

DEPARTMENT OF HEALTH AND SOCIAL SECURITY

**On the State of
THE PUBLIC HEALTH
for the year 1982**

LONDON: HER MAJESTY'S STATIONERY OFFICE

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DEPARTMENT OF HEALTH AND SOCIAL SECURITY

On the State of THE PUBLIC HEALTH

THE ANNUAL REPORT OF
THE CHIEF MEDICAL OFFICER OF
THE DEPARTMENT OF HEALTH AND SOCIAL SECURITY
FOR THE YEAR 1982

LONDON
HER MAJESTY'S STATIONERY OFFICE

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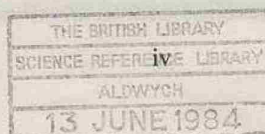
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INTRODUCTION

To The Rt Hon Norman Fowler MP

Secretary of State for Social Services

Sir,

It is now 10 years since my predecessor as Chief Medical Officer wrote his last annual report *On the State of the Public Health* and was able to record that, for the first 25 years of the National Health Service (NHS) — “in most respects the health record has improved throughout the period.” I believe that I can truthfully extend that statement to include the first 35 years of the NHS but must add that this has only been achieved through great effort and dedication on the part of responsible Ministers and those who work in the service. Every effort is now being made to maintain a comprehensive and effective national service through a period in which financial resources are severely limited. Attention is strongly focussed on the need for improved management and efficiency, for economical use of resources and for strict adherence to cash limits. The pressure for continuing economy seems likely to increase rather than reduce and proven deficiencies will have to be remedied as a result of the painful but necessary process of freeing resources by means of reallocation within the existing budget.

Within the Department involvement in the management of the NHS increases, and the medical staff are joined with their administrative colleagues in concentration on the effort to ensure that the NHS and personal social services are satisfactorily provided. Several chapters in this report are concerned with these matters and I have every confidence in the outcome.

However, the DHSS is not involved solely with the NHS and the Department, and particularly its medical staff, have other wider responsibilities for matters which are wholly or partially outside the NHS but which are of crucial importance to “The Public Health”. The relevance of these aspects of “wider” health has greatly increased in recent years and substantial developments have been necessary in relation to the safety and efficacy of medicines, and in the control of toxic hazards in food, water and the environment. Health education is of the greatest importance and the positive active promotion of health is as necessary as the campaign for prevention of illness. The control of communicable disease, though a less onerous commitment than it used to be, remains a crucial activity.

This is by no means an exhaustive list but I do not propose to enlarge on this theme any further here. Space is given to these matters in the body of the report and my main purpose in this introduction is to draw the attention of Ministers and others concerned to the need to give full attention to these matters which so much affect “Public Health” so that they are not overlooked at a time when the needs of the NHS loom so large. Sufficient resources of money and staff must be set aside and maintained for the purpose of “wider” health and we neglect this at our peril.

Vital statistics

Many health statistics are processed and analysed by the Office of Population, Censuses and Surveys (OPCS). The sources of OPCS data include the census, the registrations of births, marriages and deaths, the hospital in-patient

enquiry, the cancer registry and notifications of infectious diseases and of congenital malformations. In addition, the Department has developed its own statistical systems and receives various aggregated statistical returns from Health Authorities, Family Practitioners Committees, Local Authorities, the Dental Estimates Board and the Joint Pricing Committees, under headings such as staff, workload, facilities and costs. Some of these latter statistics appear in *Health and Personal Social Services Statistics for England* a publication of the Government Statistical Service compiled by the Statistics and Research Division of DHSS.

Other health statistics are published exclusively in this Report and include information from clinic returns about tuberculosis, sexually transmitted disease, and the work done by the Artificial Limb and Appliance Centres. There are also no other outlets for the publication of the data on the general practitioner and consultant use of maternity beds derived from SH3 tabulations. The epidemiological and historical value of these statistics in relation to the state of the public health is immense.

Unfortunately, at the time that last year's Report went to press some of these statistics for the year 1981 were not available. However, the backlog has now been made up and this year's chapter on Vital Statistics contains the usual statistics for 1982 as well as the material which had to be omitted from the previous year's report.

Social security

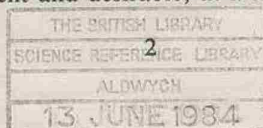
The DHSS provides the social security services directly through a network of regional and local offices and the medical input to this activity is reviewed in Chapter 2. This year this chapter has been shortened by referring only to subjects which were of particular interest in 1982 and it includes a description of the procedure for 'self certification'. Although the latter is often linked with the Statutory Sick Pay arrangements that scheme did not in fact start until April 1983, and it is appropriate to consider the two schemes quite separately.

The statistical tables dealing with sickness and invalidity benefits, incapacity for work, accidents and injury benefit are published by HMSO in *Social Security Statistics, 1982*, and are no longer included in this Report.

Primary health care

Approximately 95% of all people over 65 years of age live in 'private' households in the community. The elderly make heavy demands on health and other services and primary health care for the elderly is an important element of the work of the general practitioner. This subject continues to increase in importance and is discussed in Chapter 6.

The Acheson Report on Primary Care in Inner London was published in May 1981 (London Health Planning Consortium, 1981) and was widely circulated to Health Authorities who were asked to consider it as a basis for action. The fact that there has been no further Government statement about follow-up action on it either during 1981 or during the year under review is an illustration of how difficult it can be to introduce change in a system which has been operating for nearly 35 years and of the problem of committing resources for initiatives, however urgent and desirable, at a time of financial stringency.



Progress and development within the NHS have always been achieved following full consultation with the professions and when there has been a large measure of agreement between Government and the professional and other bodies concerned. One can only hope that the gradual change of view which is becoming apparent within the profession will gather momentum and assist the changes which are so necessary.

Child health surveillance

In the United Kingdom, for historical reasons, the medical component of child health surveillance, the supervision of the physical, mental and emotional development of children, has largely been carried out in child health clinics by part-time or full-time clinical medical officers. With the inception of the National Health Service in 1948 and the general availability of the family doctor service, it was expected that this function, like many others, would pass to the family doctor with the consequent diminution, in this particular role, of clinical medical officers.

This has not happened to any great extent. Some family doctors have been interested in this work and have made it their business to acquire the necessary expertise, to provide the facilities, and to join together with the health visitors in an essential partnership — not forgetting the parents. However, this process has been slow and, to a considerable extent, the clinical service has retained its undoubted popularity with mothers.

The Court Report (DHSS, Department of Education and Science & Welsh Office, 1976) pointed out the advantages to child health of integration of the primary care, hospital and community services, and this has been accepted in principle by successive Governments and by many interested professionals. In the autumn of 1981 the General Medical Service Committee (GMSC) of the BMA approached Ministers with a view to a Government impetus towards a more rapid change. Ministers asked for the GMSC to discuss with officials to clarify their ideas as to how such a family doctor-based service would be carried out. Ministers offered to consult more widely with the medical and nursing interests involved, once such clarification had been achieved. Consultation proceeded in July 1982. However, once again, the principle was recognized, but there was considerable criticism of some details of the proposals. Simultaneously with these events, consideration was being given in a number of forums to the future training of clinical medical officers. A representative group — convened by Professor Forfar — produced its recommendations on the child health aspects of training for clinical medical officers (Forfar, 1981) and these were referred to the Council for Postgraduate Medical Education and from thence to the Faculty of Community Medicine. Forfar envisaged a three-year vocational training which would, when satisfactorily completed, make a doctor eligible to become a principal in a NHS general practice, or to enter the Community Child Health Service. The question of appropriate training is still being pursued by the Faculty. A training of this type — the details need to be worked out — would lead to the development of a cadre of doctors skilled in the preventive aspects of child health and in the detection of departures from the normal. It could also lead to a gradual integration of the two services.

It must be remembered that clinical medical officers also carry out other duties, mainly, though not wholly, in family planning and in the school health service.

Insofar as family planning is concerned, there are no plans to review present policy that there should be a choice between health authority clinics staffed by clinical medical officers, and the family planning service offered by general practitioners. Furthermore, as a result of implementation of the Education Act 1981, with its resultant changes in relation to handicapped schoolchildren, there is little doubt that there will be a continuing role for clinical medical officers in this field also for the foreseeable future.

Preventive medicine

The prevention of physical and mental disorder and the promotion of health are prime objectives of Departmental policy. While much of what can be done is a matter for local action by Health Authorities, district councils, and voluntary organizations, individuals themselves have clear responsibilities for their own health. However, the effectiveness of personal action depends on the degree of public knowledge and understanding of the basic health principles involved. The Department has its own responsibilities for training to ensure that people do not harm themselves through lack of knowledge, and has a duty to encourage responsible and positive attitudes towards health and to contribute to the protection of the environment in its broadest sense. The Department has maintained its efforts against smoking, providing an additional £2.3 million to the Health Education Council during the year for campaigns against this dangerous habit, aimed particularly at young people. Further restrictions on the advertising of tobacco products were also agreed with the Tobacco Advisory Council. These were significant steps aimed at the reduction of cigarette smoking. The announcement of the decision to set up the Health Promotion Research Trust with funds provided by the tobacco industry for research into the means of encouraging people, especially the young, to adopt more responsible attitudes to their own health and for research into environmental and social factors which might affect such attitudes was particularly welcome. However, cigarette smoking remains one of the major causes of illness and premature death, and further stronger action is needed.

There is rightly a growing interest in the effects which chemicals in food, in domestic products, and in the environment generally, might have on health. During 1982 the results of studies of lead in food, in water, and in the environment generally have not indicated that there is any new problem. However, the presence of the metal remains a matter of considerable concern and measures aimed at reducing the general level of lead in the environment which were instituted by the Government following the publication of the Lawther report are well in hand. Further studies into any links that there might be between lead and the intellectual performance of children continue. I am glad to record that studies of residents of Shipham, exposed to unusually high amounts of cadmium, do not reveal evidence of ill-effects. Other matters of current concern are covered in Chapter 3.

Communicable diseases

Events of particular note during the year included a whooping cough epidemic in which the notifications of pertussis were of similar magnitude to those in the 1978 epidemic. In September notifications exceeded 3,000 for two consecutive

weeks. Two cases of Lassa fever were confirmed (after a break of four years) and four cases of diphtheria were notified, there having been only seven cases in the previous three years. An outbreak of *Salmonella napoli* infection related to imported Italian chocolate was of particular interest among the food poisoning outbreaks.

An important new vaccine was licensed during the year — hepatitis B vaccine.

Communicable diseases are discussed more fully in Chapter 4 and the statistical returns relating to sexually transmitted diseases in Chapter 5.

Mortality studies

The Department is concerned to promote and foster good practice procedures and a summary of the ninth triennial report on Confidential Enquiries into Maternal Deaths in England and Wales appears on page 71 (DHSS, 1982a). This series which began in 1952 was one of the first examples of effective medical audit and has been an outstanding success.

A confidential enquiry into anaesthetic deaths was also published during the year (Lunn and Mushin 1982). It was conducted by the Association of Anaesthetists of Great Britain and Ireland with financial support from the Nuffield Provincial Hospitals Trust.

The study was limited to Wales (where the work was co-ordinated), Scotland and the three largest English Regional Health Authorities (Trent, North Western and West Midlands). It was based on a population of 22 million and the aim was to obtain information on all hospital in-patient deaths occurring within 6 days of the administration of anaesthetic. In the event, the enquiry reported a total of 3,736 deaths which amounted to 61.6% of the 6,060 deaths recorded in Hospital Activity Analysis and related to 1.15 million operations. In 365 (about one tenth) of these reported deaths either the surgeon or the anaesthetist or both considered that the anaesthetic had played some part in contributing to the death of the patient. A full enquiry was instituted into these 365 deaths, employing a carefully designed method of preserving confidentiality in which the identity of those involved was removed from the records at the local level. In their report on the information that was obtained, the Assessors split the deaths into three groups:

- (1). 58 cases (16%) in which anaesthesia was considered to have been *totally* responsible for the death;
- (2). 169 cases (46%) in which anaesthesia played *some* part in the death;
- (3). the balance of 138 deaths (38%) where the assessors decided that anaesthesia had played no part in the death (although the authors carefully point out that in all 365 deaths someone locally had implicated anaesthesia).

In the first two groups, the assessors judged 125 deaths (55%) of the total of 227 to have been avoidable. Errors of judgement were held to have occurred in 79% of these 125 avoidable deaths while lack of experience applied in only 30% of cases.

The deaths are analysed by grade of doctor administering the anaesthetic, his experience, use of monitoring equipment, use of drugs, assistance, and the availability of other facilities. It is not possible to form conclusions on the relative risk of these various factors from the tabulated data because the study could not provide the complementary information on the large number of anaesthetic administrations (over a million) not followed by death — at any rate not within 6 days. However, the authors provide a critical commentary which covers both the reasons for the deaths and the difficulties of mounting the enquiry as well.

The conclusions reached in the report clearly confirm the remarkable safety of modern anaesthesia. In every 10,000 anaesthetic administrations anaesthesia alone was considered to have been responsible for only one death and to have played *some* part in (approximately) only 6 deaths. Human error can never be entirely eliminated and the report claims that a majority of the 365 cases investigated were avoidable. Nevertheless causes of anaesthetic deaths which were once common (inhalation of vomit *etc*) no longer predominate and the mistakes that did occur were common to all grades of anaesthetist notwithstanding the authors' comment that trainee anaesthetists were often required to administer anaesthetics without adequate support or supervision by senior staff.

This is not the first attempt by the Association to undertake such self-audit and the success of this particular study should augur well for future enquiries within this specialty and set a formidable challenge to others. The information is extremely valuable and will no doubt lead to improvement in anaesthetic administration. I hope that in future it will prove possible to consider all aspects of deaths following operation by including surgical causes in the assessment as well as anaesthetic causes — a course which was specifically avoided in this study.

Hospital medical staff

Efforts to correct the imbalance in the hospital medical staffing structure continued during 1982. Further discussions were held with the health authorities and with the profession and a standstill in the total number of Senior House Officer posts was introduced as part of the long-term plan to increase the ratios of consultant posts to the number of junior doctors. The Medical Manpower Steering Group studied the supply of and demand for doctors up to the end of the century and saw no reason to recommend a reduction in medical school intakes. However, it recommended that there should be regular monitoring of the situation and in November 1982 the Advisory Committee on Medical Manpower Planning was set up to examine and advise the government on factors likely to affect future trends in supply and demand for doctors. Its first report is due in 1983.

In the 1981/82 parliamentary session the Social Services Committee conducted an enquiry into the effects on medical services of the reductions in University Grants Committee (UGC) finance. The Committee concluded that reductions in the UGC grant would undeniably have some effect on clinical services and recommended that the grant should be increased for the years up to 1983/84. The Government's response was published in November (DHSS, 1982b). While accepting the need to keep developments under review the Government concluded that on the evidence then available, the effect of the reductions in

UGC grant on clinical services was likely to be marginal.

The initiative on the reduction of the hours that junior doctors work was continued during 1982. A working party with the profession and with NHS management was set up and reached agreement on a framework for local reviews of junior doctor hours of work.

Dental health

The number of dentists on FPC lists in England and Wales at 30 September 1982 was 13,936, an increase of just over 3% from the same figure for 1981 which itself represented a similar increase since the previous year. The number of dentists in the Hospital Dental Service also increased by nearly 3% in each of the last two years and in the Community Dental Service the number of clinical dental officers has increased by more than 4% since 1976.

The report of the Dental Strategy Review Group was published in 1981 and Government's response to the report was given in October 1982. The programme for the implementation of the Group's strategy on prevention and continuity of care will need to be phased and discussions are now taking place in particular about the application of topical fluoride to the teeth of children at special risk. The setting up of a pilot study to test the feasibility of a capitation system of payment in the General Dental Service for the treatment of children is also being discussed.

The Department's Dental Manpower Study Group reported in 1982. In the House of Commons in July 1983 it was announced that health ministers accepted the Group's recommendations which included a reduced target figure for the number of dentists on the register for the year 2020 and a 10% reduction in the dental school intake with effect from 1984. The first of the recommended regular reviews of dental manpower will be undertaken in 1984. A new Child Dental Health Survey, a follow up to the 1973 study was planned for the Spring term of 1983 and a pilot study took place in October 1982.

Acknowledgements

It gives me great pleasure to acknowledge the help of my colleagues in DHSS in the preparation of this Report. Our medical staff advise the Secretary of State and other Ministers responsible to Parliament and assist in developing Departmental policy. Much of their knowledge is acquired as a result of liaison with members of the health professions throughout England and it also gives me great pleasure to acknowledge the support the Department receives from these colleagues. Consultant advisers, advisory committees and other groups of experts in many professional and scientific fields also help in formulating aspects of policy with which this Report deals.

Close collaboration exists with the Medical Research Council. The assessment of data on the possible neurological effects of lead is a good example of this. We have also maintained good working relationships with the World Health Organization, the Welsh Office, the Scottish Home and Health Department and other international, governmental and official agencies, including the Office of Population, Censuses and Surveys. The OPCS contribution to this Report remains substantial.

I would also like to thank the staff of HMSO for their invaluable help in the publication of these reports over the last 10 years.

However, the content of the report has been put together from draft contributions compiled and edited once again by Dr J L Hunt. He has been an outstanding editor for over 20 years and I remain greatly indebted to him and to all who have helped in this exercise.

I have served in DHSS for twenty years during 10 of which I have held the post of Chief Medical Officer. This is my last opportunity to record in this report my grateful thanks to the medical staff for their support, loyalty, and kindness to me during my time as CMO. I am deeply appreciative also of the great help I have received from administrative and other colleagues at all levels in the department.

In conclusion, Sir, it has been an honour and privilege to serve you, the Secretary of State, and four of your predecessors as Chief Medical Officer of the Department of Health and Social Security.

I am, Sir,

Your obedient servant

H YELLOWLEES

October, 1983.

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VITAL STATISTICS

This report for 1981 (page 1) drew attention to industrial action by Registrars of births, deaths and marriages; the usual vital statistics were not available for inclusion in Chapter 1. The industrial dispute, which involved some registration officers from May 1981 until August 1982, resulted in lack of some of the information normally available to aid cause coding. This has resulted in more deaths than usual being assigned to 'unspecified categories'. Additionally information normally supplied by coroners was not available in 1981 and therefore all statistics relating to accidents and violence, with the exception of suicides, must be regarded with caution for that year. The present chapter includes tables for both 1981 and 1982 for material that traditionally appears annually.

Population size (England)

The resident population of England at mid-1982 is estimated to have been 46,799 thousand (Table 1.1). The very small decrease of 22 thousand, 0.05 per cent, from the mid-1981 figure arose because the loss due to the surplus of emigrants over immigrants, 56 thousand, was slightly larger than the natural increase of 39 thousand. This may be compared with the 12 months to mid-1981 during which the population increased marginally because the natural increase of 67 thousand was larger than the 46 thousand net loss due to migration. Overall the trend of the last few years, of little change in the total number of residents, continued.

The mid-1981 and mid-1982 population estimates are based on the results of the 1981 Census and are not comparable with the figures previously published for earlier years. In addition to the use of a new census base, the lack of comparability is due to a change in the definition of resident population. The

Table 1.1 Components of population change, England (thousands)

Mid-year to mid-year	Population at start of period	Components of population change (mid-year to mid-year)					
		Births	Deaths	Natural increase	Net migration	Other changes*	Total change
1973-74	46,405	616	547	+ 69	- 73	- 1	- 5
1974-75	46,400	590	554	+ 36	- 50	+ 6	- 8
1975-76	46,391	561	563	- 2	- 14	- 1	- 17
1976-77	46,374	536	544	- 9	- 8	- 5	- 22
1977-78	46,351	543	548	- 4	- 10	+ 12	- 2
1978-79	46,349	591	555	+ 36	+ 9	+ 2	+ 47
1979-80	46,396	610	542	+ 68	+ 1	+ 2	+ 71
1980-81	46,467	609	542	+ 67	- 46	+ 333†	+ 354
1981-82	46,821	591	552	+ 39	- 56	- 5	- 22
1982-83	46,799						

* Changes in numbers of armed forces plus adjustments to reconcile population change between mid-year estimates of natural change and net civilian migrants.

† Approximately + 100 due to definition change, remainder new census base.

1981 Census provides a count of residents who were recorded as being absent outside Great Britain on census night while the 1971 Census did not. The additional information is used in the population estimates which now include residents who were outside Great Britain on census night and exclude overseas visitors. Previously the overseas visitors were included and the absent residents excluded.

A revised set of 1971-80 population estimates comparable with those based on the 1981 Census is to be produced in late 1983.

Age and sex structure of the population (England)

The age and sex structure of the estimated mid-1982 population of England is shown in Table 1.2. Although the estimated number of residents has remained virtually constant for a number of years there have been major changes in the age and sex structure, mainly due to the ageing of the different sizes of birth cohorts, and these changes continue. Thus the population of school age fell by over 3% but the upward trend in the birth rate some five years ago led to a 2% increase in the number of children reaching school age. The total number of people of pensionable age increased by just over ½% but there were marked differences between males and females, and between people aged under 75 years and those aged 75 years or more. For the age group up to 75 years, the number of males decreased by over 1½% while the number of females increased by 0.2% — the latter includes births from the boom which followed the first World War whereas the former does not. The pattern for the 75 year or more age group was completely different, the number of males increased by 3½% while the number of females increased by just over 2%.

Table 1.2 Population age and sex structure, England 1982

Age Group	Persons		Males		Females		% change between revised mid-1981 and mid-1982		
							Persons	Males	Females
0-4	2,889	6	1,482	7	1,407	6	+2.0	+1.9	+2.0
5-16	7,970	17	4,094	18	3,877	16	-3.3	-3.3	-3.3
17-29	9,204	20	4,667	20	4,538	19	+1.6	+1.6	+1.5
30-44	9,233	20	4,645	20	4,588	19	+0.6	+0.5	+0.8
45-64/59*	9,052	19	5,097	22	3,955	16	-0.5	+0.1	-1.3
65/60-74†	5,618	12	1,872	8	3,746	16	-0.4	-1.6	+0.2
75+	2,831	6	927	4	1,905	8	+2.5	+3.5	+2.1
All ages	46,799	100	22,783	100	24,016	100	-0.0	-0.1	-0.0

* 45-64 for males
45-59 for females

† 65-74 for males
60-74 for females

Live births (England and Wales)

In England and Wales during 1981 there were 634.5 thousand live births, 21.7 thousand (3.3 per cent) fewer than during 1980 (Table 1.3). This decrease followed three consecutive years in which there had been an increase in the number of live births. However, the 1981 figure was still 65.2 thousand (11.5%) higher than the minimum of 569.3 thousand births which had occurred in 1977. In 1982 there was a further, but less marked, fall to 625.9 thousand live births, 8.6 thousand (1.4%) fewer than in 1981. Increases in the average ages at which women marry, coupled with increases in the intervals from marriage to first birth lead to increases in the mean ages at legitimate childbirth. In 1981 the

mean ages at all legitimate and at first legitimate births continued to increase, and over the ten year period from 1971 to 1981 rose by 0.9 years and 1.4 years to 27.3 years and 25.4 years respectively.

The mean age of women at childbirth, regardless of legitimacy, increased during the same period by 0.6 years to a value of 26.8 in 1981. This increase was only slight owing to a higher age at legitimate births being compensated by a larger proportion of births which were illegitimate (generally occurring to younger women).

The percentage changes in fertility rates between 1980 and 1981, shown in Table 1.3, take into account the effects of the 1981 revision of the definition and size of the population base. The population of women of childbearing age (15 to 44) increased by approximately 1% per year between 1980 and 1982, so the fall in the General Fertility Rate (live births per 1000 women aged 15 to 44), 4.3% between 1980 and 1981 and 2.3% between 1981 and 1982, was sharper than the fall in numbers of births. The total period fertility rate (TPFR — see definition below Table 1.3) for 1981 was 1.80, a fall of 4.1% from the 1980 value of 1.90. In 1982 there was a further decrease of 2.3% to 1.76. By 1982, in common with many other developed countries, the TPFR had been below the level of 2.1, required in the long term for the replacement of the population, for a decade. Following a peak of 2.94 reached in 1964, the TPFR had declined by 43% to a 1977 minimum of 1.68; it then recovered to reach 1.90 in 1980 before declining again. Between 1980 and 1981 fertility rates fell in all age-groups for women aged under 40, the greatest decrease being for teenagers, for whom there was a 7.7% fall to a level well below that of 1977. Most of the 1977 to 1980 increase in fertility rate for women aged 20 to 24 was lost by a 6% decrease between 1980 and 1981, whilst the rates only fell by around 3% for all other age-groups of women aged under 40, and remained well above the minimum levels of 1977. During 1982 fertility rates for women aged under 30 continued to fall, although by smaller percentages, whereas the rates for women in their 30's rose. Fertility rates increased in 1981 for women in their 40's, but this trend reversed in 1982.

The number of illegitimate births continued to rise in both 1981 and 1982, reaching a record level of 89.9 thousand in 1982 (Table 1.4). This represented an increase of 44% (27.3 thousand) in the decade from 1972. Since the total number of births was decreasing between 1980 and 1982, the illegitimacy ratio (illegitimate births per 1,000 total births) rose sharply from 118 in 1980 to 144 in 1982. In just two decades the illegitimacy ratio has more than doubled. Between 1980 and 1981 the number of illegitimate births increased by 4.7% with the largest increases being to women in their 20's. Teenage women and women aged 30 to 34 experienced small increases, whilst for women aged 35 and over the numbers actually fell by over 17%. The trend for the older women was, however, reversed in 1982 and numbers of illegitimate births increased for women in all age-groups. Overall, between 1981 and 1982, the number of illegitimate births rose by 11%. The distribution of illegitimate births by age of mother varied little between 1980 and 1982, and discontinuities between 1980 and 1981 in the estimates of the population of unmarried women make it difficult to interpret changes in rates of illegitimate births in each age-group. However, as during the 1970's, it appeared that the increase in the number of illegitimate births was due to a rise in the size of the population of unmarried women rather than to a higher illegitimate birth rate.

During 1981 there were 553.5 thousand legitimate live births, 4.4% fewer than during 1980. This fall was followed in 1982 by a further decrease of 3.1% to

536.1 thousand legitimate births. However, legitimate births to remarried women rose during this period by just under 1% per year. Of births to women in their first marriage, it was numbers of first births which fell most sharply each year, though there were also decreases in the numbers of births of almost all live birth orders.

Median intervals between marriage and first births increased substantially during the ten year period from 1971 to 1981. However, figures from family allowance and child benefit returns show that median intervals between subsequent births changed very little during the period, and in 1981 remained unchanged from the 1980 values of 31 months between first and second births, and 40 months between second and third births. The timing of the first birth within marriage differs according to social class. In 1981 the median intervals between marriage and first births to women married to men in Social Class II (managerial and intermediate occupations) and Social Class IIIN (skilled non-manual occupations) shortened from the 1980 values by four months to 37 and 33 months respectively, but the intervals for all other classes remained at or near the 1980 values; 43 months for Social Class I (professional occupations), 25 months for Social Class IV (semi-skilled manual occupations) and 13 months for Social Class V (unskilled manual occupations).

During 1981 there were fewer legitimate births to women with husbands in each of the social classes. However, whereas the number of births to wives of men in manual occupations (Social classes IIIM, IV and V) fell by about 7%, the number of births to women whose husbands were in non-manual occupations (social classes I, II and IIIN) fell by less than 2%. Taking the period from 1971 as a whole, numbers of legitimate births were substantially lower in 1981 than in 1971 in all Social classes except I and II. As a result, the percentage distribution of all legitimate births by social class changed markedly over the decade. For example, in 1981, births to wives of men in Social Classes I and II accounted for 44% of all legitimate births compared with only 28% in 1971.

As mentioned previously, the mean ages of women at childbirth continued to increase in 1981. Mean ages at childbirth increased for the wives of men in all social classes but the gap between non-manual and manual occupations remained wide. In 1981 the wives of men in Social Classes I and II (professional, managerial and intermediate occupations) were on average 27.6 years old at their first births within marriage, over 4 years older than the wives of men in Social Classes IV and V (semi-skilled and unskilled manual workers).

Deaths

The number of deaths in England in 1981 was 541,023, and in 1982 544,984. These figures represent slightly lower crude death rates per 1,000 population in the years 1981 and 1982 than in the preceding few years (the figures have been 12.0 and 11.7 in 1979 and 1980, whilst the latest two years have crude rates of 11.6). However, of more interest is the long-term trend in overall mortality which is best examined using the Standardized Mortality Ratio (SMR), which compares the observed number of deaths with the number that would have occurred if the sex/age specific death rates of a standard year had applied to the current population structure. This takes account of changes in the age and sex structure of the population over time, which can themselves influence the total number of deaths or the crude death rate. The SMRs have dropped in the recent two years, against a standard figure of 100 for 1968 to a new low of 85.

Table 1.3 Live births and birth rates by age of mother, England and Wales, 1981-1982.

Year	15-44 ¹	15-19 ¹	20-24	25-29	30-34	35-39	40-44	
Numbers of live births (thousands)								
1981	634.5	56.6	194.5	215.8	126.6	34.2	6.2	.
1982	625.9	55.4	192.3	211.9	120.8	39.0	5.9	.
Percentage change								
1980-81	-3.3	-6.9	-3.5	-3.4	-2.6	0.9	1.6	.
1981-82	-1.3	-2.0	-1.1	-1.8	-4.6	14.0	-4.7	.
Rates: all live births per 1000 women in the age-group								TPFR ²
1981	61.3	28.1	105.3	129.1	68.6	21.7	4.4	1.80
1982	59.9	27.5	101.6	125.8	69.0	22.8	4.2	1.76
Percentage change								
1980-81 ³	-4.3	-7.7	-6.0	-3.1	-2.8	-2.7	2.2	-4.1
1981-82	-2.3	-2.1	-3.5	-2.6	0.6	5.1	-4.5	-2.3

Notes:

- 1) Births to women aged under 15 and over 45 are included in the 15-44 year age-group and births to women aged under 15 in the 15-19 age-group.
- 2) The total period fertility rate (TPFR) is the average number of children which would be born per woman if women experienced the age-specific fertility rates of the period in question throughout their childbearing life-span.
- 3) Rates calculated for 1981 and later are based on population estimates which take account of results from the 1981 Census and also incorporate a change in definition of the resident population. The percentage changes in fertility rates between 1980 and 1981 have been adjusted to allow for the resulting discontinuity in the estimated size of the population base.

There are two factors which can produce appreciable major short term change in mortality rates — epidemics of influenza, and very abnormal weather conditions, especially severe cold. Table 1.5 shows the quarterly death rate for England for the years 1977-1981 and separately for 1981 and 1982. The usual pattern is for higher rates in March, with the lowest rates in the September quarter. This held for each of the quarters in 1982, with marginally lower rates in the middle two quarters of the year than for the average of the preceding 5 years. 1982 was a year in which there was neither prolonged cold or hot weather, and no appreciable epidemic of influenza.

Tables 1.6 and 1.6a show the principal causes of death in England in 1981 and in 1982, providing the numbers of deaths for the various causes, the rate per million population, and the percentages that each of the causes contribute to the total number of deaths. It is difficult to provide detailed comment about these tables, because this is only a preliminary probe of a complex profile of patterns of mortality; if one wishes to consider the causes of death not only is it of interest to know the numerically large ones, but such issues as the difference in the death rate in the two sexes, or at different parts of the age range. For example, tuberculosis of the respiratory system which leads the table (because it is in the order used by the International Classification of Diseases) accounts for more deaths in males than females, and has a very skewed distribution by age. However, the tables are useful for identifying the major causes of death within the level of grouping used; in order these are:- ischaemic heart disease, to which over a quarter of the deaths are ascribed; cerebrovascular disease, to which over a tenth of the deaths are ascribed; pneumonia to which nearly a tenth are ascribed; cancer of the lung, with 6%; bronchitis, emphysema and asthma with 3%. It should be noted that the ranking of such conditions will

Table 1.4 Live births by legitimacy, birth order, and age of mother, England and Wales, 1981-1982.

Legitimate births by birth order to women married once only									
Age of mother	Total live births	Illegitimate births	Re-married women	All	1st	2nd	3rd	4th and over	
Numbers of live births (thousands)									
All ages	1981	81.0	38.8	514.8	214.8	192.7	73.1	34.1	
	1982	89.9	39.0	497.1	202.1	188.1	72.0	34.9	
Under 25	1981	251.1	3.7	192.1	111.8	63.6	13.8	2.9	
	1982	247.7	3.1	183.5	104.5	62.1	14.0	3.0	
25-34	1981	342.4	27.5	292.7	97.8	120.8	51.6	22.5	
	1982	332.6	24.2	27.7	280.7	116.5	49.3	22.6	
35+	1981	41.1	7.6	30.0	5.2	8.3	7.7	8.8	
	1982	45.5	8.2	32.8	5.3	9.5	8.7	9.3	
Percentage change									
All ages	1980-81	-3.3	0.7	-4.7	-7.1	-2.2	-4.8	-3.3	
	1981-82	-1.4	0.6	-3.4	-5.9	-2.4	-1.5	2.2	
Under 25	1980-81	-4.3	-0.9	-6.8	-9.3	-2.6	-4.5	-4.4	
	1981-82	-1.3	-16.6	-4.5	-6.6	-2.3	1.1	4.2	
25-34	1980-81	-3.1	-1.1	-3.9	-5.0	-2.4	-5.6	-2.8	
	1981-82	-2.8	0.8	-4.1	-5.6	-3.5	-4.5	0.5	
35+	1980-81	1.2	8.6	0.6	2.7	4.1	0.8	-4.0	
	1981-82	10.7	8.4	9.5	2.8	13.8	13.6	10.7	

Note: All 1982 figures are provisional.

depend on the specificity of the classification used; the list indicates some residual categories, for example within heart disease, malignant disease, and all other forms of disease which have appreciable percentages of deaths, though these will be spread amongst a number of different specific causes. Because over 500,000 deaths occur each year, some of the causes appear to contribute only a very small proportion of the total deaths, and yet there may be appreciable problems for health care and for particular individuals. It must be remembered that some of the diseases which are ultimately associated with death may be long standing and require medical care and support over many years. For example, only about 0.1% of the deaths are from multiple sclerosis, involving 706 deaths, but the count of deaths is a very inadequate reflection of the overall medical care problem created by this disease.

The same point may apply to the various forms of violence which appear at the bottom of the tables; it must be remembered that in addition to the deaths from motor vehicle accidents — nearly 5,000 in 1982, there may be large numbers of individuals with severe injuries who require long term medical care and support. The Department of Transport (1983) has reported about 1/3 of a million road casualties in 1982, of which about 80,000 were classed as serious.

The tables are an inadequate basis on which to examine trends over time, and one particular cause of death — the most common (ischaemic heart disease) has been selected for special consideration.

Table 1.5 Quarterly death rate per thousand home population, England, average 1977–1981, 1981 and 1982

	March	June	September	December
England average 1977–81	13.5	11.4	10.2	11.7
England 1981	13.0	11.0	10.2	12.0
England 1982	13.5	11.3	10.1	11.7

Survival of low birthweight babies

Notifications in 1982 of babies born in England weighing 2,500g or less at birth showed that low birthweight live births represented 6% of live births; and low birthweight live and stillbirths together represented 7.2% of live and stillbirths (Table 1.8). Table 1.9 gives an analysis of low birthweight babies of birthweight groups showing still births and neonatal mortality. Of all babies born alive weighing 2,500g or less, 47% were in the 2,251 — 2,500g groups, whilst 31% were 2,000g or less, including 3.5% 1,000g or less. The table clearly shows the increase in mortality associated with decreasing levels of birthweight, as does Table 1.10 which shows the perinatal mortality rates for each of the low weight groups.

