THE LEWIS HOSPITAL, STORNOWAY SOME ASPECTS OF THE DEVELOPMENT OF MEDICAL CARE IN AN ISLAND COMMUNITY

by

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THE BACKGROUND

IN THE middle of the last century the Island of Lewis and Harris, eighty miles in length and around 800 square miles in area, carried a population of about 25,000. The numbers rose steadily to a maximum (in 1911) of around 35,000 and have since dropped again to around 25,000. Even today the one town, Stornoway, holds only a fifth of the people; the others live in a large number of small communities, scattered but, almost without exception, situated close to the sea.

In the 1840s only two doctors, MacIver and Miller, served the whole community; both were based at Stornoway.[1] Of Dr. MacIver it was said 'If he was paid, good and well . . . but . . . he never rendered an account. His medical practice was therefore not so remunerative as it might have been. To eke out his income . . . he did something in trading, had a ship or two, and from this source was able to make a little money.'

With the passing of the Poor Law (Scotland) Amendment Act in 1845, parishes were enjoined to secure 'proper medical attendance for every . . . Poorhouse'.[2] By the end of the century, therefore, each parish had its doctor. These men had a guaranteed income from the parish but no security of tenure.* The more enlightened Councils would pay well in order to attract a doctor to the area, but it must be remembered that in a community where little real money was circulating (the annual cash income of a crofter at the turn of the century has been quoted at £10) there were few opportunities for making money over and above the parish allotment.

The economics of general practice in the Highlands and Islands of Scotland were investigated in 1911 by the Dewar Committee.[3] This committee questioned the doctors on the island about their remuneration and activities and some fascinating light is thrown on the conditions under which these dedicated men worked. Dr. John Ross, for example, was Parish Doctor from Barvas. He had a list of 7,000 patients. It was described as 'not so widely scattered as some we have come across', yet the furthest patient was fifteen miles away and only twenty-three per cent of the patients lived within three miles. His remuneration from the parish, which had 221 paupers, was £160, from the School Board 14 guineas and from the Northern Lighthouse Board 24 guineas. For the rest of his work he could charge on a fee-for-service basis, but it seems that little money came from this source. His bad debts were fifty to sixty

*'At a public meeting at Valtos, Breanish and Crowlista it was unanimously decided to call upon the Parish Council to dismiss the Parish Medical Officer. . . .' (*Highland News*, 20 May 1897).

per cent of the total despite the fact that 'you cannot charge them a proper fee'. It seems clear that his net income was considerably under £300 a year and certainly there were other doctors in the Highlands who were earning less than half this. Dr. Ross's house cost him £30 a year; it belonged to the estate but was 'not at all suitable', having no sanitary conveniences and no waiting room. It was pointed out with some acidity by one member of the committee that this parish carried five ministers, eight manses, over twenty churches and a new mission house, but the parish was not empowered to build a house for the doctor.

If the material situation of the doctor was poor, that of his patients was far worse. The typical Hebridean dwelling was the 'black house'. This was a long single-storey building containing, to one side of the entrance, the living quarters, and to the other, only partly partitioned off, the byre. It was, of course, illegal to share a roof with one's cattle, as indeed it was to use an unguarded fire, but at least in the country district where Dr. Ross worked such houses were described as the rule rather than the exception and 'practically every fire in our parish is in the middle of the room'. Predictably much of the subsequent discussion ranges over such subjects as neonatal tetanus, typhus and tuberculosis. It is small wonder that a fastidious mainlander might be led to the following exchange:[4]

> 'With regard to this awful state of the housing, do you think it is due to local conditions, or is it just a survival of barbarism? Do you think the Highland people two hundred years ago were subjected to this kind of living in houses?' . . 'I suppose it has always been the same in this Island.'
> 'You cannot conceive anything more dreadful than exists here. It is a blot on civilization?' . . . 'Yes.'
> 'Do you know any part of the civilized world where worse, or even as bad conditions exist?' . . . 'No.'
> 'Don't you think it is rather often more incongruous that most of the people living in these places are people who have travelled and have seen respectable methods of living?' . . . 'Most of the young people have travelled.'
> 'And yet they are content to come back and live under these conditions?' . . . 'It is very strange.'

