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SICKNESS, DISABILITY AND ACCIDENT BENEFITS

A DISCUSSION took place at a General Meeting of the Institute on 23 November 1953, the subject being Sickness, Disability and Accident Benefits, both in connexion with life assurance and as separate contracts. The discussion, an abstract of which follows, was opened by:

E. A. J. HEATH, M.A., F.I.A., *Manager and Actuary, Medical Sickness, Annuity and Life Assurance Society, Ltd.*
W. E. H. HICKOX, F.I.A., *Assistant Actuary, Prudential Assurance Company Ltd.*
L. W. COLLINGWOOD, B.Sc., F.I.A., *Consulting Actuary.*

Mr E. A. J. Heath said that he was in an unusual position, because he had not had to produce a written paper and it had been impossible, therefore, for others to prepare criticisms of what he had to say. On the other hand, he had to present what he had to say in such a way that it could be understood without it having been possible to study it in print beforehand. He and his colleagues had therefore decided to make their remarks purely informative and not in any way technical.

The wisdom of that decision had been brought home to him forcibly when discussing the subject with one of the senior members of the Council, who had been surprised to learn that permanent or non-cancellable policies were issued for more than about £6 a week, and still more forcibly when he himself had been told by a friend that annual contracts could be issued to secure up to £100 a week. He felt, therefore, that a purely factual opening of the discussion would be helpful to everyone, although, no doubt, there were members present who knew quite as much about the subject as he did.

His first introduction to permanent sickness insurance—to which in the main he proposed to confine his remarks—had occurred about thirty years previously, when as a young clerk in an insurance company he had tried to interest some of his friends in life assurance. He had approached a wealthy chartered accountant, who told him 'I have plenty of life assurance, but I should like to make arrangements to receive about £40 a week if I should be laid up and not able to do my work'. It appeared that much of that man's time was spent in conducting meetings of creditors and in connexion with the amalgamation of companies, for which he received big fees, and his business, although he employed a large staff, was almost entirely dependent on his own work, so that if he were ill it made a serious difference to his income.

The speaker had, therefore, started to look round for a suitable type of contract, and had made one or two interesting discoveries. He had found that it was easy to insure against sickness and accident, but that all that seemed to be available was an annual contract under which, if the insured were to be ill for a long period, there would be a polite refusal to renew it when the next premium fell due. That was not what his friend had wanted. Eventually, he had found that there were at that time three offices issuing non-cancellable policies—permanent sickness policies. He had approached them and discovered that their commission terms varied considerably, and that the benefit offered under the standard type of policy did not seem attractive, being £10 a week for the first 26 weeks of illness and falling thereafter to £5. Alternatively, there was a type

of policy which provided nothing at all for the first 26 weeks and payment thereafter for the duration of the illness. It had not occurred to him at that time that an irreducible benefit could be secured by taking one of each, and he did not know what the reaction of the offices in those distant days would have been to such a proposal. What had struck him most was that, whereas he was interested in £40 a week, those three offices together would not have provided a total of more than about £25, which would be reduced to £12 10*s*. after 26 weeks. The project had therefore been dropped, which might have been fortunate for the companies concerned because some years later his friend had had a long and serious illness.

Since that time there had been a considerable change, and the range of policies available for non-cancellable sickness insurance had become much wider. Offices had increased the limit of their retention and reassurance facilities had made it possible to obtain quite adequate benefits.

It was necessary for him to be a little personal because his remarks were linked to the experience of his own office. That office had not been approached by him at the time of which he had spoken, because it dealt only with doctors and dentists, who were favourable risks for sickness insurance. A doctor or a dentist had to be actually at work to make a living, and even with the advent of the National Health Service a doctor had still to provide a locum if away ill. It was therefore a necessity for a doctor to have that type of insurance, and the office knew very well that he would get back to work as soon as possible to avoid having to pay a locum and lose income.

He emphasized, therefore, that it was necessary to choose the type of man to whom to issue a permanent sickness policy. A man who was drawing a salary, or profits from a business, which would continue to be received while he was ill would obviously not be a good risk for sickness insurance. A brother actuary of a company which issued permanent policies had told him about a difficulty they were having over a building contractor who had claimed benefit for a long time. When that man had taken out his policy he had been working at his trade himself, but his business had grown until his work had become largely administrative. That had reduced the accident risk; but it had presented them with a big problem, because they knew that he could give instructions from his bedroom and over the telephone; he might be perfectly capable of carrying on his business and drawing his income from it while at the same time receiving sickness benefit. It was most important, therefore, to be satisfied about the nature of the risk which was being undertaken so far as occupation was concerned.

An actuarial friend had said to him 'What is the use of our trying to do permanent sickness insurance? Your office has all the doctors, and they are the only people worth insuring.' He had challenged that statement, which he did not think was correct. Any professional man could be a good risk if the business was treated in a realistic manner. If a man was going to draw a salary while ill it was no use offering to pay him benefit while he was receiving that salary, but no one, no matter what position he was in, would in practice be allowed to draw income indefinitely if not able to carry on his work. There was no reason why a man who worked for himself, or for a firm which would continue to pay his salary during illness for some time, should not be given a policy which would take effect after he had been ill for six months. He could take an annual contract covering shorter periods of illness, and if he became seriously ill he could draw benefit under his deferred six months policy, which would give him cover against one of those long illnesses which must be a great worry to professional

men. There was, therefore, great scope for transacting deferred sickness benefit business for professional and business men of good types (but not for 'spivs' and 'barrow-boys', because it was necessary to recognize the moral hazard involved).

His own office had for many years refused to give any sickness benefit to a man in a salaried appointment until the salary ceased. That applied also to those serving in the Armed Forces. The policy came into force after six months, but in some cases a small amount of immediate benefit was also allowed to cover the extra expenses of an illness. Their experience had been perfectly satisfactory.

There was no such thing in permanent sickness business as a waiting period before a member could claim benefit. Often a claim was received almost before the ink was dry on the policy, sometimes almost before the policy had been prepared! He had known a proposer to be taken ill within a few hours of posting the cheque, when technically the office was not on risk because it had not received the first premium. In such cases the circumstances had to be investigated to make sure that the claim was legitimate.

In the type of business under discussion the principle of utmost good faith operated more strongly than in any other. Normally, the only reason for which an office cancelled such a contract was bad faith or non-disclosure, and his own experience had been that such cancellation was rarely necessary. Doctors did not differ greatly from ordinary people, but he thought he could say that 99% of them were honest in filling up the proposal form and answering the medical examiner. There were awkward cases where a man genuinely forgot an illness which might have been unimportant to him at the time. It might later recur in a more severe form, and the doctor whom he consulted might question him and elicit the information that he had had some illness which he had never mentioned before; so the omission would be discovered when the claim came in. Such cases had to be treated with considerable care, because there were some conditions which would have been dealt with specially had they been revealed in the first place. He proposed to refer later to the question of exclusions on policies. It was only in a flagrant case, however, that the office would go so far as to cancel the policy.

One other reason for discontinuing a policy was a change to permanent residence abroad. The main difficulty there—apart from tropical diseases and so on, which were not so important as in earlier days—was that of getting proper certificates from properly qualified doctors. His own office, however, and he thought other offices doing the business, felt that the most distant parts of the world had become so near, with air travel, that there could be a considerable relaxation of regulations about residence abroad. Ever since the war his office had been covering doctors in all parts of the world, and they had several hundred in Canada, Australia, New Zealand, East and West Africa, Singapore and Malaya. If those doctors had illnesses which could not be dealt with locally they were back in a large town within 24 hours. The experience with people residing in different parts of the world had been remarkably good.

