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JOINT COUNTY COUNCIL OF MORAY & NAIRN

REPORT

by

The Medical Officer of Health

for

1949.

County Buildings,

Elgin.

To

The Joint County Council of Moray and Nairn,
The Moray County Council,
The Nairnshire County Council,
The Town Councils of Burghead,
Elgin,
Forres,
Grantown-on-Spey,
Lossiemouth,
Nairn,
Rothes.

My Lords, Ladies and Gentlemen,

I have the honour to submit my Annual Report for the year ending 31st December, 1949.

This year has been the first whole calendar year of the National Health Service, and my remarks of last year concerning the need of a strong preventive branch have been fully borne out. The total cost of the National Health Service was £48,988,300 in 1948 - 1949, and the estimate has increased to £51,254,000 for the current financial year. Of this, the Hospital and Specialist Services account for just over three-fifths, General Medical Services for half that amount, and grants to local health authorities for one sixteenth. The amounts spent on restoring ill-health could be, in my opinion, substantially reduced by a stimulating injection of funds into the preventive services.

The Report follows the usual lines.

The vital statistics show a welcome decline in the infant mortality rate, and in the still-birth rate. The death rate from tuberculosis, while relatively low, remains obstinately steady.

Infectious diseases have been relatively less troublesome than in past years, and diphtheria continues to be conspicuous by its absence. At the risk of appearing to cry "Wolf! Wolf!!" too loud and to often, may I repeat my warning that the continuance of this desirable state of affairs depends on parents. The immunisation rate can never be too high.

Tuberculosis continues an ever-present problem. The notifications are half as numerous again as in the pre-war decade, though deaths remain at the same level.

The difficutly with pulmonary tuberculosis has always been to find cases. Once this has been done, the procedure attempted follows the well-known pattern - isolation, remedial treatment, rehabilitation; and for the contacts - surveillance. The difficulty used always to be to secure the patient's co-operation. Now it is to secure his isolation as there is more demand for beds, and a serious shortage of staff. One day we may hope to see the development of a drug which will cure tuberculosis as rapidly and as completely as many conditions now are by such substances as penicillin. Until then there is no substitute for the old methods. The place of the local health authority is to secure the housing and after-care of the treated patient, so that he may have the greatest possible chance of remaining well. Certain aspects of this matter are dealt with in the body of the report.

Non-respiratory tuberculosis is partly due to infection from human cases, and partly to drinking infected milk. The bulk of milk now sold or offered for sale in Moray and Nairn can be considered tubercle-free. It is in milk from non-registered premises that the danger/

danger mainly lies.

Preventive medicine lies largely at the back of the methods of dealing with food, milk and water. Proper handling ensures freedom from communicable disease. In the same way proper disposal of sewage and refuse prevents the contamination of the former products. Even the best arrangements may be stultified if there is a go-between, such as the house-fly. This pest may carry dysentery, food-poisoning, or poliomyelitis. Let us banish it.

I have the honour to be,

Yours faithfully,

I C Monro

Medical Officer of Health.

CONTENTS.

PRINCIPAL VITAL STATISTICS.

Population.

Estimate at middle of 1949 55,922
(This is a decrease of 148 on the previous year, and probably results from the increase in deaths - 65 and decrease in births - 81, the two together reducing the natural increase

Births, Deaths and Marriages.

Total live births, corrected for transfer	1,049	18.8 per 1,000 population
Legitimate	957	91.1% total live births
Illegitimate	92	8.8% total live births
Total still-births corrected for transfer	23	21.5 per 1,000 total births
Marriages	406	7.3 per 1,000 population
Deaths, all causes, corrected for transfer	723	12.9 per 1,000 population
Tuberculosis (all forms)	23	41.1 per 100,000 population
Tuberculosis (Respiratory)	20	35.7 per 100,000 population
Principal Epidemic Diseases	9	16.1 per 100,000 population
Children under one year	39	37.2 per 1,000 live births
Women in Childbirth	2	1.9 per 1,000 total births.

Causes of Death.

Deaths from tuberculosis remain very constant over the years. There is little change over the pre-war average.

Deaths from all other kinds of infectious disease have increased, the figures being about double those of the previous year. This is no more than the fluctuation seen in any series of figures of this nature.

The communicable respiratory diseases present figures almost identical with the previous year, and well below the pre-war average.

Cancer and other malignant diseases, accounted for almost exactly the same number of deaths as in the previous year. Both these years showed substantial advances on the war and pre-war years.

Deaths from diseases of the heart and arteries, and to nephritis and cerebral haemorrhage - the diseases due to failure of the plumbing and central heating system of the body - have increased to over half the total deaths. Their increase accounts almost exactly for the increase in total deaths.

Age Incidence of Deaths.

0 - 1	1 - 4	5 - 9	10 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 - 84	85 - +
39	6	6	5	14	16	25	55	72	196	208	81

CARE OF MOTHERS AND YOUNG CHILDREN.

(a) Ante-natal and Post-natal Clinics.

Neither of the above are provided by the Local Health Authority. The Clinics held at Forres and Nairn by Obstetricians, originally appointed by the County Council, and now supplied by the Northern Regional Hospital Board, have continued throughout the year. There is no sign yet that North-Eastern Regional Board will provide specialist ante-natal facilities in Elgin. This was originally proposed by the County Council in 1943, in connection with the Maternity Services Scheme. The then Managers of Dr. Gray's Hospital set up a gynaecological clinic, but did not see their way to provide ante- natal facilities. It is stated to be the intention of the Board to start an ante-natal clinic when Maryhill is open, but as there seems to be interminable delay in completing the building programme, the time seems ripe for re-consideration of this decision. A good ante-natal clinic should in time take a load off the gynaecological clinic. In any case it is illogical to provide treatment facilities for conditions in some considerable degree preventable.

	Ante-natal	Post-natal.
Total number of cases attending the clinic at Forres in 1949. (Figures for Nairn not available).	275	24

(b) Child Welfare Clinics.

The Local Health Authority have continued to operate the Child Welfare Clinic in Elgin, and have opened one for the benefit of the dependents of men serving in the Royal Navy at Lossiemouth and Milltown.

	Under 1 Year	Over 1 Year
Children attending during 1949	105	9
Total attendances	1,029	113

(c) Dental Care.