Trends in ischaemic heart disease

As mentioned above ischaemic heart disease is the commonest cause of death in England (Tables 1.6 and 1.6a). There is interest in monitoring the trends from this disease for several reasons. The present evidence points to certain facets of 'behaviour' (smoking, diet, exercise etc) in determining the risks of this disease. It is important to know whether changes in such behaviour are occurring that are reducing or increasing the population risk of ischaemic heart disease. One way is by monitoring the trends in mortality. In addition, it is important to

Table 1.6 Mortality: Principal causes, England 1981

ICD No (9th Revision)	Causes	Deaths	Rate per million	Percentage of deaths from all causes
010-012	Tuberculosis of the respiratory system	394	8.4	0.07
013-018,137	Tuberculosis, other forms	307	6.6	0.06
036	Meningococcal infection	79	1.7	0.01
090-097	Syphilis and its sequelae	51	1.1	0.01
Rem:000-139	All other infective and parasitic diseases	1,072	22.9	0.20
	Malignant neoplasms:			
140-149	Buccal cavity and pharynx	1,571	33.6	0.29
150	Oesophagus	3,583	76.5	0.66
151	Stomach	9,854	210.5	1.82
152-154	Intestine and rectum	15,637	334.0	2.89
157	Pancreas	5,372	114.7	0.99
161	Larynx	789	16.9	0.15
162	Trachea, bronchus and lung	32,898	702.6	6.08
174-175	Breast	11,822	252.5	2.19
179-182	Uterus (female)	3,299	137.3	0.61
185	Prostate (male)	4,880	214.1	0.90
204-208	Leukaemia	3,147	67.2	0.58
Rem:140-208	Other malignant neoplasms	29,488	629.8	5.45
250	Diabetes mellitus	4,302	91.9	0.80
290-319	Mental disorders	3,231	69.0	0.60
332	Parkinson's disease	1,655	35.3	0.31
340	Multiple sclerosis	674	14.4	0.12
401-405	Hypertensive disease	5,053	107.9	0.93
410-414	Ischaemic heart disease	145,022	3,097.4	26.81
393-398 } 415-429 }	Other forms of heart disease	33,600	717.6	6.21
430-438	Cerebrovascular disease	64,947	1,387.1	12.00
440	Atherosclerosis	6,786	144.9	1.25
441	Aortic aneurysm (non-syphilitic)	6,136	131.1	1.13
451-453	Venous thrombosis and embolism	3,746	80.0	0.69
480-486	Pneumonia	50,916	1,087.5	9.41
487	Influenza	589	12.6	0.11
490-493	Bronchitis, emphysema and asthma	17,886	382.0	3.31
531-533	Peptic ulcer	4,202	89.7	0.78
571	Cirrhosis of liver	2,024	43.2	0.37
580-589	Nephritis and nephrosis	4,468	95.4	0.83
600	Hyperplasia of prostate (male)	687	30.1	0.13
630-676	Complications of pregnancy, childbirth and the puerperium (female)	54	2.2	0.01
740-759	Congenital anomalies	2,767	59.1	0.51
Rem:000-799	All other diseases	39,618	846.2	7.32
E810-E825	Motor vehicle accidents ¹	..	..	..
E880-E888	Accidental falls ¹	..	..	..
E800-E807	All other accidents ¹	..	..	..
and Rem:				
E826-E949				
E950-E959	Suicide and self-inflicted injuries	4,194	89.6	0.78
E800-E949 } E960-E999 }	All other external causes	14,223	303.8	2.63
	All causes	541,023	11,555.2	100.00

1) Industrial action by registration officers in 1981 has meant that information normally supplied by coroners about accidental deaths, with the exception of suicides, is not available and therefore no comparable figures can be compiled for these categories for 1981.

Table 1.6a Mortality: Principal causes, England 1982

ICD No (9th Revision)	Causes	Deaths	Rate per million	Percentage of deaths from all causes
010-012	Tuberculosis of the respiratory system	420	9.0	0.08
013-018,137	Tuberculosis, other forms	272	5.8	0.05
036	Meningococcal infection	64	1.4	0.01
090-097	Syphilis and its sequelae	43	0.9	0.01
Rem:000-139	All other infective and parasitic diseases	1,139	24.3	0.21
	Malignant neoplasms:			
140-149	Buccal cavity and pharynx	1,494	31.9	0.27
150	Oesophagus	3,756	80.3	0.69
151	Stomach	9,423	201.4	1.73
152-154	Intestine and rectum	15,223	325.3	2.79
157	Pancreas	5,372	114.8	0.99
161	Larynx	783	16.7	0.14
162	Trachea, bronchus and lung	32,944	704.0	6.04
174-175	Breast	11,708	250.2	2.15
179-182	Uterus (female)	3,275	136.4	0.60
185	Prostate (male)	4,971	218.2	0.91
204-208	Leukaemia	3,258	69.6	0.60
Rem:140-208	Other malignant neoplasms	30,485	651.4	5.59
250	Diabetes mellitus	4,222	90.2	0.77
290-319	Mental disorders	3,559	76.0	0.65
332	Parkinson's disease	1,932	41.3	0.35
340	Multiple sclerosis	706	15.1	0.13
401-405	Hypertensive disease	4,785	102.2	0.88
410-414	Ischaemic heart disease	144,235	3,082.0	26.47
393-398 } 415-429 }	Other forms of heart disease	32,960	704.3	6.05
430-438	Cerebrovascular disease	64,474	1,377.7	11.83
440	Atherosclerosis	6,425	137.3	1.18
441	Aortic aneurysm (non-syphilitic)	6,350	135.7	1.17
451-453	Venous thrombosis and embolism	3,969	84.8	0.73
480-486	Pneumonia	53,244	1,137.7	9.77
487	Influenza	690	14.7	0.13
490-493	Bronchitis, emphysema and asthma	17,682	377.8	3.24
531-533	Peptic ulcer	4,365	93.3	0.80
571	Cirrhosis of liver	1,995	42.6	0.37
580-589	Nephritis and nephrosis	4,652	99.4	0.85
600	Hyperplasia of prostate (male)	644	28.3	0.19
630-676	Complications of pregnancy, childbirth and the puerperium (female)	38	1.6	0.01
740-759	Congenital anomalies	2,762	59.0	0.51
Rem:000-799	All other diseases	42,420	906.4	7.78
E810-E825	Motor vehicle accidents	4,989	106.6	0.92
E880-E888	Accidental falls	3,612	77.2	0.66
E800-E807	All other accidents	3,760	80.3	0.69
and Rem: E826-E949				
E950-E959	Suicide and self-inflicted injuries	3,986	85.2	0.73
E960-E999	All other external causes	1,898	40.6	0.35
	All causes	544,984	11,645.3	100.00

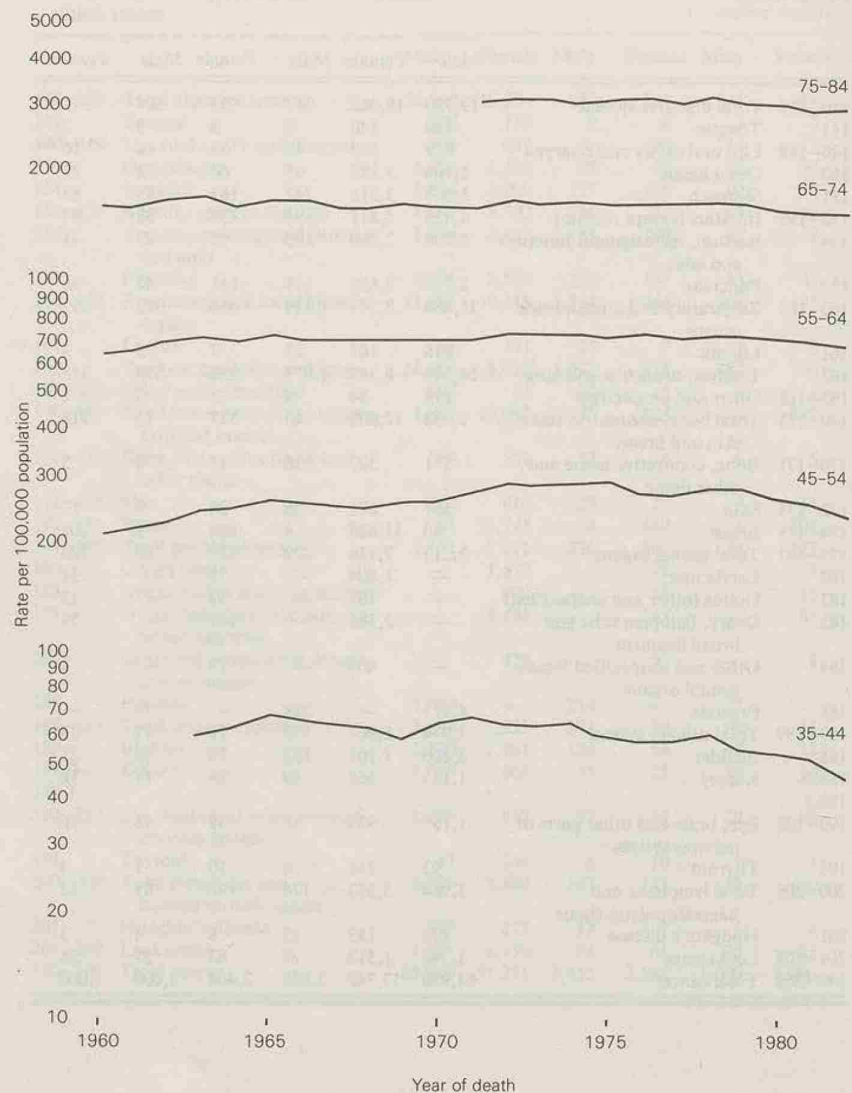
Table 1.7 Deaths from cancer of certain sites, England, 1981

ICD No (9th Revision)		Number of deaths		Rates per million living		Proportion per 1,000 total cancer deaths	
		Male	Female	Male	Female	Male	Female
140-159	Total digestive system	20,218	18,294	887	761	311	319
141	Tongue	208	139	9	6	3	2
140-149	Lip, oral cavity and pharynx	936	635	41	26	14	11
150	Oesophagus	2,090	1,493	92	62	32	26
151	Stomach	5,854	4,000	257	166	90	70
152-153	Intestine (except rectum)	4,245	5,703	186	237	65	100
154	Rectum, rectosigmoid junction and anus	3,074	2,615	135	109	47	46
157	Pancreas	2,795	2,577	123	107	43	45
160-165	Respiratory and intrathoracic organs	25,853	8,315	1,134	346	397	145
161	Larynx	618	171	27	7	9	3
162	Trachea, bronchus and lung	24,886	8,012	1,092	333	382	140
163-165	Other and unspecified	228	63	10	3	4	1
170-175	Total bone, connective tissue, skin and breast	1,029	12,692	45	528	16	222
170-171	Bone, connective tissue and other tissue	386	341	17	14	6	6
172-173	Skin	562	610	25	25	9	11
174-175	Breast	81	11,741	4	489	1	205
179-187	Total genital organs	5,151	7,271	226	303	79	127
180	Cervix uteri	—	1,877	—	78	—	33
182	Uterus (other and unspecified)	—	890	—	37	—	16
183	Ovary, fallopian tube and broad ligament	—	3,494	—	145	—	61
184	Other and unspecified female genital organs	—	478	—	20	—	8
185	Prostate	4,880	—	214	—	75	—
188-189	Total urinary system	3,894	1,921	171	80	60	34
188	Bladder	2,820	1,291	124	54	43	23
189.0- 189.1	Kidney	1,019	601	45	25	16	10
190-192	Eye, brain and other parts of nervous system	1,289	937	57	39	20	16
193	Thyroid	87	244	4	10	1	4
200-208	Total lymphatic and haematopoietic tissue	3,800	3,444	167	143	58	60
201	Hodgkin's disease	297	215	13	9	5	4
204-208	Leukaemia	1,691	1,456	74	61	26	25
140-208	Total cancer	65,069	57,271	2,855	2,384	1,000	1,000

Table 1.7a Deaths from cancer of certain sites, England, 1982

ICD No (9th Revision)		Number of deaths		Rates per million living		Proportion per 1,000 total cancer deaths	
		Male	Female	Male	Female	Male	Female
140-159	Total digestive system	19,750	18,062	867	752	304	313
141	Tongue	188	140	8	6	3	2
140-149	Lip, oral cavity and pharynx	919	575	40	24	14	10
150	Oesophagus	2,169	1,587	95	66	33	27
151	Stomach	5,507	3,916	242	163	85	68
152-153	Intestine (except rectum)	4,428	5,617	194	234	68	97
154	Rectum, rectosigmoid junction and anus	2,798	2,380	123	99	43	41
157	Pancreas	2,717	2,655	119	111	42	46
160-165	Respiratory and intrathoracic organs	25,484	8,747	1,119	364	392	151
161	Larynx	616	167	27	7	9	3
162	Trachea, bronchus and lung	24,547	8,397	1,077	350	378	145
163-165	Other and unspecified	215	84	9	3	3	1
170-175	Total bone, connective tissue, skin and breast	1,032	12,606	45	525	16	218
170-171	Bone, connective tissue and other tissue	371	307	16	13	6	5
172-173	Skin	581	671	26	28	9	12
174-175	Breast	80	11,628	4	484	1	201
179-187	Total genital organs	5,213	7,126	229	297	80	123
180	Cervix uteri	—	1,804	—	75	—	31
182	Uterus (other and unspecified)	—	767	—	32	—	13
183	Ovary, fallopian tube and broad ligament	—	3,385	—	141	—	59
184	Other and unspecified female genital organs	—	466	—	19	—	8
185	Prostate	4,971	—	218	—	77	—
188-189	Total urinary system	3,974	1,907	174	79	61	33
188	Bladder	2,806	1,201	123	50	43	21
189.0-	Kidney	1,115	669	49	28	17	12
189.1							
190-192	Eye, brain and other parts of nervous system	1,157	934	51	39	18	16
193	Thyroid	93	246	4	10	1	4
200-208	Total lymphatic and haematopoietic tissue	3,964	3,553	174	148	61	62
201	Hodgkin's disease	290	183	13	8	4	3
204-208	Leukaemia	1,746	1,512	77	63	27	26
140-208	Total cancer	64,950	57,742	2,851	2,404	1,000	1,000

Figure 1.1
Age specific mortality rates for ischaemic heart disease in males in
England 1960-82 plotted by year of death



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Figure 1.2
Age specific mortality rates for ischaemic heart disease in females in
England 1960-82 plotted by year of death

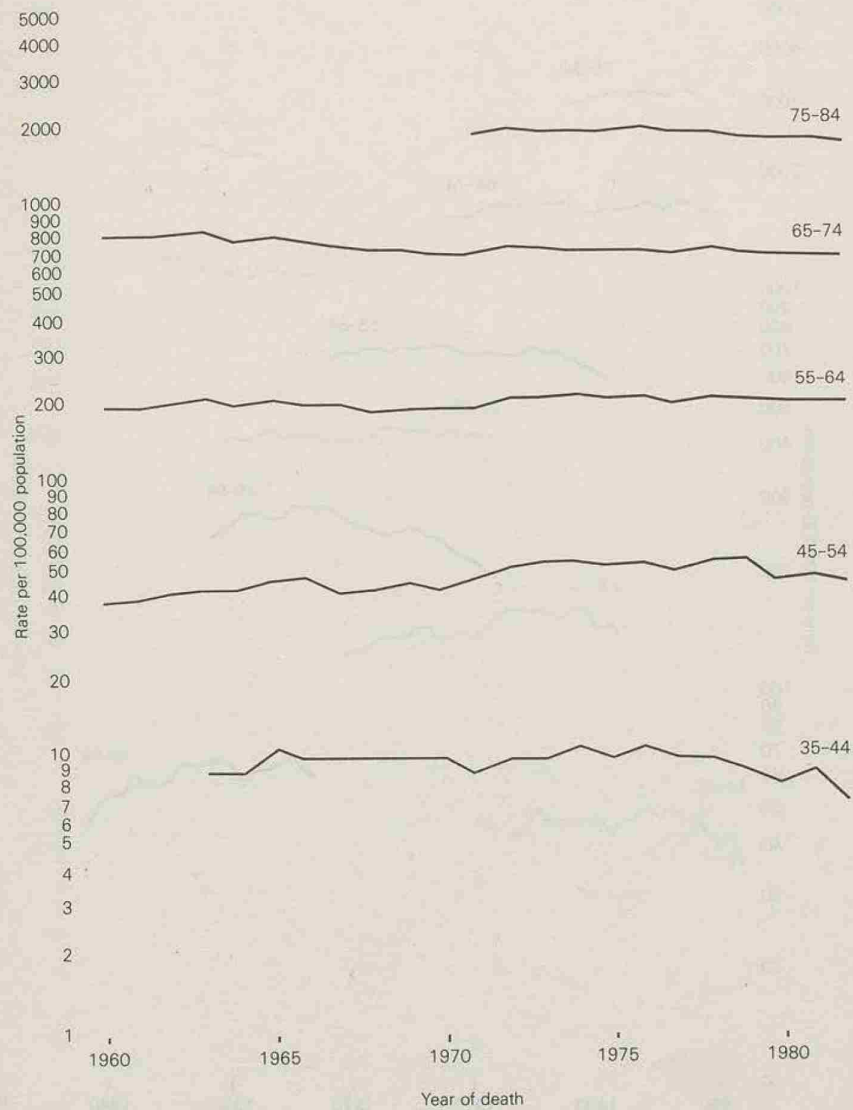


Figure 1.3
Age specific mortality rates for ischaemic heart disease in males in
England 1960-82 plotted by year of birth

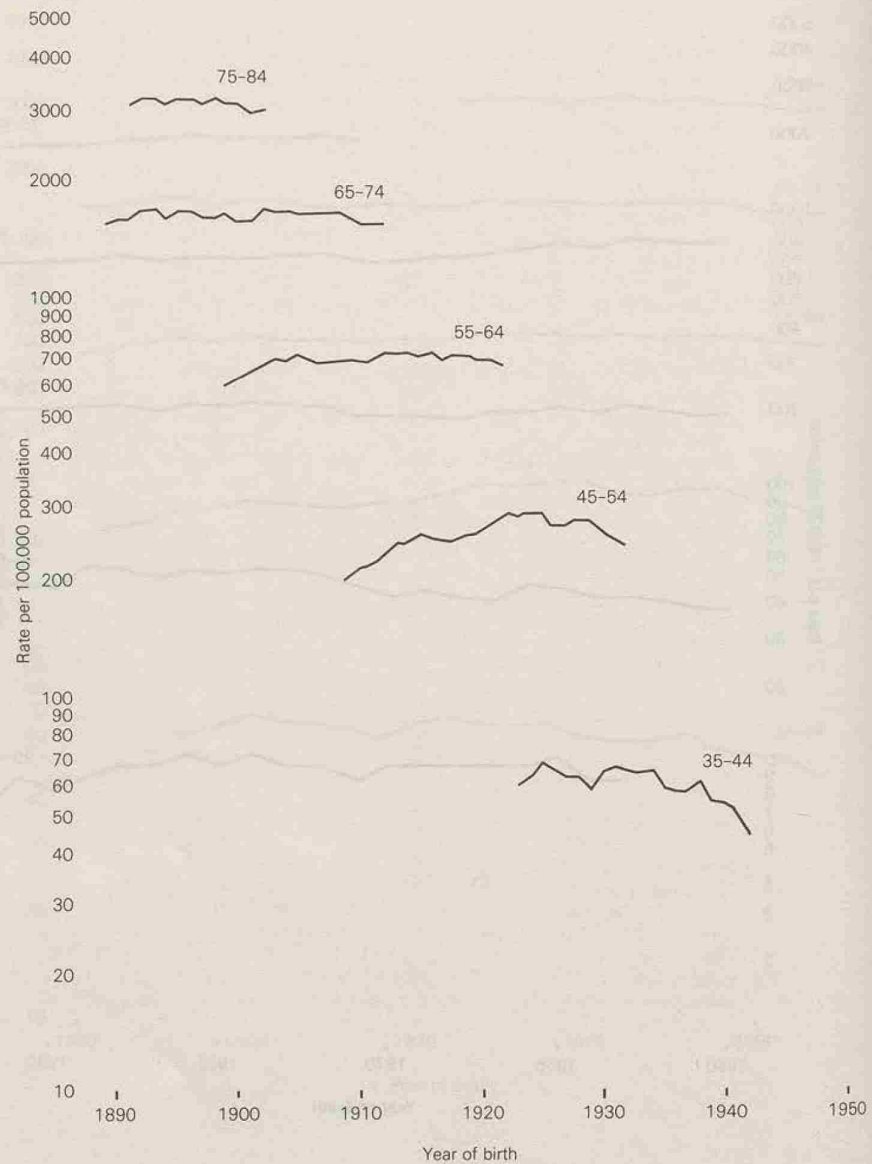


Figure 1.4
Age specific mortality rates for ischaemic heart disease in females in
England 1960-82 plotted by year of birth

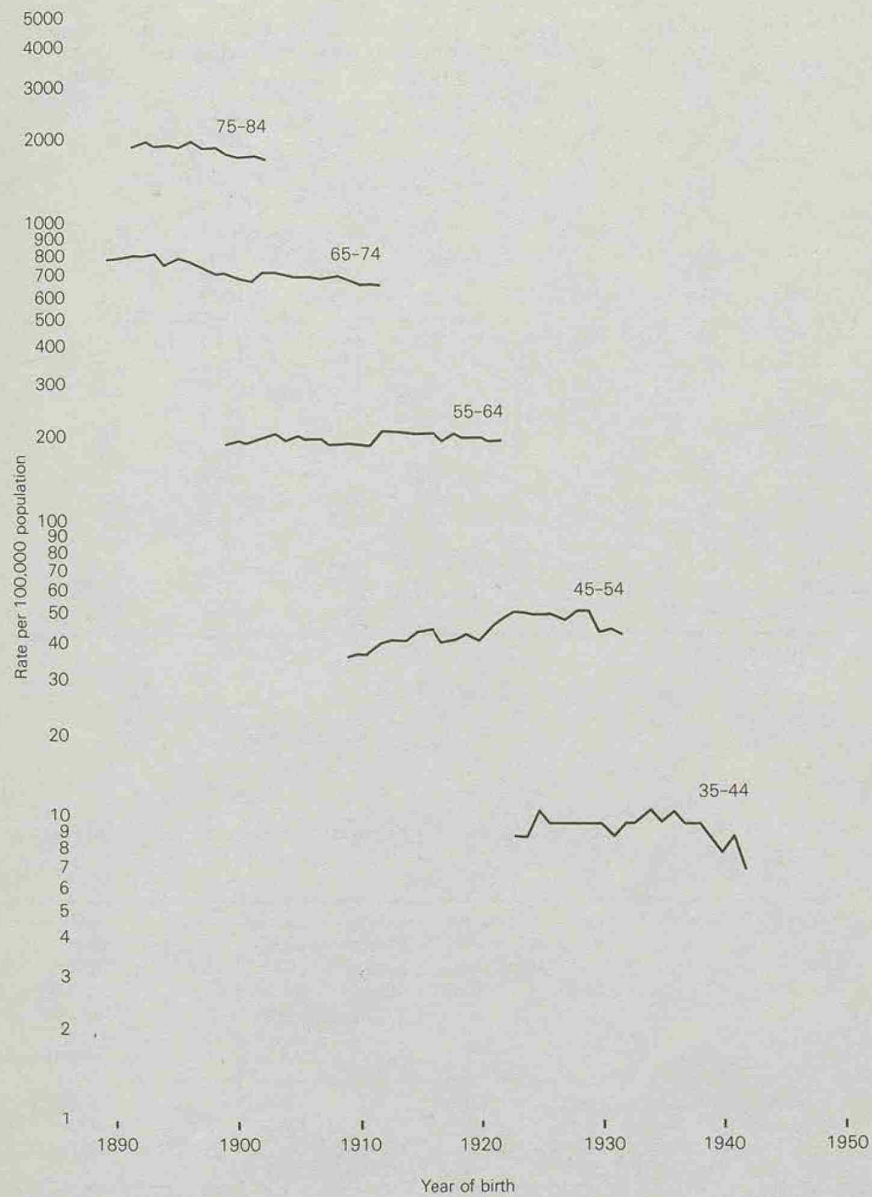


Table 1.8 Premature births, low birthweight babies (2,500 grams or less), England and Wales 1964-1969 England only, 1970-1982

Year	Live born			Live and still born		
	Numbers of low weight	Numbers of all weights	Low weight as a percentage of all weights	Numbers of low weight	Numbers of all weights	Low weight as a percentage of all weights
	000's	000's	%	000's	000's	%
1964	55.9	875.8	6.4	64.1	890.2	7.2
1965	54.7	860.7	6.4	62.5	874.4	7.2
1966	55.2	848.4	6.5	62.9	861.5	7.3
1967	53.8	827.8	6.5	61.2	840.1	7.3
1968	54.2	814.6	6.7	61.0	826.4	7.4
1969	53.4	795.8	6.7	59.6	806.3	7.4
1970	50.8	739.7	6.9	56.6	749.1	7.6
1971	47.2	739.2	6.4	52.6	748.4	7.0
1972	45.4	686.9	6.6	50.3	695.0	7.2
1973	41.3	638.2	6.5	45.8	645.4	7.1
1974	38.9	602.5	6.5	42.9	609.0	7.0
1975	36.4	570.0	6.4	40.1	575.9	7.0
1976	35.4	551.5	6.4	38.7	556.8	7.0
1977	35.0	537.5	6.5	38.2	542.5	7.0
1978	37.1	563.7	6.6	40.2	568.4	7.1
1979	40.7	602.0	6.5	43.9	606.7	7.2
1980	42.5	619.4	6.9	45.5	623.9	7.3
1981	40.8	600.0	6.8	43.4	603.9	7.2
1982*	40.4	589.4	6.9	42.7	593.1	7.2

* Provisional figures.

Table 1.9 Low birthweight live and stillbirths by weight and mortality, for the year ending December 1982*, England

Birthweight group	Low weight live births	Deaths within 24 hours of birth	Deaths within 28 days of birth	Deaths within 28 days per 1,000 low weight live births	Low weight stillbirths	Low weight stillbirths per 1,000 low weight live and stillbirths
-1,000g(-2lbs 3ozs)	1,542	625	930	603.1	486	239.6
-1,500g(-3lbs 4ozs)	3,321	250	573	172.5	634	160.3
-2,000g(-4lbs 6ozs)	7,633	195	376	49.3	582	70.8
-2,250g(-4lbs 15ozs)	9,007	81	172	19.1	258	27.8
-2,500g(-5lbs 8ozs)	18,736	60	161	8.6	295	15.5
All babies 2,500g (5lbs 8ozs) or less	40,239	1,211	2,212	55.0	2,255	53.1

These figures exclude 154 live births and 34 stillbirths where birthweight was not specified. Of the live births 34 died within 24 hours and 70 died within 28 days.

* Provisional figures

Table 1.10 Low weight births — perinatal mortality rates, England, 1976–1982

Birthweight group	Stillbirths and deaths in first 7 days per 1,000 live and still births						
	1976	1977	1978	1979	1980	1981	1982*
—1,000g	819	811	792	772	742	679	650
—1,500g	491	499	437	415	362	298	281
—2,000g	195	187	173	152	144	120	109
—2,250g	71	71	64	56	51	46	44
—2,500g	37	38	31	30	27	24	22
All of 2,500g or less	156	154	142	132	121	105	100

* Provisional figures

know whether provision for treatment of the condition may be having any impact through reduction in mortality for patients developing the disease. A third aspect is that trends in mortality for major causes of death should serve as a base for projection into the future. Common conditions will have a major effect on long-term estimates of the total population size and structure; it is essential to have some indication of whether the mortality from these major causes of death is likely to increase or decrease in the future.

Papers from countries such as the United States (Patrick *et al*, 1982) and the United Kingdom (Heller *et al*, 1983) have suggested that there may be a decrease in mortality from ischaemic heart disease, in males and females. However, this does not appear to be the same in Sweden (Welin *et al*, 1983). However, examination of the trends in mortality from ischaemic heart disease is not a simple process. There have been changes in the classification used to code the causes of death over recent decades, there have been changes in diagnostic facilities; there may have been changes in terminology used and certification practice of doctors. These and other factors create difficulty in determining whether the trend in mortality is a genuine reflection of the actual numbers of deaths from the specific cause of interest. However, it is suggested that with care the material may be interpreted.

Because of the interest in examining the latest data, Figures 1.1 - 1.4 have been provided by single calendar year of death for Ischaemic Heart Disease in England only for 1960-82. Again, these data show no indication of encouragement that mortality from this important cause of death is beginning to decline. (It should be emphasized that the rates on the vertical axis are plotted on a logarithmic scale, which facilitates comparison of different age-specific trends over a wide range of rates — but the scale may tend to reduce the emphasis on minor changes in the rates, as in younger males).

Statistics have also been examined for England and Wales for 'arteriosclerotic and degenerative heart disease' for the calendar period 1921-80. These data have been examined for males and females and for separate age-groups of the population. Using two methods of plotting the data, by year of birth, and by year of death, it is possible to check whether there is any indication of a cohort or period of change in the rates. As far as the males are concerned, there is little evidence in recent times of a decrease in the age of specific mortality, nor evidence that more recent born generations are demonstrating a lower risk of death rate than earlier generations. The same applies to the females, though the

age specific death rates are lower at each age examined in females than in males. The main perturbation that has occurred in this country affected the male mortality over the period just before and around the second world war, whilst in females there was an appreciable decrease in age specific mortality at younger ages from the 1930s to the 1950s (affecting the age groups 25-29, 35-39, and 45-49). However, for the last twenty years or so, there has been no continuation of this fall, at the younger or older age-groups. These data were examined for statistics aggregated over successive 5-year calendar periods, in order to exclude the short term fluctuation that can occur from external factors.

The complexity of unravelling the trends and some of the factors associated with them have been reviewed in the Lancet (1983). There is clear evidence that smoking is causally associated with Ischaemic Heart Disease (see Doll and Peto, 1976); there is some encouragement to be taken from the recently published data on smoking in 1972-82 (OPCS, 1983b), which showed a fall in the prevalence of smoking.

Deaths from cancer

Tables 1.7 and 1.7a show the deaths from cancer of certain sites in England in 1981 and 1982; the number of deaths are given for either sex, the rates per million living, and the proportion of deaths from any particular site of malignancy per thousand total cancer deaths.

For males, lung cancer is clearly the lead site, responsible for over a third of cancer deaths, and approximately four times as many deaths as the next site, stomach cancer. This is closely followed by prostate cancer, and intestinal cancer, with the fifth site in males being rectal cancer in 1981 and bladder cancer in 1982. After this, the relative contribution is spread over many other sites, some of which are not included in the tables.

For females the lead killer is cancer of the breast. Second is lung cancer, though responsible for far fewer deaths in females than in males. Intestine and stomach are third and fourth (appearing in a different order than in the males), whilst the fifth most common site is ovary cancer.

A more detailed review of the trends in incidence, survival and mortality from malignant disease has been published by the Cancer Research Campaign (Toms, 1982). The scheme for registering cancer incidence unfortunately does not generate up-to-date statistics as for mortality, but material for 1979 and '80 has recently been published (OPCS, 1983a). This showed some life table calculations indicating the probability of individuals developing some form of cancer during their life. This shows that for all malignant disease the ultimate percentage developing a cancer in males is 31.7, and in females 29.8.

Separate life table calculations were done for the commonest malignancy in either sex, showing the percentage developing lung cancer in males is ultimately 8.9% and developing breast cancer in females is ultimately 6.7%. The full tables set out in the Monitor show the cumulative probability at 5 year age bands throughout the span of life.

Stillbirths and components of infant mortality, 1960-1982

Table 1.11 shows the number of live births in 1960, 1970 and then annually 1975-1982 and then other components of wastage. The number of stillbirths and the stillbirth rate per thousand total births has steadily declined during the

Table 1.11 Live births, stillbirths and infant mortality, England 1960-82

Year	Live births		Stillbirths		Early neonatal mortality (deaths under 1 week)		Perinatal mortality (stillbirths plus deaths under 1 week)		Post-neonatal mortality (deaths 4 weeks to under 1 year)		Infant mortality (deaths under 1 year)	
	No	Rate*	No	Rate*	No	Rate†	Rate*	Rate†	Rate†	Rate†	Rate†	Rate†
1960	740,859	19.5	14,753	19.5	9,772	13.2	32.5	6.3	21.6			
1970	741,999	12.9	9,708	12.9	7,864	10.6	23.4	5.9	18.2			
1975	563,900	10.3	5,918	10.3	5,154	9.1	19.3	5.0	15.7			
1976	550,393	9.6	5,339	9.6	4,468	8.1	17.6	4.6	14.2			
1977	536,953	9.4	5,087	9.4	4,070	7.6	16.9	4.5	13.7			
1978	562,589	8.4	4,791	8.4	3,975	7.1	15.4	4.4	13.1			
1979	601,316	7.9	4,811	7.9	4,028	6.7	14.6	4.5	12.8			
1980	618,371	7.3	4,523	7.3	3,793	6.1	13.4	4.4	12.0			
1981	598,163	6.5	3,939	6.5	3,105	5.2	11.7	4.3	10.9			
1982	589,711	6.3	3,731	6.3	2,939	5.0	11.2	4.6	10.8			

* Per 1,000 live and stillbirths

† Per 1,000 live births

Table 1.12 Birth rates and infant mortality rates in various countries

Country	Perinatal mortality rate per 1,000 total births	Infant mortality rate per 1,000 live births	Sum of late fetal deaths and infant mortality rates per 1,000 total births	Live birth rate per 1,000 population
	(1979)	(1980)	(1979)	(1980)
Australia	14.2	10.7	19.1	15.4
Austria	14.1	14.3	21.1	12.1
Belgium	14.6	12.2†	20.0	12.7
Bulgaria	16.1*	20.2	26.8	14.5
Canada	11.8	10.4	16.6	15.5
Czechoslovakia	18.0*	16.6	23.5	16.2
Denmark	9.7	8.4	13.9	11.2
Eire	16.9	11.2	22.0	21.9
Finland	9.4	7.6	11.9	13.2
France	13.8 ^a	10.0	19.1 ^a	14.9
Germany East	14.2	12.1	19.8	14.6
Germany Fed Rep	12.6	12.6	19.1	10.1
Greece	21.0	17.9	28.3	15.4
Hungary	24.1	23.2	31.9	13.9
Iceland	8.0	7.7	9.1	19.8
Israel	15.9	15.3	23.8	24.1†
Italy	18.5† ^a	14.3	23.5 ^a	11.2
Japan	12.4	7.5	16.0	13.6†
Netherlands	11.9	8.6	15.7	12.8
New Zealand	12.0	12.9	19.3	16.1
Norway	11.8	8.1	16.1	12.5
Poland	17.1	21.3	27.6	19.5
Portugal	25.5	26.0‡	38.9	16.3
Romania	15.4	29.3	40.4	18.0
Spain	16.7	11.1	23.0	15.1
Sweden	9.1	6.9	12.0	11.7
Switzerland	10.7	9.1	14.1	11.6
UK — England and Wales	14.7	12.0	20.7	13.3
— Northern Ireland	16.6	13.4	23.3	18.5
— Scotland	14.1	12.1	19.7	13.4
USA	15.6*	12.5	20.3*	15.8
USSR	..	27.7 ^o	..	18.3 ^b
Yugoslavia	20.6	32.8	38.7	17.0†

‡ 1979 *1978 ^o1974

† Provisional

a) Includes fetal deaths after at least 180 days (6 calendar months or 26 weeks) of gestation.

b) Excluding infants born alive after less than 28 weeks gestation, 1,000g in weight and 35cm in length who die within 7 days of birth.

past 20 years, and once more the latest available statistics are lower than the previous ones (this Report for 1980 (page 14) quoted a figure of 7.3; the new figures released are 6.5 for 1981, and 6.3 for 1982).

Early neonatal mortality, covering deaths under the first week of life again show a decrease, with the lowest yet recorded figure for 1982 (5.0 deaths per thousand live births). The stillbirth and early neonatal figures can be combined to give perinatal mortality which again shows a decline, as one would expect from combining the two previous sets of statistics.

Other components of infant mortality are deaths in the period after the first four weeks of life, and all deaths under the age of one. Again, there has been a decline in these mortality rates, though the latest figure for post neonatal mortality for 1982 shows a very slight increase compared with the preceding years. However, this, compared with the other sets of statistics is the one that now shows least reduction from year to year, as the rates approach a very low level. Overall infant mortality has again shown a decline from 12.0 per thousand live births in 1980 to 10.9 in 1981 and 10.8 in 1982.