Policies were available with deferred periods of 1 month, 3 months, 6 months, 12 months, and even 24 months if that were desired to meet special circumstances relating to a man's remuneration. He had referred earlier to the practice of reducing the payment to half after 26 weeks in the case of immediate benefit contracts, but irreducible benefit was available for those who wanted that type of policy. The reduction to half pay after 26 weeks was a relic of the old friendly society days and one office currently paid full benefit for 100 weeks, dropping then to two-thirds.

All those policies terminated at a fixed age, at which the insured stopped paying premiums and the benefits ceased. That age was selected at the outset and might be 50, 55, 60 or 65, 65 being normally the limit. There were a few cases going on until 70; when the National Health Service was introduced, some of the older members who had policies ceasing at 65 wrote to say that they had to go on working until 70 to be eligible for a pension, and so they had been given another medical examination (for which they paid) and charged a stiff premium to carry their benefit on for another 5 years.

It was about twenty years since disability benefits attached to life assurance policies had been introduced in America. The business had been undertaken in a big way and policies sold on the basis of $10 a month disability benefit for every $1000 assured. That involved two things which were basically wrong in his opinion: first, the disability benefit was based on the sum assured, irrespective of the man's earnings; secondly, in the case of a whole-life policy the disability benefit went on indefinitely. The Americans had lost millions in the experiment, and so, having burnt their fingers, had discontinued the monthly income benefit. They had recently started it again, but on a considerably reduced scale.

It was important that there should be a definite terminating age to the benefit, and that the amount of benefit should be related to the proposer's income. In Great Britain a limit of two-thirds or three-quarters of the man's earnings was customary. That did not mean that a man earning £10,000 a year could draw £7500 in benefit; it would be a tricky business to place that amount of insurance, and in any case there was an interesting additional hazard involved. In pre-war days disability benefit had not been taxable, but in 1940 there arose the case of *Thompson* v. *Forsyth*, where a man had been incapacitated for about 6 years. The decision had been that he was drawing an annuity and that long-term disability benefit was assessable for income tax. He believed that the Inland Revenue felt that they had been very lucky to win that case. There had been several consultations with them, and they had not insisted on the office deducting tax in those long-term cases; they made the assessment directly on the man concerned. The principle on which they worked was that the benefit was assessable when it had been drawn continuously for the whole of the fiscal year, from April to April, so that a man who became permanently incapacitated in June did not have to pay any tax for nearly two years. In practice, the speaker always limited permanent sickness benefit to about 60 guineas a week. That meant that a man would get £3000 a year free of tax for perhaps two years; anything more than that might be an encouragement to draw benefit instead of working.

It was interesting to note that he had talked about guineas per week. That dated back to the days when a doctor's fee was always in guineas, so that his company was talking the same language as the members; it also had the advantage that one guinea a week was 3*s*. a day, whereas £1 a week implied recurring decimals in the daily rate—benefit accrued from day to day. A man had to be ill for 7 consecutive days before being entitled to benefit, but if ill for 10 days he would draw the whole 10 days' benefit. (To attempt to pay benefit for 3 or 4 days only would mean a great deal of extra work and a big increase in the premium.)

The question of income tax had brought into prominence the reduction of the benefit to half pay after 26 weeks. The idea was that if a man received a sudden shock by having his benefit halved after 26 weeks he might be jolted back to work again. With the imposition of income tax after 2 years the benefit

was reduced virtually to quarter pay, so that there was a growing tendency to issue irreducible policies.

The following figures would give his listeners some idea of what a permanent sickness policy cost. A policy ceasing at 65 (the most popular age), giving immediate benefit and reducing to half pay, cost at age 30 about £2 a year for each guinea a week benefit. The cost went up to about £3 a year at age 45. If the benefit was irreducible, the cost was about £2 10*s*. a year at age 30 and £4 at age 45. With no benefit for the first 6 months and an irreducible payment thereafter the premiums ranged from £1 4*s*. at age 30 to £2 3*s*. at age 45. It should be noted that, at the younger ages, a man could for the same premium, take either an immediate benefit policy, reducing to half pay, or an irreducible policy with no payment for the first 4 weeks. That showed that the cost of short claims, such as those for influenza, was about equivalent to unlimited half pay after 6 months.

The rates of premium were still based on the Manchester Unity experience, although it was out of date, because there was such a wealth of tables to choose from. Modern experience was much more favourable, but that was all to the good, because large fluctuations were inherent in that type of business.

He had prepared a table (p. 37) giving a comparison between claims paid in the years 1937 and 1952. He had chosen those two years because 1937 was the year before he prepared his earlier paper (*J.I.A.* 70, 271) and 1952 was the year before the current discussion; both those years had been free from war experience so that they could be regarded as giving a reasonable comparison of two normal years without any outside influence.

In order to get out the experience, he had personally gone through all the claims for the two years, because, although his office had for some years been running a sort of continuous sickness experience, they had no data for 1937. He had, therefore, gone through the claims registers for the two years in question, doing his best to treat each year on exactly the same lines. Classification was not always easy but he had tried to be consistent. He emphasized that he was dealing only with the number of claims, and not in any way with the duration of claims; he was concerned with the number of people going sick in the two years.

In the 15 years between 1937 and 1952 the exposed to risk had altered considerably, as had the age distribution, so that he had had the awkward job of scaling down the 1952 figures, taking both those factors into account. He could not give any formula for that, because many approximations had been necessary. There were all sorts of different types of benefit, and it had been a tricky job, in which he had had great help from some of his colleagues. He was satisfied that the 1952 figures had been scaled down so as to give a kind of 'standardized morbidity' in comparison with 1937, the differences in the exposed to risk and in the distribution of ages having been eliminated.

In 1937 they had had on their books 1872 claims; in 1952 there were 1101, a drop of over 700. That might seem a little extreme; but it should be pointed out that the 1937 experience happened to include a fairly heavy influenza epidemic. In 1937 the claims for influenza were 620, and in 1952 they were only 128, so that nearly 500 of the 771 excess claims were directly attributable to influenza. The effect of a very heavy epidemic could be much greater, and the effects continued over quite a long period. Moreover, an influenza epidemic showed itself not only in the influenza figures but in a big increase in claims for tonsillitis, tracheitis, pharyngitis and so on, of which there were 177 in 1937 and

68 in 1952, so that another 100 claims might be attributed to influenza, being largely influenzal in origin. For sinusitis the respective figures were 71 and 38. Probably, therefore, the figure of 1872 in 1937 could be reduced by about 630 because of the influenza epidemic, and there might even be an effect in some of the cases which he had classified under gastro-enteritis, because gastric influenza might be labelled 'gastro-enteritis'. Even so, there had obviously been a real drop in the number of persons making claims.