The School Dental Officer resigned on 31st December, 1948, and since that date the Local Health Authority has had no dentists in its employment, consequently, no arrangements for the dental care of expectant or nursing mothers of pre-school children have been made.

(d) Mother and Baby Homes.

No such homes, provided by public or private enterprise, exist in the Combined County.

(e) Day Nurseries
(f) Residential Nurseries
Children's Homes

So far there are none.

(g) Nurseries and Child-Minders Regulation Act, 1948.

No registrations have been effected under this Act.

MIDWIFERY SERVICES.

(a) Total number of Births notified including stillbirths (uncorrected)	1044
(b) Births according to classification	
(i) Under Section 23 (2) of the National Health Service (Scotland) Act, 1947.	
(a) Doctor engaged and present	262
(b) Doctor engaged and not present	81
(c) No doctor engaged	-
(ii) Other domiciliary cases	-
(iii) Cases attended in institutions in Moray and Nairn	701

VISITATION BY HEALTH VISITORS.

	Initial Visits	Total Visits
Expectant mothers visited by Health Visitors.	361	2,394
Infants	1,042	10,282
Children (1 - 5 years)	474	7,896
School Children		
At request of family doctor	-	-
At request of hospital	-	-

HOME NURSING.

Cases attended in their own homes under Section 25 of the National Health Service (Scotland) Act, 1947.	3,120	51,895

HOME HELP SCHEME.

No scheme has yet been submitted for approval. A scheme is under consideration.

INFANT MORTALITY AND STILL-BIRTHS.

The principal statistical findings are presented in the series of tables following.

Births, Still-births and Infant Deaths, by Totals and Rates, 1931 to 1949.

	Average 1931 to 1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Live Births	886	1085	1104	1048	1057	953	1122	1210	1130	1049
Still-Births	-	26	41	32	39	25	40	36	28	23
Total Births	-	1111	1145	1080	1096	978	1162	1246	1158	1072
Deaths under one year	60	79	56	49	59	50	55	59	56	39
Birth Rate	18.1	20.7	21.3	20.5	21.3	19.2	21.6	22.1	20.1	18.8
Still-birth Rate	-	23.4	35.8	29.6	35.6	25.6	34.4	28.9	24.2	21.5
Infant Mortality Rate	67.7	72.8	50.7	46.7	55.8	52.5	49.0	48.8	49.6	37.2

Causes of Infant Mortality, 1949, uncorrected for Residence.

	In first 4 weeks.	In remainder of first year.	Total
Premature Birth	7	1	8
Congenital Debility	2	-	2
Congenital Malformation	5	1	6
Injury at Birth	5	-	5
Respiratory Disease	-	9	9
Alimentary Disease	-	-	-
Other Causes	2	10	12
TOTAL	21	21	42

Causes of Still-births, uncorrected for Residence.

Difficult Labour	8
Congenital Malformation	3
Ante-partum Haemorrhage	2
Acute Toxaemia of Mother	1
Chronic Disease of Mother	-
Other Causes	5
Total	19

These tables show the following:-

Births continue to show the higher prevalence, which made its appearane in the early years of the late war, by comparison with the pre-war decade.

Still-births are fewer than ever before. The causes of still-birth remain substantially unchanged.

Infant Deaths have declined by one-fifth, and are thw lowest on record. Hitherto, the gross number of infant deaths has remained constant, while the infant mortality rate has varied inversely as the total number of births. In 1949, the gross number of infant deaths has dropped, while the total of births has remained constant. The infant mortality rate has therefore dropped also. The reduction in the number of premature births appears to be the chief factor in this very gratifying improvement.

There is still room for improvement. Both the still-birth and infant mortality rates could be halved.

It is interesting to note that the greatest improvement in infantile mortality and still-birth rates has taken place in the towns of Forres and Nairn. Both have adequate beds for maternity cases, and at each an ante-natal clinic, staffed by an obstetrician of consultant status is held. These clinics were set up as a result of the report on Infant Mortality in Scotland of 1943. It is to be regretted that similar consultant facilities are still lacking in Elgin and Grantown-on-Spey, and this two years after the Regional Hospital Board took over. In framing its proposals for domiciliary midwifery, the local health authority drew attention to the need for clinics at these centres.

VACCINATION AND IMMUNISATION.

Notifications of Vaccination in 1949 were are follows:-

	Primary	Secondary
Typical Vaccinia (7 - 10 days)	510	7
Accelerated Reaction (5 - 7 days)	9	1
Reaction of Immunity (2 - 3 days)	1	-
No Local Reaction	28	-

Total Vaccinations notified - 556.

Immunisations were notified in 1949 as follows:-

Year of Birth	Primary	Reinforcement.
1949	36	-
1948	424	-
1947	80	-
1946	8	-
1945	8	3
1944	2	67
1943	31	243
1942	20	60
1941	5	21
1940	-	2
1939	-	2
1938	-	-
1937	-	-
1936	-	-
1935	-	-
1934 or earlier	1	1
	615	399

The number of notifications of new immunisations has fallen off slightly. This probably indicates slow notification owing to the delay in agreeing on the fee for notification rather than a lower rate of immunisation. The number of reinforcements is down by nearly half, no doubt because arrears of this work were overtaken in the previous year leaving less to be done in the year under review.

PREVENTION OF ILLNESS, CARE AND AFTER CARE.

The Medical Officer of Health handed over his duties as clinical Tuberculosis Officer to a Tuberculosis Physician appointed by the North Eastern Regional Hospital Board, in August, 1949. No transfer had been made in respect of Nairnshire up to the end of 1949. It is consequently too early to form any opinion of the effectiveness of the new arrangements.

Arrangements were completed for the Medical Officer of Health to continue as Medical Superintendent of the Joint County Fever Hospital, thereby ensuring that the resources of this hospital are adequately turned towards the prevention of illness while also adequately directed towards treatment.

TUBERCULOSIS

Notifications in 1949.

	Respiratory	Non-Respiratory	Total
Adults - male	35	3	38
- female	24	2	26
Children - male	2	2	4
- female	4	3	7
Total	65	10	75
Admissions to Hospital.			
Adults - male	24	-	24
- female	21	-	21
Children - male	-	2	2
- female	1	-	1
Total	46	2	48
Discharges.			
Adults - male	13	1	14
- female	8	1	9
Children - male	-	1	1
- female	-	1	1
Total	21	4	25
Deaths.			
Adults - male	3	-	3
- female	4	-	4
Children - male	-	1	1
- female	-	-	-
Total	7	1	8

A start has been made with the examination of contacts, which is very satisfactory.