One wonders whether the good doctor smiled as he gave his courteous but enigmatic answers—despairing of explaining the magic spell that binds the Lewisman to his island. An element of special pleading may have emphasized the more outrageous aspects of medical practice, but this adds a certain piquancy to the evidence given to the Dewar Committee. A final quotation from Dr. Tolmie of South Harris should make this clear:[5]

> 'Are there two maternity nurses in your district?' . . . 'Yes. I don't know the qualifications of the one in the middle of South Harris. I asked her for her qualifications and she replied that she did not know what the Highlands and Islands Committee had to do with her qualifications. The other one is an old crofter's wife, and goodness knows how she came to be a nurse; she cannot read and she cannot write. She is great on that ointment called Zam-Buk. She always says "I wish I had some of that humbug ointment." When using the medical term "placenta" she will say: "I wish that old presentor would come." When speaking of Iodoform she says "Iofferdum".'
> 'You don't nurse infectious diseases, what is done with them?' . . . 'All the family clear out. The only case of infectious disease I had was a typhus case and the father nursed the patient. He went about with a bag of carbolic and a black tape of cloth on his jacket to show the people that they were to keep clear of him.'
> 'Is there a house in Harris with people under the same roof as the cattle?' . . . 'Yes.'

'Where is this case?' . . . 'Down in Strond near my own place . . . I was going to a house where somebody was sick and I was met by a calf. It was a calf that answered the door.'
'Is it still going on?' . . . 'No, there was a party staying with this woman and they had a row and she pulled the house down.'
'Am I right in saying there are no similar houses now?' . . . 'There are a few, there is no doubt, but not very many.'

THE PROVISION OF A HOSPITAL

The evidence given to the Dewar Committee related to the first few years of the twentieth century, but may be taken as reasonably representative of the situation in March 1892 when, at a public meeting in Stornoway, it was recognized that 'a well equipped Medical and Surgical Hospital for the Lews is an urgent necessity.'[6] A committee was duly appointed consisting initially of the chief magistrate of Stornoway, the medical practitioners of the island, the ministers of all denominations and the resident sheriff. A subscription list was opened and by the following February it was felt possible to invite tenders for 'a building of stone and lime covered with a slated roof, to contain twelve beds and the necessary administration departments . . . capable of convenient extension.' The cost was to be £2,000 of which £1,200 was already available for the erection of the building. A site was provided (together with a generous donation) by Lady Matheson, Proprietress of the Lews. The business of tendering, contracting and so on took a further year, but by 1894 building had commenced.

In the meantime the Ladies' Committee was studying staffing and provisioning. A district nurse and Biblewoman already served the town and it was agreed that these two should be located in the hospital and 'from there exercise the functions in which they are now engaged as well as those involved in the general caretaking of the Hospital and the nursing of its inmates.' This must have meant a considerable additional commitment for these two ladies because the following rules were drawn up:

In summer to rise at 6 a.m., breakfast at 6.30 and to be in the wards at 7. In winter to arise at 6.30 a.m., breakfast at 7 and be in the wards at 7.30. Lunch at 10.30 a.m., dinner at 1.30 p.m., tea at 5.30, supper at 9.00 and lights out at 10.00 p.m.
The nurse and Biblewoman to devote the afternoons from 3 to 5 and the evenings from 6.30 to 8.30 to their respective duties in the town . . . each to have one evening a week out, from 6 to 9.30 unless specially required in the hospital and each to be allowed out to one sermon on Sundays. . . .

The annual salary of the nurse was to be £30 plus board, lodging and uniform, that of the housekeeper £25, but the latter was soon raised to £30 to avoid friction. Staff groceries were to be given out weekly on the following scale:–

Tea	1 lb.	Barley	1 lb.
Coffee	½ lb.	Peas & Lentils	1 lb.
Cocoa	¼ lb.	Syrup	1 tin/month
Butter	2 lb.	Currants	1 lb.
Sugar	4 lb.	Raisins	1 lb.
Rice	1 lb.	Jam	1 lb.
Sago	1 lb.	Cheese	2 lb.
Flour	7 lb.	Meat	14 lb.