Standardized sickness experience

Claims arising during the years 1937 and 1952 plus those current on 1 January in each year with less than six months duration

	1937	1952		1937	1952
			Brought forward	1361	616
Influenza	620	128	Gall bladder	17	15
Tonsillitis, etc.	177	68	Liver, spleen and pancreas	15	20
Sinusitis	71	38	Genito-urinary	54	40
Pneumonia	31	45	Intestinal obstruction	8	4
Pleurisy	5	7	Hernia	17	20
Pulmonary tuberculosis	19	16	Piles, varicose veins, etc.	33	28
Bronchitis and asthma	63	47	Accidents	98	82
Ears	20	11	Anxiety and psychotic states	27	31
Eyes	20	18	Arthritis	17	16
Teeth and mouth	14	10	Rheumatism and gout	18	7
Skin	41	31	Fibrositis	17	11
Septic conditions	70	23	Lumbago and sciatica	47	29
Glandular fever and P.U.O.	6	16	Prolapsed disk	—	35
Virus infection	—	7	Coronary thrombosis	9	24
Mumps	28	22	Other heart conditions possibly due to coronary thrombosis	6	—
Measles, whooping cough, etc.	25	8	Cerebro-vascular and hypertensive conditions	24	19
Duodenal and gastric ulcers, duodenitis, etc.	47	53	Valvular disease of the heart	4	1
Colitis and diverticulitis	13	16	Arrhythmia, etc.	7	5
Gastritis, gastro-enteritis, etc.	39	26	Neoplasms	8	14
Appendix	52	26	Others	33	33
Carried forward	1361	616	Total	1820	1050

Claims current on 1 January 1937 and 1952 when the duration of incapacity had already exceeded 26 weeks

			Brought forward	33	20
Nervous and mental	15	7	Coronary thrombosis	3	8
Pulmonary tuberculosis	7	6	Cerebral haemorrhage	2	4
Neoplasm	2	2	Hypertensive conditions	—	1
Disseminated sclerosis, Parkinsonism	5	5	Arthritis	3	5
Mitral stenosis	4	—	Others	11	13
Carried forward	33	20	Total	52	51

There had been virtually no change in the number of chronic cases, but there had been a big change in the types of claim. In his 1939 paper he had stated that the heaviest claims for sickness benefit were those for nervous and mental complaints, and in 1937 16 out of the 52 fell into that category, mostly dementias, while in 1952 there were only 8. That had made a big difference to the cash payments, because people who went mad could claim benefit for a long time.

In 1937 the oldest chronic case on their books had drawn benefit for 29 years, but in 1952 the oldest claim had been on for 12 years only—a remarkable change.

The improvement in the experience of those mental and nervous cases was not, he thought, a real improvement; he believed the explanation was that in the early part of the century the selection had tended to be slack so far as that type of case was concerned. That was borne out by the fact that they had had two brothers who both drew benefit for about 30 years for dementia. The current practice in a case where there was any history of mental or nervous trouble was to make sure that they would not have to pay benefit for that complaint. He had referred in his paper in 1939 to the fact that they dealt with such policies in many cases by putting on exclusions. In life business exclusions might be impossible, but in sickness business they worked satisfactorily, and it was rare to have any difficulty in persuading a proposer to accept an exclusion on the policy, or in deciding whether a claim came within the terms of that exclusion.

A man with some serious illness could get insurance covering other things. The most common exclusions placed on policies were for anxiety states, peptic ulcer (covering duodenal and gastric ulcer), lumbago, sciatica and so on, and they seldom had any arguments.

The big increase in coronary thrombosis was something which was causing a good deal of concern in sickness insurance; so it was in life assurance, but in sickness insurance they probably saw about three times as many cases as did the life office actuary. Their experience had been that about one-third of those cases died within a few days, one-third were laid up for 3 months, and then recovered, while the other third went on for 6 months, or perhaps for years, and never made a really complete recovery.

His earlier remarks about claims related to the chronic cases, the people who had been on benefit for 6 months at the beginning of each year. But in the rest of the experience—consisting of claims which actually started in 1937 and 1952—there was exactly the same feature, so far as coronary thrombosis was concerned. There had, in fact, been considerably more than 24 new claims in 1952, but that was the figure after scaling down for the exposed to risk and the age distribution. He was often told by doctors that there had been no real increase in coronary thrombosis, and that it had been just a question of change of name and of the disease being recognized more easily. However, in 1937 coronary thrombosis was a well-recognized clinical diagnosis; in 1927 that would not have been so, but by 1937 it was becoming a common complaint, and in 1952 everybody was talking about it.

Being aware of that criticism he had taken care to go through all the cases involving the heart, even though they appeared to be extremely remote from coronary thrombosis. He had been greatly helped in doing that by Dr J. N. Morris, of the Medical Research Council's Social Medicine Research Unit. Dr Morris had done a great deal of work on coronary thrombosis, and had produced, with the help of the records of the speaker's office, a long paper on coronary thrombosis amongst doctors (*B.M.J.* no. 4757, March 1952). Recently he had made a second investigation, dealing with London Transport and Post Office workers (*Lancet*, 21 and 28 November 1953).

Dr Morris had kindly gone through the papers of claims in 1937 and 1952 which involved the heart in any way, and had picked out cases which might possibly have been coronary thrombosis with a different label. He had 'leant over backwards' in doing so, and where there was any possible doubt he had included it in the 1937 figures and left it out in 1952. As a result, there were 6 cases which

might possibly be added to the 9 cases of coronary thrombosis which started in 1937, making 15 in all, and none was added to the 24 in 1952, so that on that basis there had been an increase from 15 to 24 in those 15 years, and Dr Morris was quite satisfied that that was a definite increase. The speaker, from his own experience, entirely agreed with him. There had been a reduction from 24 to 19 in the figures under cerebro-vascular, hypertensive and arteriosclerosis cases, and from 11 to 6 in cases of valvular disease, auricular fibrillation, etc., but Dr Morris was satisfied that that had no bearing on the increased claims for coronary thrombosis.

Whenever they had a claim for coronary thrombosis they always, in view of the publicity that the matter had received, went through the original and any subsequent medical reports to check the blood pressure. Many of his friends knew that he was always contending that a blood pressure of 150 systolic and 98 diastolic was normal, and his office accepted many such cases, but it was never those people who suffered from coronary thrombosis; it was almost always those with a blood pressure of 130/78, who came up with it in 6 months to 10 years after medical examination. Statistically he ought not to argue on those lines, but it was remarkable to find that they had never yet been caught out by one of the borderline blood-pressure cases which they accepted so frequently. He had dealt at length with coronary thrombosis; it was an important matter both for life office actuaries and for those concerned with sickness insurance.

The effect of the use of anti-biotics in treatment was interesting. He had expected, before going through the figures, that there would be a dramatic improvement in the figures for pneumonia, because pneumonia as a cause of death had almost vanished; but he found that the sickness claims for pneumonia increased from 31 in 1937 to 45 in 1952. Whether that meant that some of the pneumonia germs had become penicillin-resistant he did not know. The claims were shorter than they used to be, and there was not so often a frank label of pneumonia; since the discovery of penicillin doctors had always fought shy of saying that a man had pneumonia, and they called it 'virus pneumonia' or 'atypical pneumonia', and one case had been described as 'a typical atypical pneumonia'. The actual number of cases, taking them all together, had increased. The length of claim had probably gone down, but that did not form part of his subject that evening. Probably the most dramatic example of the effect of anti-biotics was in the septic conditions, the claims for which had fallen by two-thirds. Modern treatment cleared those troubles up so quickly that a man was not ill for 7 days and did not claim benefit.

The small increase in gastric and duodenal ulcers from 47 to 54 was probably misleading, because, as he had mentioned earlier, they put in a good many exclusions, probably many more than they had done 15 years previously. If anyone had had sufficient digestive trouble to have a barium meal, X-ray and so on they regarded it as good enough evidence to exclude it on his policy. If he went for a number of years without further trouble they might remove the exclusion, but they had a good start. A possible cause of the fall in the figure for appendicectomy was that more people had their appendix out in childhood.

One change in diagnosis which had had a tremendous effect related to the prolapsed intervertebral disk. In 1937 there had been 47 claims for lumbago, sciatica, sacro-iliac strain and so on, mostly of fairly short duration. In 1952 there had been only 29 such cases, but in addition there had been 35 cases of prolapsed intervertebral disk. He was told that prolapsed disks had been found in skeletons 2000 years old, but they had been rediscovered quite recently.

Fortunately the drastic operation which had been carried out some years previously was no longer done, especially as members were then on the funds for three or four months and were not much better afterwards. The current tendency was to treat them more conservatively, and claims were dropping in duration.