The rehousing of cases of tuberculosis is now more firmly than ever a responsibility of the Joint County Council. As they are not a housing authority, they cannot achieve the desired end except through the goodwill of the other local authorities in the area, which are the housing authorities. No arrangement has been reached between the two groups. It would be in the interests of the community if the Joint County Council clarified the matter and secured an understanding with the housing authorities.

CONTROL OF INFECTIOUS DISEASE.

Notifications during 1949.

	1931 to 1940	1940 - 1945	1946	1947	1948	1949
Scarlet Fever	221	76.8	88	56	110	55
Diphtheria	54.2	54.4	28	10	-	-
Erysipelas	20.6	11.4	44	14	11	9
Acute Primary Pneumonia	38.9	30.6	52	78	59	79
Acute Influenzal Pneumonia	13.9	3.8	1	2	1	4
Cerebrospinal Fever	7.6	10.6	8	-	-	3
Dysentery	2.9	15.4	10	4	10	3
Enteric Fevers	1.4	4.4	1	-	3	2
Puerperal Fever & Pyrexia	5.4	5.0	6	5	5	1
Ophthalmia Neonatorum	0.9	1.2	1	2	-	-
Poliomyelitis	0.6	-	-	55	13	9

Commentary.

Scarlet fever has continued to be of a generally mild nature, although one or two of the cases have been of a rather more severe type. The notifications are exactly half those of the previous year.

The pneumonias have returned to the prevalence of 1947. We do not see the old-fashioned and severe types in these days.

Cerebrospinal fever was notified three times. One case, admitted to Culduthel Hospital, Inverness, was confirmed bacteriologically. One case admitted to hospital in Elgin proved fatal, and in the other, who had been treated with sulphonamide prior to admission, no organism was recovered.

Dysentery was rather less common than usual.

Enteric fever, in this case suspected paratyphoid was notified twice. One case, a child on holiday from the north of England was confirmed, and it was found that there was a considerable outbreak in the home town. The other case was not confirmed.

Puerperal Pyrexia was notified once only, a low figure.

Acute Anterior Poliomyelitis was notified in nine cases. The diagnosis was unconfirmed in two cases, and of the remainder, four were paralytic and were transferred to Stracathro Hospital for orthopaedic treatment.

Diphtheria was again absent. In my last Annual Report, I pointed out that during the eight years prior to the commencement of the immunisation campaign, cases had averaged 65 annually. At an estimated cost of £20 per case, the saving had therefore been in the region of £4,400/

£4,400 since the immunisation campaign commenced. In the Report issued by the Department of Health for Scotland, the cost per case is reckoned at £35, and the annual saving to Scotland at £35, and the annual saving to Scotland at £300,000. Taking the cost as estimated by the Department, every year without a case in Moray & Nairn represents £2,285 in the nation's pocket.

During 1949, there were in Scotland only 14 deaths from diphtheria, by comparison with 676 in 1940. This demonstrates the effectiveness of diphtheria immunisation. A return to the conditions of ten years ago might throw a load on the hospital service sufficient to produce a major breakdown. This must not happen.

Immunisation and Poliomyelitis.

Although not strictly pertaining to the year 1949, a few words on the relationship between inoculations and poliomyelitis will prove topical.

The facts are that injections of diphtheria prophylactic and of whooping cough prophylactic, particularly the latter, have in a small number of cases been followed by poliomyelitis so altered in the sites of paralysis as to leave no doubt that the paralysis was precipitated or aggravated by the inoculation. In all these cases the inoculation was carried out within a month of the onset of poliomyelitis, and at a time when the latter disease was prevalent. The risk is quite small, but large enough to worry parents whose children are due to be immunised. Let me say to these parents that in the event of poliomyelitis becoming prevalent in Moray and Nairn, an immediate request will be sent to all doctors to suspend immunisations. If the worst comes, and poliomyelitis becomes an annual event, immunisations will have to be restricted to the winter and spring, when poliomyelitis does not occur. Let me also say that the increase of poliomyelitis has nothing to do with the great reduction in diphtheria. It was already epidemic in Scandinavia prior to 1910, and in America almost as early, long before diphtheria immunisation became national policy in these countries.

VENEREAL DISEASES.

New Civilian Cases admitted to Clinics in Aberdeen during 1949.

Syphilis			Chancroid	Gonorrhoea			Other Venereal condtns.	Total Venereal	Non-Venereal
Acquired	Congenital	Total		Genital	Ophthalmia	Total			
8	3	11	-	6	-	6	4	21	10

Particulars of In-patients and of Out-Patient Attendances.

No. of In-patients.	Days in Hospital.	Out-patient Attendances.
23	347	264

Laboratory Findings.

Syphilis						Spirochaetes		Gonorrhoea Smears		Total
Wassermann		Laughlen:		C.S.F.						
+	-	+	-	+	-	+	-	+	-	
36	243	40	239	-	26	1	1	15	123	724

LABORATORY SERVICES.

Now that the Laboratory Services are carried out by the Regional Hospital Boards, samples from Moray go as a rule to Aberdeen, and from Nairnshire to Inverness. A complete record is available from Aberdeen but not, in respect of 1949, from Inverness. It should however be noted that all milk samples from the Combined County are examined in Aberdeen.

Samples dealt with in Aberdeen in 1949.

	1949	1948	1938
Diphtheria	325	357	977
Upper Respiratory Infections	349	-	-
Whooping Cough	-	-	-
Bacillary Dysentery	51	115	66
Enteric and Food Poisoning	54	104	61
Gastro-enteritis of infants	5	-	-
Tuberculosis	390	373	196
Tuberculosis animal inoculations	63		
Venereal Diseases	715	656	481
Leptospiral Infections	1	1	-
Undulant Fever	21	30	19
Glandular Fever	3	2	-
General	426	1,200	1,163
Water	101	163	27
Water chemical	14		
Milk	870	1623	64
Milk chemical	798		
	4,186	4,624	3,054

Figures for previous years are always of interest in making comparisons. The comparison shows a much greater interest in the examination of milk and water, and a much greater need for the diagnosis and treatment of tuberculosis and venereal disease. It is satisfactory to note that, while diphtheria has disappeared, its possible return is always present in the minds of medical practitioners.