Perinatal and infant mortality in various countries

Table 1.12 sets out the perinatal mortality rate, the infant mortality rate, and the late fetal death plus infant mortality rates per thousand total births. These data have been obtained from United Nations publications, and show the international comparisons for the latest available years (varying between 1974 and 1980 from country to country).

Results are presented for 33 countries. For perinatal mortality England and Wales come 15th in the table with a rate of 14.7 deaths per thousand total births. (The rates for the other countries range from 8.0 in Iceland to 25.5 in Portugal). For infant mortality England and Wales is 20th in the table with a figure of 12 deaths per thousand live births (Sweden has again the lowest figure of 6.9, with Yugoslavia the highest at 32.8). For the combined figure of late fetal death (equivalent to the English definition of stillbirth) plus infant mortality per thousand total births, England and Wales is 15th in the list (with Iceland having the lowest figure of 9.1 and Romania the highest of 40.4). It must be remembered that these statistics may not all be exactly comparable because of different definitions used in some of the countries, and the validity of the basic data. In addition demographic factors can influence the expected level of the rates (because of the relationship of risk of stillbirth, perinatal or infant mortality to maternal age and parity, or maternal social class). It is not appropriate to consider whether the data directly reflect on the levels of health care in the different countries, though this may be a component of the total picture.

Health indices in various countries

Table 1.13 sets out two different health indices for England and Wales and 32 other countries. The data are predominantly for 1980, but vary depending on availability from published sources.

The first index is the Standardized Mortality Ratio (SMR), which adjusts the overall mortality in a given country for the age distribution of its population (a country with a higher proportion of elderly people may have a higher crude mortality rate as a direct reflection of the age distribution, rather than the force of mortality in that country). The SMR has been calculated for all the other countries using the age and sex specific mortality rates for England and Wales, thus the SMR for England and Wales is 100 for both males and females. For males the lowest country (ie having the most favourable mortality having adjusted for age) is Iceland, with a figure of 78; this approximates to a death ratio four fifths of that existing in England and Wales. Hungary has the highest ratio for males, an SMR of 139, with a nearly identical ratio 140, for females. It is thus at the high end of the distribution with the mortality being about 40% greater than in England and Wales. The lowest female SMR is for Iceland, with a figure of 77.

Table 1.13 Health indices in various countries

Country	Standardized mortality ratios*			Expectation of life (years) at age one year		
	Year	Males	Females	Year	Males	Females
Australia	1980	97	91	1980	70.9	77.9
Austria	1980	110	111	1980	69.2	76.1
Belgium	1980	106	102	1977	69.6	76.1
Bulgaria	1980	114	134	1980	69.0	74.2
Canada	1980	92	84	1978	70.7	78.4
Czechoslovakia	1978	130	131	1980	67.2	74.1
Denmark	1980	97	96	1980	70.9	76.9
Eire	1980	111	121	1978	69.4	74.7
Finland	1980	115	98	1980	68.7	77.1
France	1980	99	89	1978	70.2	78.4
Germany East	1980	122	133	1978	68.8	74.6
Germany Fed Rep	1980	106	104	1980	69.9	76.7
Greece	1980	79	98	1979	73.7	78.1
Hungary	1980	139	140	1980	66.2	73.3
Iceland	1980	78	77	1980	73.4	79.9
Israel	1980	88	111	1980	72.4	75.8
Italy	1980	95	96	1978	71.0	77.5
Japan	1980	82	86	1980	73.2	78.7
Netherlands	1980	90	85	1980	72.2	79.1
New Zealand	1980	108	111	1979	69.8	76.2
Norway	1980	88	86	1980	72.1	79.0
Poland	1980	135	123	1980	66.7	75.0
Portugal	1980	123	118	1979	68.3	74.9
Romania	1980	126	151	1980	67.8	72.8
Spain	1978	94	99	1978	71.5	77.4
Sweden	1980	87	88	1980	72.4	78.5
Switzerland	1980	89	88	1980	72.1	78.7
UK — England and Wales	1982	100	100	1980	70.6	76.6
— Northern Ireland	1980	124	122	1978	68.5	74.8
— Scotland	1980	120	116	1980	68.7	75.0
USA	1981	96	87	1979	69.9	77.6
USSR	..	..	..	..	..	..
Yugoslavia	1979	113	120	1979	69.2	74.6

* Using 1982 England and Wales death rates

Expectation of life can be calculated using a life table technique; starting with individuals at any chosen age, it is possible to estimate the anticipated future years of life. (This calculation assumes that the age specific rates used for each of the countries will persist throughout the life of the individuals.) Table 1.13 shows England and Wales males have an expectation of life at the age of one year of 70.6 (ie on average all male children at their first birthday will live to the age of 71.6).

The distribution for males spans the low figure of only 66.2 further years of life for Hungary, to the highest figure of 73.7 for Greece. Females show, for every country, a longer expectation of life than for males within the same country. The figure for England and Wales is 76.6 (exactly six years longer expectation of life at first birthday than males). Romania has the lowest figure for females of a further 72.8 years of life, whilst Iceland has the highest of a further 79.9 (with the Netherlands there are thus two countries showing an average expectation of girls at first birthday to live to past their 80th birthday).

These statistics, taken with those on infant or perinatal mortality in different countries, are the traditional demographic indices of the health of the population. Obviously the expectation of life cannot immediately be translated into expectation of life without disease, but the increment in expectation of females over males is a reflection of the appreciable difference in age specific mortality that exist throughout the total age span. It must be emphasized that the expectation of life can be directly compared from one country to another, or for males against females. This is not so for the SMRs, it only being appropriate to compare the results presented for males in one country against males in another, or females in one country against those in another (it will be seen that the difference between males and females does not show for the SMRs because they have been independently calculated using standard rates, first for males, and secondly for females). Comparison between the sexes can only be made when 'person rates' are utilized (see Alderson, 1981 for review of this subject).

Congenital malformations

The number of congenital malformations that were recognized within 7 days of birth and notified to OPCS fell slightly in 1981 and again in 1982 compared with the 1980 figure (Table 1.14). This was partly due to the decreasing number of births (from 623,000 in 1980 to 602,000 in 1981 and 593,000 in 1982), although the rate of malformed children (live and still born) per thousand total births also decreased from 21.6 in 1980 to 21.3 in 1981 and 21.2 in 1982 (Table 1.15).

Quarterly tabulations of statistics on the main groups of malformations are published in OPCS Monitor MB3 series, whilst the results of the monthly monitoring programme are published annually in this series. A recent addition to these has been a major review of statistics for 1971-80 (OPCS, 1983c); this is a statistical review of notifications of congenital malformations received as part of the England and Wales monitoring system over the decade. For each of 22 categories of malformation, data were provided on notifications by sex and live or still birth, the ratio of male to female malformed babies, the notifications by month of birth, by standard region, by mothers' age and parity, by fathers' social class. In addition to the tabular data, material was presented in graphs, with the regional incidence mapped. A discussion was provided on the statistical data, and the conclusions identified a number of variations within the statistics which warranted further special study:- the unusual sex-ratio of hydrocephalus without spina bifida, compared with other CNS malformations; the high rates of abnormalities in children whose fathers were clerical workers, the marked geographical variation in reporting of talipes.

During 1981 and 1982 notification rates of central nervous system malformations have continued to decrease, maintaining the downward trend seen since 1973. This issue was discussed in a review of congenital malformation statistics by Weatherall (1982). For other major sites, such as ear, cardiovascular system, and external genitalia, there was a continuation during 1981 and 1982 of a previous increasing trend; it is not possible to tell from the statistics whether this is a reflection of increased ascertainment in the perinatal period.

During 1982 contact was maintained with a group of workers who had identified an excess of congenital malformation in mothers taking an

Table 1.14 Notified congenital malformations in live and still born babies and percentage with one or more malformations, England 1976-1982

Year	Number of malformations notified	Number of babies involved	Percentage with one or more malformations			
			One	Two	Three	Four or more
1976	14,615	11,803	83.6	12.0	2.6	1.7
1977	14,378	11,851	84.9	11.2	2.4	1.4
1978	14,715	12,197	85.1	11.4	2.2	1.4
1979	15,573	12,858	85.3	11.0	2.2	1.5
1980	16,417	13,457	84.7	11.6	2.2	1.6
1981	15,610	12,834	84.9	11.3	2.3	1.4
1982	15,248	12,560	85.3	11.1	2.1	1.5

Table 1.15 Notified congenital malformations among live and still born babies showing rates for live born and for all babies, England 1976-1982

Year	Live born babies with malformations		Number of stillborn babies with malformations	All babies with malformations*	
	Number	Rate per 1,000 total births		Number	Rate per 1,000 total births
1976	10,812	19.5	957	11,803	21.2
1977	10,892	20.1	928	11,851	21.9
1978	11,318	19.9	857	12,197	21.5
1979	12,048	19.9	773	12,858	21.2
1980	12,704	20.4	697	13,457	21.6
1981	12,206	20.3	553	12,834	21.3
1982	12,040	20.3	470	12,560	21.2

* Including cases where type of birth was not known or not stated

anti-convulsant drug, sodium valproate ('Epilim') (Lancet, 1982). There was no direct evidence from the material available to OPCS of a particular hazard in this country though the situation is being monitored.

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SOCIAL SECURITY

The format of this chapter has been considerably revised. The former title of *'Incapacity and Disablement'* has been replaced by *'Social Security'* in order to distinguish it from the chapter concerned with the health and personal social services for disabled people. The chapter, as before, concentrates on topics which are the concern of the Social Security Medical Division even though some, such as the medical aspects of the administration of War Pensions, do not, strictly speaking, come within the narrow definition of *'Social Security'*.

With regard to the content of the chapter, the narrative description of the work of the Social Security Medical Division, accompanied by tables of Social Security statistics, has largely been abandoned. This is to avoid undue annual repetition, and also to avoid repetition of the statistics which are published elsewhere. Instead, the chapter highlights three subjects which were of topical interest in 1982.

Self certification

It has been a long-held ambition of the representatives of the medical profession to abolish the need for the provision of medical evidence of incapacity for work for short spells of sickness or injury. During 1981 and 1982 a working group consisting of representatives of the British Medical Association, the Confederation of British Industry, the Trades Union Congress and the DHSS discussed the proposition that no sick notes (ie doctors' statements on form Med 3) would be required for the first week of the employee's incapacity for work. This was a sufficiently radical change from current practice that it was agreed that a period of experiment within the existing Social Security scheme was needed before the Statutory Sick Pay (SSP) scheme was introduced in April, 1983. Thus the Government agreed to introduce what has now become known as 'self certification' as from 14 June, 1982. In short 'self certification' means that a person who falls sick, and wishes to claim benefit, does not need to provide any medical evidence of incapacity in the form of a sick note for the first seven days of the incapacity. Instead, a new claim form has to be filled in, which includes the claimant's own description of why he or she is unfit for work. A doctor's statement on form Med 3 must be obtained if the incapacity lasts for more than 7 days.

With the agreement of the medical profession's representatives, the new claim forms were made available in general practitioners' surgery premises, as well as in hospitals and local Social Security Offices.

A scheme of this nature, in which benefit is paid on the word of the claimant, is naturally open to abuse, and the Government's agreement to the introduction of the arrangements was conditional upon a new form of control of claims also being introduced. The new control procedure was a modification of the arrangements (which had themselves been extended in 1981) for the control of claims from people described as repeated short period claimants. When four separate claims, unsupported by any sick notes, were received within a year, the claimant would be asked to see his doctor the next time he was incapable of work and wished to claim benefit. On the occasion of the fifth claim a decision

on title to benefit *could* be postponed until a report from the Government's Regional Medical Services was available. By the end of 1982 it was clear that the introduction of 'self certification' for the first week of incapacity had not led to any increase in claims. The number of new claims in the nine months from June 1982 have been nearly a fifth lower than in the corresponding period in 1981. A number of factors contributed to this fall, one of which was almost certainly the introduction of self certification.

Occupational asthma

Occupational asthma was added to the list of prescribed diseases (Prescribed Disease No 53) on 29 March 1982 for certain specified agents (Table 2.1). Usually the disease develops after a period of symptomless exposure to the particular substance at work. This symptomless interval may vary from a few days to several years. Once sensitization occurs the condition may last for a long time, but the episodes of asthma usually decrease in severity and number unless further exposure to the sensitizing agent occurs. Non specific irritants (eg cold, smoke, dust) may also precipitate attacks. Clinically occupational asthma is indistinguishable from asthma due to other causes. The asthmatic pattern can be immediate (occurring soon after exposure), late (occurring some hours after exposure) or dual (both early and late responses). Patients' symptoms usually improve when they are away from work and recur on exposure — often to very small doses of the substance in question. The diagnosis relies heavily on the history, but may be aided by appropriate skin tests, blood tests and lung function tests. It is often particularly valuable to measure lung function as judged by regular Peak Expiratory Flow records over a period of up to four weeks. In a few difficult cases bronchial provocation tests may be required; but these should be carried out in special laboratories by experienced workers. It is important to distinguish between asthma and chronic bronchitis since the symptoms (wheezing, breathlessness, tightness of the chest and cough) occur in both.

Medical questions concerned with claims to disablement benefit for occupational asthma are dealt with in a similar way to claims for pneumoconiosis, byssinosis and certain other occupational respiratory diseases. The cases are referred to the full-time and part-time medical staff of the Pneumoconiosis Medical Panels. It is from these panels of specialist doctors that medical boards are drawn which determine diagnosis and assess disablement.

Table 2.1 shows that 95 cases of occupational asthma had been diagnosed by the end of 1982. This is somewhat less than expected for a newly prescribed occupational respiratory disease, and the 1983 figures will be awaited with interest.

By way of comparison, figures for newly-diagnosed cases of certain other occupational respiratory diseases by medical boards for the whole of 1982 were:-

Coal-workers pneumoconiosis	467
Pneumoconiosis in other industries	94
Byssinosis	133
Asbestosis	172

Table 2.1 Occupational asthma prescribed agents

Agents	No of cases diagnosed at 31 December 1982
Isocyanates	39
Platinum salts	3
Hardening agents mainly epoxy resin curing agents	5
Colophony fumes	21
Proteolytic enzymes	4
Animals and insects mainly in laboratories	4
Dust arising from flour and grain	19

Far Eastern prisoners of war

The Annual Report on War Pensions' explains the War Pensions Scheme and outlines the services available for all war pensioners. Ex-Far East Prisoners of War (FEPOWs) are a group consisting of those civilian and military personnel who had the misfortune to be captured and held by the Japanese during their Far East conquests in the years 1942-45. The group also includes the much smaller number of people who suffered imprisonment during the Korean War.

FEPOWs are identified as a special group for the following reasons:-

1. The often appalling and harrowing nature of their experience has produced a profound psychological effect which, even in those who do not have any overt psychiatric disorder, has tended to make them less forthcoming in applying for war pensions — a procedure which forces them to think about their imprisonment and may open 'old wounds'.
2. The lack of concrete evidence on which to base a claim (there being in many cases little or no evidence of disease or injury) may discourage a would-be claimant unnecessarily.
3. The persistence of certain medical conditions acquired in service — for example, infestation with Strongyloides.

The efforts of the Department and those organizations concerned for the welfare of ex-FEPOWs to get them to reveal themselves and claim entitlement to war pensions have in recent months been given a considerable boost by media publicity. Various newspaper articles, a two-part radio programme on *Prisoners of the Japanese* and not least the BBC TV serial *Tenko* have stimulated interest.

Tropical Disease Investigation (TDI) of ex-FEPOWs has been carried out over the years since the War but, as a result of the increased input, arrangements have since March 1982 been made by the Department with various hospitals, both military and civilian, to admit ex-FEPOWs for full clinical examinations and investigations, including the string test for worm infestation. During 1982, 1,169 patients were admitted and it was found that 12% still suffer from strongyloides. Apart from the irritating rash which often accompanies infestation, there is a rapid hyper-infestation, with risk of collapse, if corticosteroids are given for some other condition. It is therefore important, and fortunately simple, to treat this infection with thiabendazole.

Apart from disclosing persisting tropical infections, many other conditions which were not hitherto suspected, are brought to light by these investigations ranging from diabetes and anaemia to cancer. As far as possible, treatment of all conditions uncovered is left in the hands of the general practitioner, but in a number of cases it has been of great value to those concerned that urgent surgery or other inpatient treatment has been carried out in hospital.

The Department has given an undertaking to the National Federation of ex-Far East Prisoner of War Clubs and Associations that:-

1. Any FEPOW will, on request, be admitted to a special hospital for investigation into the possibility of residual tropical disease.
2. Even when such a request has not been made, the Department will, when an ex-FEPOW comes to its attention who has not previously undergone TDI, offer such an investigation.

Despite the obvious advantage to the person concerned, it is not uncommon for such an offer to provoke a violent reaction — often from a relative — to the effect that “he has had to go through enough already without being submitted to 5 days of tests in hospital”. Fortunately the majority are grateful for the opportunity and eager to attend.

The results of investigations into ex-FEPOWs are being processed by computer at the Department’s North Fylde Central Office, and it is hoped that this will enable a comparison to be made between the post-captivity health of FEPOWs and that of the general population.

The Department’s FEPOW unit is well aware of all the problems which have been, and are, experienced by these people and, within the constraints of the legislation under which it operates, continues to deal sympathetically with all War Pension and associated claims made through it.

Work of Social Security Medical Division in 1982

The Division has a high casework load, and the following figures illustrate the order of magnitude of the main elements of this load in 1982.

<i>Industrial injuries —</i>	Cases boarded	196,033
<i>War pensions —</i>	Cases boarded (including treatment examinations)	12,979
	Awards and allowances (including FEPOWs)	62,523
<i>Attendance allowance —</i>	Medical decisions	210,776
	Examinations	254,277
	Reviews	81,900
<i>Mobility allowance —</i>	Awards and appeals	161,867
<i>Pneumoconiosis & Byssinosis —</i>	Cases boarded	14,867

ENVIRONMENTAL HEALTH

CHEMICALS IN FOOD, CONSUMER PRODUCTS AND THE ENVIRONMENT

Food additives and contaminants

Caffeine

The Committee on Toxicity has been considering the extensive body of data generated on caffeine in recent years. In particular, the Committee has evaluated data on metabolism and pharmacokinetics, and on mutagenicity and carcinogenicity. The advice of the Committees on Mutagenicity and Carcinogenicity has been sought on these latter two aspects.

The metabolism of caffeine is complex and varies between species. The pharmacokinetics are affected by many factors including age, smoking, liver disease and pregnancy. Caffeine also crosses the placenta freely resulting in exposure of the fetus. It is therefore important to consider whether caffeine shows evidence of potential teratogenicity and this aspect will be examined by the Committee in 1983.

The Committee on Mutagenicity has concluded that caffeine is not a 'classical' chemical mutagen, although it does have effects on DNA replication repair. However, significant mutagenic effects were not seen in tests in whole animals at physiologically tolerated doses and it was considered that normal dietary intakes of caffeine do not represent a mutagenic hazard for man.

The animal data on both caffeine and coffee give no indication of any carcinogenic effect. However, some epidemiological data indicate a possible correlation between coffee consumption and pancreatic cancer. The Committee on Carcinogenicity is being asked for its opinion on all these data.

Anti-oxidants

Results of a recent study carried out in Japan indicated that rats fed high dietary levels of butylated hydroxyanisole (BHA), a useful antioxidant, developed cancer of the forestomach. Previous studies with BHA had shown no such adverse effect. Proposals to ban its use led to discussions between the Japanese, the European Community, and the Tripartite countries (America, Canada and the UK), to try to reach agreement on the interpretation of the study, and its relevance to human health. Further data are being sought on BHA and related antioxidants. The subject will be considered by the Tripartite countries and a representative from the Japanese Ministry of Health at the

beginning of 1983, and subsequently by the WHO/FAO Joint Expert Committee on Food Additives. All available data will be assessed by the Committees on Toxicity and Carcinogenicity in 1983.

Metals in food

Lead

The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment reported on three topics in this field. At the request of the Ministry of Agriculture, Fisheries and Food's Steering Group on Food Surveillance the Committee reviewed the report on the Survey of Lead in Food (Ministry of Agriculture, Fisheries & Food, 1982). Their conclusions were that the average daily intake of lead in food was an estimated 0.1 mg which is well within tolerable limits; that the major source of lead intake is food; that the margin between the combined exposure levels which may occur from all sources and levels that may be toxic is relatively narrow and that it would be prudent to ensure the widest possible margin of safety. They noted the inadequate information available on the overall effects of air lead and on the intakes of lead from the diet of infants, young children and pregnant women and the inadequate guidance on the tolerable levels of intakes by these groups. They concluded that there is a need for more information on the proportional influences of the different pathways by which lead enters man and on the availability to man of lead in different food species and in drinking water. The Committee recommended that monitoring of food for lead should continue with priority for foods of special risk; that work should be carried out on the influences of the pathways by which lead reaches man and contributes to the body burden, and on the factors affecting the absorption of dietary lead; and that the effects of changes in exposure to lead should be monitored.

Cadmium

At the request of the Steering Group on Food Surveillance, the Committee on Toxicity considered the Working Party's Report of the Survey of Cadmium in Food (Ministry of Agriculture & Fisheries & Food — in Press) in particular reference to the investigations into pollution by cadmium at Shipham. The Committee concluded that the average dietary intake of cadmium did not in itself give cause for concern but nevertheless represented a considerable proportion of the accepted tolerable weekly intake of 400–500 µg/week. Furthermore, studies of heavily exposed populations in the United Kingdom have shown that a very small proportion of people may exceed the tolerable intake; theoretical studies suggest that a high consumption of certain shellfish might considerably increase the intake of cadmium, although the mean retention within the body of cadmium ingested with crabmeat is only about half of that reported for other foods. To this cadmium ingested with food must be added the cadmium derived from cigarette smoking. The Committee recommended that monitoring of food for cadmium should continue, with priority for food-stuffs of especial concern; that dietary studies should concentrate on specially exposed groups and children; and there should be further studies, whenever an indication is found, to determine the availability to humans of cadmium in specific food species.

Canned food

At the request of the Ministry of Agriculture, Fisheries and Food's Food Additives and Contaminants Committee (FACC), the Committee on Toxicity

considered the review of Metals in Canned Food (Ministry of Agriculture, Fisheries & Food, 1983). The Committee have recommended that the statutory limits for lead in canned foods should be brought into line with the limits for the corresponding foods not contained in cans; and where there is no corresponding food the Committee recommend that the current general limit of 1.0 mg/kg should apply. To allow the can-making industry a reasonable time to comply with the new standards, the Committee recommend that the new limits proposed should be brought into effect not later than 1985.

The Committee's conclusions on other metals found in canned food were that iron, aluminium and chromium do not constitute a hazard to human health, but that steps should be taken to reduce the likelihood of any canned food having a tin content of 250 mg/kg or more. The FACC, in consequence of this, recommended that the guideline limit for tin in canned food should be reduced to 200 mg/kg but no limits should be imposed on the concentrations of iron, chromium or aluminium.

Irradiated and novel foods

In the United Kingdom, since 1967, Regulations have effectively prohibited the irradiation of food intended for general sale for human consumption and also the marketing and importation of food if it has been irradiated (The Food (Control of Irradiation), Regulations, 1967). It has been open to the food industry to apply for exemption from the Regulations on an individual basis, but this course has not been pursued.

In 1980 a Joint Expert Committee on Food Irradiation (JECFI) of the Food and Agriculture Organization (FAO/IAFA/WHO) made a recommendation that food irradiated up to an overall dose of 10 kilo Gray (1 Megarad) was acceptable for human consumption (WHO, 1980). This recommendation has increased the United Kingdom food industry's interest in food irradiation, since it raises the possibility that many countries will adopt the process and that a substantial trade in irradiated food will develop.

The food industry in the United Kingdom has also been developing an interest in the possible economic advantages of novel foods. However, these require the use of new methods of evaluation to ensure their suitability for human consumption.

These circumstances have led to the setting up of the Advisory Committee on Irradiated and Novel Foods (ACINF), under the Chairmanship of Sir Arnold Burgen, Master of Darwin College, Cambridge, with the remit "To advise Health and Agriculture Ministers of Great Britain and the Head of the Department of Health and Social Services for Northern Ireland on any matters relating to the irradiation of food or to the manufacture of novel food or food produced by novel processes, having regard where appropriate to the views of relevant expert bodies". The Committee's guidelines on the testing of novel foods are expected to be available in 1983 and its report on food irradiation is expected to be presented to Ministers before the summer of 1984.

Consumer Products

Chloroform in toothpaste

The Committee on Carcinogenicity stated in 1981 that there is no necessity for chloroform in toothpaste and recommended its removal because of the

possibility of carcinogenesis. Early in 1982 it considered further data and representations from industry, but was not reassured that chloroform in toothpaste is safe. It was again decided that *as far as possible*, chloroform should be removed from toothpaste; and the Department of Trade was so informed.

5-methoxypsoralen

The Committee on Carcinogenicity considered data further to that examined in 1981 concerning the possible carcinogenesis of 5-methoxypsoralen, an ingredient of certain sun-tan products. The Committee has still not been able to form a final opinion and further experimental data are awaited.

Chrysoidine

This azo dye is favoured by anglers to dye maggots used in fishing. The Committee on Carcinogenicity examined the available scanty evidence regarding the possible carcinogenicity and advised that care should be taken to avoid skin or mouth contact when handling this dye at work or during angling.

Publications

Guidelines for testing of chemicals for carcinogenicity and toxicity were published in August 1982 (DHSS, 1982a) and November 1982 (DHSS, 1982b) respectively. This completed the series on toxicity testing methods begun with the issue of the Mutagenicity Guidelines in 1981 (DHSS, 1981b). The emphasis throughout is on a flexible rather than a checklist approach to testing chemicals for safety.

The Ministry of Agriculture, Fisheries and Food is currently revising a memorandum, first issued in 1965, which gives advice to those wishing to submit data on food additives for assessment. Part of the memorandum relates to toxicological testing on which the Committee on Toxicity has produced an updated section (Ministry of Agriculture, Fisheries and Food Steering Group on Food Surveillance, 1983).

The environment

Lead

The results of the surveys carried out in Britain in 1981 as part of the European Screening Programme for Lead were assessed during 1982 (Department of the Environment, 1983). The results of this survey together with those for the programme of 1979 (Department of the Environment, 1981) did not indicate a general problem of excessive exposure to lead although there is a risk that a very small minority of individuals might receive an unduly high intake from exposure to one or more of a variety of adventitious sources (especially from old paint released by poorly controlled stripping) or the cumulative effect of a number of them; there is also a problem of local high concentrations of lead in drinking water, which water authorities are tackling as a matter of priority. The European Screening Programme for Lead has now ended; consideration is being given to a further series of surveys to monitor the effects of the Government's policy to reduce the levels of lead in the environment, with particular emphasis on the planned reduction in lead pollution due to emissions from vehicles.

During the year the Steering Committee on Environmental Lead in Birmingham published its report (Department of the Environment, 1982). Previously reported work by this Committee (Department of the Environment, 1978) had shown that although there was no evidence of undue exposure to lead in school age children across the city as a whole, there was some indication of a problem of lead intake for pre-school children living in central areas. Further work has identified individuals with higher than usual blood lead levels among pre-school children of Asian communities living in inner Birmingham. This finding was not related to lead in the air, water or food, or to other dietary factors, but seemed to be linked to the levels of lead in dust possibly arising from lead in old paintwork. A similar study in the South of England, however, failed to repeat this pattern of results. Government and the Medical Research Council have sponsored studies to determine the relationship of Vitamin D to blood lead levels in pre-school Asian children and the effect of diet on children's blood lead.

Progress has been made in the implementation of the Government's policy, outlined in this Report for 1981 (page 32), to reduce further exposure of members of the public to lead in the environment. In England the majority of water undertakings have completed their programmes to identify the areas where there tends to be relatively high levels of lead in tap water. Significant problems have been found in the Anglian, North West and possibly also the Yorkshire Water Authority Regions; zones serving about 3 million people require early and detailed investigation. Some problem zones have also been identified by the Severn-Trent Water Authority. Elsewhere problems have been found in only a few isolated zones. More detailed investigations have begun in many of these areas, followed by remedial action where it is needed. Those identified by the Northumbrian Water Authority have been dealt with by source replacement. In some water authority zones remedial action based largely on water treatment has begun; in others, Water Authorities have set up pilot water treatment field trials, sometimes in conjunction with the Water Research Centre, as case studies. At least a year's experience will be needed to ensure that the treatment has been effective and has not caused any other water distribution problems. Some of these problems, especially where the water supply is highly alkaline, are extremely complex and may take several years to resolve. In addition to the action by water undertakers, the Government has extended the Home Improvement Grant system to enable local authorities to pay grants for the replacement of lead plumbing in cases where other methods of dealing with lead in drinking water are impracticable.

This Report for 1981 (page 33) drew attention to the essentially local nature of many problems caused by lead. To assist Local Authorities the Department of the Environment and the Welsh Office have issued a circular (Department of the Environment and Welsh Office, 1982a), providing information and advice on sources of environmental lead and means for limiting exposure to them. The problems of lead in old paintwork has received special attention in an information note (Department of the Environment and Welsh Office, 1982b) published by the same Departments.

Last year it was reported that the Government and the Medical Research Council has sponsored studies to investigate any links that there may be between lead and the performance of children in tests of intelligence and behaviour. These studies were well advanced by the end of the year and it is hoped they will be published during 1983. Agreement has been reached that the

Medical Research Council should assume responsibility for funding, co-ordinating and evaluating research on the neuropsychological effects of lead in children.

Cadmium

Studies at Shipham have been completed and a report (Department of the Environment Shipham Survey Committee, 1982) published. The findings were reviewed by the Committee on Medical Aspects of Contamination of the Air and Soil which concluded that, although some individuals will have ingested unusually high amounts of cadmium and safety margins have been eroded, medical checks have revealed no evidence of adverse health effects. The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment also reviewed the Report.

Formaldehyde

There has recently been public concern about the possibility of effects on health from formaldehyde given off by urea formaldehyde foam used for insulation of cavity walls.

The Department's expert advisory Committee on Carcinogenicity first considered formaldehyde in 1979. It found that the data then available were insufficient to allow an assessment of whether this substance might be a cause of cancer. Since then the Committee has reported that high concentrations of formaldehyde have been shown to cause cancer of the nose in the rat but that studies of those exposed at work to significant levels for long periods of time have not shown it to be a cause of cancer in humans. The Committee have advised that it is unlikely that formaldehyde would cause cancer in man at the lower levels of exposure which may sometimes arise from the use of urea formaldehyde foam insulation in homes in the UK.

The results of further studies being done in the UK and the USA are awaited and will be considered during 1983.

Formaldehyde is known to produce sensitivity of the skin and respiratory tract in a small proportion of individuals. A very small number of persons have complained of vague, mild symptoms of a general nature while working or living in rooms insulated with urea formaldehyde foam, although the foam has been used for about 20 years in about one million homes in the UK generally without complaint of such effects. It has been suggested that the symptoms are due to formaldehyde but there are other possibilities. Studies are therefore being considered by the Department with aim of establishing the cause of the symptoms.

Asbestos

In its final report (Health and Safety Commission, 1979), published in 1979, the Asbestos Advisory Committee concluded that no appreciable danger can be associated with any degree of contamination by chrysotile likely to be encountered in the UK in the air or in buildings not under active construction or repair. Nevertheless, it recommended that a programme of work should be prepared to evaluate asbestos exposure in the non-occupational environment.

The Health and Safety Executive, in co-operation with the Department of the Environment, has conducted surveys of public and private buildings where exposed or damaged asbestos products were present and of selected outdoor

sites chosen to represent the highest exposures to asbestos which are likely on the part of the general public. A preliminary report has been published (Le Guen and Burdett, 1981) and others are in the press. The types of buildings sampled included four schools, two other educational institutions, three houses on a private estate, two council houses, a television studio and a theatre. A variety of sampling and analytical techniques were used including transmission electron microscopy.

At the indoor sites asbestos could not be detected in spite of the sensitivity of the methods used. Although the methods are sensitive, there is a limit below which they will not detect any very small amounts of asbestos which may be present. It is usual in these circumstances to make the cautious assumption that the substance is present just below the limit of detection. On this assumption it can be said that in no case did the airborne concentrations of asbestos fibres exceed 10^{-8}g/m^3 which is roughly 0.04% of the 1 fibre per millilitre which is the hygiene standard for chrysotile asbestos at places of work. Indeed where the most sensitive method (transmission electron microscopy) was used, it can be said that the fibres did not exceed 10^{-9}g/m^3 . Measurable but still very small amounts were detected at some of the outdoor sites. There is, and can be, no data which indicate directly what the risk of cancer from these very low levels of exposure to asbestos might be. Although exposure to asbestos cannot be held to be totally safe, however low the level, any risk there may be from these very low levels must be extremely small.

International work

The rate at which new chemicals are developed and brought into use, the international character of trade in modern products and the great cost of toxicological testing have led to increasing collaboration between countries on the medical aspects of chemicals in food, consumer products and the environment. This involves agreement on the tests and methods required for determining the effects on health of chemicals, on the means for ensuring that toxicity data are of a quality acceptable internationally, and on the assessment of test results and scientific reports. The sponsorship of and participation in relevant research is pursued increasingly on an international basis as is the need for and extent of controls required on the production, movement and use of chemicals to safeguard people and the environment.

Much of the collaborative effort leads to the publication of assessments and guidelines which are helpful in ensuring the mutual acceptability of data, the preparation of agreements between countries outside the European Community on the import and export of chemicals, and contributes to the development of Directives by the EEC. The beneficial effects of these activities are economics as well as on health.

Particular activities in the European Commission in 1982 were concerned with the toxicity of food additives, cosmetics, the labelling of dangerous chemicals, methods of testing chemicals for mutagenicity and air quality standards. Contributions were made within the Organization for Economic Co-operation and Development on guidelines for toxicology testing and the development of principles for Good Laboratory Practice while the UK contributes to the World

Health Organization/United Nations Environment Programme/International Labour Organization International Programme on Chemical Safety with which an agreement was signed in 1982.

Prevention

The present generation has a longer life expectancy than past generations had but many people suffer from avoidable ill-health or premature death. Regular smoking of cigarettes, for instance, will, in time, lead at best to a smoker's cough with the likelihood of development of chronic lung disease or at worst early death from lung cancer. The incidence of lung cancer in men, the leading cause of cancer and due almost exclusively to smoking, is beginning to fall but still accounts for about 30% of all male deaths from cancer. Similarly the incidence of ischaemic heart disease which it is generally agreed, could be reduced by measures such as avoidance of smoking, avoidance of obesity or regular exercise continued to rise until recently in contrast to the considerable decreases noted in other Western Countries, Australia and Japan.

The development of a more positive approach to preventive health care through health education and health promotion has continued to gain increasing emphasis throughout the year. While more traditional preventive activities continue to be an essential element in prevention of disease, the Department welcomes and supports this move towards the promotion of health. The opportunity afforded by the restructuring of the NHS was taken to re-emphasize the crucial part that preventive health care plays in the health of the population and the guidance given to District Health Authorities in *Care in Action* (DHSS, 1981a). With this in mind, the Department planned a series of seminars for District Medical Officers on preventive health care to be held at the NHS Training and Studies Centre, Harrogate during 1983 and 1984. The first seminar took place in March 1983.

Following the publication of the Department's booklet *Avoiding Heart Attacks* in the Prevention and Health series (DHSS, 1981c) and the World Health Organization's report on the prevention of coronary heart disease (WHO, 1982), a UK national workshop on Action to Prevent Coronary Heart Disease is being planned for September 1983. The Department has supported the concept and planning of this important development aimed to reduce the toll of coronary heart disease.

During the year the Royal College of General Practitioners convened a working group to advise on how best to implement the College's prevention policies as set out in *Health and Prevention in Primary Care* (Royal College of General Practitioners, 1981). The Group's work has been supported by a Senior Medical Officer of the Department acting as its Medical Secretary. The final report is expected in 1983.

Towards the end of the year further voluntary restrictions on the advertising of cigarettes were agreed with the tobacco industry. The agreement included a further reduction on expenditure by tobacco companies on advertising, increase in the space devoted to health warnings on posters and packs and a clearer presentation of the health warning. The establishment of the Health Promotion Research Trust which will receive up to £11m from the Tobacco Advisory Council for research into health promotion was also announced.