For cancer there had been 7 short-duration claims in 1937 and 13 in 1952. He felt that there had been a real increase there. He had examined the sites of those cancers—he had put them under the heading of neoplasms, because some were not strictly carcinomas—and, in view of the prominence which had been given to bronchial carcinoma and the effect of cigarette smoking, he had been interested to find that in 1937 there had not been a single case of bronchial carcinoma and in 1952 there had been only one, which was apparently diagnosed early, because the man had had a lobectomy and was still alive. One of their members had a lung removed for carcinoma in 1945, and was fit and doing a full day's work 8 years later.

Two sources of incapacity had entirely vanished in the 15 years. In 1937 there had been 7 cases of scarlet fever and 7 of diphtheria, and in 1952 none at all. Scarlet fever had become a streptococcal throat. In 1952 there were 7 cases of virus infection, nature unspecified, while in 1937 viruses were unknown.

Mr W. E. H. Hickox thought that there was a source of confusion in the use of the word 'permanent' in two senses. When they talked of 'permanent sickness policies' they meant, not that the sickness was permanent, but that the policies were permanent, in that the company had no power to cancel them on renewal until the attainment of the age prescribed in the policy conditions. Permanent was, therefore, synonymous with 'non-cancellable' and qualified the word 'policy'.

On the other hand, when they spoke of 'permanent total disability' they meant that the insured would be permanently incapacitated, so far as could be judged, from ever again following his own occupation for remuneration or profit, and usually also from following any other occupation. It was, however, not always easy to decide whether incapacity was permanent, and that definition was sometimes replaced by an arbitrary rule. For example, in Canada any disablement which had continued for over six months was somewhat loosely termed permanent, although 'prolonged disablement' was probably a better description.

When they spoke of 'annual contracts' they did not mean annual contracts in the life office sense, but contracts which could be renewed each year only with the consent of the company—in other words, the opposite of permanent contracts.

There was one other elementary point which he would like to make as a background to his remarks. Sickness, disability and personal accident insurances were fundamentally different from other types of accident insurance in that they were not contracts of indemnity. As with life assurance policies, the proposer could insure under them for any sum which the company was willing to provide, but, whereas under life assurance policies few persons were likely to commit suicide in order that the proceeds of their life policy should become payable, in the case of sickness and disability insurance the moral hazard arising from over-insurance was one against which the company had always to be on its guard.

Mr Heath had dealt at some length with permanent contracts, but perhaps in England the best known form of sickness, disability and accident insurance was the personal accident policy, written by accident insurance companies, or by composite companies through their accident branches, on an annual basis,

where the insurers reserved to themselves the power to decline renewal. The benefits provided by such policies varied widely between offices, and it was difficult to summarize them in a few words. Broadly speaking, however, it could be said that they provided either a lump-sum payment, weekly benefit payments, or a combination of the two.

The lump-sum payment was made in the event of accident causing death, or the loss of two limbs or both eyes, or one limb and one eye, and sometimes on permanent total disablement from other causes, with a reduced payment on the loss of one limb or one eye.

The weekly benefit payments were normally payable on total disablement caused either by accident, or by accident and sickness, and reduced benefits were sometimes payable on partial disablement. Those weekly benefit payments were normally made only for a limited period, which used generally to be 52 weeks, but was currently often 104 weeks or even longer. In addition, however, some offices paid an annuity on prolonged total disablement resulting from accident.

The rates of premium for those annual contracts varied with the occupation of the insured and were generally dealt with in three or four broad occupational classifications. One scale of premiums was usually fixed for ages of, say, 45 and under, with another scale for older ages. There were no tariff rates, and each office fixed its own rates with due regard to its experience. Women engaged in business could be insured under some policies at a special rate of premium, but risks arising from pregnancy were excluded. War risks were excluded, and aviation risks were generally covered only if the insured was a fare-paying passenger flying on a recognized air route.

The right of the office to refuse renewal was not often exercised and, when it was, it generally took the form of excluding benefits arising only from the particular disease which had caused the insured to become impaired. It was true, however, that permanent contracts were more in accordance with the requirements of many proposers, because there was the fear of what would happen if they did become impaired. On the other hand, annual policies could be offered to a wider range of the population, as they involved a smaller potential liability to the company and could therefore be written without medical examination and the formalities and inquiries which were necessary for permanent contracts.

He had tried to give a broad up-to-date picture of annual or cancellable business, but it was only fair to add that it was continually developing, particularly on the lines of issuing policies to suit individual requirements.

They had so far considered permanent sickness policies on a weekly benefit basis and annually renewable policies, and it remained to consider benefits which were attached to or issued in conjunction with life policies, and which were permanent in the sense that they carried an automatic right of renewal until either the attainment of a fixed age, or the maturity of the life policy if that should be earlier. Those contracts covered a wide range and it was difficult to summarize them, but in general they provided one or more of the four following types of benefit:

(*a*) Payment of an additional sum assured in the event of death from accident, sometimes on the loss of sight or limbs, and sometimes on permanent total disablement.

(*b*) Advance payment of the sum assured and bonuses under the life policy, or a proportion thereof, in the event of permanent total disablement.

(*c*) Waiver of premiums during total disablement.

(*d*) Payment of a weekly or monthly income benefit during total disablement, generally for a limited period.

In the United Kingdom the payment during total disablement was almost invariably confined to a limited period, and he knew of only one British company which would undertake to provide an income benefit continuing during disability throughout the currency of the life policy. On the other hand, the Canadian offices would provide those continuing benefits attached to life policies, both in Canada and in Great Britain.

Perhaps the most popular form of accident insurance which was attached to British life-assurance policies was the payment of an additional sum, equal to the basic sum assured under the life policy, in the event of death by accident prior to the attainment of a specified age, which used as a rule to be 60 but was currently often 65 or even 70. Some offices also paid the additional sum insured in the event of loss of eyes or limbs or on permanent total disablement. Logically, it was difficult to see why the sum payable when a man was run over should be double that which would be payable if he had died from natural causes, but the chance of drawing the additional benefit in return for a small additional premium seemed to appeal to a wide section of the public. He should perhaps add that his own office also included additional accident benefit in certain of its industrial policies.

Another form of policy issued by his office which might be of interest was a non-cancellable personal accident policy insuring lump-sum and weekly benefits, issued by the accident department, and restricted to the holders of ordinary life-assurance policies who were first-class lives. Under that policy the insured had an automatic right of renewal until the attainment of age 65, provided that the life policy in conjunction with which it was effected was also maintained.

There was another type of sickness and accident policy where the link with a life policy was somewhat weaker—that important group of policies which were, in effect, the combination of permanent sickness policies and life-assurance policies in a single contract. One example was a contract whereunder life assurance, family income benefit and sickness and accident benefit were all combined for convenience in a single policy, with a consequential saving in expense. Another example was the scheme brought out by the British Medical Association and conducted by a panel of offices, under which a total disablement income benefit, commencing after 4 weeks or 26 weeks, together with waiver-of-premium benefit, was combined with family income benefit and a whole-life assurance, endowment assurance or deferred annuity in proportions which were fixed at the outset, although additional units could subsequently be added.

A further type of disablement benefit was that attached to group assurance contracts. Most offices were prepared, for an addition of $7\frac{1}{2}\%$ to the premiums, to include in their group life-assurance policies for male lives an optional benefit providing payment of the sum assured by monthly instalments on permanent total disablement. The benefit under those policies was normally a series of monthly payments for a guaranteed period such that their discounted value was equal to the sum assured.