MENTAL HEALTH SERVICES.

Certification of Lunatics.

The County Welfare Officer and his staff are Authorised Officers in terms of the Ninth Schedule of the National Health Service (Scotland) Act, 1947, for the certification of persons of unsound mind.

The removal of lunatics by ambulance or other means of transport, to hospital, appears to be, in terms of Section 16 of the National Health Service (Scotland) Act, 1947, a duty of the Secretary of State. In practice, the Authorised Officers make all arrangements, and accompany the patients. The cost of removal is met by the Regional Hospital Boards.

Certifications in 1949	34

Removals

To Aberdeen R.M. Hospital	1
To Morayshire Mental Hospital	31
To Craig Dunain	2
Total	34

Investigation of Homes of Lunatics about to be Discharged.

In terms of the Ninth Schedule of the National Health Service (Scotland) Act, 1947, the Superintendent of a Mental Hospital must notify the local health authority of intention to discharge patients, so that unsuitable home conditions may be brought to light and remedied.

In 1949, there were 5 such intimations.

Boarded-out Mentally Defectives.

The County Welfare Officer supervises the Boarded-out Mentally Defectives, under the instructions of the County Health Committee.

Boarded-out mentally defectives -	Moray & Nairn	16
	Other areas	4
	Total	20

Mental Defectives in Institutions.

New cases admitted	10
Discharged to Moray & Nairn	1
Died	1
Total	12

Boarded-out Lunatics.

The County Welfare Officer, supervises boarded-out lunatics under agency arrangements with both Regional Hospital Boards. There are 12 cases under supervision in 1949.

PORT HEALTH ADMINISTRATION.

Eight ships from foreign ports, as opposed to fourteen in 1948, visited ports in Moray & Nairn in 1949. No action fell to be taken under the Port Sanitary Regulations (Scotland), 1933 - 1945. No fumigations were carried out, and no certificates in connection with deratisation were issued.

There is no civil airport in Moray and Nairn and no action fell to be taken in connection with aircraft from foreign airports.

FOOD SUPPLIES.

1. Milk.

The milk offered to the public continued to be of a satisfactory quality. Most of it is now designated tuberculin tested or heat treated, and is therefore to be considered safe. It is satisfactory to note how few of the samples examined biologically have been found to contain tubercle bacilli.

Details will be found in the County Sanitary Inspector's Annual Report.

2. Ice Cream.

The year was spent in agreeing details of plant, premises and vehicles of the various prospective license holders, the way being thus paved for an adequate degree of sampling and supervision in the current year.

3. Meat and Other Foods.

Meat inspection continues to be undertaken by Veterinary Officers, appointed by the Joint County Council, at the slaughterhouses at Elgin, Forres, Nairn and Grantown-on-Spey.

Details of condemnations will be found in the Report of the County Sanitary Inspector. Similarly he has dealt with the results of work done in implementing the Food and Drugs Act.

4. Food Poisoning.

I know of two outbreaks of food poisoning in Moray and Nairn in 1949. In the one, some thirty persons were mildly ill for not more than a day or two each. I was called in at a later date, and was unable to secure any clear evidence of the nature of the infection or the mode of spread.

The other outbreak first came to my notice when details appeared in a weekly paper. By that time there was nothing to be learned. Fortunately the condition was relatively mild.

The foregoing forces me to two conclusions:-

(1) Food poisoning should be made notifiable, as it is over the Border.
(2) Cases of diarrhoea should be much more frequently the subjects of bacteriological investigation.

Only by these means can we get the necessary knowledge on which to base preventive action.

5. Nutrition.

Information from all available sources indicates an adequate standard of nutrition in the community.

MISCELLANEOUS/

MISCELLANEOUS.

1. Nursing Homes Registration (Scotland) Act.

One nursing home, previously registered, has continued to be operated on a satisfactory standard.

2. Health Education.

The Medical Lecturer of the Scottish Council for Health Education paid a visit to Moray and Nairn in the early months of the year. Addresses were given, where-ever possible accompanied by films. Audiences were drawn from schools, youth organisations and adult bodies. The lectures were well attended, interesting and instructive.

GENERAL SANITATION.

Water supplies, drainage, cleansing, refuse disposal and the supervision of offensive trades continue to be the province of the Sanitary Inspectors of the County and Burghs. Details appear in their individual Reports.

Water Supplies have given little trouble concerning quality, but quantity has not been altogether satisfactory. Recognition of the inadequacy of quantity finds its expression in the numerous schemes made under recent legislation. Such action is no more than timely, for the population is greater by a tenth than it was a dozen years ago, and its demands on water are greater, and will increase as new house construction proceeds.

Drainage Schemes are essential counterparts of water supplies. The water is brought, used so that it is potentially a danger to health, and must then be taken safely away again.

River Pollution may well be considered in connection with drainage, for what are the rivers but natural drains.

A hundred and fifty years ago, in an area such as Moray and Nairn, there were virtually no drains. As the nineteenth century progressed, drainage became one of the main items in the catalogue of the sanitary reformers. At first, so long as sewage was carried far enough away, it did not matter what happened to it. In this happy era many drains were led into rivers and streams. In time, the dangers of this type of pollution were recognised and the Rivers Pollution Prevention Act became law in 1876. Unfortunately, this act is so cumbrous in its provisions that it has acquired as a sub-title "The Polluter's charter." Following this act, a Royal Commission on Sewage Disposal was set up, and over many years produced very valuable reports. Their standards of safety are considered valid to-day, and the proof of that value lies in the County(s freedom from water-borne disease.

Most of the Burghs of Moray & Nairn laid down sewerage schemes in the closing decades of the nineteenth century. These schemes have given satisfactory service for half a century. With the increased demands for water supplies, there is an increased need for sewerage, and for satisfactory disposal of sewage.

Where untreated sewage is discharged into tidal waters, all that is required is to keep the seaward end of the sewer in good repair, and to see that it discharges into sufficiently deep water. Nairn, for instance has had trouble owing to the changing contour of sandbanks on the East Beach.