The year saw the inclusion, for the first time, of carbon monoxide yield of cigarette smoke in yield tables which now become the *Tar, Carbon Monoxide and Nicotine Yields of Cigarettes* (Health Departments of the UK, 1982).

Occupational health

General guidance on the organization and development of occupational health services for NHS staff, HN(82)33 (DHSS, 1982c), was issued in October 1982. The Circular includes the recommendation that each Region should identify one Occupational Health Physician (OHP), available to give advice to all health districts and local authorities in that Region. Authorization has since been given by the Central Manpower Committee to a number of Region's proposals to establish such consultant posts in occupational health.

Existing occupational health services in the NHS, developed mainly since 1968, vary both in organizational structure and staffing levels. As the Tunbridge Report (Ministry of Health/SHHD, 1968) on the care of the health of hospital staff acknowledged in 1968, it is not possible to recommend a uniform, national pattern. However, rationalization of present services, and modification of existing patterns of work (for instance, there is at present an over-emphasis in some districts on full pre-employment medical examinations rather than an initial health questionnaire screening) are likely to engender cost savings within present budget allocations. This would allow alternative deployment of funds to provide a more effective service. Part of the role of a regional OHP would be to identify and encourage such desirable changes. Discussions with the profession and others continue on the role of regional consultants in occupational health.

The Health and Safety Commission's Health Services Advisory Committee has set up a working party on occupational health services in the NHS which is due to report in 1983. The Society of Occupational Medicine is also considering the professional aspects of the work of occupational health doctors working in the NHS, and the provision by health authorities of similar services to local authorities.

Seat belt legislation

Regulations bringing into force the compulsory wearing of seat belts, as outlined in this report for 1981 (page 38), came into operation on the 31 January 1983. Prior to that date, guidance was issued in HN(FP)(82)23 and HN(82)29 on medical exemption certificates (DHSS, 1982d). Family Practitioner Committees were asked to supply blank exemption certificates, guidelines on medical exemptions prepared by the Medical Commission on Accident Prevention, and publicity leaflets all produced by the Department of Transport to general medical practitioners. It was expected that patients' own family doctors would normally issue certificates. However, special arrangements were made for groups such as those on low income and receiving certain social security benefits, the disabled and others to apply to the Department of Transport for examination at the local Social Security Medical Board at no charge. Similar arrangements for a free examination and certificate at local Artificial Limb and Appliance Centres were introduced for patients with a car, invalid tricycle or private care allowances from DHSS. Up to the appointed day, the estimated number of certificates issued for exemption from wearing belts on medical grounds numbered a few thousand [3,600].

Assessments of the effect of introducing compulsory seat belt wearing have been made in other countries. Taking all types of injury, reductions have been recorded of up to 50% in fatalities, and 50% of all types of injury, especially of the more severe types, with a related reduced need for health and rehabilitation care services. With a view to assessing the effects of the Regulations a multi-centre evaluation study under the aegis of the Casualty Surgeons' Association, funded by the Health Departments, was set up to collect data at 15 major Accident and Emergency departments spread across the UK. The study, which embraces a prospective trial carried out one year prior to the implementation of the legislation and one year after, should provide unique comparative "before and after" data of the effects on mortality and severity of injury overall and in different parts of the body. It will be supplemented by existing routine information on road accidents obtained from police returns and analyses by the Department of Transport. Also sample in-depth studies involving engineering examinations at sites of accidents, and of vehicles involved, as undertaken by the Department of Transport's Transport and Road Research Laboratory, will provide additional data leading to suggestions for improvements in the design of seat belts.

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COMMUNICABLE DISEASES

This chapter records notable events relating to individual communicable diseases which particularly affected the public health during 1982. Issues on immunization relating to a particular disease, where they occur are included in the paragraph on the disease itself, although there is a section on general vaccination policy (page 56). The chapter concludes with information about food poisoning of microbial origin.

Cholera

In contrast to 1981, when there were nine cases in England, all imported, only one case was notified in 1982. This notification was in respect of a woman aged 74 years who visited Tunisia for a fortnight in June and developed diarrhoea shortly before her return to this country. *Vibrio cholerae* 01 biotype eltor was isolated from her faeces.

Diphtheria

Four cases of diphtheria were notified during 1982, there having been only 7 cases in the previous 3 years.

In June a toxigenic strain of *Corynebacterium diphtheriae* var *mitis* was isolated from a throat swab taken from a fully-immunized boy aged 10 living in Hackney. He had complained of recurrent sore throats. No further cases or carriers were found on investigation of his siblings, home contacts and schoolmates.

At the end of June a notification was received from Kingswood, Avon, in respect of a nurse at a hospital for mentally handicapped, who had been found to be carrying *C. diphtheriae* on routine swabbing after a case of diphtheria had been reported.

On 19 August a girl aged three, who had not been immunized against diphtheria, died suddenly in a hospital in Winchester, where she had been admitted with a provisional diagnosis of croup. Toxigenic *C. diphtheriae* var *mitis* was isolated from her throat swab. During the previous month the child had been staying in Chelsea Barracks and visited Caterham, Surrey, as well as Hampshire. A widespread follow-up of close contacts revealed five carriers; 2 siblings of the index case aged nine years and eight years and three children at Chelsea Barracks, a girl aged four years and a brother and sister aged five and three years (all immunized). The close contacts of these carriers were traced and proved negative.

On 5 September an unimmunized third girl aged five years was admitted to hospital in Westminster with stridor and tonsillitis. Toxigenic *C. diphtheriae* var *mitis* was isolated from her throat swab, and also from the nose and throat of her sister aged seven years and her brother aged three years. No other carriers were identified. This case was not notified.

The strains isolated from these two cases, and from their contacts found to be carriers, were sucrose-fermenting. As these were the first toxigenic sucrose-fermenting strains seen in the UK for a number of years, a connection

between the two cases seemed likely. No direct link was established, however, although there was a possible chain of infection involving the barracks, a day nursery and the block of flats where the family of the third girl lived.

On 21 December a girl aged four years living in Nottingham developed a sore throat. She was admitted to hospital on 23 December as clinical diphtheria and two days later the diagnosis was confirmed when a toxigenic strain of *C. diphtheriae* was isolated from the throat swab. No secondary infections were detected among her close contacts. Three weeks later, however, an unimmunized girl aged seven who attended a neighbouring school developed palatal paresis and heart failure and toxigenic *C. diphtheriae* was isolated from three of her five siblings.

Echovirus type II

The outbreak of echovirus type II infection that occurred in 1982 was fortunately somewhat smaller than that of 1978; 414 cases* were reported to the Communicable Disease Surveillance Centre (CDSC) during the year compared with 1496 in 1978. The 1978 epidemic was notable mainly for its effect on neonates, of whom 11(19%) died from the 58 infections reported. In 1982, the number of infection in neonates was 14, and one died.

Viral hepatitis

After reaching their lowest level of 3216 cases in 1979, notifications of infective jaundice rose to 9834 in 1981 and 10602 in 1982. These include both hepatitis A and hepatitis B, but as reports of acute hepatitis B to the Public Health Laboratory Service (PHLS) remained fairly static (12-1300) the increase in notifications is probably attributable to hepatitis A. Although much of the increase seen may be part of a natural variation in the disease, part of it may have been due to an increase in foodborne hepatitis A, particularly that caused by contaminated shellfish.

Hepatitis A associated with eating shellfish

In the first six months of 1982, investigation of outbreaks of hepatitis A, in Bristol, Essex and Wiltshire/Berkshire, all demonstrated an association with eating molluscan shellfish, confirmed by case control studies. Most of the outbreaks were due to cockles harvested in the Thames Estuary, but frozen cockles imported from the Netherlands and pickled mussels from the Republic of Ireland were also implicated.

Hepatitis A due to the consumption of shellfish may be more extensive than the identified outbreaks indicate; indeed, most of the increase in notification in adults seen in late 1981 and early 1982 may be due to shellfish.

Molluscs pose a significant problem due to their filter feeding habits and their in-shore estuarial situation which is subject to pollution from sewage and land drainage. Luxury species such as oysters and clams may be consumed raw, after purification in tanks of sea water, subjected to UV irradiation and properly controlled for temperature and salinity. Cockles and mussels are normally heat shucked to remove the meat from the shell, and subsequently heat processed, pickled, or deep frozen, depending on the type of retail outlets for which they are intended.

* (1982 figures provisional)

These processing treatments, including purification, are not adequate in normal commercial operations to destroy hepatitis A virus in all cases. The Department therefore held a meeting in April to consider all aspects of the problem, including legislation, microbiological examination and methods, the quality of harvesting waters and training aspects of persons employed in the industry, laboratory staff and environmental health officers. Future work will include consideration of controls of imports of molluscs as well as domestic production and standards for exports. The first of a series of training seminars was held at Billingsgate in December. Irrespective of what controls may be applied, however, both now and in the future, it has to be accepted that persons consuming molluscs are especially at risk from virus illness, including hepatitis A.

Hepatitis B

The number of overt cases of acute hepatitis B identified in England and Wales was 1,009 in 1980, 1223 (1981) and 1251 (1982). The increase is partly due to improved reporting and partly due to increased cases among drug abusers. This is still low compared with other countries.

In this country hepatitis B antigenaemia is found in about one per thousand volunteers for blood donation; often such individuals do not give a history of clinical hepatitis.

Certain occupational and other groups are known to be at increased risk of hepatitis B infection. There are two types of immunization product, a vaccine licensed in this country in 1982 which induces an active immune response and a specific hepatitis B immunoglobulin which provides passive immunity after accidental inoculation or contamination with antigen positive blood.

The hepatitis B vaccine which is currently licensed in this country is imported from the USA, although other countries including the UK are currently developing vaccines of their own.

The American vaccine now available here is derived from hepatitis B surface antigen particles which have been purified from human plasma. The virus is inactivated by a three-fold process. Protection against illness has been shown in trials in the United States to be complete in persons who develop antibodies after vaccination but before exposure. The duration of protection and the subsequent need for booster doses is not yet known.

Guidance from the Department regarding the new vaccine was sent out in the form of a letter to doctors and nurses from the Chief Medical Officer and Chief Nursing Officer dated 15 October 1982 (DHSS, 1982a).

The decision to give hepatitis B vaccine to a particular patient is a decision for the individual doctors, but in view of the relatively low incidence of hepatitis B in this country, the cost of the vaccine in relation to other pressures on health service resources, and its limited availability, it is recommended that the

vaccine should be reserved for specific individuals within groups known to be at increased risk. It is advised that the following might be considered for vaccination:-

Health care personnel

Personnel directly involved over a period of time in patient care in those residential institutions for the mentally handicapped where there is a known high incidence of hepatitis B. (The same priority should be accorded to teaching and training staff in similar circumstances).

Personnel directly involved in patient care over a period of time, working in units giving treatment to known carriers of hepatitis B infection.

Personnel directly involved in patient care working in haemophilia or other centres regularly performing maintenance treatment of patients with blood or blood products.

Laboratory workers regularly exposed to increased risk from infected material.

NHS and academic health care personnel on secondment to work in areas of the world where there is a high prevalence of hepatitis B infection, if they are to be directly involved in patient care.

Patients and family contacts

Patients on first entry into those residential institutions for the mentally handicapped where there is known high incidence of hepatitis B.

Renal dialysis patients who are known to be antigen/antibody negative, who are travelling abroad and who will receive haemodialysis treatment in centres outside the United Kingdom.

The spouses and other sexual contacts of carriers of hepatitis B in the following circumstances.

- (a) If the carrier is not hepatitis B antibody positive.
- (b) If the potential vaccinee is neither a carrier of hepatitis B surface antigen nor hepatitis B antibody positive.

Influenza

The prevalence of influenza was fairly low throughout the winter of 1981/82, as in the three previous years. Deaths ascribed to influenza and influenzal pneumonia remained consistently below the average for non-epidemic years. The practices reporting to the Royal College of General Practitioner's Research Unit recorded a moderate level of clinical influenza during February and March but otherwise their rates were low.

Identifications of influenza A virus were reported mainly in the March to May trimester, when several hospital outbreaks occurred. The H₃N₂ subtype pre-dominated; the strains in general were closely related to A/Bangkok/1/79 and A/Texas/1/77 (cross-reacting). Influenza B virus was more commonly

reported by laboratories, at a level similar to that seen in the spring of 1979 but with the peak occurring in February. There were numerous small outbreaks, the majority in schools but several in hospital geriatric units.

Kaposi's sarcoma and AIDS

In 1982, surveillance of Acquired Immune Deficiency Syndrome (AIDS) and Kaposi's Sarcoma was begun at the CDSC (see also page 62). Data collection was from 3 sources:

1. Death certificates mentioning the conditions identified by the Office of Population Censuses and Surveys (OPCS);
2. Information regarding opportunistic infections collected on routine laboratory reporting forms;
3. Physicians in clinics for the sexually transmitted diseases were asked to report clinical cases.

During 1982 and the early weeks of 1983, case reports suggestive of the classical type of Kaposi's Sarcoma were received.

It is now believed that there is under-reporting of these conditions, although research is proceeding in a number of scattered centres. In future, it is proposed to expand the notification system. Clinicians will be asked to report to the CDSC all cases, including those of the prodromal extended lymphadenopathy syndrome. Initial reporting will be by a short notification slip to preserve confidentiality. Suspected cases will then be followed up by a questionnaire covering case definition and basic epidemiological data.

Malaria

The trend of recent notifications of malaria cases in the United Kingdom continued to be downwards in 1982, continuing the pattern established in 1981 and 1980. 1459 cases were notified, compared with 1576 in 1981 and 1670 in 1980. *Plasmodium vivax*, mainly acquired in the Indian sub-continent, remained the dominant imported parasite, accounting for 63 per cent of all cases.

There were 12 deaths from malaria in 1982; 9 of these have been investigated, but replies to queries by the Malaria Reference Laboratory are still awaited in respect of 3 deaths.

Poliomyelitis

Four cases of paralytic poliomyelitis were reported in 1982; two were apparently acquired infections the others were vaccine-associated. Of the acquired cases, one was a 10-month old boy who was admitted to hospital with paralysis of the left leg following a febrile illness; his clinician made a diagnosis of poliomyelitis. The child had received his first dose of oral poliovaccine and triple vaccine four months previously; type 1 poliovirus was isolated from this patient. The other patient acquired her infection abroad. The vaccine-associated cases consisted of one recipient case in an infant who developed a paralytic illness soon after receiving his first dose of oral poliovaccine; the second was a contact case, a mother who developed paralysis three weeks after her infant had received his first dose of oral poliovaccine.

The proportion of children in England who received their full basic course of poliomyelitis immunization by the second birthday was 82 per cent in 1981.

Tuberculosis

Mortality

Deaths in England from all forms of tuberculosis in 1981 were 701 compared with 834 in 1980. Deaths from respiratory tuberculosis were 394 in 1981 compared with 435 for the previous year. Provisional figures for 1982 are 692.

Morbidity

In 1981 notifications of all forms of tuberculosis in England totalled 7,803 as against 8,752 in 1980, a decrease of 949. The provisional figure for 1982 is 7083. Notification rates per 100,000 population for 1981 were as follows, all forms — 16.7, respiratory — 12.0. The total number of smear positive cases recorded in 1981 was 2,178 compared with a figure of 2,485 in the previous year.

Outbreak of special interest

A three-year old English girl with spinal tuberculosis was an inpatient in an orthopaedic ward in Burton-on-Trent during October 1981 and later in a paediatric ward in Birmingham. Her mother, who proved to have sputum smear positive pulmonary tuberculosis was resident with the child in Birmingham. The resultant contact tracing of almost a thousand individuals involved several health authorities and detected evidence of infection in 45 contacts, including cases of miliary tuberculosis in immuno-suppressed children who were in-patient contacts. It is thought that the source of infection for both the child and her mother was the child's grandfather who had died in 1980 of bronchial carcinoma and whose last chest X-ray suggested the presence of a cavity. A chest X-ray of the mother taken early in 1981 was reported as normal.

Viral haemorrhagic fevers

In October 1982, Lassa fever was diagnosed in a 21-year old Nigerian woman recently arrived in England from Jos, Nigeria. One week after developing symptoms she was admitted to St Mary's Hospital, Paddington, with a high fever and later transferred to the High Security Infectious Disease Unit at Coppelts Wood Hospital, London, where the diagnosis of Lassa fever was confirmed.

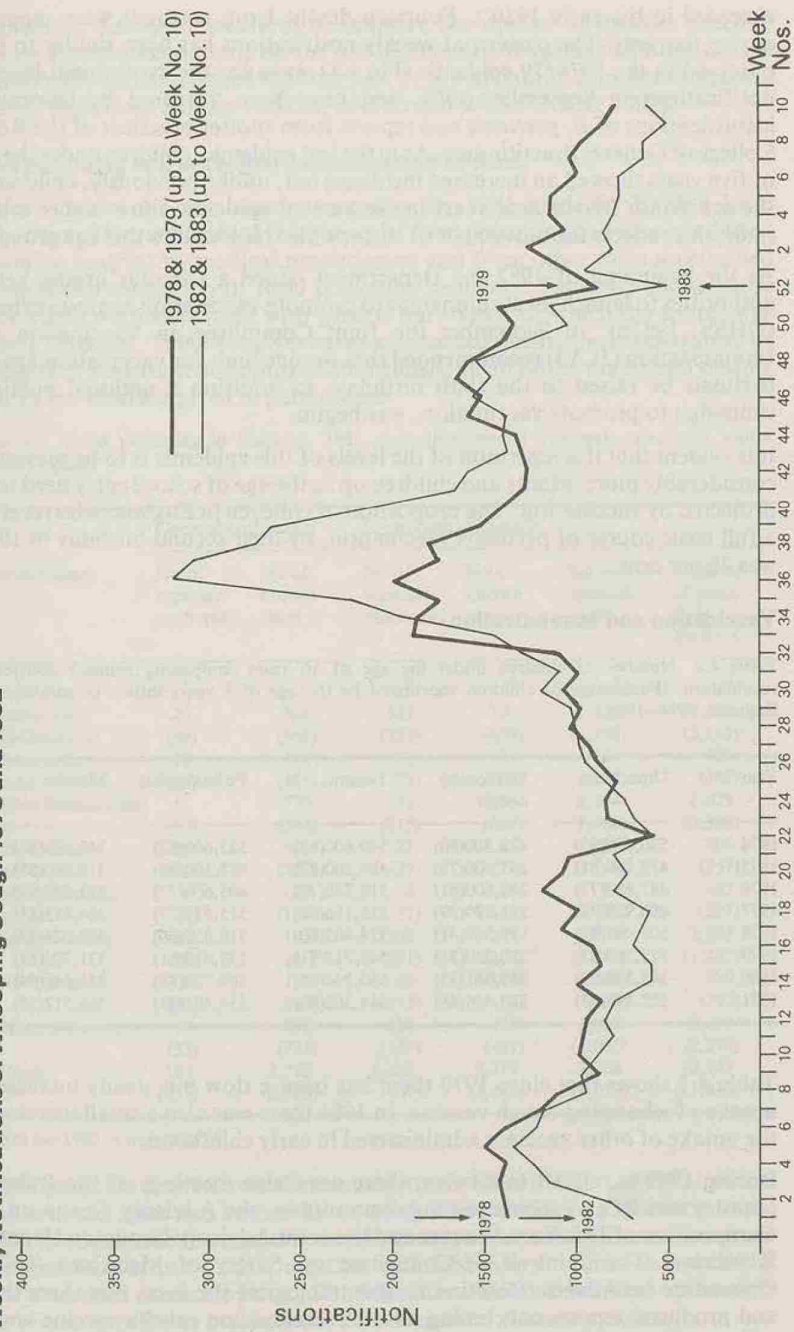
The patient had been in contact with approximately 70 people during the period of possible infectivity, the majority of them hospital staff. All were placed under surveillance for the three weeks following their last contact with the patient. No secondary cases occurred.

This incident was very similar to that which was reported in this Report for 1981 (page 45).

Whooping cough

Nearly 66,000 cases of whooping cough were notified in England and Wales during 1982. The epidemic, which began in September 1981, reached its peak the following September, when for two consecutive weeks the numbers of weekly notifications exceeded 3,000; these levels had only previously been

Figure 4.1
Weekly Notifications of Whooping Cough 1978 and 1982



exceeded in the early 1950's. Fourteen deaths from pertussis were reported during the year. The pattern of weekly notifications has been similar to that observed in the 1978/79 epidemic (Fig 4.1), save for the exceptional level of notifications in September 1982, and have been mirrored by laboratory identifications of *B. pertussis* and reports from spotter practices of the Royal College of General Practitioners. As in the last epidemic, children under the age of five years showed an increased incidence but, unlike previously, children in the age group five to nine years in the current epidemic show higher attack rates; this reflects the movement of susceptible children into this age group.

At the beginning of 1982 the Department issued a Circular urging health authorities to launch local campaigns to promote vaccination against pertussis (DHSS, 1982b). In September the Joint Committee on Vaccination and Immunization (JCVI) recommended that the age limit for vaccination against pertussis be raised to the sixth birthday. In addition a national publicity campaign to promote vaccination, was begun.

It is evident that if a repetition of the levels of this epidemic is to be prevented considerably more infants and children up to the age of school entry need to be protected by vaccination. The proportion of children in England who received a full basic course of pertussis vaccination, by their second birthday in 1981, was 46 per cent.

Vaccination and Immunization

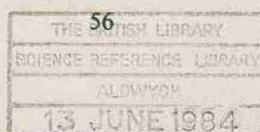
Table 4.1 Number of children under the age of 16 years completing primary courses of vaccination. (Percentage of children vaccinated by the age of 3 years shown in parentheses), England, 1974-1981

Year	Diphtheria	Whooping cough	Tetanus	Poliomyelitis	Measles
1974	520,620(83)	428,300(80)	549,600(83)	525,600(82)	348,300(56)
1975	478,960(81)	247,900(78)	499,200(82)	481,500(81)	310,200(55)
1976	487,830(77)	240,600(61)	510,230(77)	495,600(77)	323,650(50)
1977	490,928(78)	191,899(39)	513,116(78)	515,575(77)	304,885(51)
1978	505,987(80)	199,389(41)	524,403(80)	518,829(80)	302,075(52)
1979	528,568(81)	250,250(31)	543,712(81)	533,616(81)	331,700(51)
1980	545,855(82)	285,561(35)	560,194(82)	549,729(82)	351,618(54)
1981	552,198(83)	320,496(46)	564,362(83)	554,481(83)	368,512(55)

Table 4.1 shows that since 1979 there has been a slow but steady increase in uptake of whooping cough vaccine. In 1981 there was also a small increase in the uptake of other vaccines administered in early childhood.

During 1982 the JCVI met twice; there were also meetings of the Rubella, Measles and BCG Vaccination Sub-committees, the Advisory Group on the Composition of Influenza Vaccine and the Joint Advisory Group on Hepatitis B vaccine. The Joint JCVI/Committee on Safety of Medicines (CSM), Committee on Adverse Reaction to Immunological Products met three times and produced reports concerning adverse reactions on rubella vaccine and to influenza vaccine.

During the year the JCVI considered the current whooping cough epidemic and ways of improving uptake of vaccine; endorsed the recommendation that the current policy of selective vaccination against rubella should be continued and



augmented; discussed measures to improve the uptake of measles vaccine; endorsed recommendations on the use of hepatitis B vaccine and hepatitis B immunoglobulin and issued the first part of the Memorandum *Immunization Against Infectious Disease* (DHSS, SHHD and Welsh Office, 1982).

Food poisoning and microbial contamination of food

Tables 4.2 and 4.3 are based on returns for 1981 made by English local authorities. They are derived from cases of food poisoning and suspected food poisoning notified by medical practitioners and from other cases ascertained during the investigation of food poisoning incidents. Table 4.3 shows those cases which were associated with general outbreaks, of which the source was outside England. Table 4.4 gives cases ascertained during the investigation of incidents of non-food poisoning salmonellosis. In all tables the corresponding figures for 1980 are given in parentheses.

Table 4.2 Food poisoning in England, 1981, excluding general outbreak cases with source outside England

Causative agent	General outbreaks		Household outbreaks		Known sporadic cases	Total no of cases Cols 2 + 4 + 5
	No of separate outbreaks	No of known cases	No of separate outbreaks	No of known cases		
	1	2	3	4	5	6
1. <i>Salmonella typhimurium</i>	24 (38)	354 (566)	307 (232)	770 (609)	1,308 (1,158)	2,432 (2,333)
2. <i>Salmonella hadar</i>	10 (33)	149 (381)	41 (73)	117 (200)	154 (279)	420 (860)
3. Other <i>Salmonellae</i>	51 (53)	779 (534)	373 (317)	916 (815)	2,334 (1,980)	4,029 (3,329)
4. <i>Clostridium perfringens</i>	33 (26)	511 (437)	21 (27)	61 (76)	28 (44)	600 (557)
5. <i>Staphylococcus aureus</i>	6 (7)	89 (154)	4 (7)	10 (28)	24 (25)	123 (207)
6. <i>Campylobacter</i>	15 (5)	105 (36)	105 (91)	249 (204)	1,839 (1,247)	2,193 (1,487)
7. Other causes	8 (20)	195 (144)	43 (13)	125 (69)	369 (179)	689 (392)
8. Cause unknown	50 (53)	580 (731)	128 (167)	471 (481)	1,010 (1,065)	2,061 (2,277)
9. Totals	197 (235)	2,762 (2,983)	1,022 (927)	2,719 (2,482)	7,066 (5,977)	12,547 (11,442)

Figures for 1980 in parentheses

These figures are derived from the annual returns. Since the start of 1982, returns of ascertained cases and outbreaks are being made weekly and quarterly to the OPCS in addition to the statutory notifications to that office. These returns are processed also at the CDSC, together with laboratory returns and outbreak reports received there. However, SBL640 returns will be continued for another year or two in order to evaluate the effectiveness of the new systems.

Table 4.2 shows that in 1981 there were 1,105 more cases of food poisoning originating from sources in England than were reported in 1980. This is still considerably less than the figure for 1979. The increase is almost entirely due to sporadic cases. There has been a reduction in the number of general outbreaks

and in the number of associated cases, and there has been only a relatively small increase in the number of household outbreaks and in the number of associated cases. There has been a considerable reduction in the number of outbreaks and cases due to *Salmonella hadar*, which is almost always associated with poultry. Overall, there has been a slight increase in the number of cases due to *Salmonella typhimurium* and to other salmonellae. Campylobacter food poisoning appears to be increasing, but this may be due to a greater awareness of this organism, which last year was listed separately in this table for the first time.

Table 4.3 Salmonellosis not associated with food poisoning in England, 1981

Causative agent	General outbreaks		Household outbreaks		Known sporadic cases	Total no of cases Cols 2 + 4 + 5
	No of separate outbreaks	No of known cases	No of separate outbreaks	No of known cases		
	1	2	3	4	5	6
1. <i>Salmonella typhimurium</i>	4 (5)	17 (41)	69 (52)	157 (136)	353 (224)	527 (401)
2. <i>Salmonella hadar</i>	1 (6)	24 (11)	7 (15)	14 (42)	45 (49)	83 (102)
3. Other Salmonellae	1 (16)	3 (105)	79 (54)	199 (133)	601 (362)	803 (600)
4. Totals	6 (27)	44 (157)	155 (121)	370 (311)	999 (635)	1,413 (1,103)

Figures for 1980 in parentheses

Table 4.4 Food poisoning in England 1981: general outbreak cases with source outside England

	SOURCE			
	Outside UK		Wales/Scotland/NI	
	No of separate outbreaks	No of known cases	No of separate outbreaks	No of known cases
Total for 1981	193 (189)	440 (418)	10 (10)	17 (19)

Figures for 1980 in parentheses

Table 4.3 shows an overall increase in cases of non-food borne salmonellosis but a considerable decrease in general outbreaks and associated cases.

Table 4.4 shows that there continues to be an increase in the number of general outbreaks due to sources outside the United Kingdom.

The total number of corrected notifications of food poisoning in England received by the OPCS in 1982 was 9,356 compared to 9,397 in 1981. For the first time, the OPCS is publishing figures for ascertained as well as notified cases of food poisoning. The corrected total of formally notified and otherwise ascertained cases reported to OPCS in 1982 was 13,576.

Hospital outbreaks

In 1982 there were 35 outbreaks of salmonella food poisoning and 32 outbreaks of *Clostridium perfringens* in hospitals and long stay institutions.

Considerable national publicity was given to outbreaks of salmonella food poisoning at three hospitals involving geriatric and mentally sub-normal patients. Although in each case the consumption of chicken was considered to be the initial cause of the infections, the evidence was not conclusive and there is no doubt that cross infection on the wards played a significant part in the spread of outbreaks.

Hospital outbreaks of salmonella accounted for one-third to one half of all general outbreaks reported in England and Wales between 1974-77. In only 12% of the outbreaks reported to the PHLS in this period however, was food considered the likely source of infection. With these figures as background, CDSC carried out in 1980-82, a survey of hospital infections, to assess the relative importance of food borne and person to person spread. Out of 55 outbreaks between July 1980 and July 1982 food borne infection was considered, by the hospital investigators, to play some part in 6 outbreaks mainly because of positive findings of salmonella when catering staff were screened.

However, in 5 out of these 6 outbreaks, and in 44 others where minimal details were available, person to person spread was believed to have contributed to the continuation of the outbreaks. In 5 incidents involving geriatric units particularly, the admission in each incident, of an infected patient, was probably the source of the infection.

Italian chocolate

Surveillance of routine reports of salmonella infections from hospital and public health laboratories detected an outbreak of *Salmonella napoli*. In May and June 1982, 32 cases of *Salmonella napoli* infection were reported to the CDSC. Most of these cases were children living in the South of England. In the previous 30 years the PHLS Division of enteric pathogens had recorded only 15 human isolations and no non-human isolations in the United Kingdom. An epidemiological investigation was undertaken by CDSC, and in mid-July interviews with 10 patients from 7 affected families in Colchester and Croydon, revealed imported Italian chocolate to be a common factor. A case control study showed a strong association between illness and the consumption of "Rocky Junior" and "Tommy Junior" chocolate bars manufactured by Motta Sidalm. Microbiological examination of these chocolate bars yielded *Salmonella napoli*. The public was warned not to eat these products and officers of the Department held discussions with the manufacturers and importers. Further imports were suspended and products already in this country were recalled — about 2.4 million chocolate bars. Following this the outbreak quickly came to an end. About 600,000 of these chocolate bars had been sold in the UK leading to 245 reported cases of illness, including 51 admissions to hospital. These reported cases are probably only a small fraction of the true total. It is likely that many thousands more infections were

prevented by the public warning and recall of the product. Scrutiny of Italian public health laboratory findings demonstrated an increase in *Salmonella napoli* gastro-enteritis earlier in the year. Illness seemed to be confined to consumption of products from one production line in one Italian factory. A Medical Officer from this Department visited the factory but no cause of contamination could be found, although some improvement had been made to the factory shortly before her visit.

Imported canned fish

In February, 2 cases of botulism occurred in Belgium, with one death, due to consumption of a half pound can of salmon from the United States of America. The can was found to have a defect, which was identified as being due to a fault in the reforming machinery used at the cannery. Cans in the United Kingdom were examined and a similar defect was found in batches from the same cannery and in batches from other US canneries using the same type of reforming machinery. These defects being under the label were unseen in normal circumstances. The public was warned not to eat half pound cans of salmon manufactured in the United States of America. Leading United Kingdom importers examined cans from a number of USA and Canadian canneries and discovered that an unacceptably high proportion of these cans had serious defects of various types. In view of this the public warning was extended to half pounds cans of salmon from Canada. The importers and the Campden Food Preservation Research Association developed a mechanical method of detecting defective cans. In July the Department accepted this method of screening which was applied to all half pound salmon cans from North America that were already in this country. The Department considered that this method of screening gave an acceptable level of safety and therefore the public warning was withdrawn. Salmon canneries in the United States of America and Canada were visited by an Environmental Health Officer (EHO) from this Department accompanied by food scientists from the Ministry of Agriculture, Fisheries and Food and the Campden Food Preservation Research Association. Assurances were given by the USA and Canada that stocks of cans already produced would only be exported to the United Kingdom if the cans reached an equivalent standard to that provided by the screening programme being applied in the United Kingdom. In view of this, imports were resumed at the beginning of November.

There were also problems with canned fish from a Mediterranean country, though no serious illness occurred. Reports from a UK importer suggested deficiencies in canning procedures. Officers of this Department met representatives of the exporting country and requested that exports to UK be suspended until the canneries could be visited by an EHO from this Department accompanied by a Scientist from the Campden Food Preservation Research Association. Following this visit exports to the United Kingdom were resumed from a limited number of canneries and assurances were obtained from the national authorities of the exporting country that canned fish would only be exported to the United Kingdom from canneries that met the requirements of the UK's Advisory Memorandum on the Hygienic Production of Low Acid Canned Food.

Canned turkey roll

This Department received a number of complaints of decomposition of the contents of 7 ounce cans of turkey roll from one cannery in the Netherlands.

Investigations showed that a number of cans were blown and some had abnormal seams. Large numbers of microorganisms, but no pathogens were found, although the distributors in this country received a number of reports of illness associated with the consumption of this product; at least 3 of these reports appeared genuine. Examination of a considerable number of similar cans showed an unacceptable number of seam defects. There is also a possibility that some cans had been under-processed. The Dutch authorities were asked to investigate the problem urgently. It transpired that the cannery had been using a defective seaming machine, and there was a possibility that under-processing could have occurred. The Dutch authorities agreed to suspend the export of any more meat products from this cannery pending correction of all the faults, and once this was achieved exports to the United Kingdom were resumed.

Milk-borne salmonella and campylobacter outbreaks

Raw milk sales continued to be a source of food poisoning in 1982 with 15 salmonella outbreaks (275 cases), and 4 outbreaks of campylobacter (61 cases) being reported.

An essential feature of the investigation into outbreaks involving raw milk, concerns the liaison between local authority environmental health departments veterinary staff of the Divisional Ministry of Agriculture Office and veterinary clinicians. Tracing the sources of infection may involve the isolation and examination of particular milk producing cows, as well as hygiene factors in milking sheds and milk distribution. Any application of Heat Treatment Orders under the Milk and Dairies Regulations by Medical Officers for Environmental Health, may have substantial financial implications for the farmers concerned, particularly where farms are isolated and the milk has to be transported long distances to dairies where pasteurization can be carried out.

References

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SEXUALLY TRANSMITTED DISEASES

Since the incidence of the sexually transmitted diseases started to rise 25 years ago there has been a steady increase in the number of new cases reported from the clinics. This increase reached a peak in 1980 when over 500,000 new cases were registered in the UK as a whole. The number of cases registered in England in the same year was 458,979 (469,140 in England and Wales). In 1981 the figures for England were 479,924 (England and Wales 491,014).

The figures from the annual returns for individual clinics in England show that 50% of all the new cases were seen in clinics in the 4 Thames regions. This fact has important implications for short and long term planning.

The increase in the number of new cases attending the clinics over the past quarter of a century has been due to the more recently recognized sexually transmissible agents such as *Chlamydia Trachomatis*, *Ureaplasma urealyticum*, *Gardnerella vaginalis*, herpes genitalis, hepatitis B and cytomegalovirus. These conditions, together with non-specific genital infection, make up the newer group of sexually transmitted diseases.

Recently the late complications of these infections have been studied and it is now known that pelvic inflammatory disease, ectopic pregnancy, sterility and relapsing salpingitis are more common than was formerly appreciated. They affect mostly young people and have costly implications for the National Health Service in terms of repeated hospitalization for chronic pelvic inflammatory disease and surgical treatment for infertility.

Herpes genitalis (simplex)

The world-wide anxiety about the long-term consequences of infection with the herpes virus, such as its relationship to cancer of the cervix and the risk to a new born baby if its mother is infected, on present evidence, have been greatly exaggerated by the media. Nevertheless, the formation of herpes sufferers clubs in North America and Western Europe is an indication of the worry and distress caused by this sexually transmitted disease, especially among the more educated and articulate members of society. Research is being undertaken to find better methods of preventing recurrences of infection.