Reference had been made to the losses in America in the 1930's when the economic recession brought the moral hazard factor into prominence, and some policy-holders found it advantageous to draw sickness benefit rather than to return to work or look for new employment. Since then, however, premium

rates had been stiffened in America and benefits had been restricted in a number of directions.

In Canada modern practice was to include in the life policy, on request, a waiver-of-premium benefit, either by itself or in combination with a monthly income benefit which was usually equal to 1 % of the sum assured during permanent total disablement and terminated at age 65 when the full sum assured was payable.

The fact that disability income benefits were commonly attached to life policies in the United States and Canada, but seldom in the United Kingdom, might be due in part to British methods being more conservative, but it was also, he thought, due to a fundamental difference in principle. The Assurance Companies Act, 1909, defined the undertaking of liability on personal accident, disease or sickness risks as Accident Insurance, so that a British company had to write it through its accident branch. On the other hand, in many overseas countries, including Canada, Australia and South Africa, the insurer was permitted, subject to certain restrictions, to regard sickness and accident business attached to life policies as life business, so that any profit or loss from such business was largely passed on to the life policy-holders through the medium of the bonus declaration.

Two interesting problems arose in connexion with valuation. In the United States and Canada, the reversionary annuity method was usual. In Great Britain, however, the Manchester Unity table was generally used, and that led more conveniently to the collective method of valuation. The reserve values calculated therefrom were based on the proportion sick at each age and duration, so that both active and disabled lives were valued by the same factors. It followed that an adequate reserve for emerged claims was automatically held, provided that the office's experience in the past had conformed with the valuation assumptions in the same way as it was assumed to conform to them in the future. In practice, however, it was difficult to assess the extent to which variations therefrom had affected the position, and therefore most Companies would add a reserve for emerged claims to the collective reserve.

Whilst an actuarial valuation was desirable wherever practicable, accurate calculation might not always be possible for the wide range of benefits of relatively small amount which were attached to life policies. The 40 % reserve for unexpired risk which was normal for annual contracts was, however, inadequate for permanent contracts, and in such circumstances the actuary would have to make the best estimate he could of the additional reserve required to cover increase in age and deterioration in health.

Mr L. W. Collingwood considered that Mr Heath had given a lucid description of permanent or non-cancellable policies designed to provide benefits of the order of 60 guineas a week for professional men—and presumably women, although he had not mentioned them specifically. Mr Hickox had followed with a concise description of various types of contract on an annual or cancellable basis, designed to provide lump-sum benefits for fatal accident or partial disablement from accident, and comparatively short-term benefits for total disablement from accident or disease. Mr Hickox had said that the contracts he had described could be offered to a wider range of the population, but the speaker suggested that in fact the range was limited to people who felt that they were bound to afford the premiums for such policies because of special circumstances concerning their occupation or method of remuneration.

He proposed to widen the scope and consider what provision was offered to meet the needs of that large section of the community for whom National Insurance contributions, added to a contribution to a pension scheme, left little margin to allow for the payment of premiums to insurance companies for policies, whether permanent or cancellable. For them there was the friendly society, membership of which provided a form of permanent contract; in fact, it might be said that the non-cancellable policies of insurance companies had evolved from friendly society practice.

The range of benefits obtainable from membership of a friendly society extended from 5*s*. a week to £10 a week, so catering for the needs of a considerable part of the population. One society with which he was acquainted had extended the term of payment of full benefit. Previously they had paid 10*s*. a week for 26 weeks, 5*s*. a week for the next 26, and 3*s*. a week thereafter. They had changed to 10*s*. a week for the first 52 weeks dropping to 3*s*. a week thereafter, so bringing the benefit payable while incapable of work into line with the total disability benefits for 52 weeks under accident policies. From what he had heard from the previous speakers it seemed that the society might soon have to consider another alteration to bring it up to 104 weeks.

Among friendly societies the scales of contribution and the benefits were many and varied a good deal. There might be a flat rate for contributions and benefits: for example, a contribution of 9*d*. a week with a benefit of £1 a week for 26 weeks, 10*s*. for 26 weeks and 5*s*. thereafter, with a funeral benefit of £10 at death, with entry limited to ages 17–40, and benefits ceasing at age 70; or contributions might be graduated according to age at entry, with a flat rate of benefit similar to that which he had just quoted; or contributions might increase with the age attained by the member, as in the Holloway scheme, with which he was more familiar than with any other.

He thought that a broad outline of one such society would be of interest. The undertaking was on a mutual basis, the members in the districts electing District Committees to assist in the local administration. The district also elected delegates to a Council, at the rate of 1 for every 1000 members. Only members in benefit could vote, and all nominees must be in benefit, by which he meant that they must have paid their contributions up to date and have paid at least 6 months' contributions. The Council was the supreme authority, and elected from its members an Executive Committee; so the Executive Committee was elected by and from the members in benefit.

For membership the maximum entry age was 55 for males and 50 for females. Applicants were considered initially without medical examination, but selection was exercised at the head office of the society. The application form required particulars of age and occupation, a past history of illness and accident, and a declaration of good health, the society retaining the right to call for medical examination. Once accepted, membership was permanent up to age 65 so long as the member observed the rules of the society, which, incidentally, excluded living abroad. The unit of contribution was 2*s*. 6*d*. a lunar month for attained ages 9–30, increasing with each year of attained age from 31 onwards by ½*d*. a lunar month, and rising to 3*s*. 11*d*. at age 64. The corresponding unit of benefit was 10*s*. per week for 52 weeks and 3*s*. a week thereafter, so that the rate of benefit remained level although the contributions continually increased. The range of units available to members was from half a unit to twenty units, so that the benefit ranged from 5*s*. a week to £10 a week; but the maximum benefit, including National Insurance benefit and any benefits obtained

from other friendly societies, was limited to four-fifths of the average weekly earnings.

In that society the balance of income each year, after meeting the claims and expenses and putting by any necessary reserves, was allocated to the individual accounts of the members in proportion to the number of units for which they were contributing. Those accounts were accumulated at compound interest and were payable to the member in full only on survival to age 65 or at his previous death. There was a minimum death benefit of £20, and every member paid an annual levy of 1s. so that the individual accounts of members who died in the early years of membership could be made up to £20. If a member resigned he received only the balance which had stood to his credit two years previously, losing two years' allocations and two years' interest. That discouraged withdrawals. The benefit therefore provided a pure endowment at age 65 independent of the amount of sick pay which the member might have had during the period of disability which rendered him incapable of work.

There was a careful control of sickness claims from head office, and a great deal of the old friendly society spirit was still maintained through the activities of the District Committees, the members of which, themselves members of the Society, assisted in the collection of contributions, the distribution of sick pay and in the organization of a rota of members to take it in turn to act as sick visitors. That was a brief summary of the essential points of what was a somewhat complex organization.

Surprise had been expressed at the small volume of sickness and accident business which was transacted and at the apparent lack of drive by insurance companies to obtain such business. Some concern had also been expressed about the future of friendly societies. The question was, however, to what extent there was need for extra provision under sickness and accident insurance by friendly societies, when it was borne in mind that everyone was included in a national scheme which provided sick pay, industrial injuries benefits, national assistance and a health service, and that large numbers of people had those benefits supplemented by their employers under various sickness schemes.