Where disposal has to be made into a river, treatment is necessary, as is the case in Elgin. Here, the passing of the years has so increased the demand for water that the existing disposal works can no longer deal with the volume. As a result it is from time to time necessary to discharge untreated sewage into the River Lossie.

Complaints have arisen from time to time concerning this practice, which is clearly a contravention of the Act of 1876. The remedy lies in the extension of the existing disposal works, or in the provision of new ones.

The problem was recognised some fifteen years ago, and only the outbreak of war prevented the extension of the existing works. Since then, re-examination of the problem has shown the need for wholly new works, and the planning of these is at an advanced stage. Even if no further hindrances develop, several years are likely to elapse before the new works can commence operation. I suggest, therefore, that the possibility of their partial use, along with the existing works, be considered as an interum measure.

Cleansing and Refuse Disposal.

Remarks made in previous Reports (1946 and 1948) do seem to have been sufficiently taken to heart by the various cleansing authorities. Cleansing is a sanitary Service which can only too easily be discharged in an insanitary manner. The points that require consideration are as follows:-

1. Adequacy of Dustbins.

Lids are essential to keep flies from using bins as breeding places.

Bins should be kept where they cause no nuisance, and cannot be reached and upset by dogs.

2. Cleanliness of Removal of Refuse.

This resolves itself into two questions:-

(a) Can refuse escape from dustbins at the kerb awaiting emptying?
(b) Can refuse escape from dust-carts during the uplifting or transport to the tip?

Whether the answer is affirmative or negative can be answered by following a dust-cart on a windy day.

3. Suitability and Management of Tip.

The growth of towns has tended to bring refuse tips more into the area of human habitation. This is undesirable, as even with controlled tipping carried out by experts there is a great deal of dut on a windy day.

HOUSING.

In his Report for 1941, my predecessor wrote "During the 50 years under review, housing has been and still is an incompleted problem." What was true a decade ago is ten-fold more so to-day. In spite of all the effort put into the housing drive one has the sensation of running hard to keep up, while overtaking arrears seems beyond our powers.

The waiting list of applicants continues to be of the order of 2,500, and the annual capacity 250. I have no hesitition in repeating from my last Report "The development of new and cheaper methods of construction appears, therefore, to offer a very fruitful field of endeavour to those with inventive minds.

APPENDIX

(1)

Table of Causes of Death

	1949	1948	1947	Average 1941-46	Average 1931-40
Typhoid Fever (including para-typhoid)	-	-	-	-	0.4
Cerebro-spinal fever	-	1	-	0.67	1.0
Scarlet Fever	1	-	-	0.17	2.3
Whooping Cough	1	1	-	1.5	2.8
Diphtheria	-	-	-	1.67	2.4
Tuberculosis, Respiratory	20	17	19	14.67	17.8
" , Non-respiratory	3	2	5	6.8	6.7
Syphilis	1	-	-	2.3	-
Influenza	7	2	4	4.34	14.9
Measles	-	-	-	0.83	1.8
Other infectious disease	5	3	9	3.8	2.8
Cancer, malignant tumours	115	113	78	100.8	86.6
Tumours, non-malignant etc.	2	1	-	2.0	-
Acute rheumatism	-	-	1	1.5	-
Diabetes Mellitus	4	5	4	7.5	6.9
Other general diseases	8	11	13	11.0	16.1
Meningitis, Disease of spinal cord	2	2	-	4.5	-
Cerebral haemorrhage	108	90	95	101.67	90.8
Other disease of nervous system	10	8	9	15.2	20.5
Heart Disease	234	191	199	169.8	139.0
Other circulatory diseases	14	11	26	17.3	23.0
Bronchitis	12	13	10	18.0	26.5
Pneumonia	27	25	24	21.5	32.4
Other respiratory diseases	11	12	12	10.0	11.9
Gastric and duodenal ulcer	8	4	6	8.2	6.5
Diarrhoea (all ages)	1	3	4	4.0	7.7
Appendicitis	4	2	-	3.34	4.8
Cirrhosis of liver	1	2	3	1.34	1.6
Other diseases of liver	2	1	4	2.8	3.6
Other digestive diseases	11	10	15	13.0	12.2
Nephritis, acute or chronic	15	15	16	14.5	16.3
Other diseases of genito-urinary system	12	7	9	11.5	12.5
Puerperal sepsis	1	-	-	1.67	0.8
Other puerperal causes	1	1	3	2.0	3.4
Diseases of skin and organs of movement	2	2	1	2.5	3.7
Congenital debility, premature birth, malformations	21	41	43	37.2	35.2
Old age	6	6	13	31.7	43.1
Suicide	4	3	6	3.8	3.8
Road transport accidents	6	11	6	8.0	-
Other violence	29	35	16	19.2	15.0
Ill defined or unknown	14	7	17	10.9	9.0
TOTAL	723	658	671	700.0	685.8

Distribution of Cases

	County of Moray	Burgh of Elgin	Burgh of Forres	Burgh of Grantown	Burgh of Lossiemouth	Burgh of Rothes	Burgh of Burghead	County of Nairn	Burgh of Nairn	Total
Scarlet Fever	27	12	3	-	-	8	3	-	2	55
Diphtheria	-	-	-	-	-	-	-	-	-	-
Erysipelas	4	4	-	-	-	-	1	-	-	9
Acute Primary Pneumonia	41	23	-	-	10	1	-	1	-	76
Influenzal Pneumonia	3	-	-	-	1	-	-	-	-	4
Cerebrospinal Meningitis	2	-	-	-	-	-	-	1	-	3
Poliomyelitis	5	3	-	-	1	-	-	-	-	9
Dysentery	3	-	-	-	-	-	-	-	-	3
Paratyphoid B.	-	-	1	-	-	-	-	1	-	2
Typhoid	-	-	-	-	-	-	-	-	-	-
Puerperal Pyrexia	1	-	-	-	-	-	-	-	-	1
Ophthalmia Neonatorum	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-
Pulmonary Tuberculosis	28	13	6	-	10	1	1	2	3	64
Non-pulmonary Tuberculosis	4	2	-	-	2	-	-	1	1	10
TOTAL	118	57	10	-	24	10	5	6	6	236