Genital warts

The wart virus caused genital lesions in 29,704 cases in England, an increase of 5 per cent over the previous year. Flat warts of the cervix, which can only be detected by colposcopy, are thought to have a possible relationship to the eventual development of carcinoma of the cervix, especially if associated with herpes. Further research into many aspects of this common condition is needed.

Acquired immune deficiency syndrome ('AIDS')

During the past four years a new and frequently fatal syndrome has been described in the United States. It consists of the development of immuno-depression of cell mediated immunity, infection with opportunistic micro-organisms and, in many cases, the development of Kaposi's sarcoma.

Over one thousand cases have been reported in the United States mostly among young homosexual men and the death rate has been over 40 per cent. Cases are now being reported in England and Western Europe. The cause of this serious and often fatal syndrome is unknown. The situation requires careful surveillance, and this is already being undertaken by the Communicable Disease Surveillance Centre (CDSC) - see page 53.

Gonorrhoea

Although the incidence of reported cases of gonorrhoea has declined slightly in recent years, the number of patients infected with beta-lactamase producing penicillin resistant strains continues to increase. In South East Asia, West Africa and several other areas more than 50 per cent of strains are beta-lactamase producers whereas in England between 2 and 3 per cent are totally penicillin resistant. However more infections with these resistant strains are now contracted within the United Kingdom than are brought in from abroad, indicating that beta-lactamase producing strains are diffused widely now throughout the indigenous population.

Unfortunately, strains of gonococci resistant to penicillin, spectinomycin and other antibiotics are being isolated now and the dangers of multiple antibiotic resistant strains are being recognized slowly. Patients infected with these strains require treatment with expensive antibiotics, such as cephalosporins like cefoxitin ('*Mefoxin*') and cefotaxime ('*Claforan*').

In response to widespread anxiety about antibiotic resistance the World Health Organization recently set up a scientific working group on Antimicrobial Resistance which published its report (WHO, 1981). It warned against the indiscriminate use of antibiotics and suggested codes of practice for prescribing them.

Chlamydia trachomatis

Facilities for growing *Chlamydia trachomatis* are still available only in a small number of clinics. Further evidence is available now that this agent is a very common cause of genital inflammatory disease and, if undiagnosed, of serious pelvic inflammatory disease.

Candidosis

This infection is frequently seen in sexually transmitted disease clinics. The total number of cases in women increased by 6 per cent to 37,451 (1981 figures for England). The fungus was also found in 9,496 men, an increase of 3 per cent. Treatment remains unsatisfactory because of frequent relapses.

Syphilis

The incidence of infectious syphilis in England showed little change during the year under review. There was a decrease of 6 per cent in primary and secondary syphilis and a 2 per cent decrease in cases of late syphilis. Late manifestations of the disease are now very rare and the condition appears to be controlled satisfactorily at present.

The classical venereal diseases, syphilis, gonorrhoea and chancroid now constitute rather less than 12 per cent of all the cases seen at the clinics and the major problems of control are among the newer sexually transmitted diseases, especially the virus diseases.

The clinics

The 180 clinics for patients with sexually transmitted diseases in England are housed in buildings of various standards, ranging from the old, out-dated, basement type of VD clinic to the modern department of genito-urinary medicine situated in medical out-patients. Unfortunately, the old-fashioned clinics discourage patients from attending and make it very difficult to attract doctors, nurses and clerical staff to work in them.

Recruitment of doctors has improved marginally. The number of hospital medical staff working in genito-urinary medicine in England and Wales at 30 September 1982 totalled 224 (208.6 whole-time equivalents (WTE) compared with 219 (203.8 WTE) in September 1981. The figures for 1982 included 111 (106.3 WTE) consultants, 34 (32.2 WTE) senior registrars, and 37 (35.4 WTE) registrars compared with 110 (106.4 WTE) consultants, 31 (29.4 WTE) senior registrars and 42 (39.6 WTE) registrars in September 1981. At 30 September 1982 there were in addition to the above 23 (6.4 WTE) hospital practitioners and 171 (37.4 WTE) part-time medical officers (clinical assistants).

Health advisers (contact tracers)

The Department has offered every health adviser (contact tracer) in sexually transmitted diseases who is currently in post, a place on one of a series of training courses at the NHS Training and Studies Centre at Harrogate. The courses deal with relevant areas of knowledge, inter-personal skills for use with patients, and team work. In a related field, the Department has arranged two appreciation courses for doctors and senior nurses in the work of health advisers.

Reference

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Note.

The tables giving the new cases of sexually transmitted diseases and the rate of new cases per 100,000 population seen at hospital clinics in England appear at the end of the whole Report (pages 131–134).

PRIMARY HEALTH CARE

Primary care of the elderly

Elderly people account for just over 15% of the population and projections predict a similar proportion of elderly people in the year 2000, but within that proportion the older age groups, especially those aged over 85, are expected to increase. In 1981 a general practitioner with a list size of 2,500 would have had approximately 233 patients aged 65-74, 120 aged 75-84 and 27 aged 85 and over. By the turn of the century a GP with a similar list size could expect to have 193 patients in the 65 to 74 age group, 123 between 75 and 84 years old and 38 over the age of 85.

This increase in the numbers of very elderly people will as a result of the implementation of the policy of recent governments to promote care in the community, lead to an increased role for the primary care team and associated support services, as well as a need for an effective level of support and back-up from the specialist services.

This is particularly so in the case of elderly with psychiatric disorder (20% of those over 80 show evidence of intellectual failure (Norman, 1982). *The Rising Tide — Developing Services for Mental Illness in Old Age* (Health Advisory Service, 1982) refers to the recent rapid expansion of the specialist services for psychiatric treatment in old age in England and Wales. It is acknowledged, however, that the usual pattern of care is support within normal family and social structure with help when needed from health care services and social services, often supported by formal and informal voluntary services.

The report contains guidelines within which a comprehensive range of the needs for mentally ill old people can be developed. Such needs include community education, advice on management, care at home, family support, response in crisis, assessment, treatment, rehabilitation and aftercare, and continuing care in a residential or hospital setting.

In a survey entitled *Access to Primary Health Care* (Ritchie, Jacoby and Bone, 1981) it was shown that the older the patient the more difficult it became for him to get to the doctor's surgery. This is partly due to the general difficulty such patients experience in getting about plus a lower level of car ownership among the elderly. However, as a result of better practice organization, elderly people are now finding it easier to get their doctor to visit them at home. These findings confirm those of Cartwright and Anderson (1981).

A general household survey in 1977 showed that 40% of people over the age of 65 who had consulted their general practitioner in the two week reference period had done so at home (OPCS, 1979).

Although the elderly obtain appropriate primary health care without difficulty in most parts of the country they use the ophthalmic and dental services less frequently. This is more because they do not feel the need for them than because they find difficulty in getting access to them. The elderly are, in fact, the most frequent users of the chiropody services and in two-thirds of cases decide themselves to consult the chiropodist.

A study group, under the chairmanship of Professor Acheson, looked at the difficulties facing the elderly in obtaining primary health care in Inner London (London Health Planning Consortium, 1981). Nine out of ten local authority areas in England with the highest proportion of elderly living alone are in Inner London. The study group found that hospital services specifically for the elderly are less well developed in Inner London than elsewhere, and that in Inner London the elderly are still considerably more likely to be admitted to a general acute hospital than are elderly people living elsewhere. This results in a more expensive and less appropriate form of care due to lack of family, community and social support and/or failure of primary care.

During a DHSS sponsored seminar on Support for the Elderly People Living in the Community at the University of East Anglia in September 1982 reference was made to the scope for effective prevention of disability in old age. It was recognized that preventive measures would not lessen the need to provide an adequate service for elderly people. A call was made for an effort by a multidisciplinary primary health care team to assess the medical, social and family (or other users) need. The efficacy of what is done for the elderly and the efficiency with which services are provided should be improved. Health promotion encourages independence but the prevention of social problems related to poverty, poor housing, heating and isolation are equally important.

Much more could be done to 'add life to years'. The views expressed in *Prevention and Health: Everybody's Business* (DHSS, 1976) were given support by the Royal College of General Practitioners in a paper entitled *Prevention of Arterial Disease in General Practice* (1981). Apart from the control of known diabetics and known hypertensives the major priority was cited as being the case finding of new hypertensives under 65 — 'It is likely that the best way to prevent the consequences of high blood pressure in old age is to establish and maintain control of pressure in middle age'.

Screening of the elderly is recognized by many workers as being less effective than the construction of 'At Risk' registers. The prevention of common handicap is a role for the primary health care team, who should be concerned with the care of the feet, skin, eyes and ears, and with the recognition of alcohol abuse, depression, anxiety, incontinence and malnutrition. Iatrogenic disease is common among the elderly, sometimes resulting from poor control of their repeat prescription. The condition would be more frequent if elderly patients remembered to take all the drugs they are given regularly. One author sees the elderly as the victims of modern drugs and the systems by which they are administered (Bliss, 1981).

A pilot project entitled *Topics in Drug Therapy*, produced by the Open University in collaboration with the Council for Postgraduate Medical Education in England and Wales and funded by the DHSS, was launched in September, 1982. The course aims to make doctors more aware of the therapeutic choices available to them and to encourage the most effective use of drug therapy. Part of the first module of the course dealt with the problems related to prescribing for elderly patients.

The Open University has approached the Department about a proposal for developing a Primary Health Care Unit, the aim of which would be to improve primary care. This would be brought about by fostering greater understanding and improving communications between different professional groups. The proposal involves a distribution of multidisciplinary learning materials and the

provision of local tutorial support for the continuing education of the professionals in these groups. It is being considered by the Department and other interested parties.

Apart from this need for improved training and concerted multidisciplinary effort, co-operative studies have called for an expansion of local authority residential facilities as well as for the integration of the home help service with other social services, thus augmenting the help already provided by family and friends. Of fundamental importance is a policy of flexible voluntary and statutory back-up services which can offer relief to relatives of those elderly who are heavily dependent upon various forms of care.

Knox (1983) suggested a need for research based upon groups of elderly people in their own environment. There might be room for a collaborative effort between the primary health care team and workers in disciplines such as the social and biomedical sciences.

Information on general practitioners' prescribing

Information to GPs about their own prescribing has been provided for many years, in the form of an annual set of figures based on an analysis of one month's prescriptions. The information which each NHS GP receives is:

1. The average number of prescription items per person on his NHS list.
2. The average Net Ingredient Cost per item.
3. The average Net Ingredient Cost per person.

The comparable National and the relevant Family Practitioner Committee (FPC) area figures are shown, and for partnerships the individual figures and the partnership figures are given.

Where prescribing costs are considerably above average, or where a practice so requests for self audit purposes, DHSS arranges for the Prescription Pricing Authority (PPA) to prepare a computer print-out analysis of all items prescribed by the practice in the month under review. This is a complex document which can be daunting to those unfamiliar with it. Doctors in the Regional Medical Service familiar with these analyses are always available to visit practices to help prescribers get the maximum information from them.

It has long been recognized that there is a considerable gap between the basic information sent to all GPs and the full analysis. Although an increasing number of doctors are requesting analyses for self audit purposes it seems probable that many would prefer something in between the two in detail, and that a graphic presentation might have more impact than columns of figures.

In October 1982 all the GPs in one FPC area were sent their basic prescribing figures in the form of computer printed histograms showing the range of prescribing data for that area, and the position of the practice within it. In addition the doctors were asked whether they would like further prescribing information, and if so were invited to indicate which one of 3 levels of detail they favoured, the top level being a full analysis.

Since then the exercise has been repeated in a second FPC area. There has been an encouraging response to date. As computerization of the PPA proceeds this service will be progressively extended to cover all FPCs. It should also be possible to evaluate resulting changes in prescribing patterns.

This exercise is a co-operative venture undertaken by Heriot Watt University, PPA and DHSS.

GPs in NHS management

Doctors are spending more time in administrative work as the importance of their participation in management in the Health Service has been increasingly recognized. The place of GPs in the community services enables them to see the whole spectrum of medical care and they are able to bring to bear their broad expertise on the deliberations of management bodies at all levels. Although much of the business of District Management Teams is hospital orientated the contribution to the Team which can be made by GPs is accepted as an important and essential one. They can play a full part as a full member of a team of professionals. The extent to which this role is fulfilled however, has given rise to concern. Discussions have taken place between the Department, the GMSC and the RCGP on what steps might be taken to develop this role. The King's Fund and other interested bodies were involved. In collaboration with these organizations the Department arranged a small seminar at the NHS Training and Studies Centre, Harrogate in March. The aim was to look at some of the problems confronting the general practitioner in management; to try to come to some conclusion about what help should be given to those GPs involved and to consider how more GPs could be encouraged to play a part. Other initiatives on this theme were also taken, for example by the BMA in association with the Adult Education Department of Keele University and by the King's Fund. It was seen that a better appreciation of management was needed as it does not appear to be easy for many GPs to fit into the management role. Preparation, training, information and support were considered to be necessary. From the ideas generated further initiatives are being developed. Experimental courses will be introduced to establish the most useful and effective methods of preparing GPs for this comparatively new but developing role.

Microcomputers for GPs

In the report for 1981 it was forecast that in 1982 — the Year of Information and Technology — 150 general medical practices would be helped to purchase microcomputers under this scheme. Together with the other health departments of the United Kingdom, the Department of Industry and representatives of the profession, the DHSS produced a brochure describing the scheme. A copy was sent to all general practitioners and all interested practices were invited to apply for further information; nearly 2,000 did so. The further information package contained a questionnaire about practice size and geographical type. Practices were asked to declare continuing interest in participating in the scheme. 850 practices in England and a further 166 from the rest of the United Kingdom wished to be considered for the scheme. The systems on offer from two British companies each consist of three levels, each level being appropriate for small, medium or large list size practices. The chosen practices were required to contribute one half of the capital cost of the hardware and software.

The Health Departments and representatives of the profession expressed a wish for the opportunity to be taken to evaluate the changes, if any, that take place in organization in the recipient practices. To enable the evaluation to be effective it was agreed that the selection of practices should follow the needs of the evaluation process. A broad range of different practice types and sizes would be needed as well as a geographical spread. However the support of the practices and the evaluation would be provided in discrete areas and so clusters

of practices would be identified. It is proposed that a report of this evaluation will be published.

Family Practitioner Committee computing

At the offices of the administrator to these committees some activities are suitable for handling by computers. The registration department which deals with names and addresses of persons registered with general medical practitioners in the FPC area is one such activity. A system capable of undertaking this task has been developed by the Trent Regional Health in that region. A small number of Health Authorities in other regions have installed computer systems in FPC offices using the recommended hardware and the software developed by the Trent Region. These systems have the capability to produce up-to-date lists of names, addresses and dates of birth of persons registered with an individual GP or partnership. Those lists can be used by the general practitioner as an aid to practice management and patient care especially in the field of preventive medicine programmes.

Practice premises

The Department's specialist RMOs in practice premises visited 805 practices during the year, an indication of the continuing interest of GPs in improving their practice premises. Over £1.5 million was paid to GPs under the Improvement Grant Scheme 26.5% of which went to GPs in the Metropolitan Counties, a figure slightly up on previous years. Although the response to the General Practice Finance Corporation's new purchase and lease back scheme was slow at first, by the end of 1982 some 30 applications were at various stages of consideration with approval in principle amounting to approximately £5.0 million. A major development for the Corporation during the year was the introduction of variable interest loans as an alternative to the fixed interest loans for GPs wishing to improve or build practice premises.

Regional Medical Service

Tables 6.1, 6.2 and 6.3 summarize the work undertaken by the Regional Medical Service in 1982.

Table 6.1 References received, England 1982

Source	Type of reference	Number	(1981 figures in brackets)
DHSS	Sickness and invalidity benefit	487,800	(454,019)
	Injury benefit	18,295	(19,330)
	Maternity benefit	95	(144)
	Supplementary benefit	609	(1,175)
	Repeated short period claims	4,651	(2,954)
	Self certification	454	
Doctors	Form RM7 (request for 2nd opinion)	4,385	(5,118)
	Form Med 6 (vague diagnosis)	3,849	(4,073)
Department of Employment		28,196	(33,991)
EEC		44	(57)
	Total	548,378	(520,861)

Table 6.2 Sickness and invalidity benefits. Outcome of RMS examinations, England 1982

Opinion	of total references		of those examined	
		(1981)		(1981)
Not incapable of work	6.35%	(6.9 %)	16.20%	(18.08%)
Incapable of work	27.24%	(26.28%)	69.49%	(68.47%)
Incapable of work at present occupation but capable of suitable alternative work	5.60%	(5.16%)	14.29%	(13.44%)

Table 6.3 Types of RMO Visits, England 1982

	Number	(1981)
Routine	3,004	(3,154)
Prescribing	908	(422)
Misuse of Drugs Act	76	(73)
Practice Premises and organization	805	(847)
Other	408	(522)
Total	5,201	(5,018)

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MATERNAL AND CHILD HEALTH

Births and birth rate

The downward trend in the number of births in England, which began in 1980, continued during 1982, although the number of births in the last quarter was marginally greater than in the same quarter in 1981. Total births in 1982 were 593,450 or 1.4% fewer than the total of 602,100 in 1981.

These figures include stillbirths, which in 1982 totalled some 3,731, some 208 fewer than in 1981 when the number of stillbirths was 3,939.

The birth rate for 1982 was 12.6 (provisional) compared with 12.8 in 1981 and 13.3 in 1980. Because of the increase in the number of women of child-bearing age, it had been expected that birth numbers would rise progressively during the decade. However, the fall in birth numbers, since 1980 has resulted from the fall in the birth rate which has more than offset for the increasing number of women of child-bearing age. The fall in the total number of births seen in 1981 and 1982 will only continue if the birth rate, which remained virtually static throughout the four quarters of 1982 was to decline further.

During 1982 there were 124,700 legal abortions among women resident in England. This represents a 1.9% increase compared with the 1981 total of 122,400. The ratio of abortions to total births in England during the year was 1:4.8.

Confidential enquiries into maternal deaths, 1976-78

In 1982 the 1976-78 Report on Confidential Enquiries into Maternal Deaths in England and Wales was published (DHSS, 1982b). It was the ninth triennial report of the series which started in 1952.

The report included 227 deaths directly due to pregnancy and childbirth, 'true' obstetric deaths, and 200 due to 'associated' causes. The 227 deaths represented over 99% of all the known true obstetric deaths. The 'associated' deaths were further sub-divided into indirect maternal deaths (97) and fortuitous deaths (103).

The overall maternal mortality rate (excluding abortion and anaesthetic deaths associated with abortion) during 1976-78 was 11.9 per 100,000 total births. There was a wide range between different regions, from 5.4 per 100,000 total births in Wessex to 18.0 in the North East Thames Region.

The four most common causes of maternal death were pulmonary embolism, hypertensive diseases of pregnancy, uterine haemorrhage and deaths associated with anaesthesia. The deaths were coded according to the 9th revision of WHO's 'International classification of diseases, injuries and causes of death', and this resulted in true obstetric deaths associated with anaesthesia, being allocated to a separate category.

Deaths from pulmonary embolism, the most frequent cause of death, showed an increase in this triennium, 45 compared with 35 in 1973-75, and the mortality rate also rose to 25.7 per million maternities from 19.8. In contrast, for the first time since 1967-69 there was an improvement in the number of deaths from

hypertensive diseases of pregnancy and in the death rates per million which fell from 20.3 to 16.6. This was mainly due to a fall in deaths from eclampsia from 21 in 1973-75 to 13 in 1976-78.

Haemorrhage from all causes was a major factor in 76 (33.5%) of the 227 true maternal deaths in the series. This included 26 deaths directly due to uterine haemorrhage, which was an increase from 21 in 1973-75 and resulted from an increase in post-partum haemorrhage, for which no single cause was identified. The other deaths from haemorrhage included those from ectopic pregnancy, rupture of the uterus and other causes separately classified in the report. The authors of the report strongly recommended that each obstetric unit should have its own agreed procedure for the treatment of catastrophic haemorrhage.

Thirty deaths were directly due to anaesthesia and in another 10 cases anaesthesia contributed to the death. Avoidable factors were judged to have been present in all but 2 of the cases, and most of these were attributed to a combination of low general standards of care in labour and poor administrative practices pointing to a need to review the anaesthetic services available in maternity units.

For the first time deaths from abortion were not in the first 4 main causes of maternal death. There were 14 deaths from all types of abortion of which 8 followed legal abortion. There were also 5 deaths from anaesthesia associated with abortion which would have been classified to abortion in the previous reports, making a total of 19.

Of the 227 deaths directly due to pregnancy 132 (58.1%) had one or more avoidable factors and 29 (14.5%) of the associated deaths had one or more avoidable factors. The proportion of true maternal deaths judged to have an avoidable factor was very similar to the 59.6% in 1973-75. Of the total of 234 avoidable factors, 105 (44.9%) occurred in the antenatal period, 90 (38.4%) during labour or an operative procedure and 39 (16.7%) in the puerperium or post-operative period.

Post-mortem examinations had been carried out in 212 of the 227 true obstetric deaths, and in 156 of the 200 associated deaths but were not always of a satisfactory standard. The central assessor in pathology made recommendations which he hoped will improve the standard of the post-mortem examinations in the future with the help of the Regional Assessors in pathology who have now been appointed to the Enquiry.

A more detailed summary of the latest triennial report can be found in the November 1982 issue of *Health Trends* (Cloake, 1982).

Availability of maternity beds

The relevant figures for 1981 were not available when the 1981 report went to press. However, these show there was little change compared with 1980. There were on average 18,176 beds in NHS hospitals available during 1981, a reduction of 230 from the 1980 total. Of these some 15,463 were in consultant units and 2,713 allocated for general practitioner maternity use. Average length of stay in consultant units was 5.7 compared with 5.9 days in 1980 and 4.2 compared with 4.4 days in general practitioner units. Bed occupancy in consultant units was 70.6% compared with 73.3% in 1980 and 41.7% compared with 44.8% in general practitioner beds. The overall bed occupancy was 66.3% compared with 68.8% in 1980.

In contrast the case: birth ratio continued to rise during 1981. There were 1.3 maternity admissions per NHS hospital birth, again reflecting the value now attached to antenatal admissions.

Perinatal mortality

In 1978 the perinatal mortality rate for England was 15.4 per thousand total births. In 1982 the perinatal mortality rate was 11.23 (provisional) a reduction of 25% in four years. In two of these years namely 1980 and 1981 the percentage fall in perinatal mortality was the largest ever recorded since data on perinatal mortality were first collected in 1928. Table 7.1 shows the number of perinatal deaths, stillbirths, and deaths in the first week of life during the years 1978-81 and their respective rates. The figures for 1982 are not yet available. From this it will be seen that the reduction in perinatal mortality reflects both fewer stillbirths and a smaller number of deaths in the first week of life. The fall in the perinatal death rate has been seen in mothers of all age groups, parity and social class. For the years 1978-1981 it will be seen that the proportion of stillbirths in which the primary cause of death was a congenital malformation decreased from 20.5% to 14.3%. This trend illustrates the decreasing proportion of stillbirths that are due to a congenital malformation. The OPCS linked files also permit more detailed analysis of the cause of death in the first seven days of life. It will be seen that between 1978 and 1981 congenital malformations are responsible for an increased proportion of first week deaths. These figures suggest some infants with congenital malformations, who in previous years would have been stillborn, are now born alive but succumb during the first week of life. However in contrast, Table 7.2 shows the reduction in the number of deaths of infants of low birthweight for 1972 and between the years 1978 and 1982. The data in this Table may be compared with Table 1.3 and Figure 1 on pages 8 and 9 of this report for 1981. The OPCS linkage of birth and first week death data shows the extent to which the birth of infants with congenital malformations is now contributing to the remaining total of perinatal deaths; and the increasing importance of low birthweight in the aetiology of perinatal deaths. However the downward trend of perinatal deaths among infants of all weight bands, that was noted in this report for 1981, continued during 1982.

Screening for congenital malformations

Since antenatal screening for neural tube defects (anencephali and spina bifida) was introduced the number of babies born with these malformations has decreased. In 1978 there were 1,757 infants in whom a malformation of the central nervous system was notified to OPCS, following their birth. By 1982 this figure had fallen to 990, a reduction of over 40% during a time when the total number of births had increased by 4.9%. The screening programme for neural tube defects has reduced the number of such births. In contrast the number of births in which chromosomal abnormalities were notified to OPCS has increased 503 in 1978 to 594 in 1982. These figures suggest that prenatal screening for Down's Syndrome and other chromosomal abnormalities has had little impact. However this reflects the limitations of the current methods of prenatal screening for chromosomal abnormality as it has always been recognized that the use of amniocentesis and cytogenetic analysis would only have a marginal impact on the number of births with chromosomal abnormalities. Unlike the alpha-feto protein screening method for neural tube defects which utilizes a preliminary blood test to identify women who may require an amniocentesis, there is at present no similar blood test or other

investigation that can be used as a preliminary screening method for the prenatal diagnosis of chromosomal abnormalities. Amniocentesis, is normally therefore only offered to older women, or to those who have had a previously affected infant in whom the risk of a chromosomally abnormal fetus is as great as the 1-1½% risk of "spontaneous abortion" that follows amniocentesis. For the large majority of pregnancies the risk of amniocentesis is greater than the risk of a chromosomally abnormal fetus, and for this reason women aged less than 35 years are not generally offered prenatal screening for chromosome abnormalities.

During 1982 two new techniques were reported, which may substantially improve on the existing methods for prenatal diagnosis of chromosomal abnormalities and also for most inherited metabolic disorders. The first method described was 'chorion' biopsy which may be undertaken at 6-12 weeks gestation, and from which chromosomal abnormalities and inborn errors of metabolism may be identified.

Secondly, developments in molecular biology including specific gene probes and mapping of the human genome by use of 'restriction' enzyme techniques will provide the means of identifying various inherited metabolic disorders. Details of these techniques are described in a recently published monograph (Weatherall, 1982) and are beyond the scope of this report. However, the range of prenatal diagnosis of fetal abnormalities will be greatly improved if the potential of these techniques is as significant as recent research suggests.

Maternity Services Advisory Committee

In September 1982 the Maternity Services Advisory Committee, chaired by Mrs Alison Munro CBE, published their first report, *Maternity care in action: Part 1 antenatal care*. (Maternity Services Advisory Committee 1982). The Committee, which represents the interests of obstetricians, neonatal paediatricians, general practitioner obstetricians and midwives and has two lay members, intend the report to be a guide to good practice in all aspects of antenatal care. The report itself lays emphasis on the need for co-operation between all professional staff who attend the mother during her pregnancy and for good communication between professional staff and mothers. Good clinical care should provide not only for the mother's physical but also her emotional needs. The report contains chapters on confirmation of pregnancy and initiation of care, initial assessment, subsequent care and the organization of hospital antenatal clinics. Each chapter concludes with an action check-list which Health Authorities and professional staff may use to examine their own services with a view to making the best use of the skills and resources available in hospitals, community services and general practice. The report emphasizes that improvements can be made in the provision of antenatal care by changes in attitudes and procedures which would not, in themselves, involve additional expenditure.

The Committee is the first forum, in recent years at national level, in which all the professions involved in the provision of maternity care have been represented. The emphasis on inter-disciplinary co-operation is reflected in the report's principal recommendation that each Health Authority should establish a local Maternity Services Liaison Committee, with all the appropriate groups represented, to review local arrangements and procedures,

and to ensure the best use of resources in the light of local circumstances and needs. The report was widely circulated and has received a warm welcome from professional and lay bodies.

After completing this report the Committee were invited by Ministers to consider care for women during confinement. This will be the subject of the Committee's next report.

Government inquiry into human fertilization and embryology

The birth of the first 'test tube' baby at Oldham General Hospital in 1978 began an era in which external fertilization of human eggs might be considered as a possible way of overcoming infertility in the female due to disease or absence of the fallopian tubes. Since that birth the *in-vitro* fertilization method has spread around the world. While the success of the method gave hope to many couples who otherwise would have had no chance of achieving a pregnancy, the possibility that *in-vitro* fertilization might lead to experimentation on human embryos at the earliest stages of development has also been the cause of concern. In July 1982 the Government announced that it had decided to set up a wide ranging Inquiry to consider the social, ethical and legal aspects of developments in techniques that may be used to modify human fertilization and embryology. The Committee of Inquiry will be under the chairmanship of Mrs Mary Warnock, and membership of it is multi-disciplinary. Its terms of reference are:-

"To consider recent and potential developments in medicine and science related to human fertilization and embryology; to consider what policies and safeguards should be applied, including consideration of the social, ethical and legal implications of these developments and to make recommendations".

The Department of Health and Social Security has the lead responsibility for the Inquiry and the Scottish, Welsh and Northern Ireland Offices and the Department of Education and Science and the Lord Chancellor's Department are co-sponsors.

At its first meeting in October the Inquiry decided to seek evidence from nearly 300 medical and scientific bodies, universities and Health Authorities. In November the Inquiry sent out invitations to all relevant organizations to submit evidence.

Membership of the Inquiry is broadly based including doctors, lawyers and other relevant professions such as those with experience in family policy and child care fields.

Family planning

In 1982 the total number of women who received family planning services from their general practitioners was 2,191,000 an increase of 4.7% from the 1981 total of 2,092,000. No information is available on the type of family planning provided by general practitioners, except for IUD insertions. In 1982 these number 107,000 compared with 103,000 in 1981. The number of general practitioner principals providing a family planning service at the end of 1982 was 22,130 (97% of all NHS principals).

Table 7.1 Stillbirths and deaths in the first week of life, England 1978-1981

	All stillbirths		Stillbirths due to congenital malformations		Col (3) expressed as percent-age of Col (1)		All deaths in first week		First week deaths due to congenital malformations		Col (8) as a percent-age of Col (6)		Perinatal deaths	
	Number (1)	Rate (2)	Number (3)	Rate (4)	Number (5)	Rate (6)	Number (7)	Rate (8)	Number (9)	Rate (10)	Number (11)	Rate (12)		
1978	4,791	8.4	983	1.7	20.5%	3,975	7.1	979	1.7	24.6%	8,766	15.4		
1979	4,811	7.9	883	1.5	18.4%	4,028	6.7	1,035	1.7	25.7%	8,839	14.6		
1980	4,523	7.3	783	1.3	17.3%	3,793	6.1	1,076	1.7	28.4%	8,316	13.4		
1981	3,939	6.6	563	0.9	14.3%	3,105	5.2	905	1.5	29.1%	7,042	11.7		

The number of people attending family planning clinics (1,457,700) fell by less than 1% during the year, while total attendances were 3.1 million, a fall of less than 2% compared with 1981.

The method of birth control adopted at the time of the person's first visit to a family planning clinic in England is recorded in Table 7.3. From this it will be seen that the number of women using oral contraception has continued to rise while the number of women using IUDs fitted in clinics has again fallen. During the year interest in the lay press in the safety of both oral contraception and the use of IUDs has continued. Observation of the figures for use of these methods of contraception over the past decade shows that adverse press reports on the safety of either method may be followed by a decrease in their use. However oral contraception is still chosen by 57% of all women attending clinics and IUDs by 17%. The only other methods that attract large numbers of clinic attenders are sheaths, (which are not available from general practitioners providing family planning services) and caps and diaphragms. Over the past four years there has been a small increase in the use of the sheath among those attending family planning clinics. In the same period the popularity of the cap and diaphragm increased between 1979 and 1980 but has since declined.

Abortion

In January 1982 there were 63 nursing homes approved under the Abortion Act. During the year 8 applications were considered, 3 of which were granted, 2 not proceeded with, and 3 were outstanding at the end of the year. 12 nursing homes did not seek reapproval during the year and at the end of the year there were 54 nursing homes approved.

There were 40 Pregnancy Advice Bureaux on the register in January 1982. A further 4 were registered during the year (including one which was given only temporary registration) and 5 Bureaux were removed from the register following their closure. At the end of the year there were 39 registered Pregnancy Advice Bureaux with one application under consideration.

Legislation relating to abortion

A Bill to amend and restrict the criteria for abortion, as set out in Section 1 of the Abortion Act 1967, was introduced into the House of Lords by Lord Robertson of Oakridge. The Bill was debated on 6 December when it failed to obtain a Second Reading.

Table 7.2 Low birthweight infants 1972 and 1978-82 England

Year	Stillbirths	Livebirths				
		Total	Deaths in 1st week	% Deaths at 1 week	Deaths in 1st 4 weeks	% Deaths at 4 weeks
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
1972	4,893	45,382	4,333	9.5%	4,769	10.5%
1978	3,105	37,068	2,585	7.0%	2,958	8.0%
1979	3,125	40,750	2,670	6.6%	3,030	7.4%
1980	2,999	42,474	2,501	5.9%	2,872	6.8%
1981	2,570	40,799	1,990	4.9%	2,315	5.7%
*1982	2,289	40,393	1,962	4.9%	2,282	5.6%

* Provisional

Table 7.3 Method of birth control adopted at time of patient's first visit to clinic (England)

Method	1982 (thousands)	1981 (thousands)	1980 (thousands)	1979 (thousands)
Oral contraception	833.4	820.1	799.8	802.2
IUD	245.2	266.9	307.9	317.2
Cap/diaphragm	114.0	119.9	122.0	117.4
Sheath	146.3	144.0	142.4	141.0
Chemical methods	8.4	9.2	10.1	12.4
Rhythm method	0.3	0.6	0.2	0.2
Sterilization	2.2	1.5	1.2	1.8
Vasectomy	14.1	14.8	15.7	15.6
Other	8.1	9.6	8.3	9.1
None	85.7	80.4	80.1	72.7
Total	1,457.7	1,467.1	1,487.8	1,489.6

Adoption

The changing focus in adoption work has led to an expanding role for medical advisers in adoption agencies. The concept of the adoptable child now includes older children and those with special needs. The health of natural and prospective parents must be considered in a new way, and the prospective parents fully advised regarding the present and future health needs of the child. The medical adviser co-ordinates all medical aspects and should take a full part in the work of the adoption panel.

This new emphasis is reflected in the medical input to the Department's work on further implementation of the Children Act 1975, in particular sections 4-7 and 32, which were finalized in 1982. (Children Act, 1975).

Firstly, Sections 4-7 provide for the previous system of local authority registration of adoption societies to be replaced by a system of approval by the Secretary of State which will last for three years at a time. These sections came into force in February 1982, and work on the approval of registration of the 39 voluntary adoption societies continued throughout the year. The societies must show that they have made careful and adequate arrangements for full medical advice.

Secondly, Section 32 enables adoption agencies to submit schemes for the Secretary of State's approval under which allowances may be paid to adopters of children, some of whom may be handicapped. From February 1982, such schemes have been submitted in increasing numbers. The schemes will be monitored for the Department, and the Secretary of State will publish a report on this experiment in due course.

As stated in this report for 1981 (page 71) a review of the Adoption Agency Regulations was carried out in 1981 on behalf of the Department, by a Working Party of the British Agencies for Adoption and Fostering. The Working Party's report (British Agencies for Adoption and Fostering, 1982) was sent

out for wide consultation during 1982, and the extensive comments received (including comment on adoption medical practice) are being collated and considered. Work will continue on these Regulations.

Child abuse

The DHSS Review of Enquiry Reports was published in September 1982 (DHSS, 1982a). The review was carried out by a small group of Departmental administrative and professional staff representing social work, medicine, and nursing, in response to requests from the field to provide an analysis of reports published between 1973-1981.

During 1982 the report of the inquiry set up by the London Borough of Bexley and the former Greenwich and Bexley Area Health Authority to consider the case of Lucie Gates was produced and is available from Bexley Civic Offices, Broadway, Bexley Heath, Kent, DA6 7LE.

A Research Seminar was held in Oxford in November 1982, organized by the Thomas Coram Research Unit in conjunction with the DHSS. This successful meeting brought together prominent research workers to identify the most important gaps in knowledge, to explore the feasibility of further research, and to identify those projects which would be of most use to practitioners in this difficult and emotive field.

Services for the under fives

A new initiative was taken in March 1982 by the Inter-departmental Consultative Group on the Provision of Services for the Under Fives, at their meeting with the Local Authority Associations, the National Association of Health Authorities and voluntary organizations.