The most common form of such supplementary benefit was for the employee to receive full pay, less National Insurance sick pay, during incapacity for periods varying with the length of service with the employer. In some cases employers had gone to the extent of establishing formal sickness-benefit schemes. Such a scheme could be either contributory or non-contributory, and could be covered by an insurance company or a friendly society, or administered as a private scheme under a trust deed. If the scheme was underwritten by an insurance company it was covered by an annual or cancellable contract, by means of a group policy, a master policy being issued to the employer and certificates to the employees. Such a policy could be on a non-participating basis, in which case there were no guaranteed rates and the insurance company reserved the right to amend premium rates in the light of the claims experienced from year to year, or it could be on a participating basis, in which case the premiums were on the high side and the surplus of net premiums over claims paid in a particular year was returned to the employer. If the scheme was contributory the employees received benefit from that, but he had no information on whether the fact that the employees derived a financial benefit had any effect in keeping down the claims.

Contributions and benefits could be at a flat rate or related to wage groups. Total *disability was defined as inability to attend to work of any description.*

Membership ceased at age 65, and there were exclusions in the policy for payment of benefit for disability caused by war, riot, civil commotion, aviation other than as a fare-paying passenger, insanity, breach of the law, suicide, intentional self-injury, or injury whilst under the influence of alcohol or drugs.

He quoted two examples of such schemes actually in operation. Scheme A was non-contributory and non-participating. Employees aged 15–64, actively at work on the appointed day, were accepted without medical examination. Future employees from age 15 to age 55, after completion of 13 weeks' continuous active employment, were accepted without medical examination, but those over 55 were not eligible. Benefits were related to wage groups and ranged from £2 to £10 per week for 26 weeks in any 12 months.

Scheme B was both contributory and participating. Again employees from 15 to 64 actively at work on the appointed day were taken without medical examination, and future employees from 15 to 55 after 13 weeks' continuous active employment without medical examination, but those over 55 in that case were accepted subject to a declaration of good health. The contributions and benefits were at a flat rate; the employees paid 1*s.* 2*d.* a week and the employer 1*s.* 4½*d.* For the total contribution of 2*s.* 6½*d.* the benefit was £3 a week for 26 weeks in any 12 months, to which was added a lump sum of £100 for fatal accident or loss of limbs and £20 life assurance. There was a return of surplus each year, and the rebate was calculated as the contributions minus the sum of benefits paid, reserves and expenses. If there was any loss it was carried forward to the next computation of rebate.

A formal scheme covered by an arrangement with a friendly society involved the employees becoming members of the friendly society, the contribution being shared in some selected proportion between employer and employee. Except for the collection of contributions, the administration of the scheme was in the hands of the friendly society.

A private scheme under a trust deed could be registered as a friendly society. Usually there was a flat rate of contribution and benefit, the contributions being shared equally between employer and employee. Such a scheme could be administered jointly by representatives of employer and employees, or even by the employees alone. If the claims exceeded the income, benefits must be reduced, so that the employees had a considerable incentive to keep the claims down.

As an example of such a scheme he quoted a sickness and benevolent fund for hourly paid employees. The employees' contributions were: males, 6*d.* a week; single females, 4*d.* a week; married females, 3*d.* a week. The corresponding benefits were: males £2. 10*s.*; single females, £1. 15*s.*; and married females, £1. 5*s.* a week, all the benefits being limited to 13 weeks in any one year. There was a 1*s.* entrance fee, and 4 weeks' contributions must be paid before the member became eligible for benefit. The employer paid an amount equal to the total of the employees' contributions. The management of the scheme was vested in a chairman, secretary and treasurer nominated by the firm, and two contributory members. There was a further limitation of benefit, in that the benefits from the scheme plus the National Insurance benefits were not allowed to exceed the average weekly wages for the preceding 6 full weeks.

In addition to such formal sickness-benefit schemes, many employers had established pension schemes which provided for 'early ill-health retirement pensions'. Such pensions could be regarded as a form of disablement benefit, provided that it was arranged that the member retired on ill-health pension after

the period of payment during incapacity under the employer's sickness-benefit scheme had ceased.

The establishment of sickness-benefit schemes by employers was by no means universal. Where they did exist, however, the need either for an insurance policy or for membership of a friendly society was limited; in particular, in the case of hourly paid employees it would be practically non-existent.

Another factor having a bearing on the demand for sickness and accident cover was the existence of various schemes which could be put under the general heading of 'hospital plans', designed to give financial assistance when the member or one of his dependants had the misfortune to need hospital treatment. They provided, for an in-patient at a hospital or nursing home, payments towards maintenance in the hospital, fees of physicians and surgeons, anaesthetist, specialist, home nursing and radio-therapy. Within each plan there were usually offered three or four contribution schemes to accord with corresponding maximum amounts of benefit. The rate of contribution in each such scheme was graded according to whether benefits were required for an individual, an individual plus one dependant, or an individual plus two or more dependants. In one hospital plan the rate of contribution was further graded according to broad age-groups—under 25, 25–34, 35–64, 65 and over, the age in each case referring to the oldest person in the group of member and dependants.

While the effect of all the factors which he had mentioned was to limit the extent of the need for individuals to seek further cover, a need for the type of benefit offered by friendly societies still existed where State benefits and employer benefits combined did not produce 80% of the normal income. He submitted, therefore, that insurance companies were not lacking in enterprise with regard to sickness and accident business, but had recognized the limitations of the demand which they could create. On the other hand, there still seemed to be considerable scope and opportunity for friendly societies, whose range of benefits met the needs of a large proportion of the community, and he felt that actuaries could still exercise considerable influence in shaping the future developments of such societies.

Mr Kingsley Read said that the business with which he was mainly connected was the permanent type of policy issued by the life companies, and he thought it was surprising that that had not grown more rapidly over the years. Mr Heath had referred to the difficulty which he had had in getting a fairly substantial policy 30 years previously, and there would probably be the same difficulty still with a proposal from someone outside the medical profession.

He had tried to discover why the business had not grown and he had noticed that it was not popular with the outside staff who had to get the proposals. For one thing, they did not like the strict underwriting which was usually applied to it; they were very much afraid of upsetting their agents who produced the business, and he had heard it said by inspectors from time to time that they would much rather not go after the business at all, as there was the risk of losing a good prospect for a full life policy.

Mr Heath had mentioned the care necessary regarding the occupation of proposers, and he strongly supported his views. Mr Hickox had referred to the indemnity aspect of the policies. It might be true to say that the contracts were not legal indemnities as, in theory, they could be effected for any amount, as could life policies. In practice, however, they should be regarded as indemnities and the benefits allowed should be strictly limited to not more than two-thirds

or, at most, three-quarters of the proposer's income. Without some such limitation there would be a great incentive to claim benefit rather than do an honest day's work.

Mr Heath had dealt with three other aspects about which he was not entirely happy. First, he was not keen on policies with immediate benefit. Mr Heath's statistics were of interest in that connexion, because they showed that the influenza epidemic in 1937 provided about one-third of the claims of his company for that year. They were, presumably, of short duration and, apart from the cost of the claims themselves, the trouble of handling that type of claim would increase the cost of running the business. He would much prefer, therefore, to have a postponement of at least six months if possible for those policies. After all, the professional classes for whom the policies were designed should be able to take care of themselves for a few weeks.

Secondly, he had been interested to hear that Mr Heath did not object to policy-holders living abroad. The usual practice was for the policy to be void on the holder going abroad, and permanent residence abroad would mean the end of the policy. If the residence abroad were only temporary the policy could be reinstated on return home, subject to evidence of health. He preferred that course.

Thirdly, he did not like the idea of trying to exclude certain diseases and disabilities. Experience might show that it did not often lead to difficulty, but he would always be afraid that it might do so; a person might have two disabilities at the same time and there would be the question of knowing which had caused his absence from work. There was only one case in which he might not object to an exclusion, namely, mental disease. Possibly if a person were certified and put away safely in a home there would not be the need for benefit. Nervous diseases generally were difficult cases, and the problem was to some extent bound up with occupation. His own office had always been chary of such types of occupation as that of commercial traveller, where loss of business might lead to mental stress and worry and a long period of claim.