The minutes of the last few meetings before the opening day show mounting activity; the furniture arrives, carried free of freight charges. Tenders are accepted

from the butcher (steaks, roast beef, roast mutton, chops, boiling meats and soup meats in equal proportions at 7½d. per pound), the coal merchants (best English house coal at 19*s.* 6*d.* per ton, firewood at thirty shillings a ton) and others. An inscribed silver key is ordered for the opening ceremony (although the ceremony itself was postponed until a few months after the first patient had been admitted) and last minute finishing touches are added. This includes a door knob which for some reason had been omitted in the original plans. There are the usual eleventh-hour hitches including a threat of resignation by the housekeeper who must suddenly have realized that her new commitments constituted a very heavy burden of work.

The quotations from these old minutes have been selected partly for their entertainment value, but what comes out very strongly as one reads through is the sheer amount of hard work put in by the voluntary committee, their courage in embarking on the construction before all the money had been promised, their attention to details of organization, cost and quality and their foresight in planning for expansion even before the first brick had been laid.

THE EARLY YEARS

The first patient to be admitted to the Lewis Hospital was a weaver aged seventy-one with a carcinoma of the lip. The disease and the surrounding healthy tissue were excised and there was no glandular involvement. He was discharged after fifteen days 'apparently cured'. This was perhaps a fitting case with which to open the record, for carcinoma of the lip had, and still has, on these islands, an incidence higher than on the mainland.[7] The second case, admitted a week later was a fifty-year-old fisherman. His record, in a clear copperplate script reads: 'Patient in a very advanced state, penis nearly eaten away, testicles and inguinal glands are all one matted cancerous mass. Operative interference would be futile'. He was discharged unrelieved after three days.

It would be wrong to assume that the hospital was immediately inundated with patients who had previously been denied the relief they craved. Some were undoubtedly treated in mainland hospitals; many others, with a determined acceptance of their fate, strengthened perhaps by a firmer belief in the Hereafter than had their urban contemporaries, would opt to suffer their illnesses at home. Even many years later it was still difficult to persuade people that operation was not a fate worse than death.[8] In fact between 1 February 1896 and 1 December 1897 one hundred patients were admitted. In the modern jargon, with its penchant for chains of nouns, this is a bed occupancy rate of 47 per cent—the average stay being thirty-six days.

Forty-nine of these hundred patients were medical, the rest surgical. Twenty-eight called for operative interference and the Annual Report tells us 'several were major operations and all were successful'. Among them was a mastectomy for scirrhous carcinoma of the breast in a spinster of forty—'removed mamma freely with subjacent fascia and a portion of pectoral muscles. Incision extended into axilla and removed from there the only gland which had the appearance of being involved . . . healed by first intention . . .'. The medical comments on these patients are a curious mixture of the dramatic and the trivial. One is not surprised to see the admission of a patient with a compound depressed fracture of the skull (though impressed by the

note 'recovery perfect') nor of the case illustrated in Figure 2, but an admission with laryngitis or vertigo is unexpected. In fairness both of these last patients were seamen who were presumably landed from their boats and had nowhere else to go. It is perhaps a reflection of the importance of Stornoway as a fishing port in those days that no less than twenty-eight of the first hundred patients were from visiting ships. Ten came from the town, one from Harris and sixty-one from outlying villages.

TABLE 1
DIAGNOSES OF THE FIRST HUNDRED PATIENTS ADMITTED

Epithelioma of lip	3	Venereal disease	2
Carcinoma of breast	2	Nephritis	2
Other cancers	5	Skin diseases	3
Tuberculosis of spine	6	Anaemia	1
Lupus vulgaris	3	Laryngitis	1
Other tuberculosis	9	Pneumonia	5
Fracture of thigh	3	Liver disease	2
Other fractures	4	Heart disease	3
Other injuries	13	Fever	1
Osteomyelitis	5	Paralysis of bladder	1
Other sepsis	4	Hydrocephalus	1
Perityphlitis etc.	4	Vertigo	1
Backache	2	Stenosis of os uteri	1
Arthritis	2	Sunstroke (!)	1
Haematuria	2	Rheumatism	1
Orchitis	2	Gangrene	2
Strangulated hernia	1	Tonsillitis	2

The diagnoses of these patients are listed in Table 1. Infectious diseases were treated in a small fever hospital a mile or two out of the town, but it is obvious that the scourge of tuberculosis which first made its mark in the 1870s[9] is still manifest. Trauma and infection are well to the fore and it is curious to see the terms 'perityphlitis' (cases 33 and 49), 'appendicitis' (case 98) and 'typhlitis' (case 95) all in use in the same year, particularly as the clinician concerned reverts to the first of these diagnoses for case 128. Incidentally none of these patients was operated upon and indeed abdominal surgery was rarely performed; one of the tragic features of the early records is the high mortality rate of intestinal obstruction.

