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RHYL URBAN DISTRICT COUNCIL



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

(D. P. W. ROBERTS, M.B., Ch.B., M.R.C.S., L.R.C.P.,
D.R.C.O.G., D.P.H.)

Together with the Annual Report of the

CHIEF PUBLIC HEALTH INSPECTOR

(E. L. LLOYD JONES, M.B.E., F.A.P.H.I., F.R.S.H.)

FOR THE YEAR*

1962

RHYL:
W. N. Douglas & Co., Ltd., 31 Sussex Street.



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(D. P. W. ROBERTS, M.B., Ch.B., M.R.C.S., L.R.C.P.,
D.R.C.O.G., D.P.H.)

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(E. L. LLOYD JONES, M.B.E., F.A.P.H.I., F.R.S.H.)

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1962



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URBAN DISTRICT OF RHYL

Health Department Offices:

2 EDWARD HENRY STREET, RHYL, Tel. No.: Rhyl 1459.

PUBLIC HEALTH COMMITTEE, 1962.

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E. L. LLOYD JONES, M.B.E., F.A.P.H.I., F.R.S.H.

Deputy Chief Public Health Inspector:

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ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
For the Year 1962.

Mr. Chairman and Gentlemen,

I have pleasure in submitting my second Annual Report as Medical Officer of Health for the year 1962.

The Registrar General's mid-year estimate of population was 21,290, and the increase in population over the previous year was 170. There was excess of births (347) over deaths (346) of 1, and the crude birth rate per thousand of the population was 16.3 (18.7 in 1961), compared with the national average of 18.0. The adjusted birth rate, taking into consideration the higher proportion of old people in the population was 16.6. During the year there were 11 deaths of infants under one year, giving an infant mortality rate of 31.7 per thousand live births (25 in 1961), compared with the national figure of 21.6.

The infant mortality rate in Rhyl has always been, on average, significantly higher than the national figure, and this year is no exception. Examination of the death returns of nine of these infants reveals information from which it can be concluded that some of the deaths might have been avoided. In three instances deaths were due to inhalation of stomach contents. There are no grounds for complacency in this field, and the local figure is twice the incidence in the towns with the lowest infant mortality figures in England and Wales. It is important to improve the already high standard of antenatal care and ensure that priority for hospital confinement is given to expectant mothers on medical and social grounds. Much more can be done in the field of housing and in the reduction of overcrowding in flats and in expansion of the social services who provide help and advice to young mothers during the vital first weeks of life.

There were five still births during the year (six in 1961), and the still birth per thousand live births was 14, compared

with the national figure of 18. Once again there were no maternal deaths in pregnancy and child birth during the year.

There were 25 illegitimate births, giving a rate of 72 per thousand live births, compared with the national figure of 66. The crude death rate was 16 per thousand population (16.2 in 1961), and when adjusted for the higher proportion of old people in the population, gives a standardised rate of 14.4, which compares with the national average of 11.9 per thousand population.

There were 53 deaths from cancer, of which cancer of lung (12) was the commonest site. The year was marked nationally by a campaign to advise the public, especially the younger members, of the adverse effects of smoking, and lectures and films were given in the schools and public halls. Great interest was shown, especially in the schools, and many intelligent questions were asked. I was amazed at the amount of clandestine smoking that occurred in schoolchildren, but it remains to be seen what the long term effects of the campaign will be. I have my doubts, especially where the parents smoke at home. At the time of writing this report, I notice that the tobacco sales have now regained their former volume of sales. The Rhyl Council decided to support their effort and passed a resolution banning smoking from the Council meetings, but temptation proved too strong, and now the concentration of tobacco smoke at monthly Council meetings is as high as ever.

In October, an instrument was installed at the Health Department, to measure the atmospheric pollution, and Rhyl is one of the first seaside resorts to undertake this type of study which should provide valuable information as to the levels of pollution in resorts. It cannot be too strongly emphasised that pollution of the air, from whatever cause, affects health, and householders are urged to burn smokeless fuels, or use gas, electricity or oil.

The Council have very commendably made a considerable progress in the problem of houses let-in-lodgings, and it is hoped that some control will be established on these flats where overcrowding and sanitation is more akin to the nineteenth century.

During the year there were 127 cases of measles, which is a considerable rise on the previous year, but most of the cases were of a mild nature.

Dysentery outbreaks occurred and 22 cases were notified and precautions were taken to limit the spread of the infection. No cases of poliomyelitis occurred, although the vaccination state of the younger members of the local population was still considered unsatisfactory. Oral polio vaccine is now available and avoids the disagreeable process of having an injection.

At the time of the national smallpox outbreaks, a child was admitted to a local hospital and smallpox could not be excluded, which resulted in immediate precautions being taken, and emphasised the need for all medical and nursing, and other health personnel, to be vaccinated and familiar with the routine of dealing with such emergencies. As a result of these outbreaks, 963 people of all ages were vaccinated during the year, compared with the average figure of 200.

The Mass X-Ray unit visited the local authority homes for old people, and carried out chest x-ray examinations, which gave very satisfactory results.

The Council have been particularly concerned about the lack of land available for future house building, and at present the majority of the persons on the old people's list for flats or bungalows will probably have died before being rehoused, as prospects appear at present. I have the impression that there may be some underoccupancy of Council houses, and provision of old people's bungalows and flats might well release three bedroomed houses for general list applicants.

The Council is always faced with the problem of the feckless tenant, often with a large family, and the husband enjoying the benefits of living on the State, via National Assistance. In some countries municipal authorities have built special small isolated housing estates and placed the worst offenders in such places, but the results are not always up to expectations. The problem is one of the most insoluble that society has had to deal with, but it has always existed and will always exist in spite of further extensions of the Welfare State.

During the year two pasteurisation orders were issued under the Milk and Dairies Regulations, 1959, as raw milk being sold in Rhyl was infected with organisms (*Brucella Abortis*), which causes undulant fever in man. Many people are under the misconception that Tuberculin Tested Milk unpasteurised, is safe to drink, but this is not always so, as other bacteria

can be present which can cause disease. On the other hand, heating the milk to boiling point alters adversely the quality of the milk, so that, in practice, it is wise to compromise and pasteurised milk, heated to a temperature sufficient to kill germs but not sufficient to substantially alter the ingredients of the milk, is perfectly safe to consume. It is unfortunate that the Government has been slow to proceed with the elimination of Brucellosis in cattle, and when this disease occurs in man, although rarely fatal, it can be very disabling. Pending the creation of brucella-free herds throughout the U.K., I should like to see a temporary compulsory pasteurisation order made. This country appears to be considerably behind the Scandinavian countries in this respect.

A Notice Board has been erected at the Town Hall, by a joint arrangement with the Flintshire County Council and the Rhyl Council, for the display of health education material.

As School Medical Officer, I carried out medical inspection of schoolchildren and, with the permission of the Principal School Medical Officer, assisted in the planning and introduction of a system of selective medical inspection at junior school level.

The long awaited Public Health Regulations regarding offices received Parliamentary approval, and it is hoped that at the end of the five year period of grace that all offices will be satisfactory. It is regrettable that some office staffs work in rooms where the heating, lighting and general shabbiness must have an adverse effect upon their work, and it is surprising that their employers, from a financial aspect apart from a moral responsibility, fail to improve the accommodation, when it is an accepted fact that morale and work output increase out of all proportion to the cost of any improvements carried out to substandard premises.

I should like to pay tribute to the excellent work that has been carried out in the town during the year by the voluntary associations, and in particular the Women's Voluntary Service with the Meals-on-Wheels service, the Red Cross and St. John Ambulance organisations. During the year, a local Abbeyfield Society Committee was formed to help the plight of the elderly and it is hoped to open a home shortly.

In my report I have included a special section on points to be borne in mind regarding the planning of accommodation for the old and disabled.

I should like to express my thanks to the Chairman and Members of the Committee, the Council Officials and, in particular, to Mr. Lloyd Jones and the Staff of the Health Department and Dr. G. W. Roberts, County Medical Officer.

I am,

Your obedient Servant,

D. P. W. ROBERTS,

Medical Officer of Health.

GENERAL STATISTICS.

Land area exclusive of foreshore	1,700 acres
Land area inclusive of foreshore	2,579 acres
Population at Mid-year 1962 (Registrar General's estimate)	21,290
Population change compared with previous year (increase of)	170
Number of inhabited properties (end of 1962)	7,395
Number of empty properties (end of 1962)	164
Rateable value of the Urban District at end of 1962	£396,262
Product of a penny rate	£1,600
General rate in £1	24s. 8d.
No. of rated premises	8,637

SOCIAL CONDITIONS IN THE URBAN DISTRICT.

The town, which was originally a small fishing village, is situated at the mouth of the River Clwyd and has become renowned as a seaside resort, with a particularly favourable climate being dry, a high sunshine record and invigorating sea breezes. The town is also blessed by miles of sand and an unparalleled view of the North Wales coast, Clwydian range of hills, and the mountains of Snowdonia. In recent times, the town has become increasingly residential and many people from Merseyside and the Midlands have taken up residence in retirement. Since the last war, small industries, mainly of a light nature, have been established in the town, and the local employment situation now presents a much more balanced picture than in pre-war days, when the locality was entirely dependent on the seasonal trade. Opportunities for employment of young people also exist in Deeside industrial undertakings, which are within daily travelling distance.

VITAL STATISTICS.

Live Births: Male 186, Female 161	347
Legitimate live births: Male 174, Female 148	322
Illegitimate live births: Male 12, Female 13	25
Illegitimate local rate per 1,000 live births	72
National illegitimate rate per 1,000 live births	66
Crude birth rate per 1,000 population	16.30
Birth rate comparability factor	1.02
Birth rate standardised	16.6
National birth rate per 1,000 population	18.0
Still births (total)	5
Legitimate still births	5
Illegitimate still births	—
Local still birth rate per 1,000 live and still births	14.20
National still birth rate per 1,000 live and still births	18.1
Infant deaths under one year of age	11
Legitimate infant deaths under age of 1 year	10
Illegitimate infants deaths under age of 1 year	1
Infant mortality rate per 1,000 live births	31.7
National infant mortality rate per 1,000 live births	21.6
Legitimate infant deaths per 1,000 legitimate live births	31
Illegitimate infant deaths per 1,000 illegitimate live births	40
Infant deaths under 4 weeks of age	6
Legitimate infant deaths under 4 weeks of age (neo-natal)	5
Illegitimate infant deaths under 4 weeks of age	1
Neo-natal mortality rate per 1,000 live births	17.29
National neo-natal mortality rate	15.1
Total perinatal deaths (still-births and deaths under one week combined)	10
Perinatal mortality rate per 1,000 live and still births	28.4
National perinatal mortality rate per 1,000 live and still births	30.8
Deaths in first week of life (early neo-natal period)	5
Early neo-natal mortality rate (per 1,000 live births)	14.1
Material mortality, including abortion:	
Number of deaths	Nil
Rate per 1,000 total live and still births	Nil

DEATHS.

Deaths: Male 183, Female 163	346
Crude death rate per 1,000 population	16.25
Comparability factor	0.90
Death rate standardised per 1,000 population	14.6
National death rate for England and Wales	11.9

POPULATION CHANGES IN THE URBAN DISTRICT.

The following table shows the change in population, due to migration:—

Year	Mid-year population: R.G. est. figure.	Population change during year.	Change in population due to births and deaths only during year.	Changes in population due to migration.
(1)	(2)	(3)	(4)	(5)
1872... ..	4,229	—	—	—
1882... ..	6,500	—	—	—
1891... ..	6,474†	—	—	—
1901... ..	8,461†	—	—	—
1911... ..	9,005†	—	—	—
1921... ..	13,490†	—	—	—
1931... ..	13,485†	—	—	—
1951... ..	18,745†	—	—	—
1952... ..	18,800	+ 55	+ 7	+ 48
1953... ..	18,900	+ 100	+ 10	+ 90
1954... ..	19,200	+ 300	— 1	+ 30
1955... ..	19,300	+ 100	— 38	+ 138
1956... ..	19,510	+ 210	+ 43	+ 253
1957... ..	19,590	+ 80	— 15	+ 95
1958... ..	19,710	+ 120	— 17	+ 137
1959... ..	19,810	+ 100	— 6	+ 106
1960... ..	19,940	+ 130	+ 24	+ 106
1961... ..	21,120	+ 1180	+ 47	+ 1133
1962... ..	21,290	+ 170	+ 1	+ 169

A minus sign in column (4) indicates an excess of deaths over births.

WARD POPULATIONS.

Area	Acreage	1951 Persons	1961 Persons	Males	Females	Persons per acre
Rhyl U.D.	1,700	18,868	21,737	9,762	11,975	12.8
Wards:						
East	375	2,238	3,028	1,312	1,716	8.1
East Central ...	150	1,924	1,994	869	1,125	13.3
South Central ...	110	2,372	1,942	886	1,056	17.7
South East	431	3,265	4,906	2,157	2,749	11.4
South West	427	3,919	5,271	2,471	2,800	12.3
West	147	2,914	2,668	1,198	1,470	18.1
West Central ...	60	2,236	1,928	869	1,059	32.1

PRIVATE HOUSEHOLDS AND DWELLINGS, 1961.

	Private house- holds	Population in private households	Structurally separate dwellings occupied	Rooms occupied	Persons per room	Percentage of persons at more than 1½ per room
Rhyl U.D.	7,371	20,236	7,089	35,028	0.59	3.8
Wards:						
East	1,088	2,744	1,074	4,719	0.61	2.4
East Central ...	562	1,496	435	2,870	0.53	4.4
South Central ...	702	1,938	699	3,634	0.54	1.0
South East	1,790	4,843	1,782	8,209	0.61	1.8
South West... ..	1,649	5,094	1,648	7,501	0.69	4.0
West	936	2,404	908	4,814	0.53	6.7
West Central ...	644	1,717	543	3,281	0.54	9.8

(Reproduced by courtesy of the Registrar General).

DEATHS FROM PRINCIPAL CAUSES.

The table below indicates the common causes of death in order of importance as extracted from national returns:—

44%	...	Heart disease.
17%	...	Vascular lesions of C.N.S.
13%	...	Cancer, excluding cancer of lung.
8½%	...	All other causes.
5½%	...	Bronchitis.
5%	...	Other circulatory diseases.
2½%	...	Cancer of lung.
2½%	...	Pneumonia.
2%	...	Other respiratory diseases.