There had been at one time, he believed, a usual limiting age of 60 for benefits for males, but with the current improved health facilities and later retirements it was presumably not inadvisable to go up to age 65. Not long previously he had had an application for cessation of benefit at age 70, but had not felt inclined to go beyond 65.

Mr A. S. Musk commented on the sickness experience referred to by Mr Heath, who had been concerned with the experience of an office dealing solely with doctors and dentists and had shown that, leaving out of account the influenza epidemic of 1937, there had not been a great difference between the year 1937 and the year 1952. The speaker was concerned, on the other hand, with a large friendly society, and had found that since the war the sickness experience had gone up. He believed the reason was the Act of 1948, because when that came into force a number of members of friendly societies withdrew, and that withdrawal had obviously been in most cases selective, which meant that some of the better members left and the society was left with the worse ones. Another factor was that members who were already entitled to a fair amount of benefit became, with the sudden increase in the National Insurance benefit, in effect over-insured, which led to a tendency to malinger.

He had been interested in what Mr Read had said about exclusions. In the friendly society world it had been found that they worked extremely well, but it

had been necessary to limit them to well-defined complaints. For example, hernia was something which often occurred amongst people engaged in heavy occupations, and either a man had hernia or he had not. Ear trouble, eye trouble and so on did not raise difficulties, but in the friendly society world it was not possible to ask for exclusions for more complicated complaints.

It might be worth mentioning that, as a result of the National Insurance Act, some friendly societies made women's membership cease at age 60, to bring it into line with the pensionable age for women under that Act.

Mr J. K. Scholey suggested that in considering the question of sickness insurance, and whether permanent sickness insurance was likely to develop in future, it was necessary to bear in mind that the contracts, if they were to be popular, should fill a particular need. Typical of one end of the scale were the doctors, who were in receipt of fairly high incomes. In the past they had not received pensions, but following the National Health Service Act, 1946, they became pensionable and would, after the scheme had been running some time, be entitled to disability pensions. He wondered whether it would be so necessary for a doctor to have long-term disability benefits if, following disability, he became entitled to a life pension. It seemed wasteful to ask a man to over-insure himself.

At the other end of the scale there were the friendly society members, and there again account had to be taken of changing conditions. The National Insurance Act had been mentioned. The benefits under that Act could not be called large, but at any rate they were bigger than they had been before and, in addition to the benefits under the Act, there were the benefits from the National Assistance Board. The number and scale of those payments were substantial, and it would be foolish for a working man to ignore the fact that he was or might be entitled to those benefits when he planned his sickness insurance. He asked whether a working man should be expected to take out a long-term friendly society contract if it merely duplicated what he could get from the National Assistance Board. For those reasons he thought that for friendly societies and other institutions there was or might be quite a future in short-term contracts, giving benefits for the first 13 or 26 weeks, or the first year. In sickness there was a process of readjustment from full working life to the state of being an invalid, and an additional income over and above that received under National Insurance or from other sources would not only be required for the additional necessities of a sick man but also to cover that period of adjustment. There might be a great deal of scope for benefits on those lines; the works schemes to which Mr Collingwood had referred often gave that type of benefit and when, as often, the firms had pension schemes as well the schemes might well be complementary.

It would be interesting to know to what extent the improvement in experience to which Mr Heath had referred reflected an improvement in selection. The effect of selection could be marked not only in reducing claims but also in increasing them, as Mr Musk had said, and the increase in claims on friendly societies, to which reference had been made, might be due to some extent to adverse selection. He could not say from his own experience that there had been much change either way, and it was too early to say whether post-war claims differed much from pre-war. Claims during the war, however, were lighter than either pre-war or post-war, except perhaps when only short-term benefits were granted.

Dr J. N. Morris (a visitor) expressed his gratitude for the opportunity to be present to hear Mr Heath's address and the other contributions to the discussion. As a doctor, he said, he had heard doctors called many things in his time, but never 'favourable risks for sickness insurance', nor had he heard them described before as 99% honest. He had been very surprised to hear of the dramatic reduction in madness and nervous disorders of doctors, but it turned out to be only a matter of improved selection.

His own interest in permanent sickness insurance came from concern with morbidity. The study of morbidity had been increasing in recent years, in contrast with the preoccupation of public health and preventive medicine in the past with mortality. As mortality rates had gone down, particularly in childhood and young adult life, there had been an increasing interest in morbidity, and particularly in the 'chronic' diseases of an ageing population. That was how he had come in contact with Mr Heath and his colleagues.

There was no doubt that, from the point of view of the research worker, the data available in an office such as Mr Heath's were of the utmost value. He wondered whether he could sometimes detect a feeling that there were other things to do in the office as well as providing data for people such as himself; but for the student of morbidity a society such as the one described was a gold mine. They were interested in the experience of different groups in the population, and they were trying out techniques for the study of heart disease, and so on. In a society such as Mr Heath's there was a group which was highly defined; every single member of it was known, and contact was maintained with all, at any rate up to the age of 65.

That was in marked contrast to experience in hospitals, for instance, where follow-up studies of patients presented many difficulties and cost a great deal of money. In the society it was everybody's business, whether he was a member of the society or of the administration which ran it, to keep in touch, and it was possible to follow the experience of people over many years and obtain the answers to important questions which it would be difficult to ask sensibly in the more ordinary circumstances of hospital work, or of industry, where men with serious illness tended to be laid off or to change their jobs.

It was possible, for example, to ask certain questions such as whether certain diseases were becoming commoner or rarer. Mr Heath had given illustrations of that and had shown the kind of thing that happened. A new fashion in diagnosis was introduced, and lumbago went out and prolapsed disk came in. Doctors felt that there had only been a change in diagnosis, or the adoption of a new fashion; but from the records of a society going back over a number of years it was possible to follow clearly what was happening from year to year.

To take the case of coronary thrombosis, for some reason which he was unable to understand the question of whether that disease was increasing or not raised tremendous heat—almost as much as the question of whether cancer of the lung was associated with smoking. People ceased to be on speaking terms with one another over that; and with coronary thrombosis there was a similar situation and even more feeling, because more people, particularly doctors, knew that they were going to get it.

Whether coronary thrombosis was increasing or not was, however, a most important question, because if there was clear evidence of an increase there might be changes in the ways of life of people and in their environment which were associated with such an increase. To get positive evidence, however, was extremely difficult. It was the kind of work which historians undertook. Numerous

bits of evidence had to be collected and put together. With coronary thrombosis the situation was that, although any single piece of evidence that the disease had increased was in itself probably bad, it was difficult to get any evidence at all that the disease was remaining stationary or in fact declining. Mr Heath's society had co-operated in an analysis of the experience from 1940 to 1950, a period of 11 years, and there could be no doubt that, in the opinion of the people who provided the certificates for the doctors who were members of that society, at any rate, the disease was more common at the end of the period than at the beginning.

More important were the possibilities of finding clues to the causes of those diseases of rising incidence. There was room for much work to be done on those lines, and actuaries could do far more than they were doing. There was, for example, such a question as the importance of various levels of blood pressure found on initial examination for insurance. From what Mr Heath had said—the speaker had not examined all the evidence himself—it would appear that mild forms of hypertension in early life were not associated particularly with cardiovascular diseases in later life. That went against the experience of the American Army, which had made a large-scale study of the matter. It was an observation of the greatest interest which would, if validated for different groups of the population, give some information about the natural history of heart diseases, about which almost nothing was known. Although coronary disease was a major scourge of middle age, for example, next to nothing was known about its etiology. Laboratory workers were making their contributions; but clues might also come from studies of various groups of the population, and the information in the possession of insurance societies could be of considerable value.