It would not be right to complete the record of these early years without a tribute to Dr. Murdoch MacKenzie who with his partner Dr. MacRae carried the burden of almost all the clinical work until his death in harness as Medical Superintendent in 1922. Dr. MacKenzie qualified at Edinburgh University. He was a native of Stornoway and, after some time as an army surgeon came back to set up practice in 1894.[10] He emerges from the minutes (and from his evidence to the Dewar Committee) as being perhaps irascible and resentful of lay interference but hard-working and a determined fund raiser. In spite of the limitations of his situation his clinical capabilities were clearly of a high order and he seems to have been a courageous and successful surgeon.

SOME MATTERS OF FINANCE

It has already been pointed out that the building was financed as the result of a public appeal. It would seem that the original intention was to build a massive

endowment fund, the interest from which would provide for the day-to-day running expenses of the hospital. In the event this hope never materialized. By 1902, for example, the endowment fund had reached about £3,000. Much of this was invested locally in the form of private loans for house purchase or improvement. Of the total income that year of about £450, only £80 came as interest on investments, £200 came from donations or subscriptions, the proceeds of church collections and so on; a levy on boats using the harbour produced another £50. Parish grants for nurse training, Lady Ashburton's Bequest (also for nursing staff) and sundry payments on behalf of patients from landowners and employers formed the remainder. The income approximately equalled the expenditure but the balance was precarious and achieved only by a careful watch on expenses and attention to fund-raising. On 5 November 1903, for example, the committee found it necessary to approve the following recommendations:

> That a widespread appeal be at once made outside of the Island for funds to augment the Endowment and put it on a safe footing.
> That individual members of the Committee bestir themselves to increased zeal in the collection of funds.
> That ministers should be asked to urge the claims of the Hospital on their congregations.
> That the strictest economy in the prescription of food and medicine and in the selection and use of surgical dressing should be exercised. [Matron took this as a personal affront.]
> That patients only whose diseases are curable should be admitted.

The balance between expenditure and income is shown in graphical form in Figure 3. Clearly all income was used immediately; reserves were never accumulated and it must have been a somewhat hand-to-mouth existence. The graph is drawn on a logarithmic scale but even this does not entirely reduce the impact of the astronomical rise in costs in recent years. The 1940s were years of rapid cost inflation and for the first time there is a sizeable and increasing annual deficit. The promise of a National Health Service may have dampened the ardour of the fund raisers, but it is difficult to see how the voluntary system could have met the demands of the next few years.

TABLE 2
SOURCES OF INCOME AS PERCENTAGE OF TOTAL FOR YEAR

Source of Income	1898	1907	1917	1927	1937	1947
Local donations	74	45	34	53	57	62
Payment by or on behalf of patients	6	12	14	1	10	24
Interest on investments and bequests	14	43	51	11	11	8
Statutory and State payments	5	0	0	34	23	6

Table 2 illustrates the point made earlier, that the income from the endowment fund paid only a small and dwindling proportion of the running expenses. Once again due respect must be paid to those tireless individuals who, year after year, shouldered the responsibility of maintaining local interest in the Hospital and of turning it into hard cash. The substantial proportion (34 per cent) paid by the state in 1927 is almost entirely accounted for by the surgeon's salary. This grant remained constant but all other expenditure rose, hence the drop to six per cent in 1947.