Seasonal Incidence

	Scarlet Fever	Diphtheria	Erysipelas	Acute Primary Pneumonia	Influenzal Pneumonia	Cerebro-spinal Meningitis	Poliomyelitis	Dysentery	Paratyphoid B	Typhoid	Puerperal Pyrexia	Ophthalmia Neonatorum	Malaria	Pulmonary Tuberculosis	Non-pulmonary Tuberculosis	TOTAL
January	14	-	4	13	-	-	-	1	-	-	-	-	-	6	2	40
February	10	-	-	11	1	1	-	-	-	-	-	-	-	6	-	29
March	-	-	1	11	1	-	-	-	-	-	-	-	-	-	-	13
April	3	-	-	10	2	1	1	-	-	-	-	-	-	4	1	22
May	-	-	-	7	-	-	1	-	-	-	-	-	-	3	-	11
June	7	-	1	3	-	1	1	1	-	-	-	-	-	-	-	14
July	3	-	-	2	-	-	2	1	1	-	-	-	-	7	-	16
August	3	-	-	1	-	-	2	-	1	-	-	-	-	9	2	18
September	-	-	1	2	-	-	1	-	-	-	-	-	-	10	1	15
October	2	-	-	4	-	-	-	-	-	-	1	-	-	9	4	20
November	9	-	2	8	-	-	1	-	-	-	-	-	-	6	-	26
December	4	-	-	4	-	-	-	-	-	-	-	-	-	4	-	12
TOTAL	55	-	9	76	4	3	9	3	2	-	1	-	-	64	10	236

Age Incidence and Number of Removals to Hospital

	All Ages	Under 1	1 - 4	5 - 14	15 - 24	25 - 34	35 - 44	45 - 64	65 and over	To Hospital	Not to Hospital
Scarlet Fever	55	1	9	35	7	1	-	2	-	46	9
Diphtheria	-	-	-	-	-	-	-	-	-	-	-
Erysipelas	9	-	-	-	-	-	2	3	4	9	-
Acute Primary Pneumonia	76	15	10	14	10	2	3	9	13	71	5
Influenzal Pneumonia	4	-	-	-	-	1	1	1	1	3	1
Cerebrospinal Meningitis	3	-	1	1	-	-	1	-	-	3	-
Poliomyelitis	9	-	3	3	3	-	-	-	-	8	1
Dysentery	3	-	-	1	-	1	-	1	-	2	1
Paratyphoid B.	2	-	1	-	-	-	-	-	1	2	-
Typhoid	-	-	-	-	-	-	-	-	-	-	-
Puerperal Pyrexia	1	-	-	-	-	1	-	-	-	1	-
Ophthalmia Neonatorum	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-
Pulmonary Tuberculosis	64	-	2	4	17	18	7	13	3	32	32
Non-pulmonary Tuberculosis	10	-	2	2	2	1	3	-	-	3	7
TOTAL	236	16	28	60	39	25	17	29	22	180	56

NOTE ON VITAL STATISTICS.

The suggestion was made, at the time of submission of the Annual Report for 1948, that a detailed presentation of vital statistics for the several Burghs and the two separate Counties might be included in the Annual Report for 1949. Their principal figures resulting from this survey are attached in tabular form. From these tables the figures for the various items have been taken, and assembled in forms resembling football league tables, so that the relative positions of the towns and rural areas may be judged, and their individual and relative trends.

Population.

The fundamental index of health is the number of people resident in the area. If that number tends to increase, the state of health must be reasonably good.

	1935-39	1940-46	1947	1948	1949
Moray & Nairn	49,260	51,169	54,774	56,070	55,922
Moray (L)	19,472	20,341	21,299	21,788	21,856
Elgin	9,130	9,572	10,571	10,831	10,727
Lossiemouth	3,995	4,413	4,803	4,931	5,032
Forres	4,335	4,549	4,765	4,865	4,760
Nairn	4,315	4,547	4,748	4,861	4,743
Nairnshire	3,970	4,100	4,241	4,342	4,333
Grantown-on-Spey	1,450	1,550	1,636	1,635	1,616
Rothes	1.278	1,324	1,361	1,391	1,431
Burghead	1,319	1,341	1,352	1,426	1,424

The overall picture is of an increasingly numerous community. The Landward Area of Moray, the towns of Lossiemouth and Rothes show steady increases throughout the period. All the other units show a slight terminal decrease, and the total population similarly shows a slight decrease in 1949.

Two close races are being fought out. Forres has always kept just ahead of Nairn, and Rothes has, in the last year, overhauled Burghead.

In reading the following pages of tables, it should be borne in mind that the smaller the population, the greater the possibility of variation from the mean, which is provided by the figures for Moray and Nairn as a whole. Similarly, the larger the population, the more will it influence the mean. For this reason, Moray (L) and Elgin will usually be found close to the mean.

Births

The next point to consider, with a view to measuring the health of a community, is the fertility. For this purpose birth rates, i.e. the number of births per 1,000 of the population are calculated, and are useful means of effecting comparison.

Birth Rates/

Birth Rates

1935 - 39		1940-46		1947		1948		1949	
Lossiemouth	20.5	Lossiemouth	25.4	Forres	25.8	Lossiemouth	25.0	Forres	21.4
Rothes	19.7	Nairn	21.3	Lossiemouth	25.4	Rothes	23.7	Burghead	20.5
Moray (L)	18.6	Forres	21.0	Nairnshire	23.3	Forres	23.0	Moray(L)	19.8
Moray & Nairn	17.6	Grantown-on-Spey	20.5	Burghead	22.9	Moray & Nairn	20.2	Nairn	19.2
Burghead	17.3	Moray & Nairn	20.3	Elgin	22.4	Elgin	20.1	Lossiemouth	19.1
Nairnshire	17.3	Moray(L)	20.2	Moray & Nairn	22.1	Moray(L)	19.8	Moray & Nairn	18.8
Nairn	17.0	Burghead	20.2	Moray (L)	21.3	Burghead	19.6	Elgin	17.3
Forres	16.5	Nairnshire	19.8	Rothes	21.3	Nairn	18.7	Nairnshire	17.1
Elgin	15.6	Rothes	19.2	Nairn	19.6	Nairnshire	18.0	Rothes	14.7
Grantown-on-Spey	14.2	Elgin	17.8	Grantown-on-Spey	14.6	Grantown-on-Spey	12.8	Grantown-on-Spey	11.8

Pride of place goes to Lossiemouth. Only in 1949 does it fail to have the highest or second highest birth rate. At the other end of the scale, Grantown-on-Spey is persistently low. After, to use sporting parlance, a poor start, Forres has a birth rate above the average - the highest in 1949. Conversely, Elgin is above average only once. The remaining units appear with roughly equal frequency on both sides of the mean, which indicates approximation to it over a long period.