Cancer: The total deaths from cancer has remained fairly stationary over the past ten years, but the deaths from cancer of the stomach have decreased slightly while, conversely, the deaths from cancer of the lung have increased. These figures shown below are an extract from the R.G. returns.

Cancer deaths	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Lung	9	6	11	8	7	6	6	12	15	13	12
Stomach	11	13	9	10	4	13	10	10	13	9	9
Breast	5	4	7	7	6	8	6	6	9	7	6
Uterus	3	3	1	1	1	2	5	3	4	4	3
Leukaemia	—	1	2	1	1	2	1	2	2	1	3
Other sites	25	18	28	33	32	26	22	27	34	26	17
Total deaths all sites ...	53	45	58	60	51	57	50	60	75	60	50

Coronary Heart Disease: During the past twenty years there has been a considerable rise in the incidence of this disease, and although improved methods of certification or death may have accounted for some of the rise, it is generally considered that there has been a real rise in the incidence of this disease.

The following chart shows the annual deaths from this disease in the district over the past ten years:—

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Deaths	48	50	40	55	46	59	60	80	62	87	85

Average for 1952-56: 48 per annum. Average for 1957-62: 72 per annum.

INFANT MORTALITY.

There were 11 deaths of infants under one year of age, of which six occurred in the first four weeks of life. Details of 9 of the deaths are given below:—

Age at death	Cause of death	(M. or F.)
5 months	Inhalation of stomach contents	M.
2 months	Inhalation of stomach contents	M.
4 months	Heart and bronchitis	M.
14 hours	Prematurity (24 weeks)	F.
1 day	Cardio respiratory failure and ruptured exomphalus and prematurity	F.
1 hour	Multiple congenital abnormality and spina bepila occulta and bilateral renal tumours exomphalus	M.
3 months	Inhalation of stomach contents	M.
1 week	Broncho-pneumonia following hydrocephalus and saina defida	M.
1 month	Pulmonary haemorrhage, cold injury	M.

TABLE SHOWING VITAL STATISTICS OF THE DISTRICT FOR PAST TWELVE YEARS IN DETAIL AND SOME EARLIER RECORDS.

Year	Registrar-General's mid-year estimate of population	Number of local births: R.G. return	Local crude birth rate per 1,000 population	Local adjusted rate	Natural birth rate per 1,000 population	Local deaths: R.G. return	Crude death rate per 1,000 population	Adjusted local rate per 1,000 population	National death rate per 1,000 population	Infant deaths: Under 1 year of age	Local infant mortality rate per 1,000 live births	National infant mortality rate
1882	6,500	167	25.8	—	—	92	14.0	—	—	—	—	—
1891	6,474	166	25.0	—	—	155	24.0	—	—	—	—	—
1901	8,461	176	20.8	—	—	132	15.4	—	—	—	—	—
1911	9,005	142	16.5	—	23.8	110	12.1	—	—	12	95.6	70.0
1921	13,490	147	10.8	—	20.6	118	8.8	—	12.1	13	46.5	66.0
1931	13,485	172	13.81	—	15.8	164	12.52	—	12.3	8	94.2	—
1941	21,530	350	13.0	—	14.2	311	14.4	—	12.9	33	—	—
1951	18,745	301	16.1	16.1	15.5	317	16.95	14.4	12.5	12	39.0	29.6
1952	18,800	283	15.05	15.05	15.3	276	14.68	12.48	11.3	11	38.8	27.6
1953	19,900	272	14.39	14.39	15.2	262	13.86	11.78	11.4	13	47.8	26.8
1954	19,100	285	14.84	16.0	15.0	286	14.9	11.61	11.3	8	28.0	25.5
1955	19,300	276	14.3	15.4	15.0	314	16.27	12.69	11.7	7	25.4	24.9
1956	19,510	311	15.94	17.3	15.7	268	13.74	11.54	11.7	6	19.3	23.8
1957	19,590	290	14.8	16.0	16.1	305	15.57	13.08	11.5	6	20.7	23.0
1958	19,710	300	15.2	16.4	16.4	317	16.0	13.5	11.7	9	30.0	22.5
1959	19,810	312	15.75	17.1	16.5	318	16.0	13.32	11.6	8	25.6	22.0
1960	19,940	357	17.95	19.4	17.1	333	16.7	14.0	11.5	8	22.4	21.7
1961	21,120	396	18.75	19.1	17.4	349	16.2	14.9	12.0	10	25.3	21.4
1962	21,290	347	16.30	16.6	18.0	346	16.3	14.6	11.9	11	31.7	21.6

CAUSES OF DEATH TABLE: REGISTRAR-GENERAL'S RETURNS

Comparability Factors: Births 1.02, Deaths 0.90.

Causes of Death	Males	Females
All Causes	183	163
1. Tuberculosis—Respiratory	1	1
2. Tuberculosis—Other	—	—
3. Syphilitic Disease	—	—
4. Diphtheria	—	—
5. Whooping Cough	—	—
6. Meningococcal Infections	—	—
7. Acute Poliomyelitis	—	—
8. Measles	—	—
9. Other Infective and Parasitic Diseases... ..	1	—
10. Malignant Neoplasm—Stomach	6	3
11. Malignant Neoplasm—Lung, Bronchus... ..	9	3
12. Malignant Neoplasm—Breast	—	6
13. Malignant Neoplasm—Uterus, etc.	—	3
14. Other Malignant and Lymphatic Neoplasms	11	6
15. Leukaemia, Aleukaemia... ..	2	1
16. Diabetes	1	2
17. Vascular Lesions of Nervous System	19	32
18. Coronary Disease—Angina	51	34
19. Hypertension with Heart Disease... ..	6	6
20. Other Heart Disease	10	21
21. Other Circulatory Disease	10	9
22. Influenza	—	—
23. Pneumonia	5	3
24. Bronchitis	13	2
25. Other Diseases of Respiratory System	—	4
26. Ulcer of Stomach and Duodenum	1	1
27. Gastritis, Enteritis and Diarrhoea	2	—
28. Nephritis and Nephrosis	—	—
29. Hyperplasia of Prostate	5	—
30. Pregnancy, Childbirth, Abortion	—	—
31. Congenital Malformations, etc.	2	1
32. Other Defined and Ill-defined Diseases... ..	12	21
33. Motor Vehicle Accidents	1	1
34. All Other Accidents	14	2
35. Suicide	—	1
36. Homicide and Operations of War	1	—
Deaths of Infants under 1 year		
{ Total	9	2
{ Legitimate	8	2
{ Illegitimate	1	—
Deaths of Infants under 4 weeks of age		
{ Total	4	2
{ Legitimate	3	2
{ Illegitimate	1	—
Deaths of Infants under 1 week of age		
{ Total	3	2
{ Legitimate	2	2
{ Illegitimate	1	—
Live Births		
{ Total	186	161
{ Legitimate	174	148
{ Illegitimate	12	13
Still Births		
{ Total	—	5
{ Legitimate	—	5
{ Illegitimate	—	—
Resident Population (Estimated Mid-year) ...	21,290	

Table showing decrease in deaths from pulmonary tuberculosis over past ten years:—

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Deaths	5	2	4	9	3	2	—	2	—	1	2

INFECTIOUS DISEASES.

It is pleasing to record that no cases of poliomyelitis or diphtheria occurred in the district during the year; 158 cases of measles occurred, which follows a previous quiet year and, as has been mentioned in previous annual reports, this disease tends to occur in two-yearly cycles. There were 25 cases of sonne dysentery, mainly confined to three families, and they were successfully treated.

The following table shows the incidence of notifiable infectious diseases that occurred in 1962:—

TUBERCULOSIS.

As will have been seen in the previous table, there were 15 new cases of Tuberculosis, of which 10 were notified, and all were respiratory in origin. Close co-operation is maintained between the district, county and hospital authorities, as all have responsibilities in the treatment and after-care of tuberculosis sufferers. Details of these new cases are given below:—

Age Periods	New Cases				Deaths			
	Respiratory		Non- Respiratory		Respiratory		Non- Respiratory	
	M	F	M	F	M	F	M	F
Under 1 year ...	—	—	—	—	—	—	—	—
1—5 years	1	—	—	—	—	—	—	—
6—10 „	—	—	—	—	—	—	—	—
11—15 „	—	—	—	1	—	—	—	—
16—20 „	1	—	—	—	—	—	—	—
21—25 „	1	1	—	—	—	—	—	—
26—35 „	2	—	—	—	—	—	—	—
36—45 „	1	—	—	—	—	—	—	—
46—55 „	1	—	—	—	—	—	—	—
56—65 „	2	—	—	—	—	—	—	—
65 and upwards...	4	—	—	—	1	1	—	—
Total... ..	13	1	—	1	1	1	—	—

It will be observed that the vast majority of the new cases are over 35 years, which is probably due to a residue of infection usually contracted much earlier in life.

All the cases of Tuberculosis were treated in hospital initially and later returned home to continue therapy, and the above table includes three cases of pulmonary tuberculosis which had been notified in previous years, but had relapsed and required re-admission to hospital.

Most county district health authorities maintain a tuberculosis register of all persons who are suffering or recently have suffered from the disease, and during the year the local list was revised in conjunction with the Chest Clinic and the County Council records, and the position at the end of 1962 was as follows:—

Pulmonary cases: Males 75, Females 33 108
 Non-pulmonary cases: Males 4, Females 5 9

During the year, 11 cases of Tuberculosis under treatment came to reside in Rhyl from other areas, and 5 cases left the area during the same period.

CHEST X-RAY RESULTS OF OLD PEOPLE LIVING IN FLINTSHIRE COUNTY COUNCIL HOMES

One hundred and seventy-seven old people in Rhyl and Prestatyn Homes were X-rayed, and only 2 required to attend hospital for further investigation. No cases of pulmonary tuberculosis were found.

The following table shows the trend of the incidence of infectious notifiable diseases in the district over the past 10 years:—

Disease	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Polio	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1											

Disease	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Scarlet fever	16	25	8	8	14	19	4	1	—	4
Whooping cough	38	5	52	6	17	8	1	6	5	—
Diphtheria	1	1	—	—	—	—	—	—	—	—
Measles	117	106	38	63	165	47	78	163	31	127
Pneumonia	3	3	2	3	4	1	—	1	—	2
Meningococcal Infection	—	—	—	—	—	3	—	—	—	—
Poliomyelitis	4	—	9	2	—	2	—	—	—	—
Encephalitis	—	—	—	—	—	—	—	—	—	—
Dysentery	2	6	10	20	—	13	9	18	4	26
Food poisoning	2	—	24	4	—	—	2	—	18	2
Paratyphoid and typhoid... ..	—	—	—	—	1	—	3	7	7	—
Puerperal fever	—	—	—	—	—	—	—	—	—	—
Tuberculosis: Respiratory	24	13	10	19	13	13	8	3	17	10
Tuberculosis: Non-respiratory	1	3	—	1	3	1	—	—	1	—

CHEST X-RAY FACILITIES.

The Welsh Regional Hospital Board has a mobile X-ray unit based at Wrexham, which visits all parts of North Wales, and is at the Town Hall every third Tuesday, all day. The unit is available to all members of the public, except young children, and details are given below of the 1962 results:—

WELSH HOSPITAL BOARD. MASS RADIOGRAPHY REPORT.

Table I.

Details of Examinations carried out by Unit "G" during the period 1st January—31st December 1962.

Circuit Location	Number Examined	Number of Visits	Average Attendance per Visit
Flintshire:			
Holywell	879	14	63
Mold	670	15	45
Rhyl	1,706	15	114
Shotton	636	14	45
Special Surveys	2,099	—	—

Table III.

Analysis showing Type of Examinee.

Type of Examinee	Flintshire
General Population Volunteers	3,375
General Practitioner Referrals	253
Scholars	871
Students	33
Contacts	21
Mental Hospital Staff	22
Factory Groups:	
Industrial	922
Non-industrial	258
Special Groups	196
Mental Patients	39
	<hr/> 5,990 <hr/>

Table IV.

Details of total number of cases referred to Chest Clinics or diagnosed as abnormal by the Mass Radiography Unit.

Flintshire:	Referred for further investigation to Chest Clinics	Other Pulmonary Abnormalities diagnosed on Unit	Total
Holywell	12	15	27
Mold	10	9	19
Rhyl	89	65	154
Shotton	8	9	17
Special Surveys ...	15	27	42

Table V.

Analysis of total number of cases found to be abnormal.

Abnormality	Flintshire
Confirmed Pulmonary Tuberculosis:	
"New" Cases	4
"Old" Cases	1
Healed Primary Tuberculosis	18
Healed Post Primary Tuberculosis	58
Abnormality of the Bony Thorax and Soft Tissues	50
Malignant Neoplasm	5
Non-Malignant Neoplasm	2
Congenital Cardiac Abnormalities	3
Acquired Cardiac Abnormalities	21
Pneumoconiosis:	
Without P.M.F.	1
With P.M.F.	—
Pulmonary Fibrosis—non-tuberculous (to include Asthma and Bronchitis)	17
Emphysema	10
Bronchiectasis	4
Bacterial or Virus Infection	4
Pleural Thickening or Calcification	9
Abnormalities of the Diaphragm and Oesophagus	5
Malformation of the lungs	3
Spontaneous Pneumothorax	—
Miscellaneous	3
Further observation required	—
Failed to attend Chest Clinic	9
	—
	227
Negative after investigation at Chest Clinic	32
	—
	259
	—

MASS X-RAY SURVEY.

A survey was carried out with the co-operation of Dr. Jarman of the Welsh Regional Hospital Board during the year, as to reasons why people chose to have a chest X-ray, and results of questionnaires obtained from 510 people (211 males and 299 females), attending over 6 consecutive visits at Rhyl Town Hall, were as follows:—

Question 1: Why are you attending this unit?

Answers: A—Your family doctor asked you to do so	89
B—For employment purposes	23
C—Because of symptoms or anxiety about your health...	55
D—Simply as a precaution or for no special reason	—

Question 2: How did you know about the unit?

Answers: A—Posters	155
B—Advertising in form of newspaper leaflets	127
C—From a relative or friend	42
D—Saw unit at location	272

I am indebted to Dr. Jarman for these figures.

REPORT OF CHEST PHYSICIAN.

The following information on the work of the Chest Clinic during the year 1962 has been kindly supplied by Dr. Morrison:—

Number of new cases in Rhyl during the period	11
Number of contacts attending clinic during the period	588
Transfer in of existing cases of Tuberculosis	15

CHEST CLINIC.

The treatment of cases of tuberculosis is under the care of the Consultant Chest Physician, Dr. Morrison, at Rhyl.