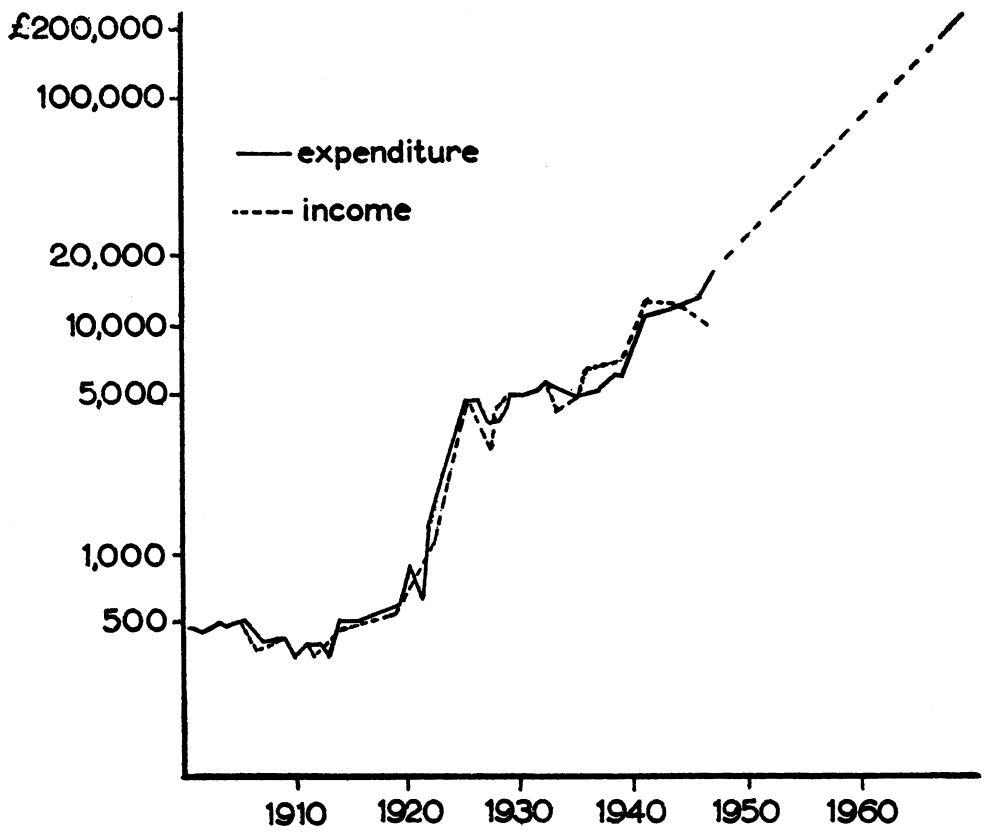

Figure 3
ANNUAL EXPENDITURE AND INCOME OF THE LEWIS HOSPITAL

THE GROWTH OF THE BUILDINGS

In view of the financial difficulties a decision to enlarge the hospital to twenty beds was an act of faith. A munificent gift by Mrs. C. E. Wellesley provided the capital for this extension which was opened in 1915. Probably the most important year in the history of the hospital was 1924. In that year the Department of Health for Scotland, in a long delayed implementation of the Dewar Committee's report, provided £12,000 for building a new operating theatre, X-ray room, outpatient department and laboratory. The kitchen, laundry and other services were modernized and a whole-time salaried surgeon appointed. This year marked, as it were, the coming of age of the hospital and, within a short while, the whole pattern of care changed. The point is elaborated below, but for the present it is enough to say that from 1924 onwards there was a continuous pressure for more beds. In 1929 a five-bedded maternity unit was added through the generosity of Dr. T. B. MacAulay of Montreal, himself a Lewisman by descent. Ten years later a world-wide appeal directed at the many island émigrés raised over £3,000 which, together with a further £16,500 grant from the Department of Health provided Medical Wards and a Children's Ward.

The bed complement was now 56 (24 surgical, 16 medical, 11 children's and 5 maternity).

Today the hospital carries 83 beds, an administrative block, physiotherapy department, new maternity wing and X-ray department having been added in 1958. At the same time a further seventeen-bedded ward was erected for E.N.T., eye and gynaecological patients. With the rise of Inverness as the regional centre and the transfer there of much of the specialized work (ophthalmology, elective orthopaedics etc.) these 83 beds are more than adequate for the acute general cases admitted. The demand is, however, as elsewhere, for long-stay beds and although there are in the Lewis Hospital no beds designated *de jure* for geriatric patients, numbers are *de facto* in occupation.