ILLEGITIMACY PERCENTAGE

1935-39		194-46		1947		1948		1949	
Rothes	16.6	Burghead	20.7	Burghead	16.1	Forres	14.3	Burghead	17.2
Moray(L)	13.5	Forres	14.7	Rothes	15.4	Grantown-on-Spey	14.3	Grantown-on-Spey	15.8
Burghead	13.1	Rothes	13.0	Forres	13.8	Elgin	12.5	Rothes	14.3
Moray & Nairn	11.4	Moray(L)	12.7	Elgin	11.2	Burghead	10.7	Moray(L)	10.2
Forres	10.3	Grantown-on-Spey	12.2	Moray(L)	10.8	Moray & Nairn	10.1	Nairnshire	9.5
Elgin	9.8	Elgin	12.1	Moray & Nairn	10.2	Moray(L)	10.0	Moray & Nairn	8.8
Nairnshire	9.6	Moray & Nairn	12.1	Nairn	9.5	Nairn	7.7	Forres	7.8
Lossiemouth	9.2	Nairnshire	11.9	Grantown-on-Spey	8.7	Lossiemouth	6.8	Nairn	7.7
Grantown-on-Spey	7.8	Nairn	9.2	Lossiemouth	6.9	Nairnshire	6.4	Elgin	5.4
Nairn	7.2	Lossiemouth	8.6	Nairnshire	4.0	Rothes	6.1	Lossiemouth	5.2

Burghead is always above the average, and in a period of seven years, 1940 to 1946 inclusive, one child in five was born illegitimate. This is a truly startling finding. Rothes and Moray (L) are persistently above the mean, Nairn, Nairnshire and Lossiemouth persistently below it.

Stillbirths.

Stillbirths.

The stillbirth rate is expressed as the number of still-births occurring in every thousand births - live and still. As still-births only became registerable shortly before the war, no rates are given for any time prior to 1940. A still-birth rate as low as 11.0 is deemed by the experts to be a possibility.

1940-46		1947		1948		1949	
Grantown-on-Spey	49.0	Grantown-on-Spey	115.3	Burghead	65.0	Burghead	64.5
Burghead	45.8	Rothes	103.5	Rothes	57.1	Nairnshire	39.0
Elgin	37.0	Burghead	60.6	Lossiemouth	40.7	Elgin	31.4
Moray (L)	32.9	Nairnshire	38.9	Elgin	26.9	Moray & Nairn	21.5
Moray & Nairn	30.8	Moray & Nairn	29.7	Nairnshire	25.0	Moray (L)	20.4
Nairn	26.1	Elgin	29.4	Moray & Nairn	24.2	Nairn	10.9
Lossiemouth	25.6	Moray (L)	25.8	Moray (L)	20.4	Lossiemouth	10.3
Nairnshire	25.3	Forres	23.2	Nairn	10.9	Forres	9.7
Forres	19.5	Lossiemouth	15.0	Forres	8.9	Rothes	0.0
Rothes	15.6	Nairn	10.6	Grantown-on-Spey	0.0	Grantown-on-Spey	0.0

Burghead is persistently above the mean, and this may be associated with the high rate of illegitimacy. Elgin tends to be rather abive the mean, and so also does Nairnshire. The towns of Nairn and Forres are persistently below the mean, with the latter tending to be better than the former. Lossiemouth and Moray (L) tend to be below the mean, with the former giving generally better figures than the latter.

Deaths.

The death rate is expressed as the number dying in every thousand of the population.

Table of Death Rates

1935-1939		1940-1946		1947		1948		1949	
Forres	15.3	Nairn	17.0	Nairn	18.3	Rothes	15.8	Grantown-on-Spey	19.2
Burghead	15.2	Forres	15.4	Burghead	15.5	Burghead	15.4	Burghead	18.3
Nairn	15.1	Burghead	15.0	Grantown-on-Spey	14.7	Forres	15.0	Nairn	18.3
Grantown-on-Spey	14.1	Elgin	14.4	Lossiemouth	13.5	Nairn	13.0	Nairnshire	14.1
Moray & Nairn	13.9	Grantown-on-Spey	13.8	Rothes	13.2	Elgin	11.9	Lossiemouth	13.1
Elgin	13.8	Moray & Nairn	13.7	Forres	12.4	Lossiemouth	11.8	Moray & Nairn	12.9
Moray (L)	13.6	Nairnshire	13.1	Elgin	11.7	Grantown-on-Spey	11.6	Forres	12.8
Lossiemouth	13.1	Moray(L)	12.6	Moray & Nairn	11.3	Moray & Nairn	11.0	Elgin	12.6
Rothes	13.1	Rothes	12.4	Moray(L)	10.8	Moray(L)	10.6	Rothes	12.4
Nairnshire	12.4	Lossiemouth	10.5	Nairnshire	10.1	Nairnshire	9.7	Moray(L)	11.4

The/

The towns of Burghead, Grantown and Nairn are persistently above the average, and this is offset by Moray (L) which is persistently below. Forres is usually above the mean, balancing Nairnshire which is usually below. The remainder are indeterminate. It would be far too big an undertaking to work out differential rates for all causes of death, and this has not therefore been attempted.

Deaths of Infants under 1 year.

The deaths of infants under one year are expressed as the number occurring per 1,000 live births. There is room for some inaccuracy in this rate, as the deaths in the year must in some cases be of children born the year before. Unless the total of children born varies greatly this error is not serious.

The Infant Mortality Rate is considered to be a health indicator of the first importance, reflecting as it does the nutrition of mothers and therefore of the whole populace; the risk of spread of respiratory and alimentary diseases which are related to overcrowding; and finally, the degree of care lavished on the young by the community.