PROVISION OF SERVICES UNDER THE NATIONAL HEALTH SERVICES ACT, 1946.

The following local services are the responsibility of the Flintshire County Council, and I am indebted to the County Medical Officer of Health, Dr. G. W. Roberts, for allowing me to give the following details:—

**SECTION 22—CARE OF MOTHERS AND YOUNG CHILDREN.
INFANT WELFARE CENTRES.**

The Clinic premises are in Fforddlas and an infant welfare clinic is held every Wednesday afternoon, 2—4 p.m., and the Medical Officer is present on the 2nd and 4th Wednesdays of the month. There is need for an additional clinic for the east end of Rhyl as the present site is most inconvenient for mothers from this area.

Welfare foods (vitamin tablets, cod liver oil and orange juice) are distributed at these clinics, and the arrangements are under the control of the local voluntary clinic committee, who have given excellent service throughout the year.

ANTE NATAL CLINICS.

Ante Natal Clinics are held at Fforddlas weekly and are staffed by hospital medical and nursing personnel, under the direction of the Consultant Obstetrician.

Talks are given to mothers attending these clinics by the health visitors on childbirth and baby management.

FAMILY PLANNING.

Special clinic facilities are available at Flint.

DENTAL CARE OF EXPECTANT MOTHERS.

This is carried out by the school dental staff of the County Council, and the service is free during the period of the pregnancy and up to one year after the birth of the baby. It is regrettable that more mothers do not take advantage of these facilities.

SECTION 23—MIDWIFERY SERVICES.

There are five midwives, who are also district nurses, working in the area, and they are responsible for the ante natal care, delivery and post-natal surveillance of these patients, under the general direction of the patient's doctor.

SECTION 24—HEALTH VISITORS.

Two full-time and one part-time (shared with an outside district) health visitors are responsible for giving advice to families on all aspects of health education. These duties have increased of late due to the ever-expanding needs of the community, especially the older members. Their duties are complimentary to the work of the general practitioners, who are often too busy to be able to give the necessary time to such matters as health education.

SECTION 25—HOME NURSING SERVICES.

This very valuable provision is carried out by the district nurses, who are usually midwives, and the demands of the service increase yearly as the proportion of old people rises

in the community. Twenty-seven home helps are working in the town, and the majority are engaged on a part-time basis.

SECTION 26—VACCINATION AND IMMUNISATION.

Smallpox: The number of children vaccinated in the district during the year is shown below:—

Age Period	Primary Vaccination	Re- Vaccination
Under 1 year	191	6
Over 1 year	33	4
2—4 years	62	32
5—14 years	269	221
15 years and over	408	909
Total	963	1172

The number of babies under one year vaccinated in the town is approximately 60% of the birth rate, which is a reasonably satisfactory response. At the time of writing this report, this country has been faced with the possibility of a smallpox epidemic, but adequate measures taken by public health staff have succeeded in eliminating the disease. The question of advising mothers to have babies vaccinated has been re-opened and, at present, there is a divided body of opinion, although the majority view and official policy is to recommend primary vaccination in children up to school entry age.

DIPHTHERIA, WHOOPING COUGH AND TETANUS.

The number of children who received protection against the above diseases was as follows:—

Age Period	Primary	Re-inforcing (Diph. only)
Under 1 year	66	—
1—4 years	149	8
5—14 years	24	165
Total	239	173

POLIOMYELITIS.

During the year, many adults and children were protected against the disease and special sessions were arranged during the evening in the mobile clinic at the Town Hall, for the

benefit of the adult population. Open sessions are still available at the Fforddlas Clinic on the 1st and 3rd Monday mornings of the month, between 10 and 11 a.m. At the end of the year, oral vaccine was introduced and it is hoped that it will be superior to the safe, but relatively weak for long-term protection, Salk vaccine, which is given by injection.

MEASLES.

Experiments are being conducted to introduce a safe and effective vaccine to protect infants against this disease, which can cause serious complications when infants under 2 years of age are attacked.

TUBERCULOSIS.

All 13 year old children are offered vaccination (by the use of live attenuated tubercle bacilli B.C.G.) against this disease, and the majority of children are protected. The percentage of children who do not require vaccination is high, i.e., they have already had contact with the disease and developed a successful immunity, and this indicates a significantly high level of tuberculous infection in the community. The latest returns of new notifications for 1961 confirm this.

SECTION 27—AMBULANCES.

The ambulance service is radio-controlled and administered from the headquarters at Mold. A local station is situated in Rhyl.

SECTION 28—PREVENTION OF ILLNESS, CARE AND AFTER CARE, AND LOAN OF EQUIPMENT.

Arrangements are in being for the loan of certain equipment from County Council sources for the use of handicapped persons. Equipment such as specialised bedding, wheel chairs, etc., can also be hired from the local branch headquarters in Russell Road, Rhyl, of the British Red Cross Society, and this service has been a most useful supplement to the statutory facilities. The local voluntary organisations are to be highly commended in their efforts.

MENTAL HEALTH AND SUBNORMALITY.

Visits are paid by mental welfare officers of the County Council to mentally ill patients who require advice and help.

Subnormal children who cannot be educated in an ordinary school, and who are not severely retarded (i.e., in the idiot category), are admitted to the Training Centre at "Tirionfa," Rhuddlan. There they receive training to the limits of their capabilities.

SCHOOL HEALTH.

Medical inspections of schoolchildren were carried out during this year, as Assistant County Medical Officer, and a high standard of general health and fitness was noted.

It is surprising in this modern age of detergents, soap powder and cosmetics that lice infestation of the hair is still to be found. The infestations are usually found in children residing in overcrowded flats, and especially where the standards of hygiene and parental care are far below the normally acceptable standards.

During the year, 64 assessments were carried out of the educational progress of retarded children, and recommendations were made in a proportion of these cases for special educational facilities to be provided, either in a special class in the ordinary school or at the remedial section of Clwyd Street School.

This new section of Clwyd Street School has made good progress in the past year and has established itself as a valuable cornerstone of the educational programme of the County Council. I should like to see it placed on a permanent basis in more pleasant surroundings, so as to give these children, who have become retarded educationally but are not necessarily mentally retarded, every chance of reaching a satisfactory educational standard on leaving school.

SCHOOL PREMISES.

Minor improvements are still required in many of the school premises in the town, and two schools, both over 100 years old, are not suitable as school buildings, judged by modern standards. It is policy to install wooden draining boards in new school premises, and as replacements in existing premises.

This, I believe, to be a false economy, as the useful life of the wooden boards is much less than that of stainless steel units, and often become contaminated and a vehicle for the spread of infections to food.

VENEREAL DISEASES.

Treatment is available at the following special clinics:—

H. M. Stanley Hospital, St. Asaph:

Males and Females—Tuesdays, 5.30 to 7 p.m.

Chester Royal Infirmary:

Males—Wednesday, 5—7 p.m. Saturday, 11 a.m.—1 p.m.

Females—Monday, 5—7 p.m. Thursday, 5—7 p.m.

Treatment is confidential and free, and inclusive of travelling expenses.

NURSING HOMES.

The following Nursing Home in the town is registered with the County Council and inspected periodically: Bryn Derwen, The Grove, Rhyl—8 beds.

WELFARE HOMES.

Persons who are unable to look after themselves satisfactorily may be admitted to County Council Homes which are situated at Y Gorlan, Rhyl; The Lawns, Rhyl; Part of the Women's Convalescent Home, Rhyl; Carr Holme, Prestatyn; Park House, Prestatyn; and Hafan Glyd, at Shotton. Another Home at Plas Coed, Rhyl, is available for ladies, and is run by a voluntary committee.

SECTION 47—NATIONAL ASSISTANCE ACT, 1948.

This section conveys powers on District Councils to remove persons who "are aged, infirm, or suffering from grave chronic disease, and are living in insanitary conditions and are unable to look after themselves and are not receiving adequate care and attention from others." In 1962 legal action was not required, but I was called to 16 old people during the year who had refused assistance when it was deemed necessary, either in the interests of the person or that of the community. Legal action is only taken as a last resort, and efforts are made to

persuade people to accept advice and treatment for their benefit.

The demands of the aged increase annually as the proportion of this group rises in the population, and this is especially so in Rhyl. This problem of the care of the aged is aggravated by relatives being unable or unwilling for various reasons to help in the care of their parents.

CARE OF THE AGED.

I would like to pay particular credit to the work of all the voluntary organisations in the town in relieving the suffering and hardships of the old and lonely people in Rhyl. A committee has recently been formed, under the title of the "Care of the Aged and Lonely," to co-ordinate the work of the various voluntary bodies engaged in this social work, of which there are over fifteen in the town, and regular visiting is arranged to the most deserving cases.

HEALTH EDUCATION AND FOOD HYGIENE.

Lectures and film shows were given by Mr. Lloyd Jones and myself to the staff of the Royal Alexandra Hospital, Rhyl, in the instruction of clean food practice. Letters containing advice and posters were sent to all cafe and boarding-house proprietors in the town at the commencement of the summer season, drawing attention to the danger of faulty food practices.

DIABETES SURVEY.

In March, 1962, with the co-operation of the County Welfare Officer and the Matrons of the Flintshire County Council homes, I carried out a survey to ascertain the incidence of diabetes in old people, and give below the results of the work: 243 urines were tested and 9 cases of glycosuria (sugar in the urine) were discovered (3.8%), of which 4 were known diabetics. Of the remaining 5 cases, there were 2 with confirmed diabetes and 3 cases which proved negative.

It has been the policy in most of the homes to test the urines shortly after admission with the "clintix." In the instances of the two new cases, these tests, carried out on admission approximately 2 years ago, were negative. As a result of this work, certain recommendations have been made and it is hoped

to re-test all the persons whose urines were test in 1962 again in 1964, and all subsequent re-admissions.

PUBLIC HEALTH LABORATORY SERVICE.

The local public health laboratory is at Conway, and Dr. Kingsley Smith, the Director, and Dr. Harris, his Deputy, carried out the bacteriological examination of specimens sent from the Urban District. They have been most co-operative and my gratitude is extended to them for their advice and help throughout the year.

HOUSING.

During the year the following new units of housing accommodation were provided in the town:—

New houses and flats provided by the Council	4
Private properties, mainly bungalows	82

Since the war the Council have built 1,046 houses, bungalows and flats. The table shown below indicates the yearly totals of new housing construction in the town:—

Year	New Council houses	New Private houses	No. of inhabited properties in town
1962	4	82	7299
1961	8	126	7213
1960	30	92	7079
1959	16	138	6957
1958	23	142	6803
1957	44	151	6380
1956	50	138	6440
1955	56	106	6245
1954	72	99	6082
1953	173	67	5907
1952	124	19	5658
1951	77	22	5509
1950	76	15	5400
1949	86	16	5311
1948	100	1	5208
1947	68	15	5125
1946	39	78	5018

The house building development in Rhyl is likely to slow down in future, due to shortage of land and sewerage difficulties.

TABLE SHOWING HOUSING DEVELOPMENT IN TOWN
OVER PAST 90 YEARS.

Year	No. of houses	Population	No of persons per house
1872	1040	4229	4.0
1881	1220	6481	5.3
1891	1329	6474	4.8
1901	—	8461	—
1911	2018	9005	4.4
1921	2710	13490	4.9
1931	3281	13485	4.1
1941	4979	21530	4.3
1951	5509	18745	3.4
1961	7213	21120	2.9
1962	7299	21290	2.9

The above table shows the improvement in overcrowding that has taken place in the town, especially in the past decade. The majority of the serious long-standing cases of overcrowding have been re-housed, but there are between 10 and 15 houses in multiple occupation, occupied usually by families who have moved to the town from outside areas, and where living conditions are very unsatisfactory. The Authority is continually faced with the problem of tenants being unable to meet their rent commitments because of an inability to budget their finances satisfactorily, and this is aggravated by gross overspending on hire purchase commitments. It is extremely distasteful to have to evict such families, especially where children are concerned, as they are the unfortunate victims of their parents' mismanagement.

The waiting list for Council accommodation at the end of 1962 was as follows:—

Number of families on general list	269
(The same as the previous year)	
Number of persons waiting for old persons' accommodation	100

At the time of writing this report, the Housing Committee were giving consideration to a scheme for the erection of flats in the West End of the town and, also, are having discussions with the County Council on the latter scheme for financial assistance for provision of accommodation for old persons, and

it is hoped that a successful outcome will result. Details of the County Council scheme are given below:—

1.—Basic Conditions for Contribution by County Council.

“In order to qualify for a contribution from the County Council the following basic conditions must be fulfilled:—

(a) An application for the County contribution must be made in good time before the commencement of any scheme to which it relates and be accompanied by the following details and information:—

- (i) The estimated cost of the scheme;
- (ii) An outline list of the welfare services to be provided, with the estimated cost of such services;
- (iii) Plans of the scheme for formal approval in writing by the County Council.

(b) Units of housing accommodation shall be occupied by single persons of pensionable age (i.e., men over 65 years of age and women of 60 years of age), or married couples where both husband and wife are of pensionable age, or by persons who, in the opinion of the County Welfare Officer, can benefit from special housing accommodation by reasons of infirmity.

2.—Welfare Facilities.

The County Council considers that the following welfare facilities—the list is not necessarily intended to be exhaustive—are desirable in connection with housing accommodation provided for aged and other people intended to be covered by this scheme and that the District Council should, wherever possible and practicable, provide as many of these welfare facilities as are appropriate to the particular scheme:—

- (a) Central heating for the dwellings;
- (b) A common room for use by the residents in the scheme;
- (c) Baths of a type suitable for old people and provided with fittings to enable old people to get in and out without assistance;

- (d) Communicating bells between individual dwellings and, **in the case of major schemes only, the residence of the Warden;**
- (e) Fittings arranged so as to be convenient of access to old people and which will avoid the need for them to resort to undue bending or climbing of step ladders, etc., to gain access to such fittings;
- (f) Bath safety rails.

3.—Contributions by the County Council.

(a) **Basic Contribution:** The County Council will make a basic contribution of £10 per annum in respect of each unit of accommodation for the period of the loan in relation to all schemes.

(b) **Minor Schemes:** For schemes of less than 18 houses (i.e., minor schemes) an additional contribution will be made by the County Council for the period of the Housing loan of £1 for every £10 of capital expenditure incurred by the Housing Authority in the provision of welfare facilities for all or any of the units of accommodation within the scheme, subject to a maximum of £25, including the basic grant of £10.