THE STAFF

The first full-time appointment to the medical staff was that of J. Ewart Purves, F.R.C.S., in 1925. Mr. Purves' early months are graphically described by Harley Williams in an obituary note.[8] His comments are harsh but, by mainland standards of those days it is probably fair to say that the hospital was indeed a 'complete anachronism', the nursing 'inadequate' and the surroundings 'grim'. He may be guilty of some hyperbole when he says that admission to hospital was a terrible last resort (the mortality figures do not bear him out) but it is clear that twenty-five years of professional isolation had taken its toll. It is probable that increasing numbers had been crossing the Minch to the great voluntary hospitals, at least when surgical treatment was necessary. That Purves changed all this is evident from the figures. In 1923, 169 patients were treated in the hospital, an average bed occupancy of 60 per cent. In 1926, his first full year of work, there were 376 admissions; the average number of occupied beds was 22.4 (in 20 beds and 3 cots!) and the waiting list was giving cause for concern. Changes of this nature cannot be brought about in a small community without considerable force of personality and the new surgeon obviously won the confidence of his patients. At the same time his arrival led to a considerable increase in expenditure and this caused concern to the managers, already faced with the problem of adjusting to radical changes in every department of the hospital. Mr. Purves' outspoken comments now begin to enliven the pages of the annual reports:

> Operative work has been made continually more difficult by the completely inadequate operating room at our disposal.
> The greatest difficulties in regard to chronic cases, both medical and surgical, were the lack of some suitable institution to pass them to, and the inability to keep them indefinitely in hospital.
> Cancer is not a hopeless disease, to be ignored as long as possible and then bowed to, but an enemy to be suspected at all times and attacked before it has entrenched itself in the body.
> Every [cancer] case was carefully considered to see if the patient would have a better chance if transferred to a southern hospital. The results of cases transferred were disappointing.

John Purves spent five years as Surgeon Superintendent and he left behind him a thriving modern hospital. His successor, E. Norman Jamieson, was to spend over twenty-five years in the post. He had trained in the Edinburgh Royal Infirmary qualifying in 1924. He was house surgeon at his teaching hospital and later worked at the Hertford British Hospital in Paris, but returned to take his fellowship in 1928.

In an age of ever-increasing specialization he retained an astonishing versatility. He has been described[11] as 'surgeon and dentist, obstetrician and gynaecologist, ear nose and throat specialist, orthopaedist, his own radiologist and . . . unofficially consulting physician'. Mr. Jamieson's burden was lightened by the appointment in 1934 of a house surgeon and in 1946 of a resident surgical officer.

The steady expansion of facilities after 1948 has seen the appointment of a full-time physician, obstetrician and anaesthetist, together with a second house officer. Throughout the war years the hospital was visited regularly by a consulting physician from Inverness and this link has since been strengthened so that there are now regular visits from consultants in ten specialties ranging from psychiatry to orthodontics.

It has been shown how the original nursing staff of a matron and a housekeeper grew by the addition of a probationer and later a staff nurse and a second probationer. Queen Victoria's Jubilee Institute at Edinburgh seems to have provided a supply of trained nurses in the early years as vacancies arose and their work was regularly reviewed by inspectors sent out by the Institute. When nursing qualifications became registrable in 1919 this safeguard became less necessary. From the very beginning the hospital trained its own nurses. Probationers underwent a year's instruction, being supported by grants from the parish councils; they were then expected to become District Nurses. The period of training soon became two years and then a period of midwifery instruction on the mainland was added. During the second world war, in order to give pupils a broader experience, the training school was affiliated to that of the Glasgow Western Hospital. This affiliation has now been switched to the Regional Nurse Training School at Inverness.

The records of the numbers employed are not complete and only tantalizing glimpses of personalities are vouchsafed. We hear of the recruitment in 1896 as servant to the hospital of a patient with a specific ulcer of the leg! We hear repeatedly (and particularly in the war years) of the difficulty of recruiting staff nurses; despite an inducement in the form of a higher salary there were at one time only two staff nurses out of an establishment of eight. Table 3 shows the numbers of staff of all grades employed. The years selected are simply those for which figures are available.