Recommendation 39 of the Home Affairs Select Committee was discussed, which urges central government and local authorities to look at ways of coming closer to meeting the needs of ethnic minorities for services. The Committee set up a sub-group to consider a practical response to this recommendation. The sub-group has met at monthly intervals since July 1982 and will report to the main group in Spring, 1983. It includes representatives from interested Government Departments (the DHSS, the Department of Education and Science, the Department of the Environment and the Home Office), the National Association of Health Authorities, voluntary associations and the Commission for Racial Equality.

The Secretary of State announced in the House of Commons on 6 December 1982 that an extra £2m would be available in 1983-4 towards support for work with pre-school children and helping voluntary bodies who work with under fives or support families with very young children. It is hoped, in particular, to encourage schemes which benefit disadvantaged families - one parent families, those on low incomes where both parents need to work, families with very young children where the parents need help in order to cope, and young children from ethnic minorities. Officials have been discussing ideas with voluntary bodies to identify ways of achieving these objectives.

Children in care

In July 1982, the Social Services Committee of the House of Commons announced that their first enquiry of the 1982/83 session would be *Children in Care*. The Committee intended to enquire into most aspects of policy and prac-

tice connected with children in the care of local authorities. They expected to give particular attention to the implementation of the relevant provisions of the Children Act, 1975; the social and financial implications of the shift from residential to community care (fostering); the problems facing those caring for children and the way in which they are dealt with; and the role of the voluntary sector. The British Paediatric Association, the Faculty of Community Medicine and The Royal College of Psychiatrists among others, were invited to give oral evidence.

The prevention of childhood accidents

This report for 1981 (page 68) mentioned the BBC series *Play it Safe* which dealt with common accidents to children and how they could be prevented. The set of programmes was so successful that it was repeated three times during 1982 and continues to draw world-wide interest. The series was part of a number of interlinked activities, including the issue of a booklet (Health Education Council, 1981) and the formation of local initiative groups; and the campaign was supported by a co-ordinating committee on which the DHSS was represented. In November 1982 a seminar at the BBC was devoted to evaluation of the programme.

During the year the Child Accident Prevention Committee took charitable status and became a Trust.

The work of the Child Accident Prevention Trust is devoted to promoting a growing awareness of the problem of childhood accidents, still the main cause of death in children aged 1-15 years. The Trust's Report of the Working Party on Architectural Glass Accidents to Children was published in February 1982 and has been well received (Child Accident Prevention Trust, 1982). Other Working Parties set up in 1982 were on Burns and Scalds and on Local Initiatives. DHSS and other relevant Government Departments are represented on the Executive Committee of the Trust and DHSS provides grant aid.

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DENTAL HEALTH

General dental services

The numbers of permanent teeth filled or extracted decreased by only 1.1% last year. The number of teeth conserved by endodontic treatment increased by over 10% and the number of teeth restored by crowning increased by over 7% in 1982. 60,000 bridges were provided, an increase of 44% over the figure for 1981 which itself was an increase of 37.6% over the 1980 figure. The number of treatments requiring general anaesthesia was 531,000, a decrease of 9% over the figure for the previous year.

In 1982 dental officers in the reference service of the department examined 22,451 patients in regard to the provision of treatment under the general dental services but for whom orthodontic treatment was not involved. Where proposed treatment was being considered, the dental officers were in complete agreement, or with slight modification, to 64.7% of the treatment plans. For patients whose treatment had been completed, 61.8% were, in the dental officers' opinion, dentally fit but 35% were not completely satisfactory. In 3.4% of the patients seen the dental officers considered that they had not had the majority of their treatment completed satisfactorily or that they required a considerable amount of additional treatment. In connection with the provision of orthodontic treatment 1,151 patients were examined. Of the 683 cases referred for examination before the commencement of treatment, the treatment plans of slightly less than 10% received unqualified agreement. In a disturbing 10% of cases treatment had already, at the time of the dental officers examination, been commenced. 421 patients were examined at the end of treatment and in only 39 cases had treatment been completed satisfactorily in all respects. The general standard of presentation of cases by the profession could often be improved, and this criticism extends to cases from practices limited to the provision of orthodontic treatment.

Hospital dental services

The number of dentists working in the hospital dental service in England and Wales (excluding hospital practitioner and paragraph 107 appointments), at 30 September 1982 was 1,306, an increase of 34 over the previous year. The number of women working in the service continues to grow and currently amounts to 19.8% of the total. This compares with 18.6% of all dentists registered on 1 January 1982 being women. Only 3.1% of consultants are women as opposed to 3.9% last year and 11.6% for all medical hospital specialties.

There has been further specialty reclassification of staff between Oral Surgery and Restorative Dentistry. Even so, the numbers employed in both have increased to 862 and 175 respectively. The numbers of staff in the specialty of orthodontics increased further to 269.

Community dental service

By the beginning of 1981 the maintained school population was less than 8.2 million. Almost 5.3 million school children were inspected and 1.2 million

received treatment during the year. The reduction in the prevalence of dental decay in children noted in recent years has meant less treatment having to be provided for each patient. Small increases have been recorded in the numbers of children under 5 years and handicapped adults being inspected and cared for by the community dental service. Overall, however, despite some increase in the number of dental officers employed, the number of persons treated by the service has continued to decline each year. Compared with 1976 the W.T.E. of clinical dental officers increased by more than 4% but the number of patients treated by the service decreased by almost 9%.

Dental materials research and standards

During the year progress continued to be made at Newcastle not only in connection with the comparison of the mechanical properties of the carbon fibre reinforced polymethyl methacrylate material but also with the clinical trials. As far as the patients involved in the trial are concerned, they completely accepted in their reinforced dentures the one small black area behind the upper incisors resulting from the natural colour of the carbon fibres.

The work at Birmingham to develop suitable methods of screening dental materials for toxicity continues. Work at the Laboratory of Government Chemist continues on the assessment of marginal adaptation of various types and classes of restorative materials and new work to improve a modified glass-ionomer cement system has been started in the hope that the replacement of silver amalgam as the standard posterior restorative material will soon become possible.

Work done on dental gold solders has now resulted in a document which has gone forward for publication as a revision of the existing British Standard.

Dental Strategy Review Group

The Secretary of State presented the Government's considered reaction to the report of the Dental Strategy Review Group in a speech delivered at a British Dental Association Presidential Luncheon in October, 1982. He indicated that the government warmly welcomes the report before concentrating on a few of its major and more strategic recommendations. The Group's approach had been clearly an evolutionary one and whilst the Government intended to approach it positively, the programme for implementation would need to be phased. The Secretary of State then went on to outline some of the first steps the Government intended to take to translate into action its firm support of the overall strategy. These would include:-

Prevention and preventive treatments:

Setting up a feasibility study into the distribution of fluoride tablets in schools and including topical fluoride therapy in the scale of fees as an item requiring prior approval for those patients with special needs.

Evaluating existing research into the effectiveness of Fissure Sealants.

Health Education:

Stimulating health authorities to mount local campaigns and dental surveys of their own.

Capitation:

Setting up a pilot study to test the feasibility of a capitation type system of payment to dentists for the treatment of young children.

Vocational training:

Participating in discussions with the General Dental Council, British Dental Association and the University Grants Committee to determine how best to proceed in consideration of the proposal to introduce vocational training for all new graduates.

Manpower:

Awaiting the outcome of the deliberation of the Departmental Manpower Working Party before reaching a firm decision on the need to reduce the number of students entering undergraduate dental education and to make arrangements for future Dental Manpower needs to be kept under constant review.

Closure of New Cross School for Dental Therapists

The decision to close the School for Dental Therapists Limited was confirmed in January 1982, chiefly because the number of trained therapists far exceeded the posts available for them. Arrangements have been made for the training of 8 therapists per year at the London Hospital Dental School from autumn 1983 and the possibility of further training of therapists elsewhere is being examined.

Dentists Bill

On average the Dentists Act has been revised about every 25 years. The last time this took place was in 1956-57. In the autumn a new draft Dentists Bill was published and given its first reading in the House of Lords in November. Its major proposal was the establishment of Health Committee within the General Dental Council who would be able to consider a dentist's fitness to practise. It would become possible for the first time to suspend a dentist from practising for a set period of time if his health was seriously impairing his ability and safety to practise. Other proposals included an extension of the General Dental Council's disciplinary powers, of their responsibilities into the field of postgraduate as well as undergraduate education, an increase in the number of elected representatives to the Council and the establishment of a separate list of specialist dental practitioners in the Dentists Register.

Dental practitioners' formulary

A new edition was produced in late 1982 which, in response to representations from the dental profession, was combined with the British National Formulary (No 4 edition) for issue to dentists. It should enable dental practitioners to recognize and readily assess the dental implications of medically prescribed drugs and preparations which their patients may be taking and, in particular, makes available to dentists much fuller information on interactions, adverse effects and contraindications.

The combined publication was distributed to all registered general dental practitioners on the Family Practitioner Committee's lists and District Health Authorities were asked to issue copies to dentists in the community dental

services. The combined edition will be current for at least two years, when its usefulness to dentists will be reviewed.

The revised Dental Practitioner's Formulary replaces the 1976-78 version and subsequent addendum. It contains a revised list of drugs and preparations, approved by the Secretary of State, which may be prescribed by general dental practitioners and dentists working in the community dental services on form FP 14.

MENTAL HEALTH

Introduction

In this Report for 1959 (page 127) the then Chief Medical Officer wrote that it was clear that the wind of change had been blowing through psychiatry. The change had started with the Mental Treatment Act of 1930 and had been accelerated by the NHS Act of 1946 and the introduction of the Mental Health Act 1959. Some would say that the wind of change has continued to blow since then, with intermittent strong gusts! This has been especially so recently with the passage of the Mental Health (Amendment) Act 1982 which received Royal Assent on 28 October 1982. The new Act which made substantial amendments to the 1959 Mental Health Act is discussed in Chapter 9. Its provisions will, for the most part, take effect from 30 September 1983.

Drug and solvent misuse is escalating. The Report of the Advisory Council on the Misuse of Drugs in Treatment and Rehabilitation made wide-ranging recommendations to improve and extend services for drug misusers. Initiatives to help solvent misusers were also started in 1982. Concern continues over the harm arising from alcohol misuse.

Public interest has recently been shown in the role of physical treatments in psychiatric practice, especially electro-convulsion therapy. The Report of the Royal College of Psychiatrists on Electro-convulsion Treatment in Great Britain, 1980 was published in November 1981. Subsequent action on this Report is outlined in the section on Electro-convulsion practice.

Mental health legislation

The Mental Health Amendment Bill began in the House of Lords in November 1981 and made its way to the House of Commons in April 1982 where it was dealt with by means of a Special Standing Committee. The Committee sat in public on 22 occasions between April and June and received both written and oral evidence from the Home Office, the Lord Chancellor's Department, chairmen of mental health review tribunals, social workers, psychologists, nurses, Mind, the National Schizophrenia Fellowship and the Royal College of Psychiatrists and representatives of special hospitals.

The challenge was for the House to reconcile disparate views in the best traditions of democracy. It is generally accepted that a satisfactory balance has been achieved.

Some of the important changes made are:-

1. A special health authority to be called the Mental Health Act Commission is to be set up to protect the interests of detained mental patients. (There is power in the Act for some of the Commission's functions to be extended to informal patients but this is unlikely to be brought into

operation for a few years). The Commission will be multidisciplinary and will have a key role to play in new provisions governing the treatment of patients. Its members will visit detained patients and investigate complaints and it will review the use of powers of detention. It will also produce Codes of Practice on admissions procedures for detained patients and on matters related to the treatment of mental disorder.

2. New requirements regarding the treatment of detained patients for their mental disorder will be introduced. There will be 3 categories of treatments:

(a) some treatments — such as psychosurgery and other treatments to be specified in regulations — will require both the patient's consent, independently attested, and a second opinion from a doctor appointed by the Mental Health Act Commission. (The special provisions for this very limited category of treatments will also apply to informal patients).

(b) other treatments also to be specified in regulations — such as ECT and prolonged drug treatment — may be given without consent if an independent doctor appointed by the Commission agrees, after consulting two people from other professions who have been concerned with the patient's treatment.

(c) other drug treatment may be given for up to 3 months without consent and without a second opinion, on the authority of the responsible medical officer.

There will be special provisions to allow urgent treatment. Treatments under (a) and (b) will be subject to periodic review.

3. The period before detention for treatment has to be reviewed is to be halved. This means that detained patients will have twice as many opportunities to apply to Mental Health Review Tribunals. Patients detained under the 28 day power will also be able to apply. There will be automatic tribunal reviews after the first 6 months for non-offender patients and then every 3 years for all detained patients who have not applied in the meantime. Tribunals will have authority to discharge restricted patients and to recommend in respect of any patient one of a range of other options. Applicants to tribunals will be able to have legal assistance by way of representation, although this is not actually in the mental health legislation.

4. The new term 'mental impairment' being introduced instead of 'sub-normality' for the abnormally aggressive or seriously irresponsible mentally handicapped people who need to be detained. For those suffering from mental impairment or psychopathic disorder, detention for treatment will be possible only if the person is thought to be treatable.

5. Tighter time limits will be imposed on compulsory emergency admissions on the signature of a single doctor so as to avoid misuse of the emergency power.

6. There will be a legal obligation on hospital managers to do what they can to ensure that detained patients understand their legal status and their rights and also to give written information to the patient's nearest relative if possible.

7. Social workers will be more involved even where the nearest relative has applied for the patient's admission. From 20 October 1984 mental welfare officers will be replaced by approved social workers who will be specially trained for their work under the Act.

8. Where a doctor is not immediately available, certain nurses will be authorized to detain, where necessary, someone already in hospital as an informal patient for up to 6 hours.

9. New powers will enable a Court, after appropriate consultation, to remand a person to hospital for a report or treatment or to make an interim hospital order, so that the Court can assess whether a mentally disordered person appearing before them ought to be made the subject of a hospital order. These remand and interim order provisions will be phased in gradually in the next 2 to 3 years.

10. Regional Health Authorities will be required to give information to the Courts on request, about what hospital places are available for a mentally disordered offender.

11. Provisions concerning legal proceedings against staff carrying out their work under the Act are being changed so that permission for criminal proceedings will be sought from the Director of Public Prosecutions rather than the High Court. The word 'substantial' has been deleted from the requirements to show grounds of bad faith or lack of reasonable care on the part of the member of the staff before permission is given.

12. From 1 April 1983, informal patients in mental hospitals will be able to make a declaration which allows their names to be included on the 1984 electoral register.

The Mental Health (Amendment) Act 1982 received Royal Assent in October, 1982. The provisions will take place from 30 September 1983, by which time the 1959 Mental Health Act and the Amendment Act 1982 will be consolidated in a new Mental Health Act.

The Bill generated considerable interest, mental health has become not only an issue for the patients and the professionals involved, but an issue for voluntary organizations and pressure groups, and an issue for relatives and friends, indeed a matter of wide public concern. It is from this wider perspective that we must look at this new Act and look forward to the professions and others working together so that 'the spirit' of the legislation carries on the change which was heralded by the Mental Health Act 1959, into an era of improved practice and services for the mentally ill.

Electro-convulsion practice

The Royal College of Psychiatrists was commissioned by the Department to undertake a survey of electro-convulsion (ECT) practice in Great Britain in 1979 and their Report was published in November 1981. (Royal College of Psychiatrists, 1981). The report was not concerned with the efficacy of ECT or the indications for its use but with the way that it is given. The survey collected information by means of a questionnaire sent to all likely practitioners using ECT and to about 90% of all places where ECT is given. This was followed up by visits to a number of these clinics to see the conditions in which ECT was

administered. More than 3,000 psychiatrists were sent questionnaires and 86% supplied sufficient material for analysis. In these respects the survey was a major medical audit of ECT practice.

The report highlighted a number of areas of concern in respect of the training and supervision of junior doctors in the practice of ECT, the attitude of nurses to its use, the setting and staff resources made available for ECT and the state of the equipment used.

On publication of the report the Royal College of Psychiatrists set up a special committee on ECT to draw up guidelines on good practice in its use. At the same time the Secretary of State announced the setting up of a working group to consider the suitability of ECT equipment in use and its maintenance.

The Royal College of Psychiatrists' special committee includes representatives from the RCN, RCGP and the Faculty of Anaesthetists. In 1982 it produced a wall chart detailing key points in the technique of administering ECT and this has been widely distributed within the NHS. The committee hopes later to produce a booklet with guidance on good practice for professional staff involved in giving ECT. It has also made available an advisory service on equipment and techniques.

The working group set up by the Secretary of State included both Departmental officials and outside experts. Its report entitled *Electro-convulsive Therapy Equipment* was issued under HN(82)18 in May 1982 (DHSS 1982a). The report recommends the replacement of certain types of ECT equipment in the NHS and provides information about models currently available for consideration as replacements. Attention is drawn to the role of the manufacturer in maintenance and the need for inspection and testing of all ECT equipment is emphasized. This Health Notice also draws attention to the availability of Dr Pippard, Co-author of the ECT survey, to discuss good practice and to advise on the ECT equipment available.

Alcohol misuse

The report *National Voluntary Organizations and Alcohol Misuse*, resulting from a joint study by officials of the DHSS Policy Strategy Unit and of the National Council for Voluntary Organizations into the work of voluntary bodies concerned with the problems of alcohol misuse, was published in April (DHSS 1982b). It suggested that there were serious deficiencies in voluntary work because of overlapping between the national bodies; the National Council on Alcoholism, the Medical Council on Alcoholism, the Federation of Alcoholic Rehabilitation Establishments and the Alcohol Education Centre. The Report recommended that a new national voluntary body should be concerned with the development of local services and training and take over the work of the existing 4 organizations. The Report did not see the same body being concerned with prevention.

Some 70 organizations and individuals commented upon the report. Their comments showed general agreement on the need for a new body that should cover both prevention and treatment.

Having carefully considered all the comments that have been made, Ministers decided that they would prefer to make funds available to a single new national voluntary organization in place of the existing four. These funds would be available to enable the new body, within the Department's current policy framework, to:

1. Encourage and facilitate extensions of local services and training initiatives, especially local councils on alcoholism;
2. Assemble and provide information on alcohol misuse for public debate and provide information and briefing material for local voluntary agencies;
3. Co-operate with the Health Education Council and other agencies concerned with health education.

Ministers invited each of the existing 4 voluntary organizations to nominate 2 members of its Executive Committee to a steering group to see how such a body might be established, funded and organized. The steering group would be chaired by an independent person appointed by Ministers and a secretary would be provided from the Department's staff.

By the end of the year, all 4 organizations had agreed that a steering group should be set up with a view to bringing a new organization into being.

Drug and solvent misuse

The escalation of drug misuse noted in this Report in 1981 (page 27) continues. The number of new narcotic addicts notified to the Home Office Index in 1982, was 2,800, 75% of whom claimed addiction to heroin, with a total end of year figure of 4,400.

Results from two drug indicator research projects, funded by the Department, in two disparate conurbations suggest that these figures may represent a fivefold under-estimate. In addition there may be a similar number misusing other drugs.

The report of the Advisory Council on the Misuse of Drugs in Treatment and Rehabilitation was published in December (DHSS 1982c). It noted the serious increase in drug misuse and the changing nature of the problem, and made wide ranging recommendations to improve and extend service provision.

As the first step in responding to the Report, additional central funds of £2 million are to be made available by the Department in 1983/84 and a similar sum in each of the following two years. The aim of this initiative is to encourage health and local authorities and voluntary bodies to bring forward projects for improving services for drug misusers more rapidly than would otherwise be possible.

The Department initiated wide consultation on the report. On the most urgent recommendation, to extend the requirement for doctors to be licensed before prescribing dipipanone '*Diconal*' in the treatment of addiction the Home Office initiated consultation with professional and other organizations concerned.

Solvent misuse among young people continues to cause concern. The policy of encouraging local low key multidisciplinary response has been pursued. A paper providing an overview of the subject was published in *Health Trends* in May (Black 1982). The Department underwrote a multi-professional training seminar in Birmingham in October.

Government initiatives to support local agencies were reported in the House of Commons on 26 October 1982 by the Parliamentary Under Secretary of State for Health and Social Security, when he referred to forthcoming consultations (in 1983) on solvent misuse with statutory and voluntary bodies and retailers.

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SERVICES FOR THE PHYSICALLY HANDICAPPED

Services for the disabled

The problem of preventing unnecessary disablement, and of providing services for those who are disabled was the subject of world-wide debate and activity during 1981, the International Year of Disabled People (IYDP). The DHSS intends to maintain this impetus as its report — *IYDP and After — the UK Response* (DHSS, 1982) made clear. This report described the range of activities generated by IYDP and outlined future aims.

It is encouraging to record some of the achievements of 1982. Particular credit must go to the increasing numbers of voluntary organizations whose resourceful and determined efforts have been recognized by a steady increase in Section 64 grants. These grants help meet the central administrative costs of national voluntary organizations. In 1981/82 some £2 million was provided for those concerned with the physically and sensorily disabled. Activities of the voluntary sector range from the daily caring tasks of the Association of Crossroad Care Attendant Schemes to more venturesome projects such as the Winged Fellowship Trust. In 1982 £3.8m was made available for the Family Fund which is administered by the Joseph Rowntree Trust using funds provided by the Government. This helped to ease the burden on families of disabled youngsters by providing them with articles such as washing machines and by financing outings for them.

Younger disabled units (YDUs)

There are 77 established YDUs which are increasingly providing rehabilitative short-term care and holiday relief in addition to the original task of providing long-term care for people suffering mainly from degenerative diseases.

Spinal units

Building work at the replacement spinal unit at Stoke Mandeville and the new units at the Royal National Orthopaedic Hospital, Stanmore and Odstock Hospital, Salisbury made progress during the year and are now at an advanced stage. Her Majesty the Queen and HRH Prince of Wales have agreed that the unit at Odstock shall be named the Duke of Cornwall Spinal Treatment Centre. When all three of these units are open and operational there will be nearly 400 beds in spinal treatment units in England. The number of patients with traumatic lesions of the spinal cord remains about 1,400 per annum. Most are due to road traffic accidents and sports injuries with a relatively high proportion of young men. Due to improved rescue techniques and intensive care the proportion of severely-injured, high-dependency patients who survive has continued to increase. With the introduction of seat belt legislation the numbers injured on the road should decrease. On the other hand adolescents and young adults with spina bifida, who had hitherto been cared for by paediatric services, are now making more demands on spinal units.

The success of conservative methods of treatment is well established; the development of other and more radical methods is now beginning to be seen.

The advance of technology offers paraplegics and others the possibility of a range of surgical techniques, aided walking by means of computers and the use of bladder implants to enable sphincter control. Successful initial trials, some of them in the UK, using these techniques have already been conducted.

New treatment policies have yet to be fully evaluated but nonetheless offer exciting possibilities. The Orthotics Research and Locomotor Assessment Unit at Oswestry which receives long-term funding from DHSS for the development of lower limb appliances had produced a successful swivel walker and initial trials with paraplegic patients are encouraging.

The hearing impaired

The range of NHS hearing aids has recently been extended by the introduction of three new series of high powered aids. This extended range caters for the needs of all but a few patients and for these health authorities are now able, where a consultant considers it necessary, to provide a commercial model. The development of the centrally funded scheme for the training and initial establishment of hearing therapist posts continues and there will be a further training course in 1983/84. Hearing therapists mainly provide follow-up care for adult patients with special difficulties in adjusting to an acquired hearing loss. The report of a research study funded by DHSS to examine the role and training of hearing therapists is expected in early 1983. Section 64 grants included an additional £10,000 towards the 'Sympathetic Hearing Scheme' devised by the 'Panel of Four' national deaf organizations to encourage public awareness and participation in helping the hearing impaired. A grant of £60,000 was made to the Breakthrough Trust to replace obsolete teleprinters with electronic visual display units (Vistel).

The use of the Linco-Bennett Cradle in large-scale screening of new-born babies for hearing defects is currently being evaluated and the purchase of a further eight cradles to be installed in a number of NHS Hospitals has been announced.

Rehabilitation services

During the year two more rehabilitation centres (Queen Mary's, Roehampton and Leeds University Department of Rheumatology and Rehabilitation) were officially recognized as demonstration centres bringing the number so far designated to 28. An additional £326,000 has been allocated to medical demonstration centres for the purchase of new equipment.

Considerable interest has been shown in ways in which disabled people might be helped. For example, under an initiative funded by the Department of Industry, arrangements are being made to place a small number of micro-computers, with appropriate software, in hospital occupational therapy departments and Day Centres. The aim is to assess the value of computers for therapeutic purposes, particularly in relation to the care of long-stay patients. A training course for the occupational therapists who will use the equipment is to be held early in 1983 and the equipment will be delivered soon afterwards.

Communication aids centre initiative

Towards the end of 1981 the Royal Association for Disability and Rehabilitation (RADAR) received a sizeable donation of money (spread over five years) from the Grand Charity of the United Grand Lodge for a project to

mark IYDP. As 1982 was Information Technology Year it was fitting that RADAR should propose a small network of communication aids centres as the project for funding. The implications of the new technology for assisting speech impaired people were at the time under consideration within the Health Department, and it was therefore decided to match RADAR's funds.

A joint RADAR/DHSS/ Welsh Office team identified possible locations, and arranged a programme of visits to health authorities to discuss the project and select the most suitable centres. The visits took place between August and December 1982; five centres (in addition to the one at Frenchay Hospital reported last year) were chosen — four in England and one in Wales. The English centres are in Hammersmith and Fulham District Health Authority, Newcastle District Health Authority, Sandwell District Health Authority and at the Wolfson Centre, Institute of Child Health, University of London.

The Centres will cover the needs of children and adults whose speech is impaired because of a defect in the anatomy or muscular control of the vocal tract: they primarily provide assistive or speech substitute aids for children with cerebral palsy and related disorder, for post-laryngectomy patients and for people with dysarthria. Some aids may help those dysphasic patients whose reading ability is intact.

The centres will concentrate on the assessment of patients and the evaluation of communication aids. They will also act as teaching and resource centres for speech therapists and other staff, and will contain a display of communication aids and a data bank.

The Department is simultaneously using pump-priming funds to increase the level of awareness in the NHS of UK-produced communication aids, particularly speech-substitute aids. Selected models will be placed in the Communication Aids Centres — and a few other centres with a special interest in the topic — during 1983.

Policy development for the visually handicapped

In response to a growing concern that service provision for visually handicapped people has not kept pace with advances in provision for other groups of disabled people Ministers have set aside resources within the Department to carry out a fact-finding exercise. This aims to identify major gaps in existing provision through a review of available sources of information on services; and by discussion with individuals and organizations concerned with service provision for this group. The exercise began in August 1982 and a series of visits is now planned to try and identify, on a multi-disciplinary basis, existing examples of good practice.

Revision of Form BD8

The Department is reviewing arrangements for the certification and registration of visually handicapped people. Currently the results of examination by a consultant ophthalmologist are recorded on a form, the BD8, which was last revised in 1968.

The form covers examination of the eyes, clinical assessment, certification of visual handicap and recommendations relating to treatment, education and employment. Many services for visually handicapped people are provided by the local authorities, either directly or by voluntary bodies on an agency basis, so it has been customary for the form to be transmitted in its entirety to Social

Services Departments. Recently the question of confidentiality has been raised, since many ophthalmologists (and the Ethical Committee of the British Medical Association) feel the medical information should not be transmitted to non-medical staff. There have also been criticisms, from other service providers who draw on BD8 information, of its usefulness in its present form.

Many service sectors have an interest in the needs of visually handicapped people, so that those concerned with health services, social security, employment, education and social services, as well as the voluntary organizations, will need to be consulted on the review of the BD8.

Reference

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THE ARTIFICIAL LIMB, VEHICLE AND APPLIANCE SERVICE

The artificial limb service

Until recently it was claimed by critics of the Artificial Limb Service that limb construction has not radically altered since the days of World War 1, when wood, metal and leather were the materials employed. The introduction of the British Modular limb into scheduled supply in 1973 did not still all criticism, it then being asked "why cannot the industry benefit from space-age technology?"

Two entirely new British modular limbs have now been developed and incorporate many modern features, for example, easily fabricated polypropylene thermoplastic sockets, the use of carbon fibre, and biomechanically efficient knee and ankle units.

The new prostheses are much lighter than their predecessors and benefit from an attractive soft one-piece foam cosmesis.

The two modular limb systems may be in advance of any other in the world. Both have satisfactorily passed their initial trials with scheduled supply to follow soon.

To take advantage of new thermoplastic socket fabricating techniques now available, attention is being paid to developing a satisfactory method of above-knee stump casting, and to introducing improved methods of casting at many other levels. Casting enables a more accurate replication of the stump to be made than that achieved by traditional measurement.

An extremely lightweight (1½ lb) one-piece polypropylene below-knee prosthesis is on limited trial at two Centres. However, no adjustments are possible once the prosthesis has been completed thus bringing the concept of 'throw-away' artificial limbs a step nearer reality.

Following discussion with the Thalidomide Trust and the Thalidomide Society, the Artificial Limb Service agreed to undertake a review of all thalidomide patients in England, Wales and Northern Ireland who either continued to wear artificial limbs or who had given up prostheses but would now like to be reconsidered. A start was made in December at Harold Wood ALAC and other Centres will follow next year. Roehampton provides a special team consisting of a doctor, senior prosthetist and a technical officer to undertake these visits and cooperate with the local medical officer and prosthetist in reviewing all limb prescriptions. It is already proving to be a most beneficial exercise.

An ongoing part of the Artificial Limb Service's work is to be familiar with prosthetic developments in other parts of the world. Various electrically powered elbows of overseas manufacture are presently being evaluated by our upper limb contractor. These are for use with above elbow amputees and are now being worn by four patients.

Progress with the myoelectric hand programme continues. The 2" and 2¼" prostheses are now readily available and a dozen of the 2½" hand have also been supplied. We can now cope with the children who were on the original

myoelectric hand trial, fitting them with the larger size hand as they grow, and older patients who were excluded originally can now be brought in, with the exception of those children who need a 2¾" hand as this is not yet available. However, development work is continuing on this size of prosthesis. As part of this programme, the rather rigid clinical criteria for the issue of myoelectric prostheses have been relaxed.

Roehampton hosted the Annual DHSS/RCS symposium on 22 October. Prominent speakers were Professor Harold Ellis, Professor R M Greenhalgh and Professor R B Duthie. The meeting was very well attended and among those present were four senior surgical specialists from the Armed Services. Additional interest had been created by the Falklands conflict which had only recently ended. The total number of patients referred to the Service on this account was 30 (5 arms, 25 legs).

New patients attending in 1982 numbered 5,524 (132 more than 1981) (Table 11.1). 186 of these were non-amputation cases, 136 having congenital limb deficiencies or malformations.

The overall ratio of male to female amputees was 2:1 (2.04:1 in 1981). In the age group 10-59 and 0-9 the ratios of male to female was the same as for 1981 (3:1 and 1:1 respectively). This year the male to female ratio in the 60-79 group was 2:1 (1:1 in 1981) and in the over 80's it was 1:1.2. The figure for the 40-79 group is 2.3:1, virtually as last year.

Table 11.1 First attendances at Artificial Limbs Centres, 1982. (Figures for 1981 in parentheses).

	Male	Female	Total	
Single arm amputations	137	55	192	(201)
Single arm non-amputations*	83	54	137	(133)
Single leg amputations	3,161	1,649	4,810	(4,644)
Single leg non-amputations*	14	18	32	(34)
Double arm amputations	1	0	1	(3)
Double arm amputations — previously single	0	0	0	(1)
Double leg amputations	133	54	187	(193)
Double leg amputations — previously single	248	75	323	(338)
Double leg non-amputations*	3	2	5	(7)
Double leg non-amputations* — previously single		1	1	(1)
Other multiple amputations	8	3	11	(12)
Other multiple non-amputations*	4	4	8	(5)
Total	3,792	1,915	5,707	(5,572)

(* eg congenital shortening, polio, etc.)

The overall ratio of arm amputations to leg amputations was 1:28 (1:25 in 1981) again showing little recent change.

The total number of amputations due to trauma was 552. The number of arm amputees resulting from trauma decreased from 133* (1 bilateral) last year to 125 (also one bilateral).

The number of leg amputees resulting from trauma increased from 337 (8 bilateral) in 1981 to 421 (14 bilateral, of which one was previously single). The number of arm amputees due to industrial injury was 54 (52 in 1981). The

* Some of the 1981 figures for amputation differ slightly but not significantly from those published in this report for 1981. The new figure is the correct one.

number of leg amputees was 53 from this cause (52 in 1981). Industrial trauma represented 19.4% of total trauma.

The ratio of arm amputations due to trauma to leg amputations due to this cause was 1:3.4 (1:2.5 in 1981). The corresponding ratio of arm amputations to leg amputations due to disease was 1:72 (1:67 in 1981). A total of 3,455 or 62.5% of all leg amputations in 1982 were performed for peripheral vascular disease (PVD). This compares with 3,388 or 62.8% in 1981 (Table 11.2). 19.8% of all amputations were performed in diabetics, mainly because of vascular complications. Peripheral vascular impairment in general (PVD + diabetes) thus still accounts for about 4 out of 5 new amputees referred to the Service, a proportion unchanged for the last two years.

If other levels of amputations are excluded, the overall percentage of above knee amputations to below knee amputations was 57%:43%. Whilst this shows a very modest improvement on last year's figures, (59%:41%) it remains well below the achievement of certain specialist Centres where the percentage of below knee amputations is between 70% and 80%, when amputation resulted from peripheral vascular disease or diabetes mellitus.

A recent statistical survey of amputees since 1972 showed conclusively that below-knee patients were more likely to make better use of their prostheses, attain a more complete level of rehabilitation and live longer, than those with a higher level of loss.

Road traffic accidents (RTAs) — pedestrians, riders or occupants of road vehicles — accounted for 282 amputations (5.1% of all new cases), compared with 259 in 1981 (Table 11.3). It will be interesting to compare this year's figure with next year's when the forthcoming seat belt legislation will have had full impact. The ratio of leg to arm amputations from this cause was 9:1 (6:1 in 1981). Of the total RTA cases 165 had been the driver or passenger of a two wheeled vehicle. This represented 81% of all amputations due to road vehicle accidents.

Table 11.2 Patients seen for the first time at Artificial Limb Centres, England and Wales, 1982.

	Male	Female	Total	Percent of Total
(i) Age distribution				
Age range 0-9	18	18	36	0.65%
10-19	121	39	160	2.9%
20-39	262	76	338	6.1%
40-59	613	211	824	14.9%
60-79	2,328	1,083	3,411	61.7%
Over 80	346	409	755	13.7%
(ii) Reasons for amputation				
Vascular	2,348	1,107	3,455	62.5%
Trauma	442	110	552	10.0%
Metabolic (i) diabetes	673	419	1,092	19.9%
(ii) other	2	5	7	
Infection including gas gangrene	7	3	10	1.7%
Other	45	37	82	4.7%
Malignancy	136	123	259	
Neurogenic deformity				
(i) Acquired	15	8	23	1.2%
(ii) Congenital	20	24	44	

Table 11.3 Analysis of main reasons for amputation and details of road accident cases, England and Wales, 1982.

	Male	Female	Total	Percent of total vascular cases
(a) Breakdown of vascular aetiology (Total 3,455 diabetes not included)				
Arteriosclerosis	2,082	894	2,976	86.1
Embolism	155	101	256	7.4
Thromboangiitis	29	10	39	1.1
Varicose ulcer	29	50	79	2.3
Other	53	52	105	3.0
				Percent of Trauma
(b) Breakdown of trauma aetiology (Total 552)				
Industrial	100	7	107	19.4
RTA	173	31	204	37.0
Pedestrian	45	33	78	14.1
Home	22	25	47	8.5
Recreation	24	1	25	4.5
Armed forces	37	0	37	6.7
Rail	15	7	22	4.0
Other	26	6	32	5.8
(c) Details of RTA cases				
2 wheeler driver	137	8	145	
2 wheeler passenger	10	10	20	
Other driver	22	4	26	
Other passenger	4	9	13	

The Vehicle Service

An analysis of the vehicle and wheelchairs on issue is shown in Table 11.4. Following the pattern of recent years the number of powered vehicles and private car allowances on issue has continued to decrease as more patients change to the Mobility Allowance benefit.