(c) **Major Schemes:** The County Council will make an additional contribution to the District Council in respect of welfare facilities calculated on the following basis by reference to the annual deficiency on the scheme concerned:—

- (i) The annual contribution in respect of welfare facilities shall not exceed the total deficiency incurred thereon in the year to which it relates;
- (ii) No contribution will be made in respect of items properly chargeable to the Housing Revenue Account and which could properly be covered by rents;
- (iii) Other than the basic contribution of £10 (above there will be no subsidisation of rents nor assistance in respect of expenditure which would normally be borne by tenants;

- (iv) The expenses towards which the County Council will contribute will be limited to those incurred by District Councils in providing welfare facilities, e.g., the welfare services of the kind referred to above and communal facilities or services, the cost of which cannot properly be recovered in rent and can be considered to arise as a direct consequence of the houses being erected for old people, e.g., warden's house and costs and laundry services; and
- (v) A contribution calculated on the basis of the foregoing principles and the contribution in 3(e) above will be the maximum contribution payable in respect of the major scheme to which they relate. Of that maximum, there will be paid in every year to the District Council concerned such proportion as the number of dwellings comprised in the scheme and actually occupied during that year by tenants approved by the County Council bears to the total number of dwellings in the scheme.

PLANNING HOMES FOR THE OLD AND DISABLED.

Provision of suitable accommodation for the old and disabled is becoming increasingly necessary and the emphasis for care has changed from dependence on relatives to independence and self help.

Adaptations to existing premises could be carried out relatively inexpensively and this is especially so in the planning and design of new flats and bungalows and the following points are worthy of mention:—

1. Light switches should be simple in action and where placed adjacent to doors, should be aligned with door handles. Generous provision of two-way switches and master switches should be made. Electric socket outlets should not be placed in low inaccessible positions.
2. Some elderly people find a low level water closet difficult to use, and the closet may either be built up or a portable rim can be inserted on top of the bowl. The flushing handle must be easily accessible. A horizontal rail for pushing up and a vertical rail for pulling up should be provided on either side of the water closet.

3. Storage cupboards should be sited so that shelves are not too high or too deep to be reached comfortably
4. Standard British sink units are sometimes too high to be used comfortably from the standing position. A shallow sink is an advantage, particularly if space is available below the sink for the housewife to sit to wash if she wishes.
5. The oven should not be too low and, preferably, ought to be at just below waist level.
6. Where the bath is designed for access from a standing position, the rim should be as low as possible. Grip rails should be provided to enable the person to enter and leave the bath easily.
7. For those confined to wheel chairs, a ramped access in place of stepped access is essential. Furthermore, door handles should be designed so that they can be operated by use of a walking stick for persons confined to wheel chairs.
8. Fuel should be easily accessible, either an indoor supply, or very near at hand outdoors, with an outdoor lighting switch.
9. Window and ventilation controls must be accessible and easy to operate. The conventional side hung opening light is satisfactory, but where there is an obstruction, a window with louvre blades which can be operated with a single action by means of a handle at low level, may be preferred.
10. Stair cases must be adequately lit and double steps, awkward winders, and staircases with open risers should be avoided. Rounded nosings are preferred to sharp-edged nosings. A handrail on both sides is essential for some and advantageous to all.

SLUM CLEARANCE.

The first post-war programme has been completed and consideration has been given to the second five-year phase. It is hoped to put provisional proposals before the Housing Committee in the current year. The Council have given

favourable consideration to most of the requests for improvement grants, and property owners are encouraged to make greater use of these facilities.

WATER SUPPLY.

There is an efficient and abundant supply of bacteriologically and chemically pure water. Regular samples are taken and the results are always satisfactory. The Water Engineer and his staff exercise extreme vigilance in ensuring a satisfactory supply from the bacteriological aspect.

Ninety-eight samples were taken during the year and found to be satisfactory.

There is one private supply in the district, from a bore-hole 250 ft. deep, but this water is only used for trade purposes. The local water undertaking is likely to become part of a much larger regional Water Board in the near future.

A recent sample of water was submitted for analysis chemically and the following details are given below:—

Appearance: Faint opalescence with a slight yellow-grey deposit.	Metals—Iron	0.12
Microscopical examination: Mineral and organic debris with diatoms.	Manganese	0.04
Colour	Zinc, Copper,	
pH	Lead	Absent
Electric Conductivity ...	Turbidity	13
Chlorine present as Chloride	Odour	Nil.
Hardness: Total	Free Carbon Dioxide... ..	2
(Carbonate 24, Non-carbonate 46).	Dissolved Solids dried at 180°C.	135
Nitrate Nitrogen... ..	Alkalinity as Calcium Carbonate	24
Ammoniacal Nitrogen ...	Non-carbonate	46
Albuminoid Nitrogen... ..	Nitrite Nitrogen... ..	less than 0.01
	Oxygen Absorbed	2.0
	Residual Chlorine	Nil.
	Fluoride (Perchloric acid distillation, Thorium nitrate titration)	0.06

This sample shows opalescence and deposit, but the turbidity is not marked. The water is neutral in reaction, fairly soft in character, contains no excess of mineral constituents and is free from metals apart from minute traces of iron and manganese. It shows only slight colour and is of a good standard of organic quality for a surface water.

From the aspect of the chemical analysis no unusual difficulty would be expected in the treatment of this water for the production of a public supply.

MILK SUPPLY.

During the past three years, the responsibility for the routine sampling of milk has been transferred to the County Council, but it is considered that, in order to ensure a satisfactory standard of milk, routine bacteriological testing of milk be continued, and 212 samples were taken by the Chief Public Health Inspector, and fuller details appear in his report. My chief concern is the presence of brucella organisms in milk, which can occur in unpasteurised T.T. Supplies. I should like to see all milk pasteurised. The ultimate responsibility for ensuring a satisfactory milk supply for sale to the public still remains with the district health authority.

ICE CREAM.

One hundred and seventy-one samples of ice cream were taken, and where unsatisfactory results were obtained personal contact was made with the manufacturers to ensure an improvement in supplies.

PUBLIC ABATTOIR.

The slaughterhouse has now been brought up to a satisfactory standard, and has been approved by the Ministry.

The number of animals slaughtered decreased by 3,548 on the previous year.

The amount of condemned meat was 3 tons, 13 cwts., 2 qrs., 13 lbs.

PUBLIC SWIMMING BATHS.

These baths are owned by the local authority and are open for the season.

The water was regularly sampled and 24 samples were submitted for analysis, of which all were satisfactory.

As has been previously mentioned, there is need for new baths with a heated supply of water.

CHILDREN'S PADDLING POOL.

The water in the pool is chlorinated, and the plant is satisfactory.

DRAINAGE AND SEWERAGE.

There are ten cesspools in the district, and these are emptied at regular intervals by means of a cesspool emptier, the contents being disposed of into the main sewer. As far as is known, there are no pail closets in the district, the remainder of the properties being connected to main drainage.

In the eastern portion of the district, the sewage gravitates to a small pumping station, where it is pumped through a rising main to a branch sewer. The remainder of the sewage gravitates to a main pumping station where, after passing through a revolving screen, it is pumped into a high level storage reservoir of a holding capacity of $1\frac{3}{4}$ million gallons, and from the storage tank it gravitates out to sea, where it is discharged approximately 1,000 yards from the high water mark into the sea, commencing half-hour on ebb after high water for two hours, when the valve is closed until the next tide. This applies to undiluted sewage, but during heavy rainfalls the valve into the main outfall pipe has to be opened to discharge the storm water. The major contract for the branch sewer and new automatic main pumping station has been let, and an early start is to be made in 1962. This matter has been long delayed, and it is hoped that the scheme will be completed within two years, and will relieve flooding in certain parts of the town during heavy rainfall.

RHYL CUT.

There has been a general worsening in the condition of this open stream, but the Dee and Clwyd River Board are formulating a plan to improve the drainage in the eastern end of the town, which it is hoped will ultimately reduce the risk of flooding.

CAMPING AND CARAVAN SITES.

The number of licensed sites used for caravans was eight, and strict control under a local Act is enforced to prohibit tenting. The estimated number of campers resident in the district at the height of the season is 3,500.

SMOKE CONTROL.

It has been increasingly recognised that atmospheric pollution, from whatever source, can cause ill-health, whether in the form of bronchitis or cancer of the lung. The town is comparatively free of smoke, but I should, nevertheless, wish the Council to adopt a byelaw under the Clean Air Act, whereby all grates installed in new or reconditioned dwellings should be capable of burning smokeless fuels, so that at a future date, when consideration is given to the setting up of a smoke control zone, considerable expense will be saved by the Authority. Furthermore, the majority of new grates are capable of burning smokeless fuels, and the additional cost to prospective home buyers will be virtually negligible. Also, it should be added, that ordinary coal can be burned in these appliances.

At the time of writing this report, the Council have agreed to co-operate with two other district councils in a scheme for the detection of level of atmospheric pollution in the area. My purpose in this action is to be in a position over the next 5 to 10 years, of studying the general levels of pollution in the town and to advise the Council accordingly.

The principal smoke nuisance, apart from the chief culprit of domestic smoke, is the British Railways engine shed, and a laundry chimney. The Royal Alexandra Hospital have converted the boiler house to oil-firing, which has markedly reduced the extent of smoke pollution in the vicinity of the hospital.

SUPERANNUATION.

During the year, 57 medical examinations were carried out on employees of the Urban District Council in connection with fitness for employment and absence through ill-health.

EMPLOYMENT OFFICER'S REPORT

I have great pleasure in giving below the report of Mr. G. Morgan, the manager of the local employment exchange in Rhyl, which covers the area of Rhyl U.D., Prestatyn U.D., St. Asaph R.D. and part of Abergele U.D.

MINISTRY OF LABOUR.

I append below a report on the lines of past years and again I stress that all figures cover the Rhyl, Prestatyn, St. Asaph and Kinnel Bay areas.

(1) Unemployment.

Number of Persons Registered as Unemployed (excluding Registered Disabled Persons requiring employment under sheltered conditions) for the year 1962.

Date	Men	Women	Total
15th January	518	192	710
12th February	487	168	655
12th March	462	160	622
9th April	439	161	600
14th May	415	109	524
18th June	275	32	307
16th July	239	14	253
13th August	285	29	314
10th September	306	51	357
15th October	471	178	649
12th November	489	208	697
10th December	537	215	752

There has been a slight upward trend in unemployment since 1961, but this must be considered in the light of the rise in the insured population in the area. In June, 1961, it was 13,099, and in June, 1962, it was 13,913.

(2) Disabled Persons (some interesting figures).

	17th April, 1961		April, 1962	
	Men	Women	Men	Women
1914-18 Pensioners	49	—	47	—
Disabled H.M.F.	111	—	111	4
Disabled from work or early childhood	45	—	43	23

The largest causes of disablement are injuries and diseases to the upper and lower limbs. Next come Pulmonary T.B. and diseases of the heart and circulatory systems.

High on the list are chest complaints, but the majority of these cases are people who have probably moved into the area for health reasons. This is an important point in considering resettlement because a large number of elderly workers come to the area for health reasons, many with qualifications which are difficult to fit into the industrial make-up of the area.

Fifty per cent. of the Registered Disabled Unemployed are over 55; seventy per cent. are over 50.

Registered Disabled Persons: Section I.

Number unemployed on:—	Men	Women	Total
15th January, 1962	53	10	63
19th February, 1962	58	9	67
14th March, 1962	54	10	64
16th April, 1962	55	10	65
21st May, 1962	49	8	57
18th June, 1962	31	4	35
16th July, 1962	28	4	32
20th August, 1962	39	3	42
17th September, 1962	40	4	44
15th October, 1962	60	12	72
12th November, 1962	57	10	67
10th December, 1962	62	10	72

Section II. Cases (suitable for employment under sheltered conditions only) have been excluded, and the total of these cases varied between 3 and 10.

The total number registered as disabled are as follows:—

	Men	Women	Total
11th April, 1960	408	59	467
18th October, 1960	412	66	478
17th April, 1961	412	51	463
16th October, 1961	410	68	478
16th April, 1962	409	72	481
15th October, 1962	364	70	434

The problems of the disabled in this area are three-fold and, in order of importance, I would list them as:—

(a) **Living in this area:** Without diversification of industry, opportunities of fitting a person with a specific disability into a specific job seldom arise. Employers are generally sympathetic and helpful but are limited in the number of posts they can offer.

(b) **Age:** In an area of comparatively high unemployment, the older person is at a disadvantage—unfortunate but understandable. It must be borne in mind that the majority of able-bodied unemployed are in the higher age groups as well as the Registered Disabled Persons. The problem of the older worker is one of not fitting into the employers' system of recruitment and promotion, particularly with alternative labour available.

(c) **Disability:** This, in a large number of cases, is the least of the problems because employers are coming to realise that in the right job a disabled person compares favourably with others.

(3) **Employment.**

The vacancies in this office area outstanding on 7th August, 1963, were:—

Engineering and Electrical Goods	1 man, 10 women
Timber	2 men
Other Manufacturing Industries	1 man
Construction	1 man
Distributive Trades	1 man, 7 women
Professional Services	34 women
Miscellaneous Services (including Recreation, Catering, Hotels, Laundries)	4 men, 19 women
Public Administration	2 men

Generally, apart from seasonal work, we have few vacancies outstanding for very long in the area, the exceptions being skilled workers in particular trades and qualified nursing staff.

The vacancies recorded from other districts are for skilled workers in Engineering and Construction.

Despite a picture of shortage of vacancies, and the specific problems of the unemployed, this office placed in employment during 1962, 682 men and 553 women.

(4) General.

The two new factories which were set up in the area in 1961 have expanded and are employing between them about 150 workpeople. Another factory has been built in the area and is already in production, and there are prospects of the labour force building up to exceed 150 workers.

The area is a seasonal holiday resort and, consequently, the problems are similar to other resorts—high unemployment during the winter months and comparatively low unemployment during the summer months.

There has been a steady increase in the insured population over the last few years, and I think it fair to say that a good proportion of the workpeople who move into the area are in the higher age groups, having moved on medical advice, and have special skills or experience which are difficult to fit into the industries of the area.

(Signed) G. G. MORGAN,
Manager.

LIST OF ADOPTIVE ACTS IN FORCE.

Rhyl Improvement Act, 1852, 1872, 1901.
Rhyl Water Act, 1912.
Rhyl U.D.C. Act, 1935.
Rhyl U.D.C. Act, 1956.

BYELAWS.