Table of Infant Mortality Rates

1935-1939		1940-1946		1947		1948		1949	
Forres	78.2	Nairnshire	70.2	Elgin	88.7	Lossiemouth	76.3	Rothes	95.2
Lossiemouth	77.9	Moray(L)	65.7	Grantown-on-Spey	87.0	Nairnshire	64.1	Lossiemouth	62.5
Nairnshire	72.7	Lossiemouth	59.8	Nairn	75.3	Rothes	60.6	Nairnshire	42.6
Moray(L)	70.2	Nairn	58.8	Lossiemouth	68.7	Moray(L)	57.9	Forres	39.1
Moray & Nairn	64.5	Moray & Nairn	57.8	Burghead	64.5	Nairn	55.0	Moray & Nairn	37.2
Rothes	63.5	Burghead	54.5	Moray & Nairn	48.8	Moray & Nairn	49.6	Moray(L)	37.0
Elgin	57.6	Elgin	54.0	Moray(L)	42.0	Forres	35.7	Nairn	33.0
Burghead	43.9	Forres	48.1	Nairnshire	40.3	Elgin	27.7	Elgin	32.0
Nairn	43.7	Rothes	43.5	Rothes	38.5	Burghead	0.0	Burghead	0.0
Grantown-on-Spey	0.0	Grantown-on-Spey	0.0	Forres	32.5	Grantown-on-Spey	0.0	Grantown-on-Spey	0.0

The only clear cut trend to be made out is that Lossiemouth is always substantially above the mean, no doubt in association with its high birth rate. Nairnshire is usually above it, while Elgin, Burghead and Grantown are usually below. Forres started the period under review with a rate all but double that of Nairn, but has largely wiped out the difference. But for an unfortunate though small rise in 1949, the former town would have shown its neighbours a clean pair of heels. In any case it has halved its rate.

Death Rate from Tuberculosis

This is expressed as deaths occurring per 100,000 of the population. The whole of Moray and Nairn contains rather over half that figure, so that one death in the area of the Combined County gives a rate of just under 2 per 100,000, thereby apparently magnifying. This magnification increases as the unit of population decreases. Too close attention to figures for small communities for single years should not therefore be given.

The Tuberculosis Death Rate is an index of the nutrition of the/

the population, and of its state of overcrowding. It is therefore an index of very high importance.

Table of Tuberculosis Death Rate

1935-1939		1940-1946		1947		1948		1949	
Rothes	172.1	Rothes	75.7	Nairnshire	70.7	Burghead	140.3	Burghead	138.2
Forres	69.2	Burghead	74.6	Elgin	66.2	Rothes	71.9	Forres	84.1
Burghead	60.6	Elgin	67.1	Grantown-on-Spey	61.2	Nairn	61.7	Elgin	55.9
Nairnshire	50.7	Grantown-on-Spey	51.6	Forres	42.0	Lossiemouth	60.8	Moray & Nairn	41.1
Moray(L)	46.3	Moray (L)	49.2	Lossiemouth	41.6	Moray & Nairn	33.9	Lossiemouth	33.1
Moray & Nairn	41.8	Nairn	44.0	Moray & Nairn	32.8	Elgin	27.8	Moray (L)	32.0
Nairn	32.4	Moray & Nairn	43.8	Moray(L)	37.6	Nairnshire	23.0	Nairnshire	23.0
Elgin	26.2	Forres	37.4	Nairn	21.1	Moray (L)	22.9	Nairn	21.1
Lossiemouth	15.0	Nairnshire	24.4	Burghead	0.0	Forres	20.6	Grantown-on-Spey	0.0
Grantown-on-Spey	0.0	Lossiemouth	22.7	Rothes	0.0	Grantown-on-Spey	0.0	Rothes	0.0

In Moray & Nairn as a whole, the figure has remained very constant, although notifications of the disease have substantially increased. The only discernible tendency was that of the whole County upwards during the war years. This was most marked in the smaller communities. Amongst these, Burghead has always tended to give a high figure, and Elgin has tended to show an upward trend since the pre-war period. Moray (L) on the other hand has shown a downward tendency.

Conclusions.

General

The figures suggest a population of fair health, increasingly numerous, not afraid of the future, and with a growing awareness of the need to avoid unhealthiness. There are of course local variations. Grantown for instance depicts in some degree the characteristics of a residential population. The other areas are affected by their relatively larger working populations.

Deaths.

Causes of death are characteristic and the frequency of the various causes does not seem in any way atypical. In the same way the causes of death in the various localities is not unusual.

Births, Still-Births, Deaths of Young Children.

These form a separate trio.

It is generally held that a high birth-rate is accompanied by a high rate of still-births and a high infant mortality rate. Where infant mortality is concerned, Lossiemouth confirms this view, but its low still-birth rates do not fall into line.

It is also held that illegitimacy is a cause of high infant mortality rate. Burghead's high illegitimacy rate is accompanied by an excess of still-births, and not by an excess of infant deaths. Further in 1949, of the 42 registered infant deaths, only 3 were of illegitimate children. This is 7.1%, whereas 8.8% of all births were illegitimate in that year. On the other hand, of the 19 registered still-births, 7 were/

were illegitimate, or 36.8%. The legitimate still-birth rate was, in fact, 14.4 per 1,000 total legitimate births, and the illegitimate rate was 70.7 per 1,000 total illegitimate births, a rate of five times as great.

It is not my place to comment on the moral issue raised, but only on the medical aspect. I would say this. A still-birth is a risk to the mother, therefore pregnancy in the unmarried is a greater risk to the mother than pregnancy in the married. On the question of infant mortality, it is clear that the populace of Moray & Nairn has adapted itself so that the illegitimate child is no worse off physically than the legitimate. Let us remember, however, that there is also the question of mental well-being and happiness. These are to be found in the home, with full family life depending both on the father and mother. The illegitimate child is therefore a deprived child in some degree, lacking the influence of his father.

Of the possible causes of the undoubtedly high rate of illegtitimacy, let me stress only two. I have in this appendix presented no figures concerning the ages of the mothers of illegitimate children, and indeed it might be difficult to secure wholly reliable figures. I am clear, however, that a high proportion of illegitimate births occur where the mother is young and having her first child. This suggests to me a considerable degree of ignorance of human physiology amongst the younger generation. The second possible cause is the acceptance, by the community as a whole, without stigma, of the state of pregnancy in the unmarried. If the attitude were more antagonistic, the illegitimacy rate might go down, but there wou;d be more likelihood of concealment of pregnancy, and victimisation of the child, who, after all, has no say in the matter.