Table 11.4 Analysis of vehicles and chairs on issue in England at 31 December 1982. (Figures for 1981 in parentheses).

(a) Powered vehicles and private car allowances		
Motor cars	6,375	(7,070)
Motor propelled three wheelers	8,546	(9,676)
Electrically propelled three wheelers	214	(263)
Private car allowances	1,822	(2,101)
(b) Non-powered wheelchairs (including spinal carriages, pedal and hand tricycles)		
	334,051	(315,749)
(c) Powered wheelchairs		
Indoor electric chairs	8,794	(7,958)
Outdoor electric chairs	8,548	(7,918)
Total	368,350	(350,735)

The Appliance Service

Charged under Royal Warrant with the prescription and supply of orthoses to war pensioners, the Service is responsible for 14,769 pensioners, a decrease of 709 (4.6%) on the number for 1981.

Table 11.5 Patients using the Artificial Limb, Vehicle and Appliance Service in England, 1982. (Figures for 1981 in parentheses).

Artificial Limb Service	66,194	(62,964)
Vehicle Service*	350,025	(300,697)
Appliance Service	14,769	(15,478)

Note: A patient may well receive care from two or even all three services.

*Figures in Table 11.5 refer to patients whereas figures in Table 11.4 refer to numbers of vehicles on issue. A patient may have a motor vehicle or private car allowance, a powered chair and one or more wheelchairs.

MEDICAL MANPOWER AND POST GRADUATE MEDICAL EDUCATION

Contractual matters

Junior doctor's hours

For some years now concern has been expressed at the long hours worked by junior doctors in hospital. In February 1982 the Chief Medical Officer convened a conference of all interested parties to discuss the matter. There was broad agreement that action should be taken to reduce excessive hours and on the targets and methods for achieving this aim. These matters were pursued in discussion with the professions and NHS management and agreement was reached on a framework for local reviews of commitments to out of hours rotas, and this was promulgated in Personnel Memorandum (82)37 (Department of Health and Social Security 1982d).

The main points of the agreement are: (a) prohibition from Spring 1983 of rotas for juniors more onerous than one in two; (b) establishment of small district working parties with consultant, junior and NHS management representation to review existing rotas; (c) wherever possible from 1 August 1983 for no junior to be on a rota more onerous than one in three if possible with a half day off per week; (d) any changes in rotas to be undertaken within planned spending on medical staffing and existing regional manpower policies.

Discussions are continuing with the profession on detailed aspects arising from the circular.

Table 12.1 Number of unrestricted principals in general practice, England and Wales, 1981-82.

	1981			1982*		
	Male	Female	Total	Male	Female	Total
Unrestricted principals (UPs)	19,851	3,850	23,701	20,126	4,092	24,218
Born in Great Britain	14,577	2,776	17,353	14,727	2,988	17,715
Born in Irish Republic, Northern Ireland, Channel Islands and the Isle of Man	940	167	1,107	894	170	1,064
Born elsewhere	4,334	907	5,241	4,505	934	5,439
Entering as UPs for first time	898	328	1,226	915	377	1,292
Born in Great Britain	587	239	826	630	314	944
Born in Irish Republic, Northern Ireland, Channel Islands and the Isle of Man	26	10	36	18	10	28
Born elsewhere	285	79	364	267	53	320

* Provisional.

Table 12.2 Net changes in the various types of general medical practitioners during the period 1 October 1981 to 1 October 1982*

Types of practitioner	England and Wales
All practitioners	+ 516
Unrestricted principals	+ 517
Restricted principals	- 8
Assistants	- 11
Trainees	+ 16

* Provisional.

Doctors in general practice

The total number of doctors in general practice rose by about 2% to 26,421* during the year. The main increase was in the number of unrestricted principals. The rapid increase over the last few years in the number of trainee general practitioners came to an end as the total of 1,719 was an increase of only 16 over 1981. At that time the number of appointed trainers in general practice was 2,448. On 16 August 1982 the second phase of the vocational training regulations (Statutory Instrument 1976, No 1644) was implemented. Intending general practitioners are now required to undergo a 3-year period of training or its equivalent before receiving a certificate of either prescribed or equivalent experience from the Joint Committee on Postgraduate Training for General Practice. In 1982 this Committee issued 1,406 certificates of prescribed experience and certificates of equivalent experience. Of the 40 doctors who appealed against the refusal of the Joint Committee to issue a certificate 5 had their appeals upheld.

The average list size again dropped slightly by 46 to 2,147* on 1 October 1982.

Doctors in hospital practice

The number of doctors employed in the hospital service again increased. On 30 September 1982, the total staff in post (excluding para 94 appointments and hospital practitioners) in England and Wales was 36,633 compared with 36,184 in 1981, an increase of 449.

Total consultant numbers increased by 212; 156 men and 56 women. The growth was most marked in the following specialties:—General medicine + 49, Geriatric medicine + 10, Urology + 13, Anaesthetics + 49, Radiology + 11, Obstetrics and gynaecology + 13, Mental illness + 25, Child and adolescent psychiatry + 17 and Forensic psychiatry + 8.

The Department gave approval for 364 new consultant posts to be advertised in the year 1983/84. It was necessary to restrict approvals in some specialties because of insufficient numbers in the training grades to satisfy demands for new posts. These specialties were Anaesthetics, Geriatric medicine, Radiology, Accident and emergency, Chemical pathology, Histopathology, Medical microbiology, Mental handicap and Forensic psychiatry.

* Provisional

Table 12.3 Doctors in hospital practice in selected grades, England and Wales, 1981-82, at 30 September.

	Consultants			Senior registrars			Registrars			*SHOs		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1981	13,065	11,580	1,485	3,074	2,456	618	5,989	4,732	1,257	10,049	7,477	2,572
1982	13,277	11,736	1,541	3,088	2,415	673	6,118	4,803	1,315	10,132	7,389	2,743

* Includes post-registration house officers.

The number of women doctors employed in the hospital service again increased from 7,436 at 30 September 1981 to 7,806 at 30 September 1982. These figures exclude hospital practitioners and para 94 appointments. The number of doctors born outside the UK and the Irish Republic fell to 11,243 in 1982 from 11,404 in 1981.

Table 12.4 Percentage of doctors born overseas, England and Wales, 1981 and 1982 at 30 September.

	1981	1982
Consultant and SHMO with allowance	16.9	17.2
Associate Specialist	40.7	42.2
Senior Registrar	24.8	22.9
Registrar	51.0	48.9
SHO	46.2	43.6
PRHO	12.0	13.6

Pre-registration House Officers

On 30 September 1982, there were 2,874 pre-registration House Officers in post; 1,817 men and 1,057 women. The figures for 1981 were 2,877: 1,855 men and 1,022 women.

Part-time training

At present about 18% of women registrars and 32% of women senior registrars are training part-time. The national intake of students to medical schools is 57% men and 43% women. Equality is likely by the late 1980s; this will inevitably mean an increased demand for part-time posts.

Medical students

There was a small increase in the number of students entering UK medical schools in 1981/82. The total number of entrants was 4,071; 61 more than for the previous year. Of these, 2,334 were men and 1,737 were women. The output in 1981/82 fell by 21 to 3,545, of whom 2,238 were men and 1,307 were women.

Table 12.5 Intake of medical students and output of doctors 1980/81 and 1981/82.

Academic year	England	Wales	Scotland	N Ireland	Total
Intake 1980/81	2,987	150	720	153	4,010
1981/82	3,030	150	739	152	4,071
Output 1980/81	2,721	146	566	133	3,566
1981/82	2,694	143	550	158	3,545

Hospital medical staffing structure

In February 1982, the Government Response to the Fourth Report from the Social Services Committee, 1980-81 Session (Department of Health and Social Security 1982b) was published. In its Response, the Government welcomed the Report, endorsed the majority of the Committee's recommendations and

proposed to pursue with vigour those recommendations for which the Government has the major, or a substantial responsibility. In particular the Government endorsed the importance the Social Services Committee attached to correcting the imbalance between the numbers of consultant and training grade posts. The Response was distributed under cover of a Health Circular, HC(82)4 (Department of Health and Social Security 1982c) which asked Health Authorities

- i. to prevent further expansion in the overall number of SHO posts and
- ii to draw up plans for redressing the balance between the numbers of consultants and training grade posts.

During the year DHSS officers have again visited Regional Health Authorities to discuss the level of the SHO standstill in each Region and to stimulate further action in correcting the staffing structure imbalance. It was stressed that changes in this imbalance can only be achieved gradually over a period of years. At a time when resources are constrained the priority to be given to these changes must take its place among an Authority's overall priorities. HC(82)4 emphasized the considerable importance the Department attaches to the study of the service and cost effects of moving towards a service which is more consultant provided.

Medical manpower planning

The Medical Manpower Steering Group, which in 1980 examined co-ordinated studies of supply and demand for doctors up to the end of the century, recommended in its report that, while there should be no change at that time in the target figure for the intake to UK medical schools of 4,080, the situation should be regularly monitored and the relevant calculations updated periodically on the basis of the most comprehensive information available. To assist with the first of the periodic reviews recommended, an Advisory Committee on Medical Manpower Planning was set up in November 1982 to examine and to advise the Government on factors likely to affect future trends in supply and demand.

University matters

Reductions in finance

In its search for economies in public expenditure, the Government announced in July 1981 that the university sector should achieve 11% savings between 1979/1980 and 1983/1984. The University Grants Committee (UGC), which allocates resources to universities, decided it was no longer able to offer to clinical medicine the protection which it had hitherto enjoyed. Since many clinical academic staff provide services to NHS patients, the closure of any such academic posts could work to the detriment of patient care in some areas.

In the 1981/1982 Parliamentary Session the Social Services Committee chaired by Mrs Renee Short MP conducted an enquiry into the effects on medical services of the reductions in UGC finance. The Committee's Report (House of Commons, 1982) was published in May 1982. They concluded that the UGC reductions "will undeniably have some effect on clinical services and patient care is likely to suffer", and recommended that the UGC grant should be increased in 1982/1983 and 1983/1984 and the increases earmarked for clinical medicine.

The Government Response to the Committee's report (Department of Health and Social Security, 1982a) was published in November. While accepting the need to keep developments in the situation under review, the Government concluded that the evidence then available suggested that the effects of the UGC reductions on clinical services were likely to be marginal. They set alongside this conclusion the facts that

- a. The number of doctors employed by health authorities had increased by about 1,700 between 1979 and 1981;
- b. The number of doctors holding honorary contracts with the NHS, the majority of whom are members of the clinical academic staff of universities, had increased by about 190.

The Response also pointed out that there were no (hidden) resources available either to the UGC or to the NHS to protect clinical medicine from the economies required in university education.

Community medicine

On 1 April the structure and management organization of health authorities was restructured in accordance with the provisions of the Health Services Act 1980 and in line with the policy document *Patients First* (DHSS and Welsh Office, 1979). A central objective of the restructuring was to ensure that greater account was taken of local needs. While each new District Authority was required to appoint a management team which included a district medical officer, it was free to establish only those posts, including those in community medicine, which provided the most effective and economical delivery of services to suit its own circumstances. In connection with the restructuring special arrangements were agreed with the General Whitley Council for premature retirement and 79 community physicians were granted early retirement on grounds of organizational change.

By 30 September 754 community physician posts had been established by authorities in England and Wales; this compared with 732 a year earlier, prior to restructuring.

In February the Faculty of Community Medicine published its revised document on training in the specialty which re-stated the objectives and methods of the training programme. The document was welcomed by all concerned.

Recruitment to the specialty in 1982 was 53, the same total as in 1981. On 30 September there were 102 registrars and 63 senior registrars training in the specialty in England and Wales.

In connection with the establishment of the specialty, and the reorganization of the NHS in 1974, the Department agreed to fund the establishment of a Centre for Extension Training in Community Medicine at the London School of Hygiene and Tropical Medicine. Since the Centre has now largely fulfilled the purpose for which it was set-up, discussions took place during the year on its future. These led to the conclusion that its function could be fulfilled in other ways and that central funding should cease. The school has now decided that the Centre should close at the end of March 1983.

Ministers have agreed that whole-time community physicians may undertake private practice. Negotiations to implement this are in progress.

Community health service doctors

The report of the Joint Working Party on the Training of Clinical Medical Officers in Child Health (Forfar, 1981) was referred to the Council for Postgraduate Medical Education for comment in 1982. The Working Party convened by Professor J Forfar comprised representatives of the professional bodies concerned, examined the educational needs of the child health aspects of the work of clinical medical officers. The Council set up a steering committee to consider the report and this committee recommended, and the Council subsequently advised the Department, that the Royal College of Physicians should be invited to make arrangements through the Faculty of Community Medicine for the supervising of training programmes and posts in community health. The report has now been referred to the Royal College of Physicians who have set up a Working Party under the chairmanship of Professor J Knowelden which is considering the matter.

Council for postgraduate medical education in England and Wales

Report of the Social Services Committee of the House of Commons 1980-1981: Medical education

The Council considered the Committee's report and the Government's response on a number of occasions. In submitting its detailed comments the Council generally supported the Government's views but particularly expressed the hope that progress would be made towards improved postgraduate educational and training arrangements and, by correcting the present career structure imbalance, improvement in career prospects for junior doctors.

Information on training posts

The Council's views were sought on various proposals for improving arrangements for information gathering in the NHS, and on the data set recommended by Working Group E of the Steering Group on Health Service Information. The Council also agreed to conduct a feasibility study of how the data could best be made available for the use of national bodies — such as the Royal Colleges—who have an important role in postgraduate medical and dental education, and whether they might serve as a base for establishing a clearing house for junior medical and dental training posts.

Alcohol abuse and drug misuse

The Department has drawn postgraduate Deans' attention to the various reports on these subjects and the Council asked Deans to review the educational and training arrangements in their Regions in the light of the reports' recommendations.

Open University/CPME Course: Topics in drug therapy

Work on drawing up this course was completed during the year. Funded by the Department, it is a joint venture of the Open University and the Council and is the first occasion on which the former has entered the field of postgraduate medical education. A representative group of doctors advised on the

preparation of the teaching materials which were provided free to NHS doctors in England and Wales through postgraduate education centres towards the end of 1982. Plans are being made to evaluate the course.

Continuing education for general medical practitioners — administrative arrangements

Following the recommendations of a working group representing those concerned the Council commended to regions the following four guidelines:-

1. The GP sub-committee should be informed of the regional Section 63 budget and should advise on the allocations within the regions.
2. The GP sub-committee should be provided at least annually with information on the kind of applications made and the pattern of decisions reached.
3. All applications for Section 63 approval should be seen by the regional adviser in general practice and he should be asked for his recommendation.
4. There should be discussions in all districts about local educational activities and their funding between clinical tutors and the general practitioners responsible for vocational training and continuing education, so that local views are fully reflected in regional decisions.

The situation would be reviewed in about 12 months.

Overseas doctors

As the result of proposals for a national overseas doctors' sponsorship organization the Council formed a working party to consider how such a scheme might be implemented.

National Advice Centre

During the year the National Advice Centre received 15,603 letters from doctors overseas and 3,233 doctors visited the Centre. There were 521 letters from dentists overseas and 154 dentists visited the Centre.

Most enquiries continue to come from the Indian sub-continent although there is a steady flow from the Middle-East and the old Commonwealth.

The General Medical Council

On 1 January 1982 the new measures relating to the grant of limited registration which were mentioned in last year's report came into force. They were designed to improve the quality of training available to overseas doctors in hospital employment, and include fewer categories of exemption from the test of proficiency in the English language and of professional knowledge and competence which overseas doctors have to pass, or gain exemption from, before they can be considered for the grant of limited registration.

During the second half of the year representatives of the General Medical Council and the Department have worked closely together preparing a Bill to consolidate the Medical Acts which have become very difficult to follow due to successive amendments and additions made since the last consolidating act — The Medical Act 1956 — became law. In December a draft of the Bill was circulated to the various bodies concerned; the Bill is due to be introduced in Parliament early in 1983.

Provisions for remunerating practitioners whose registration is suspended by a determination of the GMC Health Committee and whose contract is thereby automatically terminated, is included in a Bill introduced in Parliament late in the year.

European communities (EC) medical directives

Work and discussion continued on matters relating to the implementation of the Medical Directives. The necessary legislation was introduced to enable the UK to comply with the requirements of Directive 81/1057/EEC ensuring the right to freedom of movement for those who obtained qualifications as the result of medical training which was being undertaken at the time the medical directives were implemented but which did not meet the minimum training requirements. Discussions on the registration procedures required by member States for doctors who were acting as locums in another member State continued. These revealed considerable variations in practice between member States and also in member States' attitudes towards the legality of maintaining more than one medical practice at a time.

Progress towards acceptable proposals for a draft Directive on specific training for general medical practice was slow. The variety of systems pertaining in different member States has caused considerable difficulties in defining a requirement which will prove practicable in each member State.

The number of doctors from other member States, excluding Eire, who registered in the UK during 1982 rose by 47 to 231. Of these 78 were Greek and 51 Italian.

The Advisory Committee on Medical Training published an opinion on the Aims of Basic Medical Training (Council of European Communities, 1981) to amplify the criteria set out in Directive 75/363/EEC (Council of European Communities, 1975).

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INTERNATIONAL HEALTH

The World Health Organization

This year the World Health Assembly convened for two weeks. The reduction from the usual three weeks was largely as a result of an initiative of a small group, including the UK, and gave a saving to the Organization of some half a million dollars.

The Assembly endorsed a plan of action detailing the measures to be taken by countries and the WHO to implement the strategies for Health for All by the year 2000, and the Seventh General Programme of Work (1984-1989). These focus on building up health infrastructures based on primary health care thus making it possible for health promotion, disease prevention, diagnosis, treatment and rehabilitation to become available universally. The Assembly reviewed the progress in the implementation of the International Code of Marketing of Breast-milk Substitutes (page 129), and the Action Programme on Essential Drugs. Progress in the Expanded Programme of Immunization, and in Diarrhoeal Disease Control was welcomed and special mention made of the reduction of infant mortality following the increasing use of oral rehydration therapy. An open debate on the growing world-wide alcohol-related problems resulted in a positive response for sustained action by countries to promote social awareness of these problems.

The WHO European Regional Committee reviewed the Programme Budget for 1984-1985. Several members, including the UK, asked for their reservations concerning the overall size of the budget (US\$35.5 million) to be referred to the Director General of the Organization. There was general support for the new activities to combat smoking, alcohol abuse and drug abuse with the emphasis on better health education and the promotion of healthy life styles. However a programme of lay, community and alternative health care was received cautiously and, attention drawn to the need for promoting self-care, where appropriate, while maintaining a proper balance between non-professional and professional health care. A proposed regional scheme for the scientific evaluation of drugs was set aside because of doubts about its feasibility. The Committee also reviewed the progress made in the implementation of the Regional Strategy (see below).

The Committee's recommendation for an extension of the term of office of the Regional Director, Dr Leo Kaprio, for a further period of three years from 1982 was implemented by the Executive Board.

The European regional strategy

In 1980 the member states of the European Region identified the major health concerns of the Region over the next two decades and adopted a strategy which focuses action on promoting healthy life styles, reducing preventable conditions and poverty, and providing health care to everyone through more fruitful, efficient, cost-effective, and acceptable health services based on primary health care. The essential objective is to develop a co-ordinated health policy which will offer the best possible health for all the peoples of the Region.

With regard to life styles, the aim of the strategy is to develop individual awareness of the health risks self-imposed by smoking, alcohol and drug abuse, obesity, sexually transmitted diseases, and early pregnancies. Improved health education, social and economic conditions will aid the promotion of choice for more healthy life styles. A fundamental part of the strategy concerns a greater individual responsibility for personal health.

The strategy also stresses the need for the early detection of defects and risk factors relevant to preventable conditions. This includes adequate primary child care services, appropriate immunization coverage for all children in the Region by 1990, new approaches to reduce accidents on the road, in the home, and at work, encouragement of breast feeding and balanced nutrition, the elimination of social disadvantage, and the reduction of exposure to environmental pollution risks.

Emphasis on developing primary health care as the basic foundation for a community based system completes the European regional strategy and comprises not only the services provided by the primary health care team, but also those provided by individuals, the family, voluntary organizations, self-help groups, and other sectors of society. Special attention is to be given to the needs of high-risk and vulnerable groups such as children, the elderly and the disabled, as well as to improving the quality of health care.

Regional indicators and targets will be developed to monitor and evaluate progress in implementing the strategy. An inter-Departmental committee has been set up in the UK to keep the matter under review.

Diarrhoeal diseases control programme

Diarrhoeal diseases cause an estimated 4½ million deaths a year in children under 5 years of age in developing countries. A contribution from the United Kingdom in 1978 enabled the WHO to launch a global programme with the immediate objective of reducing childhood mortality, and the longer term aims of reducing the morbidity caused by these diseases and promoting the ability of developing countries to control them.

The programme has two major components: the first aimed at restraining diarrhoeal diseases through early and improved case management with the emphasis on oral rehydration therapy, encouraging breast feeding, improving environmental health practices and personal hygiene, and establishing epidemiological surveillance services. The second involves supporting biomedical and applied research to develop new and better vaccines, drugs and diagnostic methods, and assisting countries to manufacture their own oral rehydration salts.

Thirty-three countries now have operational programmes and about 20 oral rehydration salts production centres have been established. Advances have been made in the development of simple diagnostic techniques for the identification of diarrhoeal pathogens. Further anticipated advances through the programme's research activities include an improved vaccine against typhoid and cholera, and a new vaccine for rota virus. New approaches to the treatment of diarrhoea are also expected, especially in the field of anti-secretory agents.

Provided the programme remains on course it is anticipated that by 1989 one and half million childhood deaths from diarrhoeal diseases will be prevented annually.

Expanded programme on immunization

This programme was developed as a major WHO initiative in 1974. Measles, diphtheria, tetanus, whooping cough, poliomyelitis and tuberculosis are estimated to kill some 5 million children a year in the developing countries.

The prime target of the programme was, and still is, to make routine immunization against the above diseases available to all infants by 1990 and to promote the use of tetanus toxoid to pregnant women, or women of child-bearing age, to remove the risk of neonatal and puerperal tetanus.

The programme was initially directed towards the development of planning and management expertise in immunization services within developing countries, providing vaccines, and developing the 'cold-chain' (in which the UK has been helping specifically). The World Health Assembly in 1981 expanded it to include integration of immunization activities within primary health care, the development of surveillance systems and concentrating research efforts on developing improved vaccines as well as simpler methods of vaccine administration.

In 1974 it was estimated that less than 10% of infants in developing countries received vaccines. Recent information shows that there has been a gradual, albeit uneven, increase in the percentage coverage of infants up to one year of age, but it is too soon to discern any downward trend in overall incidence of the target diseases.

Special programme of research, development and research training in human reproduction

At the end of the 1960s the need for expanding research in human reproduction became important because of concern on the limitations of existing methods of contraception. The WHO recognized this need by establishing in 1972 a special programme to improve the health status of populations in developing countries through better family planning care; assessing the safety of existing contraceptive methods and developing new ones; preventing and treating infertility; and building up the research capabilities of developing countries in this field.

While maintaining its work on new methods of fertility control, the programme has increased the emphasis on safety studies on existing contraceptive methods, on services and psychosocial research. Research has also started on infertility, its diagnosis and treatment.

Family planning remains one of the most politicized areas of health care and social welfare. Since its inception the programme has had a substantial impact on attitudes to research into human reproduction. In 1982 out of 73 countries involved in the programme, 46 were developing countries. New methods of fertility regulation such as hormone-releasing IUD's, vaginal rings, and chemical methods of female sterilization have reached advanced stages of clinical testing. Less advanced are developments in menses-inducing drugs, birth control vaccines for women and male methods of fertility regulation.

Table 13.1 Fellowship holders from World Health Organization regions and Council of Europe studying in the UK in 1982.

Subject studied	Europe	East Medi- terranean	Africa	South East Asia	West Pacific	Americas	Total	Council of Europe Total
Public health administration	9	11	12	26	11	6	75	5
Environmental health	25	7	3	10	13	4	62	6
Nursing	3	7	1	-	3	2	16	6
Maternal and child health	-	19	2	13	3	3	40	7
Communicable diseases	3	5	5	20	4	1	38	1
Clinical medicine	10	28	3	25	6	7	79	11
Basic sciences and education	7	11	8	29	3	1	59	3
Other health services	15	12	11	27	10	3	78	3
	72	100	45	150	53	27	447	42

The UK has made an annual voluntary contribution to the programme since 1975 through the Overseas Development Administration.

The International Programme on Chemical Safety

The International Programme on Chemical Safety was set up in 1980 under the auspices of the United Nations Environment Programme, the International Labour Organization and the World Health Organization to stimulate and foster international co-operation in evaluating health hazards from exposure to chemicals; to encourage the development of test methods and guidelines for testing; to provide for exchange of information to promote training in toxicology.

Funds for the programme are provided largely from voluntary contributions from member states. The UK signified its support for the programme by signing a memorandum of understanding in 1982. Further details of the memorandum are given in the chapter on Environmental Hygiene (page 44).

World Health Organization and Council of Europe Fellowships

The number of fellows from these two organizations coming to the United Kingdom for study remains substantially unaltered (Table 13.1).

SPECIAL SUBJECTS

a. Organization and management in the NHS

Accountability for the NHS

The Public Accounts Committee drew attention in their Seventeenth Report, published in September 1981, to the need for clear lines of accountability for health service expenditure and to the difficulties of achieving this following NHS reorganization.

The restructuring of the NHS on the lines set out in HC(80)8 (DHSS, 1980) came into effect on 1 April 1982. Ministers considered that it was both desirable and practicable to secure the maximum delegation of responsibility for the delivery of health services to districts and units, while at the same time achieving true accountability upwards from districts through regions, to the Department and the Secretary of State.

As a means of achieving accountability annual review meetings were introduced between the Department and Regional Health Authorities, and between Regional Health Authorities and District Health Authorities. Fourteen regional review meetings were held during 1982. Each was chaired by a Minister, and the region's representatives were led by the Regional Chairman. The Ministerial reviews were preceded by discussions between the Department and Regional officers to agree essential facts, identify key issues and agree papers for the meeting, in relation to those matters for which Health Authorities could properly be held responsible. The annual meetings are expected to provide over a period the opportunity and occasion to assess each region's performance, and to agree on the broad thrust of its long term strategy and on key issues and objectives to be pursued in the year ahead, for progress on which the Regional Chairman will account at the next review. Each region will conduct annual reviews with each of its districts along similar lines.

Performance indicators

During the year Northern Region gave valuable help to the Department in the exploration and testing of a number of measures of activity, costs and use of resources in the NHS with a view to developing sets of data by which managers in the NHS could compare their performance with that in units in similar circumstances elsewhere. The outcome of this work was an unpublished report, circulated to RHAs as a working document in July. This recommended indicators covering clinical activity and finance. Further recommendations covering manpower and estate management were circulated in August. There was general agreement that comparative information of this kind was useful to managers in assessing performance, and they were established in use on an experimental basis from September 1982 in association with the Regional Reviews. In the latter part of 1982 the set of indicators was reviewed in the light of experience in their use and with a view to producing an improved set early in 1983.

Strategic planning in the NHS

Changes in the need for medical care develop at varying speeds: rapidly when a new form of effective treatment becomes available — more slowly in response to changes in the size and age structure of the population. The speed at which health care provision can be changed is however limited by many factors, not least the length of time it takes to build a hospital or train a doctor. While strategic planning in the NHS therefore needs to be flexible it also calls for a forward look covering a substantial time span.

The planning system as it had developed since the 1974 reorganization was felt by many to be cumbersome and difficult to operate. *Patients First* the consultative paper which had preceded the 1982 restructuring of the NHS, had described it as over-complicated and bureaucratic (DHSS and the Welsh Office, 1979). So when circular HC(82)6 (DHSS 1982a) was issued in March 1982, adapting the planning arrangements to the form taken by the NHS following restructuring, the opportunity was taken of simplifying the system and streamlining the way it worked.

Circular HC(82)6 made it clear that the District Health Authority was to be the basic planning unit and would be responsible for preparing strategic plans looking 10 or more years ahead, within the framework of an outline regional strategy. These plans will include a comprehensive review of all services, drawing attention to their deficiencies, and proposals for the development of district services in the light of assumptions from the DHSS about future financial and manpower resources. Planning will need to be flexible enough to cope with the inevitable uncertainties about future resource levels.

The Strategy will be implemented through annual programmes comprising specific items from the agreed strategic plan. This approach supersedes the earlier system of comprehensive operational plans. Formal consultation is to be reduced but informal consultations with medical and other interests will take place throughout the development of plans and programmes.

Clinical complaints and procedure

Protracted discussions with the medical profession culminated in the introduction, in September 1981, of a procedure for independent assessment of complaints about clinical practice in hospitals. The procedure provides, in appropriate cases, for a review by two independent consultants of complaints about the clinical judgement of hospital doctors and dentists. Complaints which are substantial, but which do not seem likely to lead to litigation, are eligible for the procedure. The independent consultants (or 'second opinions') are nominated by the Joint Consultants' Committee. The decision to invite 'second opinions' to conduct a review is made by the Regional Medical Officer (RMO), who has first to consider, with the consultant concerned, whether means of resolving the matter locally have been fully explored, and, if they have, whether the complaint is suitable for such a review.

Experience of the procedure up to the end of 1982 can now be reported. 184 complaints were formally referred to RMOs in England under the new procedure in 16 months to 31 December 1982. RMOs had by that date arranged for 63 independent reviews, of which 32 had been completed. They had arranged for 26 cases to be resolved locally, found 45 to be unsuitable for review, and had 45 still under consideration. Five had been withdrawn voluntarily. In all, action had been completed on 108 complaints — 60% of the total.

The independent consultants have accepted the difficult and delicate responsibility of scrutinizing and assessing the clinical actions of colleagues which give rise to complaint. They have gone about it with scrupulous fairness, and with telling effect. They have invariably had full co-operation from the doctors concerned, and access to all the relevant health records; and in only a quarter of the cases concluded was it clear that the complaint was not resolved to the satisfaction of the person who raised it. Even where they have endorsed the judgement complained of, the authoritative assurance that every possible care and treatment was provided had been valuable, not least to bereaved relatives. The general impression summed up by one RMO is that:

“The majority of complainants are grateful for the opportunity which has been presented to have a very full and detailed discussion with the independent consultants. Where the complaint has not been upheld the majority have appreciated why this has not been done.”

In no fewer than half the cases reviewed, ‘second opinions’ have identified questions of policy or procedure associated with the cause of the complaint, whether or not they have also criticized clinical aspects. As a result action, often of a very substantial nature, to improve services has been taken or is under urgent consideration by the authorities concerned. This sort of outcome is welcomed by individual complainants, who often indicate that a purpose of their complaint is to safeguard future patients. Two-thirds of the cases referred have not so far proceeded to ‘second opinions.’ They include those which RMOs have been able to resolve, normally by discussion with the complainant or by arranging a meeting between the complainant and the consultant concerned. Where complaints have been upheld, authorities have followed up both particular issues raised — for example, the making of an ex-gratia payment to a patient who had felt obliged to get private treatment — and general ones — for example, organizational improvements in an accident and emergency department.

Hospital charges to overseas visitors

New regulations set out in SI No 863 (National Health Service regulations 1982) came into force on 1 October 1982, under which most visitors from overseas countries not covered by reciprocal agreements are liable to pay for the use of the National Health Service. These Regulations brought to an end the previous system which provided free treatment to any visitor who fell ill or suffered an accident in this country. There are no charges for treatment provided in Accident and Emergency Departments, treatment of certain communicable diseases or when a patient is compulsorily detained for psychiatric treatment.

Comprehensive advice on operating the new scheme is contained in Health Circular (82)15 (DHSS, 1982b) which describes set procedures which are to be applied to all new hospital patients in order to identify those who are liable to pay. The procedures replace arrangements which were sometimes haphazard and unfair in operation. They are based on the findings of a study conducted by a Working Party set up by the Department, whose members included health service, medical, nursing and ethnic minority representatives.

The in-patient charges provided under the Regulations are for the most part identical with private patients’ charges under Section 65(i) of the NHS Act,

1977 (National Health Service Act 1977). Out-patient charges are similar to those for private patients under Section 66 of the Act but include an element for medical staff time. Patients charged under these Regulations are not private patients and doctors cannot charge fees in addition to the NHS Overseas Visitors charges. Visitors are not however precluded from seeking treatment as private patients instead if they wish.

Data protection

In April the Home Secretary published a White Paper containing the Government's proposals for legislation to protect personal data which are handled automatically (Home Office, 1982). The Department sent copies to the NHS Authorities and a wide range of professional and other bodies with an interest in the handling of personal health data. The Data Protection Bill was introduced in the House of Lords on 21 December. The arrangements for handling health data under the new legislation will be the subject of orders to be made when the bill is enacted. The preparation of such orders will be assisted by the deliberations of two Working Groups set up during the course of the year. The BMA sponsored *Interprofessional Working Group on Access to Personal Health Information* whose membership was drawn from the medical, nursing and other health professions and was under the chairmanship of Sir Douglas Black, then President of the Royal College of Physicians and former Chief Scientist at the Department of Health and Social Security. The Working Group on Confidentiality, a sub-group set up by the Steering Group on NHS Information was chaired by Mr David Kenny, Regional Administrator, North West Thames.

Health service information

The NHS/DHSS Health Service Information Steering Group, set up in February 1980, published the first of a series of reports to the Secretary of State in September (Steering Group on Health Services Information 1982b). Specific recommendations were made about the changes required in content of the data collected in respect of hospital clinical facilities and the patients using them. The Group is also expected to report on ways of improving district arrangements for collecting, processing and analysing data and a pamphlet *Converting Data into Information* was published in October (Steering Group on Health Services Information 1982a).

Information Technology Year, 1982

In Information Technology Year, health care was identified as one of the major areas in which the use of information technology should be encouraged. Ministers took an active lead in encouraging participation of both DHSS and NHS authorities. A Health Notice (HN(81)35) was issued in November 1981 informing health authorities of the activities associated with Information Technology Year and drawing their attention to the implications for them (DHSS, 1981). The Health Notice not only called for the submission of proposals for projects but also for proposals for publicity activities which might be used to demonstrate the potential for the use of computing and related technologies; the overall intention being to develop an Information Technology Awareness Programme.

DHSS Research and Development funds were committed to support sponsorship of this programme and £¼ million was allocated from the budget. In addition, much use was made of collaboration with the Department of

Industry which was responsible for mounting the main Information Technology 1982 Programme, particularly in regard to the mounting of exhibition stands at a number of national and international events. Thus, the programme developed into two streams viz:

- a. support for conferences, exhibitions, seminars, films and other publicity material. This covered activities with local, regional, national and international implications and was mainly directed at improving the level of awareness within the various professional and lay disciplines in the NHS.
- b. support for specific projects. This involved providing sponsorship for new or novel applications of technology as well as furthering existing work and in some instances assisting with the promotion of completed projects with a view to seeing them taken up as service developments within NHS authorities.

The response to this initiative was extremely good. Many health authorities and related bodies undertook some involvement and the applications spanned many disciplines. A number of projects which commenced in 1982 were designed to run for two or three years and thus Information Technology Year provided a springboard for a longer term programme of support for technological advance.

To illustrate the level of participation of both DHSS and NHS authorities, some of the major activities where Information Technology Year initiative was instrumental in either commissioning new projects and activities or enabling further work to be done on existing schemes that might not have been possible within the confines of a purely research and development budget are outlined below:

- a. The initiation of a scheme to encourage the use of microcomputers in general medical practice. This is a major project involving the implementation and evaluation of microcomputer systems in 150 general practices in the UK.
- b. The promotion of various schemes to provide both computer-based aids for the disabled and information retrieval systems for use in rehabilitation units. A major project in this field has been to develop the use of microcomputers both as management tools and as therapeutic aids in occupational therapy.
- c. Information database systems and specialist library facilities on computers will assist pharmacists in dealing with queries and in publicizing evaluated drug information. Such a system has application potential over an entire health authority.
- d. The development of computer-aided learning both as a general concept and specifically in relation to a project to provide this facility for schools of nursing.
- e. In pathology: the 'Phoenix' laboratory based microcomputer system is being transferred onto several inter-connecting microcomputers which will provide the facility at lower cost.
- f. In computer-aided diagnosis: previous work sponsored by the DHSS suggested that the installation of a system which helped doctors diagnose the cause of acute abdominal pain reduced the number of unnecessary operations. A multi-centre trial has been started to investigate this further.