Camping, 1935 and 1951.
Tents, Vans, Sheds and Similar Structures, 1913.
Offensive Trades—Dealers in Rags and Bones, 1915.
Register for Marine Stores, 1915.
Common Lodging Houses, 1877.
Nuisance, 1890.
Removal of Offensive Matters, 1896.
Sanitary Conveniences, 1897.
Food, 1951.
Slaughterhouse, 1957.

COMMON LODGING HOUSES.

There are no common lodging houses in the Urban District.

INSPECTIONS UNDER FACTORIES ACT, 1937 TO 1959.

The prescribed particulars of inspections carried out during the year are provided in the annex to this report.

(Signed) D. P. W. ROBERTS,
Medical Officer of Health.

CHIEF PUBLIC HEALTH INSPECTOR'S REPORT

For the Year ended 31st December, 1962.

Mr. Chairman and Gentlemen,

I have pleasure in presenting my thirtieth Annual Report for the year 1962.

During the year, one application was received for a Discretionary Grant, and was approved.

Thirteen applications were received for Standard Grants under the House Purchase and Housing Act, 1959, and approved. This makes a total of 44 approved since the inception of the Act.

In the majority of cases the applications for grants were again received from owner/occupiers, and it is very disappointing that there are not more applications from tenanted properties. It would appear that the Government's intention to save structurally sound houses, without modern amenities, is not being realised, and it would appear, although with reluctance, that steps may have to be taken to compel owners to provide the essential amenities and tenants to accept them.

In this connection, from recent Ministry circulars it would appear that the Government is proposing to take steps on these lines. There are a considerable number of structurally sound houses in Rhyl without the amenities referred to, and I would appeal to owners and tenants to consider very seriously making application for improvement grants so as to prevent such houses depreciating to such an extent that they may need action under the Housing Acts.

The staff of the Health Department are always willing to help and advise any applicants on the method of applying for grants and the implications of the making of grants.

Two applications for Certificates of Disrepair, under the Rent Act, 1957, were received and granted.

The number of houses and flats erected by the Council was 4, this being a decrease of 4 on the previous year.

The Council have considered in principle a further five-year slum clearance programme, which includes 96 houses. No progress has been made in declaring areas, due to the fact that the acquiring of land for building of houses for rehousing displaced families poses many problems, but it is hoped that during 1963 necessary steps will be taken to enable work to be commenced on the clearance of certain areas.

With regard to general housing needs, it would appear that despite the fact that the Council have built only a few houses for this purpose, the number on the "live" register does not appear to be increasing, due to the fact that the wastage each year of existing tenancies appears to be sufficient to satisfy the number of new applications appearing on the register.

The differential rent scheme for tenants of Council houses continues to work satisfactorily, with the result that the ratepayer has again not been called upon to make up any deficiency in the Housing Revenue Account.

The Council continues to loan money for the purchase of old and new houses, and for the financial year ending 31st March, 1963, the sum was £30,698. The total loaned to date is £460,775. The total number of houses and flats erected by the Council since re-building commenced after the war is 1,046.

The Council have adopted a policy of selling both pre-war and post-war houses to sitting tenants, and up to the 31st December, 1962, they have sold 55.

Continued visits and re-visits are made to premises processing and handling food, in order to ascertain the requirements of the Food & Drugs Act, 1955, and the Regulations made thereunder are complied with, but due to the summer influx of kitchen hands and waitresses who have no interest in the town, except the making of money, for a short period, the problems in a seaside resort are immense. The continued personal example and the patient repetition of hygiene education has, I think, in no small measure had a bearing on the fact that we had no major outbreak of food poisoning during the year.

A commencement was made on the new sewerage scheme in July, and the gas engines driving three pumps were removed and replaced by electric motors to enable preliminary work to be carried out in the construction of a new pump well. In an endeavour to reduce nuisance to a minimum, wherever

there have been open sewers carrying sewage, as a result of construction of new sewers, daily disinfection of the area has taken place, and I am pleased to report that there have been no adverse incidents.

The Council and the Dee and Clwyd River Board have had several consultations on the proposed pumping station on the Coast Road and relief from the Rhyl Cut on the eastern area of the district, and it is hoped that during 1963, with the goodwill and co-operation of the Ministry of Health, Ministry of Housing & Local Government, and the Ministry of Agriculture, Fisheries & Food, that this joint scheme will come to fruition.

There was one application for a Site Licence under the Caravan Sites and Control of Development Act, 1960. No licences were issued during 1962.

There are now six approved sites holding licences issued under the Caravan Sites and Control of Development Act, 1960; two have been approved as residential sites and four as seasonal licences, allowing the land to be used as a camping site from the 31st March to the 31st October in each year, and there are still five applications at the end of the year being negotiated.

The noise nuisance from transistor radio sets in the streets and business premises is a problem, but I suppose being a seaside resort and the majority of offenders being young people intent on enjoying themselves, there is very little that can be done to minimise this.

Despite the provisions of the Public Health Act, 1961, the depositing of "litter" in ditches, hedgerows and on waste land is becoming hectic. Old car bodies, mattresses and all kinds of undesirable material are being strewn over the district and, despite warning notices, there does not seem to be any improvement, and in certain areas of the district it is a regular practice to send a refuse collection vehicle around the area once a month mainly to tidy up grass verges and ditches. In some instances it is costing the Council a considerable amount of money in cutting up old car bodies for transporting to the Tip. Whilst the Council are endeavouring to help the public by erecting notices drawing the attention of people to offences committed under the Litter Act, vandals are continually smashing and removing these notices, and I do appeal to any persons who see any litter being deposited, particularly from

vehicles, if they would contact the Department at once, and it would be a great help if they could obtain the registration number of the vehicle.

The provisions of the Housing Act, 1961, dealing with houses in Multiple-Occupation, came into force during the year. Several reports have been presented to the Council and certain decisions have been taken, and towards the end of the year 35 houses had been inspected. It is the intention of the Council to take a firm stand on the question of houses in Multiple-Occupation, and unless owners are prepared to co-operate with the Council it is their intention to implement the provisions of the Act to the full.

The Council provide a free 4-hour service for the unstopping of choked drains, water closets and other sanitary fittings and I am sure this is appreciated by the public, but whilst the Council is giving this free service in the interests of the rate-payers of the town it would appear that, at times, an unfair advantage is taken of the service as reports are very often received after working hours, particularly at week-ends, of choked drains, and when a man goes to release the drain he finds that it has been stopped up for a considerable time. I do, therefore, appeal to everyone to let the Department know of their difficulties before 5 o'clock in the afternoon (12 noon on Saturday) as any work carried out after normal hours involves overtime rates, and as the work is not rechargeable all rate-payers have to face this added burden.

During the latter part of the year an instrument for the measuring of atmospheric pollution, viz., smoke and sulphur dioxide content, was installed in the Health Department, and we are now co-operating with the Department of Scientific and Industrial Research by providing daily figures of atmospheric pollution. It is too early yet to draw any comparison; this will be referred to in more detail in subsequent reports.

Finally, I would like to express my sincere thanks to the Chairman and Members of my Committee, my colleagues, the Medical Officer of Health, fellow officials in all Departments of the Council, and to all members of the indoor and outdoor staffs for their loyal support and co-operation.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

E. L. LLOYD JONES,

Chief Public Health Inspector.

TABLE I.—GENERAL SUMMARY.

Number of Complaints Received	2270
Number of Rains and W.C.s Released and Cleansed by Department	2196
Number of Nuisances Found (including under Factories Act)... ..	292
Number of Nuisances Abated	89
Number of Preliminary Notices Served	189
Number of Statutory Notices Served	24

SUMMARY OF VISITS AND INSPECTIONS.

Public Health Acts—	
Complaints	210
Infectious Disease	163
Refuse Collection and Disposal	130
Schools	16
Offensive Trades	2
Smoke Observations	6
Water Supply	20
Public Conveniences	80
Swimming and Paddling Pools	79
Camping Grounds	84
Drain Tests, etc.—Smoke Machine	22
Theatres and Cinemas	11
Verminous Premises	12
Factories and Workplaces	200
Rats and Mice	2426
Housing Acts—Inspections	200
Houses in Multiple Occupation	150
Council House Inspections	361
Pet Animals Act—Inspections	10
Shops Act, 1950—Welfare Arrangements	27
Housing Applicants Visited	200

FOOD AND DRUGS ACT REGULATIONS.**SUMMARY OF VISITS AND INSPECTIONS.**

	Registered	Visits
Abattoir (Municipal)	—	750
Butchers	22	250
Bakehouses	10	86
Boarding Houses and Hotels	272	164
Confectioners	19	60
Dairies and Milkshops	—	68

Fishmongers and Poulterers	10	...	205
Fish and Chip Shops	16	...	36
Food Factories	3	...	90
Grocers	42	...	360
General Stores	20	...	163
Greengrocers	28	...	70
Holiday Camp Kitchens	2	...	32
Ice Cream—			
Retailers	144	...	200
Wholesalers	3	...	38
Manufacturers	2	...	58
Kiosks	10	...	31
Mobile Vans	7	...	24
Soft Ice	6	...	29
Multiple Stores	2	...	211
Licensed Clubs	17	...	24
Public Houses	36	...	80
Snack Bars	12	...	26
Stalls—Shellfish	3	...	26
Stalls—Miscellaneous	14	...	29
Sweets and Minerals	38	...	44
Restaurants and Cafes	88	...	310
Wholesale—			
Grocers	3	...	82
Greengrocers	1	...	24
Sugar Confectioners	5	...	2
Poulterers	1	...	14

TABLE II.—SANITARY DEFECTS.

Damp Living and Bed Rooms	9
Defective Chimney Pots, Flues, Stacks and Flashings	4
Defective Roofs	2
Defective Floors, Living and Bed Rooms	6
Defective Gutters and Downspouting	9
Defective Plaster, Wall and Ceilings	2
Defective Skylights, Window Frames, Casing and Doors	5
Cords to Windows and Fastenings	—
Defective Fireplace	4
Remove Accumulation, Manure and Refuse	19
Defective Yard Surface	5
Defective Dust Bins	—
Animals in such a state as to be a Nuisance	2
Offensive Smell/Effluvia	—
General Defects	19
Defective Brickwork	—
Filthy Rooms, Walls, Floors, Bedding and Furniture	3
Defective Timberwork	—
Total	89

CLEAN AIR ACT, 1956.

Smoking Chimneys -

PUBLIC HEALTH ACT, 1936: SECTION 75.

Defective, or want of, Dustbins (Supplied) 391
 Defective, or want of, Dustbins (Trade) 126

NOISE ABATEMENT ACT, 1960.

Visits 6
 Notices -

FOOD HYGIENE REGULATIONS, 1955 & 1960.

Regulation No.		Infringements	
		Found	Remedied
5	Cleanliness of Equipment	2	2
8	Protection from risk of Contamination	1	1
	Sanitary Conveniences—		
14 (1) (a)	Clean and Efficient Order	6	6
14 (2)	Lighting and Ventilation	2	2
14 (4)	Communicating with Food Room	1	1
14 (5)	Notices re. Hand Washing	1	1
16 (1)	Wash-hand Basins	4	4
16 (2)	Absence of Hot Water	2	2
16 (3)	Absence of Soap, Towels, Nailbrushes	2	2
17	First Aid Materials	1	1
18	Accommodation for Clothing, etc....	1	1
19	Facilities for Washing Food and Equipment	11	11
22	Food Room not to be/or communicate with Sleeping Place	—	—
23	Cleanliness & Repair of Food Rooms	32	32
24	Accumulation of Refuse	3	3
26 (a) (b)	Stalls (Names inscribed thereon) and Cleanliness	1	1
28	Supply of Water to Stalls	—	—
	Total	69	69
	No. of Warning Letters		39

DRAINAGE: WATER CLOSETS AND WATER SUPPLY.

Defective W.C., Walls, Roofs and Doors	4
Defective Fittings, W.C., Sinks and Baths	6
Defective Access Covers, Chambers and Brickwork	4
Defective Water Services	10
Defective Soil Pipes	2
Defective Urinal Channel	—
Filthy W.C. Premises, Basins and Urinals	2
Defective Sink Waste Pipes	7
Choked and Defective Drains	18
Defective Gully	2
Choked Ditch	—
Oil in Sewer	1
	56

RHYL U.D.C. ACT, 1935.

In 8 instances during the year, 24-hour Notices were served upon the Owners under Section 82 of the Rhyl Urban District Council Act, 1935, to attend to defective drains and fittings.

FACTORIES ACT, 1937 TO 1959.

Prescribed Particulars on the Administration of the Factories Act, 1937:—

Part I. of the Act.

1.—Inspections for purposes of provision as to health (including inspections made by Public Health Inspectors):—

Premises	No. on Register	No. of Inspections	No. of written notices
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	32	39	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	128	57	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers Premises)... ..	10	30	—
Total	170	126	—

2.—Cases in which defects were found:—

Particulars	No. Found	No. Remedied	Referred to H.M. Ins'tor.	Referred by H.M. Ins'tor.
Want of Cleanliness (S.1)... ..	—	—	—	—
Overcrowding (S.2)... ..	—	—	—	—
Unreasonable Temperature (S.3)	—	—	—	—
Inadequate Ventilation (S.4) ...	—	—	—	—
Ineffective Drainage of Floors (S.6)... ..	—	—	—	—
Sanitary Conveniences (S.7):				
(a) Insufficient... ..	—	—	—	—
(b) Unsuitable or Defective	—	—	—	—
(c) Not Separate for Sexes	—	—	—	—
Other offences against the Act (not including offences relating to Outwork)... ..	—	—	—	—
Total	—	—	—	—

Part VIII. of the Act: Outwork (sections 110 and 111)

Nature of Work (1)	Section 110			Section 111		
	No. of out- workers in August list required by Sec. 110 (1) (c) (2)	No. of cases of default in sending lists to the Council (3)	No. of prosecutions for failure to supply lists (4)	No. of instances of work in un- wholesome premises (5)	Notices served (6)	Prosecutions (7)
Wearing apparel:						
Making, etc.	—	—	—	—	—	—
Cleaning and washing... ..	—	—	—	—	—	—
Household linen	—	—	—	—	—	—
Lace, lace curtains and nets	—	—	—	—	—	—
Curtains and furniture hangings	—	—	—	—	—	—
Furniture and upholstery	—	—	—	—	—	—
Electro-plate	—	—	—	—	—	—
File making	—	—	—	—	—	—
Brass and brass articles	—	—	—	—	—	—
Fur pulling	—	—	—	—	—	—
Iron and steel cables and chains	—	—	—	—	—	—
Iron and steel anchors and grapnels	—	—	—	—	—	—
Cart gear	—	—	—	—	—	—
Locks, latches and keys	—	—	—	—	—	—
Umbrellas, etc.	—	—	—	—	—	—
Artificial flowers	—	—	—	—	—	—
Nets, other than wire nets	—	—	—	—	—	—
Tents	—	—	—	—	—	—
Sacks	—	—	—	—	—	—
Racquet and tennis balls	—	—	—	—	—	—

TABLE III.—INFECTIOUS DISEASES.