TABLE 3
NUMBERS OF STAFF EMPLOYED AT THE HOSPITAL

	1896	1915	1926	1929	1948	1970
Medical full time	0	0	1	1	3	7
Medical part time	3	3	3	4	6	21
Nursing trained	1	2	4	6	14	40
Nursing in training	0	2	2	4	13	34
Domestic	1	2	4	7	14	43
Maintenance and ancillary	0	0	0	2	7	18
Administrative	0	0	0	1	2	14

THE PATIENTS

I have tried to demonstrate the increasing complexity of the hospital organization. It remains to consider these changes in relation to the work done, the numbers of patients treated, their diagnoses and operations. The bare bones of the situation is given in Tables 4 and 5. The figures are self-explanatory but it must be borne in

TABLE 4
BASIC STATISTICAL DATA

	1899	1915	1923	1929	1939	1946	1959	1969
Admissions	77	56	183	596	526	847	1656	1939
Outpatients Total	2	0	7	1690	1227	2072	6718	11768
New	2	0	7	464	523	896	2371	3654
Operations	26	?	60	551	528	846	1092	1157
Births	0	0	0	4	41	51	203	332
Deaths	5	5	11	23	28	33	79	87

TABLE 5
STATISTICAL RECORD COMPILED FROM NOSOLOGICAL TABLES IN ANNUAL REPORTS
(N.B. Five-year totals. Figures for 1969 *only* are given for comparison, and include second diagnoses.)

Diagnosis	1896–1900	1901–1905	1906–1910	1911–1915	1916–1920	1921–1925	1931–1935	1941–1945	1969
Fractures	26	31	26	30	22	32	119	262	100
Other injuries	36	44	52	38	54	59	85	298	117
Sepsis	21	61	57	30	25	104	216	353	43
Probable surgical tuberculosis	42	41	19	16	4	48	124	90	3
Epithelioma of lip	10	8	9	10	8	14	28	17	1
All other cancer	16	20	22	8	8	34	99	127	126
Tonsillectomy	4	0	1	0	0	117	305	200	28
Gynaecology	4	7	16	6	6	32	244	302	297
Ophthalmic	5	5	2	1	1	10	8	104	3
Peptic ulcer	7	14	7	3	3	11	59	101	75
Pulmonary diseases	15	28	21	15	6	17	7	40	84
Venereal diseases	5	0	0	2	2	2	8	10	0
All other medical conditions	56	103	78	62	42	91	148	363	461
Genito-urinary	16	10	18	9	6	31	129	248	109
All other surgical conditions	27	33	29	35	19	131	781	924	442

Figure 1
The Lewis Hospital, Stornoway, *c.* 1913.

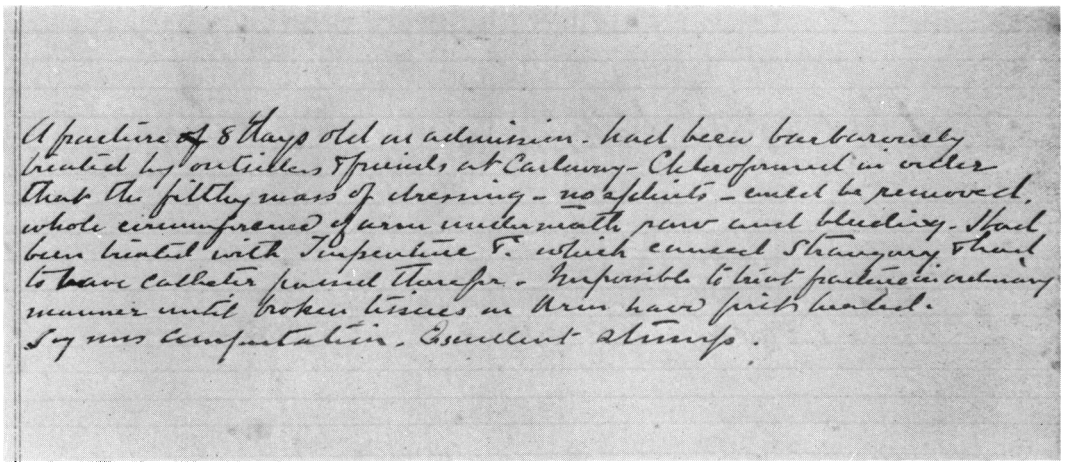
A puncture of 8 days old on admission. Had been barbarously treated by outsiders & friends at Carloway. Otherwise in better than the filthy mass of dressing - no splints - could be removed, whole circumference of arm underneath pus and bleeding. Had been treated with Turpentine & which caused Strangury & Had to have Catheter passed there for. Impossible to treat puncture in ordinary manner until broken tissues in Arm have first healed. Log was comfortable. Excellent stumps.