Mr C. D. Sharp referred to the fact that in his 1939 paper Mr Heath suggested that permanent sickness insurance was likely to develop in connexion with pension schemes, and said that though there had since been a development of pension schemes there did not seem to have been an equal development in that form of sickness insurance. Other speakers had touched on the reasons for that, the main ones seeming to be that the demand was not there and that insurance companies did not really like the business.

The demand was not there because the self-employed man did not come under a pension scheme, because the lower-paid employee was largely covered by the national scheme, and because the more senior employee continued to receive his salary for long periods of illness. Mr Heath had not touched on, or had only referred indirectly to, the question of the duration of sickness, but he gathered from his remarks that the duration had dropped appreciably. If that were true it would seem that there was not the same need for deferred sickness insurance, at any rate for those salaried people who were going to go on drawing their pay for long periods. Long-period sickness for a salaried man usually meant in the end that the employer must treat him as a special case, and it did not seem likely that many employees would be willing to pay perhaps quite substantial contributions for sickness insurance which they might never need.

Probably most insurance companies which did the business would agree that one or two difficult sickness claims which they had had to refuse could quite easily upset a valuable pension scheme. Mr Collingwood had referred to hourly paid employees. In one scheme—he could hardly call it an insurance scheme—a neat solution had been found after some extremely adverse experience. The

insurance company was paid a fee for administering the scheme, but the whole of the cost was thrown back on the employer.

Mr Heath, when giving his figures in 1939, had mentioned an apparent minimum of sickness at age 42. It would be interesting to know if that minimum still existed.

Mr Hickox had referred to double indemnity insurance. Might it not be that many people had a sense of the extent to which current mortality, particularly in the early and middle years, represented the result of accident rather than anything else. He suggested that possibly those who took that form of insurance were getting quite an appreciable extra cover extremely cheaply.

Mr H. Lockwood (a visitor) said he wondered why the 1893–97 experience of the Manchester Unity was still used. Although sickness generally might have come down only a little, private research certainly indicated that for the age-group over 60 and under 70 the decline had been much sharper; in fact, after the age of 60 there was really no more sickness than from 55 onwards.

Mr C. F. Wood, in closing the discussion, said it had shown that there were many ways of providing benefits in the event of disablement through sickness or accident. There had been mention of annual contracts and permanent contracts, issued by life offices, accident offices, specialist organizations and friendly societies, to individuals and to groups, with life policies and separately from life policies, providing benefits in the form of capital sums, capital sums payable in instalments, monthly incomes, and reimbursement of hospital and similar expenses. The compelling force common to all of those was the realization by the man in the street, and particularly the family man, in existing economic circumstances, of three fundamentals: first, that family life depended on income; secondly, that income depended on earnings; and thirdly, that earnings might cease. Because of that realization, the prudent man made financial provision. Most of the discussions at the Institute in past years had been concerned with the replacement of loss of income, either directly or by means of a capital sum, in the event of early death or old age. The discussion that evening was concerned with the replacement of loss of income through disability on account of sickness or accident.

There had been reference to claims in connexion with that class of business, and it was evident that the problems of underwriting and the problems of claims settlement were bound up not only with those who became ill but more especially with those who for financial or other reasons were not inclined to get well again. He was sorry, therefore, that Mr Heath's interesting details in relation to claims had dealt in the main with the number rather than the duration of claims. When the National Insurance Bill was introduced in 1946 it had been expected that, due to change in benefits and the setting up of the Health Services, there would be an increase in sickness rates. A study of the interim reports of the Government Actuary on the workings of the Act seemed to indicate that there was no evidence that the duration of claims had increased; indeed, it might be deduced that the duration of claims had decreased. On the other hand, one of the smaller composite offices which did a certain amount of annual sickness business told him that there had, in their experience, been a marked increase in the duration of sickness claims since the introduction of the National Insurance Act, and they ascribed that to two causes: first, that doctors were signing off their patients later than they used to do, and secondly, that they were sending their patients to

hospital to a greater extent than formerly. It would be interesting to know whether Mr Heath's policy-holders treated themselves in the same manner.

A discussion on sickness benefits, whether by permanent or annual contracts, was not complete without reference to Canada and the United States. Mr Hickox had referred to Canada, to the cessation of the issue of disability benefits in the 1930's and to the reintroduction of benefits in recent years. Probably on account of stricter underwriting, the amount of business which had been transacted had not been great, but it had not been unprofitable.

The outstanding event in the sickness field in the United States in the post-war era had been the phenomenal growth in the annual or cancellable type of health and accident business, and the largest increase had taken place in the group field, in which the life companies as well as the casualty companies had participated. The total premium income of group health and accident business in the U.S.A. had been a little over two hundred million dollars in 1946, and had just about trebled in 1950. He had not access to comparable figures for more recent years, but one insurance journal published in 1953 had stated that six of the largest United States life offices had a total premium income of over five hundred million dollars from group health and accident business alone.

It was probable that the growth of group health and accident and of group hospitalization benefits followed the natural growth of group pension business. There seemed to have been pressure on the employers by the unions for additional benefits for their members, and a willingness on the part of United States life companies to cover those risks. It might have been in mind that the expansion of private insurance into those fields would forestall a move on the part of the Government to introduce national insurance and national health services of the type familiar in England. The actuaries of several of the largest United States life offices had expressed the opinion that it was difficult to show a profit on group health and accident business, but they believed that with vigilance they could just make the account balance, and that that was the best for which they could hope.

The President (Mr W. F. Gardner, C.B.E.) said that in view of the very able way in which the discussion had been closed by Mr Wood, and the lateness of the hour, he proposed for once to follow the example of their sister body, the Faculty of Actuaries in Scotland, and confine the presidential remarks to the proposal of a vote of thanks to Mr Heath and his two colleagues for putting the subject before the meeting in such an interesting way.

Mr E. A. J. Heath, in reply, said that Mr Kingsley Read and Mr Sharp, who, like Marco and Giuseppe, spoke with one voice, did not appear to like permanent contracts. There seemed no reason why Mr Sharp's argument that not many people were ill for more than six months should mean that policies should not be issued for them; that appeared to be fallacious reasoning. His own office, as he had said, regularly had about 70 people at a time drawing benefit after six months, and there was definitely a demand for that type of benefit. So far as immediate benefit was concerned, with a well-run claims department it was no trouble to deal with an influenza epidemic.

There were many exclusions which would not have to be put on for deferred benefit, but which were necessary for immediate benefit, because the claims were not likely to last for more than six months. For instance, duodenal ulcer led to

frequent claims, but they did not last six months. He agreed with Mr Read that the mental cases were worse from that point of view.

He was glad that Mr Musk had supported him by saying that exclusions worked well in practice. Mr Musk had said that the experience had been worse since the advent of National Insurance; the experience of his own organization was specialized, but they had not found that.

He thought he could conscientiously say in reply to Mr Scholey that he had been handling the underwriting of business for over 20 years with the same medical officer, and he did no think that there had been much change in their basis of selection.

On the question of the Manchester Unity experience, he agreed that the number of people becoming sick did not vary much with the age, but of course, the duration did increase as people got older.

He had been interested in Mr Wood's remarks about Canadian and American business. So far as their own experience of doctors was concerned, he did not think that the advent of the National Insurance scheme or the National Health Service had had the effect which they had expected. Reference had been made to disability pensions for doctors in the National Health Service. Doctors could get such pensions, but they were payable only for permanent total incapacity, and it was necessary to have been in the National Health Service for 10 years to be entitled to such a pension. It was, moreover, rather small, and the doctor had to supplement it by private insurance.