Number of Cases Removed to Isolation Hospital	—
Number of Rooms Disinfected, Lamp and Spray	10
Number of Rooms Disinfected, Spray only	5
Number of Houses Disinfected, Spray	—
Number of Houses Disinfected, Lamp and Spray	2
Number of Wards or Cubicles Disinfected	5
Number of Schools Disinfected	13
Number of Motor Ambulances, Cars or Vans Disinfected	—
Number of Caravans or Huts Disinfected	4
Number of Bungalows or Chalets Disinfected	2
Miscellaneous	2
Number of Articles Destroyed with Consent of Owner	2
Number of Articles Disinfected by Steam	1359
Number of Articles Disinfected by Lamp and/or Spray	—
Disinfector used (Steam)	76
Number of Articles Hot Air Dried	167

TABLE IV.—DISINFESTATION.

Number of Rooms Disinfested (D.D.T.)	8
Number of Wards, Shops, Cafes or Cinemas and Theatres Disinfested (D.D.T.)	2
Number of Houses or Flats Disinfested (D.D.T.)	1
Number of Caravans or Chalets, etc., Disinfested (D.D.T.)	—
Miscellaneous Items (D.D.T.), including Wasps Nests	1
Number of Houses, Flats, Cinemas or Caravans Disinfested (Smoke Generators)	2
Number of Hospitals Partly Disinfested (Spray D.D.T.)	7
Number of Houses, Cinemas or Wards, etc., Disinfested by D.D.T. Powder	—
Public Abattoir (Spray and Wash-down with Disinfectant)	—

HYGIENE IN SHOPS.

There has been a considerable increase in the provisions of food vending machines outside premises, which is creating a litter problem by the cartons being strewn about. Also, the cleaning underneath and adjacent to the vending machines leaves quite a lot to be desired.

I would stress that it is most essential that with the type of food sold from these vending machines, i.e., milk drinks and soups, which are the ideal media for the growth and multiplication of germs, that the surrounds of the vending machines should be cleansed at least once per day with hot water containing detergent, and the provision of enclosed containers for the disposal of the cartons is essential.

FOODSTUFFS.

The details of foodstuffs voluntarily surrendered during the year would still appear to be formidable, which shows that the retailer has continued confidence in the officers of the department and encourages the retailer to call in the Public Health Inspector for expert advice, and so ensure that any doubtful commodity is not offered to the public for human consumption.

During the year a few complaints were received of foreign matter in foodstuffs; the incidents were fully investigated and, in each case, the facts were reported to the Council, who considered the matter without the name of the individual person or firm being disclosed, and in each case where there had been no previous complaint a warning was issued.

In three instances proceedings were instituted for the sale of unsound food:—

Article	Result	Penalty
Steak and Kidney Pie	Guilty ...	Fined £20 plus 6 guineas costs.
Meat Pie	Guilty ...	Fined £5 plus 4 guineas costs.
Bread Rolls	Guilty ...	Fined £5 plus £56/10/0 costs.

I would draw the attention of all retailers of pre-packed foodstuffs, such as pies, cream cakes, etc., that they should ensure that there is proper rotation of their foodstuffs, in other words that any foodstuffs left on shelves when new supplies are delivered should be brought to the front and the new foodstuffs placed at the rear as, with a fluctuating sale due to varying numbers from day to day, it is impossible in a seaside resort to correctly estimate a day's through-put. I would also stress on food retailers that certain foodstuffs containing gellatine, such as meat pies, in the summertime normally have a "shelf life" of not longer than 48 hours, and they should be particularly careful that any food left over after the period mentioned above should be disposed of to prevent the possibility of an outbreak of Food Poisoning.

I am still not convinced that the argument of the wholesaler, that it is difficult to code-mark pre-packed foodstuff, is a sound one, and I would reiterate what I said 12 months ago that in this modern age some form of identification of date of production of perishable foodstuff would be a step in the right direction and would obviate what might be an involved outbreak of Food Poisoning.

CONDEMNED FOODSTUFFS.

Meat, 72 lbs. 6 ozs and 305 tins; Meat and Veg., 7 tins; Veg., 550 lbs. and 519 tins; Fruit, 2 boxes and 492 tins; Fish, 6 stone 8 lbs., 1 jar and 45 tins; Cream, 4 tins; Milk, 52 tins; Soup, 20 tins; Cheese, 6 boxes; Rice, 6 pkts.; Creamtd Rice, 21 tins; Creamed Sago, 8 tins; Cereals, 75 bags, 636 pkts.; Custard Powder, 1 tin; Jam, 1 jar; Flour, 27 lbs.; Tea, 48 lbs.; Sugar, 409 lbs.; Salt, 5 lbs.; Mustard, 2 tins; Jellies, 3; Horse-radish, 4 jars; Crisps, 27 pkts.; Sweets, 7 pkts.

A copy of the Report for the period 1st January to 31st December, 1962, received from Mr. Elwyn Lewis, M.R.S.H., F.A.P.H.I., County Public Health Inspector, who is responsible to the County for samples taken in Rhyl and District under the Food and Drugs Act, 1955, is appended hereunder:—

FOOD AND DRUGS ACT, 1955.

Particulars of the Samples taken under the Food and Drugs Act, 1955, in the Rhyl Urban District area during the year ended 31st December, 1962.

Description of Article	Number of Samples taken	Genuine	Not genuine or below standard
Milk	30	30	—
Dairy Produce... ..	4	4	—
Ice Cream and Lollies ...	14	14	—
Alcoholic Drinks	8	8	—
Sausages	15	15	—
Cooked Meats and Piec ...	5	5	—
Cooking Fats and Oils ...	6	6	—
Cakes and Confectionery	11	11	—
Patent Medicines	6	6	—
Miscellaneous Groceries ...	9	9	—
Fruit and Vegetables... ..	10	10	—
Fish and Meat Products... ..	3	3	—
Spices & Condiments	5	5	—
	<hr/> 126	<hr/> 126	<hr/> —

(All samples taken were found to be satisfactory).

(Signed) ELWYN LEWIS,

County Public Health Inspector and
Food and Drugs Inspector.

MILK SUPPLY.

Retailing of milk within the Urban District has now been reduced to less than six retailers delivering milk from door to door. Whilst the Council are not a Food & Drugs Authority, we continue to take samples of milk for bacteriological and biological examination.

It is significant to note that during the year one supply was found to be affected with Brucellosis in raw milk, and the retailer was "stopped" from delivering the milk in bottles, and the milk was diverted to a creamery for pasteurising. As a result of this incident, high level talks took place between the Medical Officer of Health, the County Public Health Inspector, the Divisional Veterinary Officer and an officer of the Veterinary Hygiene Section, and myself.

Exhaustive tests were carried out weekly, fortnightly and monthly. Twenty-three samples were taken, with the result that certain animals were eradicated from the herd. Subsequent samples of milk from the remainder of the herd proved negative to *Brucella Abortus*.

Milk vending machines seem to be creeping up in every odd spot in the town and, as referred to previously in this Report, the danger of not checking routine turnover when replenishing supplies resulted in complaints of sour milk being delivered from the machines. By a simple process of code-marking the last milk container in the machine, prior to replenishing, and the discarding of any milk left with this code number on subsequent days, there have been no further complaints of souring.

I am concerned at the number of milk bottles that are left lying about in all sorts of odd places and not being returned to the supplier, and would appeal to householders to place their empty bottles out each day so that they can be collected by the roundsman. One other difficulty is the bringing into the town of hundreds of "foreign" milk bottles during the summer season by visitors, but in an endeavour to ease this they are not left but are collected by the refuse collectors and disposed of to a Milk Vessel Recovery firm, who sterilise them and re-sell them back to the retailer whose name appears on the bottle.

Regular bacteriological sampling of milk is carried out. During the year 212 samples of milk were taken—190 satisfactory and 22 unsatisfactory.

Seven samples of milk were tested for T.B. or Brucella Infection. All except one were found to be satisfactory. These were in addition to the number referred to on page 57.

It will be observed that there is nearly an equal proportion of unsatisfactory results in raw milk (11 : 10) than in pasteurised, and this normally happens during the harvesting season. One is permitted to ask whether this is due to the fact that, owing to other work, is as much care taken as might be in handling milk supplies at that particular time?

ICE CREAM.

The following table gives the number of manufacturers and retailers of ice cream registered within the district under the Rhyl Urban District Council Act, 1935 (Section 110):—

Manufacturers and Retailers	7
Retailers (including 12 Mobile Shops)	162
Wholesale Distributors (Storage)	2
	—
	171
	—

The amount of ice cream sold in the town is reflected by the number of retailers on the register. During the year 134 samples were taken for bacteriological examination.

Table of Samples Taken

	Grade				Total
	1	2	3	4	
Retailers	43	2	2	—	47
Wholesale Distributors	52	1	—	—	53
Manufacturers/Retailers... ..	15	1	2	1	19
Soft Ice Machines	8	4	1	2	15
	—	—	—	—	—
	118	8	5	3	134
	—	—	—	—	—

The number of samples taken was a slight decrease on the previous year. The results were up on the previous year, for, of the 134 samples, only 3 were in Grade IV., against 5 in 1961.

It is interesting to note that 94.1 per cent. of all samples taken were in Grade I. and Grade II., 3.7 per cent. in Grade III., and 2.2 per cent. in Grade IV., which once again shows that, despite the various difficulties experienced, particularly in a seaside resort, due to changes in temperature and a fluctuating population, reflects credit on the trade in all its aspects, who, by full co-operation, are endeavouring to give a nourishing food which is produced and handled hygienically.

OFFENSIVE TRADES.

There are two Marine Stores registered under the Offensive Trade Clauses of the Public Health Act, 1936.

PUBLIC ABATTOIR.

Animals slaughtered from 1st January, 1962, to 31st December, 1962:—

Cattle	1,858
Calves	44
Sheep and Lambs	21,029
Pigs	4,739
	<hr/>
	27,670
	<hr/>

Meat condemned: 3 tons, 13 cwts., 2 qtrs., 13 lbs.

It will be observed that the number of animals slaughtered has decreased by 3,600 and this fluctuation in figures has given the Council some concern. It has also been noted that there is a increase in Sunday slaughtering, which necessitates payment to the Superintendent and yard-man (not to Public Health Inspector!) of overtime, and during the year it was decided to double the charges for Sunday slaughtering from the 1st October to the 31st May in any year. It is significant to note that although the charges were first fixed in 1954, and all costs have increased, there has been no increase in charges.

It is interesting to note that whenever a lesion of Tuberculosis, no matter how mild, is found, the facts are reported to the Animal Health Division of the Ministry of Agriculture, Fisheries and Food, who follow up the animal back to the herd and take appropriate action.

There were two cases of *Cysticercus Bovis* detected during the year, which is the same at 1961. The carcasses were refrigerated for 21 days before release for human consumption.

All the necessary work required to comply with the Slaughterhouses Act, 1958, has been completed.

The Abattoir is approved as a slaughterhouse for the reception and slaughter of cattle from the Irish Free State.

**CARCASES AND OFFAL INSPECTED AND CONDEMNED IN
WHOLE OR IN PART FOR THE YEAR 1962.**

	Cattle, exclud- ing Cows	Cows	Calves	Sheep and Lambs	Pigs	Total
Number killed (if known)	1731	127	44	21029	4739	27670
Number inspected	1731	127	44	21029	4740	27671
All diseases except Tuberculosis and Cysticerci:						
Whole carcasses condemned	—	—	5	41	11	57
Carcasses of which some part or organ was condemned	343	33	5	133	81	595
Percentage of the number in- spected affected with disease other than tuberculosis and cysticerci	19.81	25.98	22.73	0.83	1.94	—
Tuberculosis only:						
Whole carcasses condemned	—	—	—	—	17	17
Carcasses of which some part or organ was condemned	17	—	—	—	78	95
Percentage of the number in- spected affected with tuber- culosis	0.98	—	—	—	2.00	—
Cysticercosis:						
Carcasses of which some part or organ was condemned	2	—	—	—	—	—
Carcasses submitted to treat- ment by refrigeration	2	—	—	—	—	—
Generalised and totally con- demned	—	—	—	—	—	—

TABLE V.—REFUSE COLLECTION.

Loads of Domestic Refuse to Tip	3,094
Loads of Trade Refuse and Salvage	1,094½
Loads of Fish Refuse to Tip	65
	4,253½

259 Working Days. Total Loads: 4,253½—17.19 per working day.

REFUSE COLLECTION AND DISPOSAL.

The work of Refuse Collection and Disposal is an unenviable task, the men having to work in all weathers and in very difficult conditions, and it has been found more difficult to recruit suitable staff for this type of work, which has meant that, due to the shortage of staff and members off sick, a considerable amount of overtime has had to be worked in the summer, in an endeavour to maintain a satisfactory seven-day collection.

The centre of the town presents a large problem in the summer season as, due to the fact that cars are parked on both sides of the road and in rear entrances, it is very difficult at times to gain access to premises for collection, but despite the heavy burden placed on the Department, by the willing co-operation of shopkeepers in the majority of instances, and by having the whole of the refuse collection fleet in the centre of the town between 7 and 9 a.m., the maintaining of an effective refuse collection service has been achieved.

The operation of Section 75 of the Public Health Act, 1936, continues to prove a success, ratepayers as a whole have co-operated wholeheartedly. Up to 31/3/63, a total of 4,573 bins have been issued under the rental scheme. The number of bins issued under the scheme for the year ending 31st March, 1963, was 391. In addition, 128 bins were delivered to Council houses. The extra collection of refuse, from Whitsuntide to the end of September, has been taken advantage of by tradespeople, hotels and boarding houses, and the cost of this collection is 9d. per bin for each extra collection, in addition to the statutory collection of one per week. The work of disposal of refuse is 100 per cent. controlled tipping on marsh land at the Rhyl Cob, this land having been acquired from the Crown by the Council, and continues to be satisfactory.