Figure 2
Extract from Admissions Book (see p. 53).

mind that up to 1946 the totals for operations include obstetric manipulations and blood transfusions, both of which were carried out in theatre. The figures are therefore inflated relative to those for 1959 and 1969. The figures for births demonstrate nicely the decline in domiciliary midwifery. Six per cent of cases are now delivered at home, as compared with 97.5 per cent in 1935 and 100 per cent up to 1925. In the last few years there has been a disproportionate and exponential rise in the numbers of new outpatients seen but many of these will have had in-patient treatment in Inverness. The proportion of new referrals to total outpatients should give a measure of the extent to which the hospital is usurping the therapeutic functions of the general practitioners; it would be interesting to compare these figures with those from a city hospital. Table 5 has been compiled from the 'nosological tables' in the Annual Reports. It has been necessary to interpret some of the diagnoses (e.g. 'curvature of the spine' becomes 'probable tuberculosis') and some categories have had to be kept wide in order to compensate for lack of precision of the diagnoses.

Only in the broadest sense is it possible to demonstrate the pattern of morbidity on the island. Admissions to the Lewis Hospital have always been on a highly selective basis. At first, perhaps, the selection may have been exercised by the patients themselves, but 'incurables' and mental patients have always been largely excluded, while separate provision has been made for infectious cases particularly those with pulmonary tubercle to whom the County Hospital was given in 1922. What is shown is rather the gradual acceptance of modern medical care by a community not noted for its uncritical acceptance of all things new.

I have tried to resolve this problem by choosing four groups of surgical procedures (Table 6). The first group, operations for appendicitis, was chosen as a life-threatening procedure whose treatment was known to be simple. The figures rise to a steady value as soon as adequate surgical help is available. It appears when one reads the operating notes that many patients presented later than is usual these days and the high proportion of patients with intraperitoneal drains or with simple

TABLE 6
NUMBERS OF OPERATIONS PERFORMED

Condition	1925	1939	1949	1959	1969
Appendicectomy	14	50	58	68	74
Ditto with Drainage		25	11	3	
Abscess only drained	3	3	0	0	0
Inguinal hernia	10	11	30	21	35
Ditt. strangulated	0	0	2	1	0
Cholecystectomy	1	0	10	15	14
Cholecystostomy	0	1	1	1	2
Definitive peptic ulcer surgery	0	1	4	16	18
Closure of perforation	2	6	2	5	1

drainage of an abscess may result from this. Readiness to remove the non-inflamed appendix has, of course, gone hand in hand with readiness to remove the inflamed one it would be foolhardy to assume that every appendix removed in 1925 represents an avoidable death in 1919.

'Safe' elective surgery is quite another matter and, taking inguinal hernia as an example, the demand has increased only since the advent of the National Health Service. Possibly the greater social security has enabled people to afford the time away from work. 'Unsafe' i.e. major abdominal surgery shows a different picture still. Elective surgery for gallstones and for peptic ulcer has had reluctant acceptance. The indications for operation in these conditions are seldom absolute and are determined more, perhaps, by the patient and his physician than by the surgeon, who can lead neither too far nor too fast. One fatal or other adverse outcome to an operation has a disproportionate effect in a small community. The converse may not apply—good results are not so noticeable as bad ones but in spite of this (or because of it!) the demand for cholecystectomy has been steady for the last ten years. The demand for ulcer surgery is still rising and as it does so the number of patients presenting with perforation drops.

THE FUTURE

If it is dubious practice in a historical article to include so much reference to the present it is probably even less justifiable to speculate on the future, yet the road which is signposted by historical facts leads not back but forward. It is inconceivable that the exponential rise in cost and complexity of the hospital machine can continue much longer, whatever the nature of the constraints that are eventually brought to bear. As far as the Lewis Hospital is concerned the next likely major development is to be the siting of a health centre within the hospital grounds. This will bring together under one roof the hospital medical and nursing staff, the general practitioners, the district nurses and other health workers. The wheel has thus turned almost a complete circle; only the size and scope of the enterprise differs from that of the hospital of 1895.

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