- g. In intensive care units: a project is being funded to investigate the role of computers in intensive care units and to develop techniques for predicting whether or not a patient is about to deteriorate.
- h. In ultrasound diagnosis: this is another development of previously-sponsored DHSS research. The system being developed will allow measurement and reporting of an ultrasound image of the heart.
- i. The development of a system to provide clinical information and clinic management for Departments of Genito-Urinary Medicine.
- j. In conjunction with the Steering Group on Health Services Information, support was provided by both the DHSS and the Department of Industry for piloting of the Steering Group's recommendations for hospital needs. In particular, projects aimed at maternity services and accident and emergency departments were initiated to demonstrate the use of computers as aids to efficient working.
- k. The initiation of a programme to encourage the use of computers to provide cervical cytological screening.
- l. The development of simulation techniques for use in fields such as building design, engineering as well as in relation to other training applications such as disaster handling.
- m. The introduction of electronic office techniques into a district authority.

The projects give an idea of how information technology can and is being used to improve the quality of care and the treatment of patients in the UK. The initiative also provides a boost to the UK computer industry and enhances the potential for exporting UK technology and health care expertise abroad.

Training doctors — a study of information needs

During the year a report entitled *Training Doctors — a study of information needs* which recommended a computerized information system having three elements: posts (POSTIN); personnel (PERSIN); and historical data (HISTIN) was published (Smith, 1981). The report received a mixed reception by Working Group E of the NHS/DHSS Health Services Information Steering Group (Steering Group on Health Services Information, 1982c). This report put forward proposals which if adopted would establish within regions the basis for an information system about medical posts.

Supra-regional services

Some services for patients with rare clinical conditions need to be provided on a population base considerably larger than that of most NHS regions to avoid duplication and ensure the maintenance of professional skills, high standards of treatment and the economic use of expensive resources. This has always been a source of difficulty in that the main planning mechanisms of the National Health Service are geared to the provision of services at regional or district level. These arrangements do not in themselves provide a framework for considering the deployment of services which should be planned for a larger population or for maintaining a balance in the allocation of resources between such specialisms and those of local services. In recent years the problem has been more sharply focussed by the tight cash limit control over NHS expenditure and the more objective approach to the calculation of authorities'

allocations introduced following the recommendations of the Resource Allocation Working Party (RAWP). Specific problems which have been encountered include:-

(i) In some instances individual local initiatives have led to highly specialized services being developed in a greater number of centres than is desirable in terms of economy, provision of skilled staff or quality of services. Unless there is a means of channelling funds to the units most suitably situated and most competent to provide such services, rationalization will be difficult to achieve. Equally, in the case of newly developed services such as bone marrow transplantation, decisions about the number of units and location need to reflect a considered judgement both of priority for the service nationally and of its clinical requirements.

(ii) Funding of a supra-regional service by the region or regions in which the expertise happens to lie is unfair to the providing region which has to use part of its allocation to finance services for a population much wider than its own. The RAWP formula gives only limited and late (two years in arrears) compensation for cross-boundary patient flow: the formula takes this into account on the basis of average speciality costs, when supra-regional services are by their nature a good deal more expensive than average, and takes no account at all of out-patient flows.

(iii) Concern is felt within the medical profession that supra-regional services may be placed at a disadvantage in having to compete for funds with district services, and that special arrangements are needed to ensure that they are adequately financed.

With the above considerations in mind, Ministers decided after consultation with health authorities and the medical profession to introduce special arrangements for planning and funding supra-regional services. These have the aim not of insulating these services from outside pressure or shielding them from the general need for efficiency but of encouraging the development of economic units likely to give the most effective service to patients and ensuring that resources are sensibly deployed and kept in balance with the needs of local services. These new arrangements which are being introduced gradually, starting in the financial year 1983/84 comprise:-

(i) The establishment of a group to advise Ministers on:-

(a) the distribution of services and units to be designated as supra-regional;

(b) the overall priority for supra-regional services in relation to the total resources available for allocation to health authorities;

(c) priorities within and between these services.

The chairman of the advisory group will be a RHA chairman and its members are being nominated by health authorities and the medical profession (the Joint Consultants Committee). There will also be an academic member.

(ii). Funds for recognized supra-regional services will be deducted from the total money available for distribution to regional health authorities and given to the providing RHA for allocation via district health authorities to the hospital or unit in which the service is located. Sums so allocated will be protected from further redistribution through the RAWP process.

This method of funding (suitably modified in the first year) will apply initially to:-

- Paediatric services for end-stage renal failure
- Services for spinal injury
- Services for the management of chorioncarcinoma
- National Poisons Information Service

It is envisaged that infant cardiac surgery and bone marrow transplantation will be brought within the scope of the new arrangements as soon as specific proposals for these services have been agreed. The services covered by the arrangements, and their funding, will be subject to regular reviews. If in the future it was clear that a particular supra-regional service had developed to the stage where regions generally wished to provide it for themselves, it would cease to attract special funding; the same would apply when in the interests of rationalization it was thought that a particular unit should no longer be regarded as providing a supra-regional service.

These arrangements are intended for those very few services which are genuinely multi-regional in character. The providing units will normally be expected to serve a population of about 5 million, and to have a substantial multi-regional cost. Expertise in a particular clinical technique which attracts patients from many parts of the country will not of itself justify supra-regional recognition or special funding.

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b. Safety of Medicines

Benoxaprofen ('Opren')

In August 1982, the product licences for 'Opren' a non-steroidal anti-inflammatory drug used in the treatment of arthritis, were suspended on grounds of safety. The Committee on Safety of Medicines had received over 3,500 reports of adverse reactions associated with 'Opren' including 61 fatal cases. Following the suspension of the licences, Lilly Industries Ltd immediately withdrew the drug world-wide and shortly afterwards surrendered the UK licences.

Clinical trials of the drug had first been approved, on the advice of the Committee on Safety of Medicines, in 1974. The drug had been subject to the usual tests in animals, and showed results similar to other drugs in this class, including effects on the liver and kidney and gastro-intestinal tract, except that the effect on the gastro-intestinal tract was less marked than for other such drugs. In 1979 the company applied for a product licence for 'Opren' for the relief of symptoms in rheumatoid arthritis and osteoarthritis. The Committee on Safety of Medicines considered evidence on clinical trials conducted in the UK and the USA on a total of about 1,500 patients, which included evidence on efficacy of the drug, and of its side-effects observed in the trials. The Committee deferred a decision on the product licence application to obtain further information on adverse effects noted in some patients, namely onycholysis (adverse reactions on the nails) and photosensitivity (skin sensitivity to sunlight). In February 1980 the Committee considered further evidence on these adverse reactions derived from about 2,000 patients in the UK, USA, Canada and Mexico who had taken the drug. The Committee noted that the incidence and severity of photosensitivity and onycholysis varied widely in the various centres at which trials were held. On average, some photosensitivity had been reported in 9% of American patients and 3.6% of UK patients, and onycholysis in 8.7% of American patients and 1.2% of UK patients. Taking into account also the evidence of efficacy of the drug in the treatment of the painful and disabling conditions of rheumatoid arthritis and osteoarthritis, the Committee concluded that the balance of benefit of the drug against its risk was acceptable, and advised that a product licence be granted.

The drug was marketed in 1980, but by July 1981 the Committee were already concerned about its safety. In particular the Committee was concerned about the many reports of photosensitivity associated with the drug and about reports of gastro-intestinal adverse reactions, including some serious and fatal cases. Drugs in this class are known to cause gastro-intestinal reactions, but the extent of photosensitivity was unique to this drug. In November 1981, the Committee considered some studies on drug accumulation in the elderly which Lilly Industries Ltd suggested might be causing the gastro-intestinal problems, but decided that as the evidence was inadequate and to some extent conflicting they were unable to recommend a dosage change for the elderly. They therefore asked the company to provide further information on whether the drug accumulated in elderly people.

In 1982 the Committee continued to monitor closely the reports being received of adverse effects associated with 'Opren'. In May, the Committee reviewed in

detail reports received on 'Opren', and compared its risks and benefits with other drugs in the class. The Committee concluded that there was growing concern about its adverse reaction profile, particularly in elderly patients, and recommended that the dosage in elderly patients should be halved. This was a precautionary measure, as the Committee had not yet received all the requested further information about accumulation in the elderly. Among the papers considered by the Committee was an article reporting five patients over 80 years of age had developed jaundice and had died: all had been taking 'Opren' (Taggart and Alderdice 1982). Doctors were advised on 21 June 1982 of the change in dosage recommendation for the elderly, in a letter from Lilly Industries Ltd.

The article by Taggart and Alderdice and subsequent reports in medical journals of suspected liver and kidney damage associated with the drug resulted in a rapid increase in reporting to the Committee of these serious effects. By the end of July 1982 the Committee was aware of 61 fatal cases in which benoxaprofen was suspected of causing adverse effects on various organ systems, including the gastro-intestinal tract, liver, kidney and bone marrow, with liver damage as the most frequent cause of death. An emergency meeting of the CSM was held on 3 August 1982 and the Committee endorsed the Licensing Authority's view that the product licences for 'Opren' should be suspended immediately on the grounds of safety.

The licences were suspended on 4 August 1982; the decision was announced on the same day and the Chairman of the Committee wrote to all doctors and pharmacists explaining the decision, and regretting that it had not been possible for the professions to be informed first, in view of the hazard to patients involved in such a delay.

The story of 'Opren' illustrates one of the main difficulties in drug regulation. Even when a drug has been carefully tested over a period of years in animals, and in carefully controlled clinical trials in man, rare adverse reactions may only be detected when the drug is in wide use. This underlines the importance of having a good system of adverse reaction monitoring, to supplement the testing which is required before a drug may be first marketed. The Committee's Yellow Card Scheme of voluntary reporting by doctors of suspected adverse reactions in their patients provided valuable confirmatory evidence for the Committee, following the reports of individual cases published in the medical literature.

A detailed account of the history of 'Opren', and the work carried out by the Committee on Safety of Medicines in relation to it, was given by the Minister for Health in a debate on 27 January 1983. In particular, he explained how the Committee's actions on each occasion had been based on a careful appraisal of the scientific evidence available to them at that time. He also announced the steps which the Committee had already taken to ensure the lessons which could be learnt from this tragedy were carried forward, to help its work in the future. First it had set up a working party, under the Chairmanship of Professor D Grahame-Smith, to review how it carried out its statutory duty to monitor adverse reactions to drugs, examining both the present system, to see if it can be improved, and other ideas which might add to or even replace the present system. Secondly, the Committee is considering whether for some new drugs referred to them for advice before they are licensed, pharmacokinetic studies should be required in elderly patients.

Clinical trials exemption scheme

Until 1981 the control of clinical trials undertaken by the pharmaceutical industry in the UK was perhaps the most rigorous in the developed world. Extensive data requirements and detailed assessment of applications for clinical trial certificates led inevitably to difficulties and delays and attracted a great deal of criticism from the pharmaceutical industry and from clinical investigators. In order to obviate these difficulties a new scheme was introduced in 1981 — the clinical trial exemption scheme.

Under this scheme an applicant, usually a pharmaceutical company, who wishes to undertake trials in the UK notifies the Licensing Authority and provides the following information:

1. Protocols of the trials with names and addresses of investigators.
2. A summary of the pharmaceutical and biological data.
3. A statement, signed by a medical practitioner, that the contents of the summary are accurate and that it is reasonable to undertake the trials.

The Licensing Authority has thirty-five days in which to object to the notification on grounds of safety only; in exceptional cases a further period of twenty-eight days may be allowed. These notifications are not considered by the Committee on Safety of Medicines but are evaluated by the professional staff of the Medicines Division. If there are no objections the trials may proceed. In the event of refusal the applicant has no right to appeal but can apply for a clinical trial certificate in the usual way. A refusal of an application for a clinical trial certificate carries the right for the company to make representations to the Committee on Safety of Medicines Commission.

The company has to notify the Licensing Authority of any refusal by an ethical committee to permit trials and also has to inform the Authority of any adverse reactions during the trials or any other information which affects the safety of the product.

Further trials may be undertaken by informing the Licensing Authority at the appropriate time and obtaining their consent.

In the past two years, approximately 517 notifications for trials *involving* new chemical entities have been received; of these 142 have been for new chemical entities. Although experience is limited, it is already clear that the scheme has been successful in encouraging new drug development in the UK. Apart from the obvious benefits to departments of clinical pharmacology and to the pharmaceutical industry it is hoped that patients will also benefit by the earlier introduction of important new medicines. There is no evidence that this change in procedure has adversely affected the health of patients.

Changeover to U100 Insulin

Insulin has been available in the United Kingdom in strengths of 20, 40 and 80 units per ml (U20, U40 and U80). U20 is used very little and U80 accounts for about 70 percent of the market. The British Diabetic Association (BDA), whose clinical membership includes virtually all hospital doctors specializing in the treatment of diabetes, has been concerned for some time about the risk of dosage errors through confusion between the different strengths, and has documented 55 cases (three of which were fatal) in which this occurred. The BDA reached agreement in 1982, in consultation with diabetologists, the

medical Royal Colleges and the General Medical Services Committee, that standardization on a single strength of insulin is desirable and that the most suitable strength would be 100 units per ml (U100). This has the advantage that the measurement of dosages is simplified because units of insulin can be read off directly on the U100 syringe. In 1982 U100 was not generally available in this country, but it had been introduced as the standard strength in Canada, Australia and New Zealand and also accounted for most of the USA market. In Western Europe U40 is used almost exclusively.

The choice between different strengths of insulin is essentially a clinical matter, but it is obviously important in the interests of patients that, if a single new strength is to be adopted, the transition should proceed smoothly. When it became clear that there was general clinical support for U100 the Department agreed to co-operate in its introduction. The choice between different insulin strengths will remain (subject to their availability from the manufacturers) a matter for the judgement of each clinician. But the overwhelming preference for U100 shown by clinicians makes it likely that over the next few years it will, in practice, become virtually the standard strength in this country. It is estimated that there are about 200,000 insulin-using diabetics in England virtually all of whom will be affected by the change.

The glass re-usable syringes used for U40 and U80 are not suitable for U100 and it has been necessary to draw up a new British Standard for re-usable glass U100 syringes: this has now been published (BS 1619 = Part 2). It provides for two sizes of syringes, 0.5ml and 1ml. U100 versions of the Preset and Click/count syringes designed for blind or poorly sighted diabetics are also being introduced. In the ordinary way most routine prescriptions for insulin, and for replacement syringes when one gets broken, are issued by the patient's family doctor and this will continue once the changeover is complete. Patients changing to U100 will need instruction on using the new syringes and on how they measure their dose at the new strength. In view of this the Department agreed with the BDA that it will generally be desirable for initial supplies of U100 insulin, and of the new syringes (two for each patient) to be channelled through hospital clinics. The Department issued to Regional Supplies Officers (15 October 1982 D/A/2/9), for transmission to all supplies Officers in their regions, detailed advice on the arrangement for ordering the new syringes. Regional Pharmaceutical Officers were also informed at one of their regular meetings. It is, of course, open to general practitioners to change their own patients to the new strength if they wish. U100 insulin, and the re-usable glass syringes, will be available on the Drug Tariff and general practitioners will be supplied in the ordinary way through the general pharmaceutical service. The Department has also prepared a specification for sterile single-use (plastic) syringes for use in hospital with U100 insulin (specification No TSS/5330.050, March 1983).

The BDA has identified a consultant in each district who has agreed to act as clinical co-ordinator for the transition. This co-ordinating physician will be available to offer help and advise on any problems. The BDA has informed District Nursing Officers and Directors of Nurse Education of the proposed change and the arrangements which have been made.

The rate of production of the syringe manufacturers implies that it will take them about two years to meet the total need of two syringes for each patient once production has started. If deliveries start around the end of 1982, the total cost to authorities will thus be spread over the three financial years

1982/83/1984/85. Therefore the Department and the BDA recommended that, provided supplies are available locally, the programme for changeover should begin on 1 March 1983 and that no change should be made before that date and thereafter clinicians should match the rate of changeover to availability of the new syringes. This will allow time for initial build-up of stocks of the new syringes and for their inclusion in the Drug Tariff. Health Notice HN(82)32, HN(FP)(82)27 advising Health Authorities and Family Practitioner Committees of these facts was issued in October (Department of Health and Social Security, 1982).

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c. Scientific Services and Biotechnology

Establishment of the Central Blood Laboratories Authority

In December 1982 a new special health authority, the Central Blood Laboratories Authority, was set up to provide an effective management body for the three central blood laboratories (the Blood Products Laboratory at Elstree, the Plasma Fractionation Laboratory and the Blood Group Reference Laboratory, both at Oxford). The laboratories, which are centrally funded by the Department, had previously been managed, on an interim basis, jointly by the Department and the North West Thames Regional Health Authority. The laboratories are responsible for the manufacture of blood products (such as Factor VIII for haemophilia) and blood grouping reagents and for reference work and quality assessment in blood transfusion serology. The Authority is based at Elstree and its chairman is Mr David Smart, formerly of Glaxo Holdings Ltd.

Biotechnology

Recent advance in DNA and hybridoma technology have wide-reaching implications for diagnostic, therapeutic and preventive medicine. Monoclonal blood grouping reagents originally produced in the MRC's Molecular Biology Laboratory at Cambridge and further developed by Celltech have undergone comparative trials alongside conventional reagents and are now being introduced into the NHS for more widespread trial and use. Human insulin produced by DNA technology was granted a licence during 1982 for use in the UK. Human growth hormone produced by recombinant DNA technology in Sweden is undergoing clinical trials in Britain; it is hoped that hormone produced in this manner will eventually replace that extracted from human pituitary glands. Detailed proposals have been put forward by the Public Health Laboratory Service (PHLS) Board for the provision of a new fermentation pilot plant at the Centre for Applied Microbiology and Research (CAMR) at Porton Down. In March 1983 The Department of Industry approved funding of up to £2m. to enable CAMR to carry out a fermentation technology development project. These measures will combine to strengthen the infrastructure for biotechnology-based industries in the UK. Also with Department of Industry support, the PHLS is to establish at Porton an animal cell culture collection (primarily for hybridomas) as a national and international resource.

d. Nutrition

The Committee on Medical Aspects of Food Policy, which advises the Chief Medical Officer on matters relating to nutrition, met twice in 1982. Professor Sir John Butterfield retired from the Committee after a valuable contribution for many years. The Department continues to be grateful to members of the Committee and its sub-groups for their time and expertise. This section records some of their work and that of the Nutrition Unit.

Nutritional surveillance

In 1982 the fieldwork for a cross-sectional anthropometric survey of pre-schoolchildren was completed. The study was commissioned from the London School of Hygiene and Tropical Medicine as part of the Department's programme of nutritional surveillance. During the year from May 1981 to May 1982 about 10,000 children aged one year and two years were measured in 104 Local Authorities in England, Wales and Scotland. It is expected that the study will provide a baseline against which future studies can be compared. The analysis has yet to be completed.

The Department has also commissioned a separate study of the health and growth of primary schoolchildren. This is a continuation of the work already being carried out for the DHSS by the Department of Community Medicine at St Thomas's Hospital Medical School. The study has been modified to increase the representation of children from inner city areas and ethnic minority groups and will make a further valuable contribution to surveillance.

During 1982 plans were completed for a nutrition survey of schoolchildren following changes in the provision of school meals brought into effect by the Education Act 1980. Advice was sought from the Committee on Medical Aspects of Food Policy on what action should be taken to monitor the nutritional effects, if any, of the new arrangements. The Committee suggested that a dietary survey of a nationally representative sample of schoolchildren should be undertaken. In the interest of economy and efficiency, it was thought that the fieldwork of the survey might be carried out by the Office of Population Censuses and Surveys (OPCS), using the expertise and experience which could be contributed by the Department's Nutrition Unit. A feasibility study was carried out in the summer term to assess whether OPCS could carry out a survey which involved measuring all food and drink consumed by children over a 7-day period. The results were sufficiently reassuring to justify carrying out a large scale nationally representative survey in early 1983. The survey, which will cover children aged 10-11 years and 14-15 years, involves measuring the weight of all food and drink consumed over a 7-day period and the children's height and weight. It is hoped that preliminary results will be available early in 1984.

Infant feeding

Throughout 1982, the Government continued to pursue its policy of promoting breast feeding. The DHSS held a day conference on Infant Feeding for the 1980's at the King's Fund Centre for representatives of professional and voluntary organizations concerned with the health and welfare of mothers and

young children (DHSS, 1982). Papers were included on research commissioned by the DHSS and by the Medical Research Council. The changes in infant feeding practice in England and Wales between 1975 and 1980 were discussed, based on the nationally representative surveys in England and Wales in 1975 (Martin, 1978) and in England, Wales and Scotland in 1980 (Martin and Monk, 1982). The factors influencing choice of infant feeding method during 1978-80 studied at the Health Care Research Unit of the University of Newcastle-upon-Tyne were examined (Hally *et al.* 1981). The observed intakes of human milk in young babies were compared with theoretical requirements calculated according to published recommendations. Midwives described the initiation of breast feeding, dispelling some of the myths, and the importance of regular and consistent professional support at home for lactating mothers was stressed. The complementary role of voluntary organizations such as the Association of Breastfeeding Mothers, La Leche League and the National Childbirth Trust was also made clear.

The Panel on Child Nutrition of the Committee on Medical Aspects of Food Policy met to discuss a number of topics of current interest. Members reiterated the need for the setting up of scrutiny arrangements for the approval of infant formulae based on cows' milk, goats' milk or plant products such as soya and the increasing variety of products for low birthweight infants. Discussions with the manufacturers and the Ministry of Agriculture, Fisheries and Food on the details of such arrangements took place later in the year. The report of the Panel's Working Party entitled *Present day practice in infant feeding: 1980* (DHSS, 1980) was updated during 1982 to include the findings of the survey of infant feeding practice in 1980 (Martin and Monk, 1982) and recent changes in composition of some infant formulae in general use. The section on allergy was also rewritten.

The Government has supported and accepted the aim and principles of the World Health Organization International Code of Marketing of Breastmilk Substitutes. Two documents constituting the United Kingdom response were drawn up during 1982 and went out for wide consultation with professional and voluntary bodies including consumer and pressure groups. These were first, a health circular advising health professionals of their responsibilities in the promotion of good infant feeding practices and second, a voluntary code of practice prepared by the Food Manufacturers Federation in consultation with Government departments. This sets out measures to be observed by manufacturers and distributors of infant formulae and provides a schedule for the establishment of a Code Monitoring Committee to oversee their compliance with the code of practice. Final guidance, taking account of the comments received on the documents, should be issued by the middle of 1983.

Rickets

The campaign to prevent rickets and osteomalacia among British Asians continued during 1982. A description of the first twelve months of the campaign with some recent results was prepared for publication as the *Stop Rickets Campaign Report* (Working Group on Rickets, 1983). Although it was too soon to expect evidence of the campaign's effects on the incidence of vitamin D deficiency, some early indications were favourable in respect of the awareness and knowledge of Asian people about these diseases. Preliminary information indicated an initial rise of around 10 to 20% in the uptake of vitamin supplements but so far probably the best sign of achievement was the realization of a collaboration between Asian community leaders and health

authorities at local level. This has involved the setting-up of joint committees on rickets, which have worked well and seem likely in some places to lead to similar initiatives into other health problems of Asians.

Diet and heart disease

The Panel on Diet and Cardiovascular Disease met twice during 1982. There was a large amount of evidence to review including recent reports from the World Health Organization and national bodies in North America and Finland. The first phase of the Panel's work had been completed with the production of working papers on specialized topics by members, and the main business of scientific discussion had commenced at the December meeting. Further meetings have been planned for 1983, and the drafting of a report should start later in the year.

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TABLES

Sexually transmitted diseases

Table 5.1 Cases of syphilis, gonorrhoea and chancroid reported in England for the year ended 31 December 1981 with the figures for the year ended 31 December 1980 in parentheses (for the incidence rate per 100,000 population see Table 5.3)

	Total	Male	Female
Syphilis			
Early	2,279 (2,512)	1,934 (2,131)	345 (381)
Primary and Secondary only	1,451 (1,547)	1,258 (1,340)	193 (207)
Late	1,396 (1,428)	969 (942)	427 (486)
Congenital	135 (119)	60 (61)	75 (58)
Gonorrhoea			
All forms	52,200 (54,433)	33,454 (34,087)	18,746 (20,346)
Post-Pubertal Gonorrhoea			
All ages	52,174 (54,388)	33,448 (34,070)	18,726 (20,318)
Under 16 years	361 (399)	96 (94)	265 (305)
16-19 years	10,266 (10,504)	4,351 (4,288)	5,915 (6,216)
20-24 years	18,256 (18,898)	11,000 (11,314)	7,256 (7,584)
25-34 years	16,054 (17,340)	11,943 (12,525)	4,111 (4,815)
35-44 years	5,369 (5,432)	4,446 (4,316)	923 (1,116)
45 years and over	1,868 (1,815)	1,612 (1,533)	256 (282)
Chancroid	91 (54)	64 (38)	27 (16)

Table 5.2 Other sexually transmitted diseases reported in England in year ended 31 December 1981 together with the figures for year ended 31 December 1980 in parentheses (for incidence per 100,000 population see Table 5.4)

	Total	Male	Female
Lymphogranuloma venereum	40 (28)	30 (22)	10 (6)
Granuloma inguinale	25 (20)	11 (16)	14 (4)
Non-specific genital infection (NSGI)	120,018 (114,306)	90,071 (86,896)	29,947 (27,410)
NSGI with arthritis	583 (544)	547 (513)	36 (31)
Trichomoniasis	20,224 (20,641)	1,662 (1,906)	18,562 (18,735)
Candidiasis	46,947 (44,604)	9,496 (9,210)	37,451 (35,394)
Scabies	2,145 (2,288)	1,748 (1,799)	397 (489)
Pediculosis pubis	8,718 (7,966)	5,970 (5,456)	2,748 (2,510)
Genital herpes	11,147 (10,043)	6,631 (6,149)	4,516 (3,894)
Genital warts	29,704 (28,176)	18,807 (17,930)	10,897 (10,246)
Genital molluscum	1,212 (1,153)	730 (751)	482 (402)
Other treponemal diseases	878 (923)	556 (570)	322 (353)
Other conditions requiring treatment in a centre	67,842 (59,963)	37,288 (34,749)	30,554 (25,214)
Other conditions not requiring treatment in a centre	111,407 (107,123)	69,610 (66,911)	41,797 (40,212)
Other conditions referred elsewhere	2,933 (2,655)	1,551 (1,477)	1,382 (1,178)

Table 5.3 The venereal diseases — new cases per 100,000 population by age seen at hospital clinics in England 1977–1981

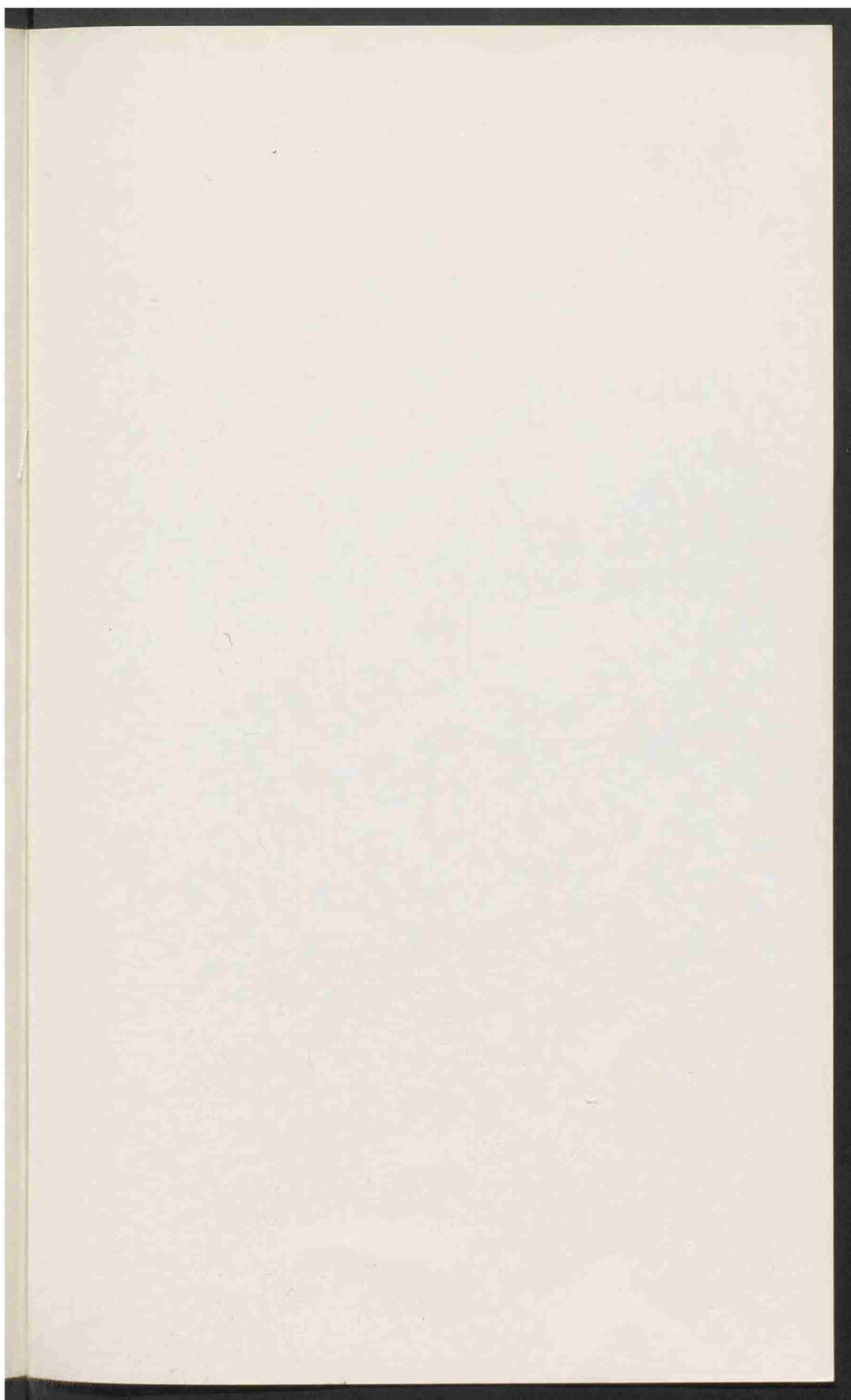
	1977		1978		1979		1980		1981						
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female					
Early Syphilis															
All ages	10.15	1.97	5.95	10.53	1.74	6.02	9.45	1.48	5.36	9.41	1.60	5.41	8.50	1.44	4.90
Primary & secondary only	6.70	1.13	3.84	6.77	0.92	3.76	5.88	0.80	3.28	5.92	0.87	3.33	5.53	0.80	3.10
Under 16 years	0.16*	0.09*	0.13	0.11*	0.06*	0.08*	—	0.04*	0.02*	—	0.06*	0.03*	0.06*	—	0.03*
16–19 years	7.17	5.07	6.15	5.07	2.89	4.00	4.87	3.38	4.14	4.06	3.78	3.91	4.40	2.99	3.71
20–24 years	19.10	5.35	12.41	18.10	4.13	11.31	14.12	2.76	8.56	14.83	3.47	9.27	15.27	3.52	9.48
25 years and over	7.84	0.70	4.07	8.23	0.70	4.25	7.29	0.60	3.77	7.29	0.58	3.75	6.48	0.56	3.35
Late Syphilis															
All ages	4.02	1.85	2.90	4.56	1.81	3.15	4.22	1.81	2.98	4.16	2.04	3.07	4.26	1.78	2.98
Congenital Syphilis															
All ages	0.26	0.43	0.35	0.17	0.36	0.27	0.19	0.35	0.28	0.27	0.24	0.26	0.26	0.31	0.29
Gonorrhoea (post pubertal)															
All ages	163.41	91.72	126.64	157.77	88.41	122.18	154.75	84.22	118.59	150.49	85.26	117.04	146.96	77.94	111.52
Under 16 years	2.25	8.04	5.06	1.82	6.44	4.07	1.50	5.86	3.62	1.75	5.99	3.81	1.82	5.30	3.52
16–19 years	331.52	508.19	417.67	294.39	453.31	372.21	284.80	412.83	347.31	276.65	420.00	345.53	277.54	393.83	334.44
20–24 years	724.58	492.48	611.76	667.20	463.50	569.57	654.29	449.88	554.23	650.23	454.13	554.19	626.78	425.17	527.39
25 years and over	144.25	42.83	90.69	143.78	44.04	91.13	139.67	41.27	87.78	131.52	39.88	83.20	127.04	33.44	77.67
Chancroid															
All ages	0.17	0.02*	0.09	0.22	0.01*	0.11	0.16	0.02*	0.09	0.17	0.07	0.12	0.28	0.11	0.19

*These rates were based on fewer than 10 events and consequently their reliability as a measure may be affected.

Table 5.4 Other sexually transmitted diseases and other conditions — new cases per 100,000 population at all ages seen at hospital clinics in England 1977–1981

	1977			1978			1979			1980			1981		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Lymphogranuloma venereum	0.13	0.02*	0.07	0.10	0.01*	0.06	0.09	0.04	0.06	0.10	0.03*	0.06	0.13	0.04	0.85
Granuloma inguinale	0.06	0.01*	0.04	0.04*	0.01*	0.02	0.08	0.05	0.06	0.07	0.02*	0.04	0.04	0.06	0.05
Non-specific genital infection	335.89	82.65	206.02	347.52	83.91	212.28	356.67	91.41	220.67	383.82	115.02	245.98	395.74	124.65	256.53
Non-specific genital infection with															
arthritis	2.08	0.11	1.07	1.89	0.13	0.99	1.93	0.08	0.98	2.27	0.13	1.17	2.40	0.15	1.25
Trichomoniasis	7.50	77.23	43.26	7.41	76.15	42.68	7.03	75.33	42.05	8.42	78.62	44.42	7.30	77.26	43.23
Candidiasis	32.91	128.98	82.18	36.23	131.99	85.36	35.61	133.03	85.56	40.68	148.53	95.98	41.72	155.88	100.34
Scabies	7.72	1.86	4.71	7.70	1.89	4.72	7.39	1.70	4.47	7.95	2.05	4.92	7.68	1.65	4.58
Pubic lice (pediculosis pubis)	18.75	7.68	13.07	20.73	8.83	14.62	22.97	9.60	16.12	24.10	10.53	17.14	26.22	11.44	18.63
Herpes simplex	22.06	11.53	16.66	23.20	13.33	18.14	24.16	14.25	19.08	27.16	16.34	21.61	29.13	18.80	23.83
Warts (condylomata acuminata)	65.52	33.54	49.12	69.07	35.94	52.07	69.45	36.94	52.78	79.20	43.00	60.63	82.63	45.36	63.49
Molluscum contagiosum	2.82	1.24	2.01	2.94	1.26	2.08	2.77	1.43	2.09	3.32	1.69	2.48	3.21	2.01	2.60
Other treponemal diseases	3.27	1.55	2.39	3.09	1.61	2.33	3.23	1.49	2.34	2.52	1.48	1.99	2.44	1.34	1.88
Other conditions requiring treatment in a centre	121.67	62.95	91.56	128.74	73.07	100.17	130.27	84.49	106.80	153.48	105.81	129.04	163.83	127.17	145.01
Other conditions not requiring treatment in a centre	263.93	151.21	206.12	276.44	155.07	214.17	273.97	159.18	215.11	295.54	168.75	230.52	305.84	173.97	238.12
Other conditions referred elsewhere	4.74	2.86	3.77	5.54	3.71	4.60	5.97	3.75	4.83	6.52	4.94	5.71	6.81	5.75	6.27

*Rates based on fewer than 10 events and consequently their reliability as a measure may be affected.



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