The work of tipping up the second portion of the Cob land is proceeding satisfactorily, but due to the fact that all surplus material from the sewerage scheme is being deposited on the Tip, it has considerably reduced the area for refuse tipping and I anticipate that the whole area now under operation will be completed in under three years. It is, therefore, necessary that the Council consider as an urgent matter, the acquiring of more land on the Cob for future tipping.

I am pleased to report that the filling in of the area at Splash Point was completed in the first week in January, 1962, and despite the misgivings of several ratepayers, no nuisance has arisen, and not a single complaint has been received from a ratepayer since the work was completed. The consolidation of this area was such that it was used as a free car park during the 1962 summer season.

Despite my appeals in previous Reports, the practice of setting fire to the contents of dustbins continues, and on two occasions during the year, fires were discovered in the vehicles which, had they not been dealt with immediately, might have meant the loss of a complete vehicle, and when one appreciates

that a new vehicle costs nearly £4,000 and the fact that the Insurance cover for fire would not probably cover replacement by a new vehicle, this could be a costly matter.

The placing of the contents of a bin with hot ashes therein, into a refuse collection vehicle may not set fire to the vehicle, but it may set fire to the Tip, with serious consequences. This happened on two or three occasions during the year, and the cost of putting out these fires was an expensive matter. Therefore, I appeal again to householders to refrain from burning refuse in the bins, or the placing of hot ashes in bins.

It will also be noted from the table showing the cost of refuse disposal (on page 65) that the net cost this year was £4,613 as against £3,477 last year, an increase of £1,136.

I would point out that the disposal figures include the disposal of street sweepings, refuse gathered off the beach, and gully emptyings, which are the responsibility of the Engineer and Surveyor, for which no charge is made by this Department.

SALVAGE.

The gross amount of salvage collected and disposed of during the year showed a decrease of 152 tons. The main reason for the reduction in wastepaper disposed of was due to the economic position in the wastepaper market, whereby the Mills placed an embargo on supplies from Local Authorities and rationed the amount that could be sent each month. Therefore, a certain amount of salvage had to be disposed of by way of the Tip, but despite this, I would suggest that we should not be complacent, as the wastepaper market may change at any moment and the embargo be lifted, and I would still urge the townspeople to keep this material separate from other refuse, and place it at a point easily accessible for the refuse collectors to move when they call.

It will be noted that the excess of income over expenditure is shown as £971, which is an improvement over the last year, as no capital expenditure was involved.

The baling of wastepaper is becoming more costly each year, due to increasing labour costs and the amount of contraries which are mixed with the raw material at source—particularly polythene, tarred paper and string, which must be removed by hand before baling can take place, but it must be

remembered that if salvaging of wastepaper—550 tons this year— compressed by machine, does not appear to be as great a profit-making concern as hitherto, there is a considerable conserving of tipping space, as the material would have to be collected and disposed of anyway, also, there is a reduction of fire risk at the tip.

Weight: 1st January to 31st December, 1962.

	T. C. Q.		T. C. Q.
Waste Paper	550 3 2	Lead	1 1
Iron	3 11 2	Rags and Bagging ...	9 13 2
Baled Tins	- - -	Bottles and Jars	
Aluminium... ..	6 1	(27 3/12 grs.)... ..	1 12 0
Copper	1 1	Miscellaneous	3 0
Brass	3 2		
Zinc and Pewter ...	- 1		
			<hr/> 565 16 0 <hr/>

Income and Expenditure: 1st April, 1962—31st March, 1963.

Income £4,374.

Expenditure £3,403.

Excess of Income over Expenditure £971.

I append herewith table showing costs of Collection and Disposal:—

TABLE VI.—REFUSE.
Showing Cost of Refuse Collection and Disposal, Year 1962-63 (To 31st March, 1963).

Particulars	Collection and Salvage		Disposal (Tip)		Total	
	Including loan charges	Excluding loan charges	Including loan charges	Excluding loan charges	Including loan charges	Excluding loan charges
Gross Expenditure	£ 26836	£ 26468	£ 4721	£ 3781	£ 31557	£ 30249
Gross Income	5570	5570	108	108	5678	5678
Net Cost	21266	20898	4613	3673	25879	24571
Unit Costs—Gross Expenditure per Ton... ..	41/3.43	40/8.64	7/3.16	5/9.80	48/6.59	46/6.44
Gross Income per Ton... ..	8/6.80	8/6.80	1.99d.	1.99d.	8/8.79	8/8.79
Net Cost per Ton	32/8.63	32/1.84	7/1.17	5/7.81	39/9.80	37/9.65
Net Cost per 1,000 Population	£998.87	£981.59	£216.67	£172.52	£1215.54	£1154.11
Net Cost per 1,000 Premises	£2462.20	£2419.59	£534.10	£425.26	£2996.30	£2844.85
Net Cost, Equivalent Rate in the £	13.29d.	13.06d.	2.88d.	2.30d.	1/4.17	1/3.36

Refuse removed during the year (approx.) 13,000 tons
 Estimated Population (R.G.R., Mid-year, 1962) 21,290
 Number of Rated Premises 8,637
 Total Rates in the £ 24/8
 Product of a 1d. Rate... .. £1,600

NOTE.—The Table is prepared by taking several weighings as an average for the year.

(Signed) E. L. LLOYD JONES, M.B.E.,
 Chief Public Health Inspector.

HOUSING.

The approximate number of Dwelling Houses for all classes is 7,299.

Houses erected during 1962:—

By the Council:—

Permanent Houses and Flats erected	4
Permanent Houses and Flats in course of erection	6

By Private Enterprise:—

Houses and Bungalows erected	82
-------------------------------------	----

By the County Council:—

Permanent Houses for Police	—
Permanent Houses for Police in course of erection	—
Adaptations and Conversions	16

It will be observed from the above figures, the erection of houses has reduced by 46, and I think this can be attributed to the fact that there is practically no more building land available for development for the erection of houses thereon, and the above figures may continue to reduce until such time as other land is made available.

There are really no unhealthy areas in the district.

The staff engaged on Housing Inspections are the Public Health Inspectors, along with their other general duties.

The investigation of all applicants for Council houses is carried out by the Public Health Inspectors, and the actual letting of the houses after the allocation by the Council is carried out by this department.

Tenants are allowed one week to cleanse the house thoroughly before taking up occupation, and the premises are inspected after cleansing before the tenant is allowed to enter. This, in my opinion, is most important, as on subsequent visits, if the premises are not found to be clean, the tenant cannot use the argument that the house was dirty when he entered it.

The houses on the Council estates are visited and inspected during the year.

When existing houses become unoccupied, the premises are inspected, and if any signs of vermin are seen they are disinfested and thoroughly cleansed before a new tenant is

allowed to take up occupation. In addition, a new tenant of a vacated house may be allowed up to four weeks' rent in lieu of decoration.

SEWERAGE.

Due to the fact that half the pumping capacity has been converted from gas engine-driven to electric motors, as a temporary measure, and the building taking place around the Station, some considerable difficulty has been experienced in maintaining an effective service, but I am pleased to report that, despite all the difficulties mentioned, all storm water has been dealt with without incident.

All sewerage of the town gravitates to a main pumping station in Westbourne Avenue, where it is pumped into two sewerage storage reservoirs of a total capacity of $1\frac{1}{2}$ million gallons. The contents of the reservoirs are discharged into the sea at a point approximately 1,000 yards from the sea wall, and the 30in. valve to the sea is opened half an hour after high water and closed 2 hours after high water, so that at all times of dry weather flow the mouth of the sea outfall pipes is covered with a considerable depth of tidal water when it is discharged. During periods of heavy rainfall, the valve is opened for longer periods, but as Rhyll is a combined system, where the majority of rain and road surface water is diverted into the sewers, dilution is great.

I append herewith a table showing the total gallons pumped, together with a daily average:—

	Total Gallons Pumped	Daily Average
January	103,439,932	3,336,772
February	59,191,848	2,113,994
March	41,902,257	1,351,685
April	56,367,757	1,812,258
May	54,134,264	1,746,266
June	51,458,609	1,715,286
July	50,402,889	1,620,899
August	65,768,649	2,121,569
September	59,718,472	1,990,615
October	42,397,276	1,367,647
November	52,752,862	1,758,428
December	70,782,298	2,283,299
	<hr/>	<hr/>
	708,317,113	1,940,595
	<hr/>	<hr/>

RAG FLOCK AND OTHER FILLING MATERIALS ACT, 1951.

There are now two premises which are registered under the above Act in the district.

PET ANIMALS ACT, 1951.

Five premises are registered under the above Act.

RHYL URBAN DISTRICT COUNCIL ACT, 1956.

Twenty-seven Hairdressing Establishments are registered under the above Act.

LICENSED PREMISES.

The co-operation referred to in previous Reports continues, and I am pleased to report that as a result of consultations and advice given, considerable improvements have been carried out to various licensed premises in the town and, in the main, all licensed premises have satisfactory sanitary accommodation.

It has been the practice for years now to present a written report to the Justices sitting at the Annual Brewster Sessions on the sanitary arrangements and hygienic provisions at hotels, public houses, clubs, billiards halls, ballrooms, theatres and places of public entertainment.

I must say that, in the main, the brewery companies and hotel managements are most co-operative in complying with the requirements of the Public Health Department.

PREVENTION OF DAMAGE BY PEST ACT, 1949.

RATS AND MICE.

Following the Government's lead in tackling this problem throughout the country, the Council have taken energetic measures in their area.

From 1st January to 31st December, 1962, 136 properties were treated for rats.

Two hundred and eighty-five (285) properties further to the above were treated for mice, and 497 other properties were inspected.

The sewers were test-baited for the presence of rats, and two treatments were carried out in areas where rat traces were found.

The Rhyl Cut was treated three times throughout its entire length in the Rhyl area.

Total number of visits made during the year for rats and/or mice: 2,426.

The latest methods of rodent destruction, as laid down by the Ministry of Agriculture, Fisheries and Food, are in operation.

Considerable annoyance and nuisance has been experienced in the east end of the district as a result of rabbits living and breeding, who have escaped myxamatoxis, and the Council have entered into a contract with a person who, along with the Rodent Operator, visits the area frequently and takes steps to eradicate any infestation of rabbits.

SHOPS ACT, 1950.

As a result of the Census, 1961, the population of the district was over 20,000. The Council are now the authority responsible for operating the Shops Act, 1950.

The Public Health Inspectors are responsible for the whole of the administration of the Shops Act, 1950. The Council made the following Orders during the year:—

- 1—Sunday Trading Order, 1962, Section 51, exempting for 18 Sundays the Sunday Closing Provisions of the Act for the sale of
 - (a) Any articles required for the purposes of bathing or fishing.
 - (b) Photographic Requisites.
 - (c) Toys, Souvenirs and Fancy Goods.
 - (d) Books, Stationery, Photographs, Reproductions and Postcards.
 - (e) Fried Fish and Chips.
- 2—Extension of Hours Order, 1962, for 18 weeks: Substituting for paragraph (b) of Section 2 of the Shops Act, 1950:
 - (a) At 9.30 p.m. in the evenings on the late day.
 - (b) At 9 p.m. in the evening on any other day.
- 3—Rhyl (Suspension of Weekly Half-Holiday) Order, 1962, for 16 weeks.
- 4—The Rhyl (Extension of Hours) Exhibition Order, 1962.

Regular visits and inspections were made to see that the requirements of the Act were complied with.

PUBLIC CONVENIENCES.

On the 1st January, 1962, the responsibility for the care and maintenance of all public conveniences in the town was transferred to the Health Department, under the general supervision of the Chief Public Health Inspector.

I am pleased to report that in every public convenience in the town wash-hand basins have been fixed with a cold water tap over as a free service for persons using the toilet, but I am sorry to say that where the conveniences are unattended, vandalism still persists, as within a week or two of fixing the basins, tops were removed from taps and the plugs removed.

The gent's urinal adjacent to the Town Yard in Wellington Road was closed early in January, and I feel that with the closure of these premises and the inadequacy of the West End toilets at the top of Sydenham Avenue, the Council will have to give serious consideration to providing further toilet facilities in the West End of the town at a very early date.

METEOROLOGY

(For Statistical Tables see pages 76—79)

MISCELLANEOUS.

The Instruments used are by Negretti and Zambra, and are situate in Westbourne Avenue (opposite the Pumping Station). They include a Maximum, Minimum, Dry and Wet Bulb Thermometers in a Stevenson Screen, a Grass Minimum Thermometer, Rain Gauge and Measure, a Campbell-Stokes Sunshine Recorder and a Wind Vane. A Hyetograph, giving the rate and duration of rainfall, is situate outside the Pumping Station. The Barometer (Kew Pattern) and Thermometer attached is also at the Pumping Station.

At the Meteorological Kiosk on the East Promenade a Self-recording Barograph and Thermograph, Maximum and Minimum Thermometer, Tide Table, previous day's Sun Card, Daily Weather Forecast Report of the Air Ministry and combined Weather Charts and Records are exhibited for public information.

Observations are taken at 9 a.m. and 6 p.m. Greenwich Mean Time each day. Code Weather Telegrams are despatched every day to the Meteorological Office at 6 p.m. Greenwich Mean Time for certain evening papers served (through the Meteorological Office) by the Press Association.

Weekly, monthly and Annual Reports are prepared and are furnished to the local paper, and supplied to any enquiries—advertisement or private. Full reports monthly are forwarded to the Meteorological Office.

NOTES.

The Station is situate 31 feet above sea level. Latitude $53^{\circ} 19'N$. Longitude $3^{\circ} 30'W$. The Sunshine Recorder is 11 feet above the ground on which it is sited, and the Rain Gauge is one foot above the ground.

Humidity is calculated with Hygrometrical Tables, published by the Meteorological Office (Saturation = 100 per cent.).

The percentage of possible duration of sunshine is calculated by the Meteorological Office, with reference to the maximum duration theoretically possible in the latitude. The percentage of normal figures represent the mean daily duration for the year $\times 100 \div$ the average for the year (the past 30 years ending 1959 being the figure taken = 4.10 hours for Rhyl). The average rainfall for the years 1921—1950 (30 years) is 26.63 inches, and is the figure used by the Meteorological Office.

A fall of one inch (25.4 millimetres) is equivalent to nearly 101 tons of water to the acre. One ton of rain equals 224 gallons or nearly 36 cubic feet. An inch of rain implies 64,640 tons or 14,479,360 gallons of rain per square mile.

