by the patient fails to satisfy fully the need of the community: often those most in need of attention fail to get it, either because they do not draw attention to their need or because their need is unrecognized. About 70 per cent of patients see their general practitioner in a year, but this may be a brief encounter, the presenting problem only may be dealt with and serious disease overlooked. This gap in primary medical care can partially be filled by routine periodic medical examinations. Ideally, these should be carried out in general practice for the following reasons. The problems of communicating information from clinic to family doctor are avoided, much of this in any case relates to morbidity already known to the latter (table IV). Borderline abnormalities need not be brought to the patients attention and unnecessary anxiety can be avoided. A good patient response, ranging over all social groups is likely; in the present survey 64.5 per cent of all patients approached were finally examined, and although there was some indication that fewer in social groups IV and V attended there was nevertheless a widely spread response. The fact that examinations were carried out in the working day and not in the evening deterred very few.

A continuing programme has the advantage of convenience for patients, many of whom could not attend a briefly offered screening clinic on a few days or perhaps a week in a year, on the other hand it requires continuing facilities nearby, particularly for mass miniature radiography, and this may not be possible in rural areas. An alternative to a full medical examination with screening tests is to offer screening tests alone. In this report screening tests revealed 47 per cent of the new diagnoses, however the doctor's presence was necessary for the vaginal examination, if not to take the cervical smear, and the number of abnormalities discovered on this examination alone justified his presence. The little extra effort entailed in a further limited physical examination was justified. It is suspected that the offer of a full check up by the family doctor is a factor in obtaining a good acceptance rate. Certainly many patients expressed gratitude in words which suggested this. Our 73.8 per cent acceptance rate from women between the ages of 35 and 64 years, compares well with the 46 per cent acceptance rate and 43 per cent examined rate for multiple screening tests offered to females 15 years or over in a university department of general practice (Scott and Robertson 1968). In this study the examining doctor was not the patient's family doctor.

Periodic health examinations reveal a substantial amount of morbidity, much of it relating to chronic conditions such as obesity, cardiovascular and respiratory disease. Much of this is unknown to the doctor and unknown to, or unacknowledged by the patient. A valuable opportunity for health education is presented both during the examination and at follow up.

The problems facing general practitioners in offering health checks are those of expense, organization and lack of time. General practitioners are unlikely to include such examinations in their range of care even if convinced of their value unless there is a financial inducement to do so. Payment for such a service apart from that already available towards the cost of ancillary staff is unlikely to be forthcoming until satisfactory evidence can be produced to justify it on economic grounds. Such evidence can only be obtained by large, long-term surveys to evaluate screening tests and screening programmes involving, as in the S.E. London Screening Study, the multidisciplinary skills of university departments of community medicine together with general practice.

The value of some screening tests, even those in general use, is still uncertain. The

evidence available on the evaluation of some screening procedures has recently been reviewed by a working party of the Nuffield Provincial Hospitals Trust (Screening in medical care 1968). Ten screening procedures already widely in use were considered. Only four were found to be based on valid evidence. One of the commonest difficulties is uncertainty about the natural history of the particular disease. This applies in considering the significance of asymptomatic bacteriuria and chronic pyelonephritis. In the small number of cases in the present survey discovery of bacteriuria has posed problems and solved none. The relationship between ocular hypertension and glaucoma remains unsatisfactory, screening and subsequent referral for ophthalmic opinion involves a large number of people who are unlikely to develop glaucoma and misses some who will. It is beyond the scope of this paper to discuss in detail the pros and cons of different screening tests and their routine application in general practice. Those screening tests which have the disadvantage of exposing many patients to further investigation and worry, and at the same time have uncertain significance should be excluded. Screening for bacteriuria in the age groups covered by the present survey, and increased intraocular tension fall into this category.

Whatever doubts may be attached to certain screening tests, there is no doubt that many of the patients in the present study were definitely helped, particularly those with disagreeable minor conditions for which cure or certain relief could be offered. Older patients have benefited most in this respect from the provision of hearing aids for deafness, elastic stockings to control varicose veins, to the arrangement of chiropody for painful feet; all commonplace perhaps, but improving the quality of life without doubt.

Summary

Periodic health examinations were offered to patients of both sexes over the age of 35 in a group practice.

The programme included the use of questionnaires, limited physical examination and multiple screening tests. Of 637 patients invited by circular 68.5 per cent accepted and 64.5 per cent were finally examined. The highest acceptance rate of 73.8 per cent was from women between the ages of 35 and 64.

The organization, findings and problems involved in carrying out such examinations are discussed. It is considered that such examinations would help to fill a definite gap in primary medical care and that they should ideally be carried out in general practice.

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THE SOCIETY FOR THE SOCIAL HISTORY OF MEDICINE

This new society has been founded to promote a better understanding of the relationship between medicine and the social sciences. Some knowledge and understanding of historical developments will further this aim and will bring together those engaged in academic and practical work such as doctors, sociologists, teachers and those engaged in public health, occupational medicine and community welfare services.

Four meetings will be held each year, initially at the Wellcome Institute. Meetings will also be held in various parts of the country from time to time. It is hoped that there will be international as well as national response.

Papers presented at the meetings will be published twice a year.

In order to formulate a programme for 1970 those interested in joining the society should communicate with **Mr G. Wilson, c/o The Wellcome Institute of the History of Medicine, 183 Euston Road, London, N.W.1.**