**ANNUAL SUNSHINE AND RAINFALL, ETC., REPORT,
AND STATISTICAL TABLES FOR THE YEAR 1962.**

RAINFALL.

The rainfall for the year was less than the 30 years' average (26.63 inches), the total being 20.06 inches as against 27.18 inches for the year 1961—which shows a decrease of 7.12 inches. The year's total was below the national average by 12.61 inches.

The average rainfall for England and Wales (35 years' average) is 32.67 inches, and we usually find Rhyl well below this figure.

During the year 1962 rain fell on 165 days, as against 173 in 1961.

The monthly average of rain works out at 1.67 inches, as against 2.26 inches for 1961, and a monthly average of 13.8 days on which rain fell, as against 14.4 days in 1961.

The highest recorded during the year (on one day) was recorded on November 17th, when at 9 a.m. on the 18th 0.62 inches was recorded (including the early morning of the 18th).

The wettest month during the year was January, with a total of 3.05 inches, and the driest was July with a total of 0.64 inches (see Features).

FEATURES.

July: 0.64 inches—Lowest total for July since 1955 (0.33 inches).

October: 0.98 inches was the lowest total for October since 1951 (0.96 inches).

Note: The total rainfall for the year 1962 was the lowest since 1955 (19.00 inches) and 7.23 inches less than the 30 years' average.

SUNSHINE.

The total bright sunshine recorded by the Campbell-Stokes Recorder during 1962 was 1,566 hours 30 minutes, as compared with 1,566 hours 18 minutes during 1961.

The instrument is now verified bi-annually by an official of the Meteorological Office. An inspection was made this year on June 7th.

The total record for 1962 is only 12 minutes more than that of 1961, which year was 29 hours 30 minutes more than that of 1960.

It is interesting to note the sunshine for the past ten years, including 1962 (see Table II. on page 77).

These figures will show that the year 1962 was 38 hours 30 minutes more than the average total number of hours for the past ten recorded years, and 43 hours 48 minutes more than that of the average for 20 years.

During the past 20 years the records show that Rhyl has enjoyed, on an average, 305 days per annum with registered sunshine. This is a fine record, especially so when it is remembered that the district is free from fog and has the lowest rainfall of any health resort on the Western coast of Great Britain. This is due, it is officially stated, to its unique position at the mouth of the famed Vale of Clwyd and protected as it is on the West by the Snowdonian mountains.

The daily average of recorded sunshine works out at 4 hours 17 minutes, the same as in 1961, and as against 4 hours 12 minutes in 1960; 4 hours 38 minutes in 1959; 3 hours 23

minutes in 1958; 4 hours 3 minutes in 1957; 4 hours 12 minutes in 1956; 4 hours 47 minutes in 1955; 3 hours 37 minutes in 1954; 4 hours 20 minutes in 1953; and 3 hours 58 minutes in 1952.

Rhyl's daily average of recorded sunshine for 30 years (1921-50) is **4.10 hours**, as against the national average for England and Wales (40 years) of 3.94 hours.

It is interesting to note that the highest day's record of sunshine in Rhyl during the whole of the year 1962 occurred on 31st May, there being 15 hours 30 minutes, as against 15 hours 36 minutes in June, 1961.

FEATURES.

February: 52.6 hours—Lowest total for February since 1947 (30 hours 0 minutes).

March: 155.1 hours—Highest total for March since 1955 (169 hours 54 minutes).

April: 194.1 hours—Highest total for April since 1954 (217 hours 12 minutes).

September: 103.6 hours—Lowest total for September since 1957 (100 hours 36 minutes).

Note: The total number of days of sunshine for the year 1962 was 298, as against 320 total in 1961.

1962 TEMPERATURES.

January: 15°F. (−9°C.) on 2nd—Lowest minimum for January since January, 1945 (13°F.).

March: Average for month of 37.9°F. was 6.0°F. below the 30-year average for this month. It is also interesting to note there were 22 recorded days of Frost during this March, which appears to be a record.

May: 62°F. (17°C.) on 7th—Lowest maximum for May on record (since 1905).

June: Average for month was 65.5°F. , being 1.2°F. less than the 30-year average, and 0.6°F. lower than June, 1961. 38°F. was recorded on June 6th, which was the lowest minimum for June since 1942 (20 years).

July: Average for the month was 58.5°F. , which was 2.1°F. less than the 30-year average for July, and $.08^{\circ}\text{F.}$ less than July, 1961.

October: 34°F. (1°C.) on 27th—Lowest minimum temperature for October since 1956 (31°F.).

December: 16°F. on 25th was the lowest minimum for December on record, i.e., since 1905; also the lowest of the year.

The daily average for December, 1962, was the lowest for December since 1950 (37.7°F.), and was 3.6°F. lower than the 30-years' average.

Note.—The highest temperature of the year 1962, 72°F. (22°C) on the 6th June and 9th July, was the lowest maxima on record for any year since 1905; and the mean average temperature for the year 1962, 48.6°F. , being 2.1°F. below the normal average. So were nine months in the year below average.

The year 1962 was above the average for sunshine and much below the average for rain. As for temperature, it was less than the last ten years' average, and also below the 20-years' average. The year, as a whole, was fairly good, although rather cool generally as shown in the temperature features.

(Signed) W. A. FIELD, B.E.M., A.C.C.S.,
Meteorological Observer.

TABLE 1.—METEOROLOGICAL TABLE FOR 1962.

Month.	Air Temperature in Degrees Fahrenheit.						Rainfall.						Wind. Prevailing Direction.	Bright Sunshine.			
	Means of		Highest Maximum.	Date.	Lowest Minimum.	Date.	Inches.	No. of days Rain Fell.	Most in a Day. —Ins.	Date	.04 or More.			Most Sun in one Day.—Hours.	Daily Average. —Hours.	Days on which Bright Sunshine was recorded	Total Hours.
	A. Maximum	B. Minimum.									Days.	Nights.					
January ...	46.9	36.2	53	10/2-	15	15/26/27	3.05	20	0.47	15	7	12	6.4	1.92	21	59.4	
February ...	46.5	37.8	56	11	30	4	1.88	12	0.57	12	6	5	8.9	1.88	18	52.6	
March ...	43.9	31.5	53	29	22	4	0.87	12	0.22	28	3	6	10.7	5.00	26	155.1	
April ...	52.2	39.7	64	23	30	14	1.75	14	0.32	16	6	10	13.4	6.47	24	194.1	
May... ..	55.6	45.4	62	7	38	1	1.65	17	0.58	18	3	6	15.5	6.92	31	214.5	
June ...	62.9	50.1	72	6	38	1	1.27	8	0.41	28	1	5	15.4	7.67	29	229.9	
July ...	64.2	52.8	72	9	46	13	0.64	9	0.25	10	3	3	14.2	5.04	29	156.1	
August ...	63.8	53.0	70	19	46	6/13/30	1.77	15	0.56	23	5	7	14.0	5.32	28	164.8	
September .	60.1	50.7	71	2	41	22/27	2.08	19	0.33	15	2	14	10.4	3.45	27	103.6	
October ...	58.1	48.4	64	7/9/10	34	27	0.98	11	0.25	29	4	6	9.7	3.83	28	118.6	
November...	48.5	39.6	56	1	31	21/22	1.87	14	0.62	17	5	7	6.7	1.93	16	57.8	
December...	44.4	33.7	55	8/15	16	25	2.25	14	0.49	8	6	7	7.3	1.94	21	60.0	
Total for year ...	—	—	—	—	—	—	20.06	165	—	—	51	88	—	—	298	1566.5	
Monthly Average ...	53.9	43.2	—	—	—	—	1.67	13.8	—	—	4.3	7.3	—	4.28	24.8	130.5	
Total for 1961... ..	—	—	—	—	—	—	27.18	173	—	—	57	99	—	—	320	1566.3	
Monthly Average ...	56.4	44.3	—	—	—	—	2.26	14.4	—	—	4.8	8.3	—	4.28	26.1	128.1	

TABLE II.—10-20 YEARS AVERAGES—SUNSHINE, RAINFALL AND HUMIDITY.

Year	RAINFALL.					SUNSHINE.							Humidity. 90 a.m. Per cent.
	Inches.	Monthly Average.—Inches.	Total Rain Days.	Month's Greatest Fall.—Inches.	Month's Lowest Fall.—Inches.	Hours.	Sunless Days.	Sunshine Days.	Daily Average.—Hours.	Highest in One Month.—Hours.	Lowest in One Month.—Hours.	Duration of Average	
1953	20.39	1.70	131	2.97	0.53	1588.0	66	299	4.34	231.8	23.7	102	77
1954	30.90	2.58	202	5.16	1.02	1336.5	69	296	3.61	217.2	35.2	89	78
1955	19.00	1.58	155	2.58	0.33	1754.3	63	302	4.78	312.6	38.5	114	78
1956	26.12	2.18	170	7.31	0.44	1526.1	65	301	4.20	270.2	35.9	100	79
1957	26.60	2.22	170	5.13	0.26	1476.2	67	298	4.05	306.1	39.8	102	79
1958	31.25	2.60	200	4.95	0.77	1235.4	71	294	3.38	170.8	24.7	83	79
1959	23.91	1.99	156	3.93	0.17	1694.1	63	302	4.64	268.9	24.5	109	75
1960	31.02	2.59	179	5.57	0.56	1536.8	52	314	4.20	283.5	34.9	101	77
1961	27.18	2.26	173	3.53	0.68	1566.3	45	320	4.28	234.8	33.8	108	77
1962	20.06	1.67	165	3.05	0.64	1566.5	67	298	4.28	229.9	52.6	107	76
Totals...	256.47	...	1701	...	...	15280.2	628	3024	...	...	...	1015	77.5
average 10 years ...	25.64	2.13	170	...	...	1528.0	63	302	4.17	...	...	101	78
average 20 years ...	25.37	2.11	172	...	...	1522.7	59	305	4.16	...	...	100	77

TABLE IV.—10 YEARS' MONTHLY SUNSHINE AND RAINFALL TOTALS.

Month	SUNSHINE (Hours).										RAINFALL (Inches).									
	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
n.	58.5	36.0	35.5	42.7	59.2	39.8	54.6	62.8	34.9	33.8	2.67	0.53	2.01	1.76	2.51	1.40	2.01	3.93	4.63	3.55
b.	87.2	60.6	55.8	73.1	69.0	86.7	60.4	92.5	68.1	77.1	0.83	1.94	1.96	2.16	0.44	2.04	4.95	0.17	1.66	2.3
arch... ..	116.2	152.4	116.7	169.9	152.2	95.8	101.9	94.4	66.1	133.6	0.86	0.97	1.80	1.55	1.17	1.36	1.24	0.72	1.94	0.6
ril	148.0	196.4	217.2	164.6	182.6	167.9	153.5	126.8	187.3	111.2	1.08	1.98	1.02	0.87	1.90	0.26	0.77	2.73	1.32	2.8
ay	186.0	231.8	167.2	211.4	270.2	221.5	170.8	241.8	196.3	234.8	1.95	1.34	2.61	1.98	0.50	1.46	2.34	1.94	1.35	1.3
ne	196.2	189.2	145.6	153.2	187.8	306.1	152.5	268.9	283.5	222.5	1.32	1.38	2.68	2.58	1.35	1.35	2.95	1.94	1.35	1.3
y	176.8	198.6	121.1	312.6	151.6	135.0	162.4	228.9	167.1	161.9	0.68	1.47	2.37	0.33	4.18	4.12	3.17	2.04	0.56	3.0
gust	158.5	175.3	122.8	251.0	160.4	121.6	120.8	200.4	190.0	197.6	1.42	2.75	2.19	1.44	7.31	4.53	3.09	0.80	2.42	2.8
pt.	106.0	132.4	163.3	164.1	106.7	100.1	111.5	178.2	146.6	144.3	3.13	2.97	2.16	0.96	2.43	5.13	4.54	0.57	3.66	1.6
t.	124.3	130.7	72.1	111.8	113.2	79.7	78.5	123.2	73.3	116.6	3.42	1.31	4.42	2.00	1.22	1.56	2.47	2.76	2.20	2.9
v.	58.9	60.9	64.0	61.4	37.3	63.5	43.8	51.7	55.7	60.5	1.74	2.68	5.16	1.04	1.55	1.76	1.39	3.08	5.57	1.8
c.	39.2	23.7	35.2	38.5	35.9	58.5	24.7	24.5	67.9	72.4	3.30	1.07	2.52	2.33	1.56	1.63	2.33	3.23	2.51	3.0
Difference	—	+	—	+	+	—	—	+	+	+	—	—	+	—	—	—	+	—	+	+
om	0.13	0.24	0.49	0.68	0.10	0.05	0.72	0.54	0.10	0.18	4.23	6.24	4.27	7.63	0.51	0.63	4.62	2.72	4.39	0.5
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Sunshine: *This figure is the 30 years daily average = 4.10 hours.

Rainfall: This figure is 30 years yearly average = 26.63 inches.

Table 1

Table 1. Summary of the data for the first 1000 observations. The data are sorted by the date of the observation.

Date	Variable 1	Variable 2	Variable 3	Variable 4	Variable 5	Variable 6	Variable 7	Variable 8	Variable 9	Variable 10
1990-01-01	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-02	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-03	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-04	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-05	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-06	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-07	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-08	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-09	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-10	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-11	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-12	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-13	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-14	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-15	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-16	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-17	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-18	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-19	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-20	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-21	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-22	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-23	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-24	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-25	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-26	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-01-27	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-01-28	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-01-29	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-01-30	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-01-31	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-01	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-02	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-03	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-04	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-02-05	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-06	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-07	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-08	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-09	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-02-10	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-11	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-12	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-13	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-14	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-02-15	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-16	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-17	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-18	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-19	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-02-20	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-21	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-22	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-23	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-24	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8
1990-02-25	1.1	0.4	0.7	1.0	0.8	1.2	0.6	0.9	1.3	0.5
1990-02-26	1.2	0.5	0.8	1.1	0.9	1.3	0.7	1.0	1.4	0.6
1990-02-27	1.3	0.6	0.9	1.2	1.0	1.4	0.8	1.1	1.5	0.7
1990-02-28	1.0	0.3	0.6	0.9	0.7	1.1	0.5	0.8	1.2	0.4
1990-02-29	1.4	0.7	1.0	1.3	1.1	1.5	0.9	1.2	1.6	0.8

Source: Author's calculations.

Table 1. Summary of the data for the first 1000 observations. The data are sorted by the date of the observation.



