

INTRODUCTION

mutual synthesis with its environment'. Our attention is thus now focussed on the study of synthesis in the material and physical field. That seems to us a step forward, leading us to development of a new technique for observation, measurement and experiment.

From what is called the practical point of view, this result would hardly seem to justify the outlay of time and money involved. But, having failed to find material ready to hand, we naturally had to turn aside from our main issue, health, and attempt the re-conditioning of the only material available. Thus this report is largely concerned not with our main purpose but with the incidentals to that endeavour—with the sick and their rehabilitation. We believe that this has led to many technical and factual advances of more general value and application.

Thus, as in so many other scientific investigations, it is the incidentals that may prove of the more immediate practical value and more especially perhaps the incidentals of the new technique evolved. Technological advances are so often the first results of any scientific inquiry. It is because of that that science is too often praised or blamed for advances that are merely technological, and the technologist credited with the scientific spirit, so that scientific truth tends to become buried in material values. Our age is talked of as a scientific age, for example, when it is in fact a technological age. Not that there is no virtue in technology, for the true technologist worships efficiency and never rests content until he gets out all he puts into his machine.

The technologist's field up to now has covered only the physical and the material. He cannot go far in human affairs until the scientist has again given him, as well as the technology of the machine itself, knowledge of what to put into the machine and of what to expect out of the machine.

Man's vaunted 'conquest of nature' is the expression of a power complex—vain humbug. Nature is that which we *obey*. The scientist is deciphering the rules we have to obey. Every rule disclosed has had within it its own power to ensure obedience. This might stand for a description of progress or evolution. We must strengthen our humility to hasten the era of a *greater* obedience; for nature keeps no secrets—only we have the blindness of our own complacency.

FOREWORD

A LAYMAN'S COMMENTARY

The scientist is quite happy collecting facts, or what he thinks are facts, and drawing theoretical conclusions from them, which he then enjoys testing by collecting more facts and matching the actual outcome against the theoretical forecast. He is quite unconcerned with whether his findings are used, misused, or neglected. (It is the layman through the scientist, not the scientist through the layman, who has developed the horrors of modern scientific warfare.) The layman's interest, therefore, in this report will not be in its ultimate sublime truth, but in just how much can be got out of it now for him and for society, either on a long view or on a short view. If the doctors had discovered that caviare and old brandy formed the only really suitable diet for the growing child, it would have been a discovery to them of the greatest scientific interest. To the layman it would be simply irrelevant, as, under any economic system you like to postulate, the supplies of caviare and old brandy could never be sufficient to cover the whole population of growing children.

The scientist is also limited by the fact that he feels that he can only act on scientific information. The layman is not so limited. In this report the doctors are most careful to state that the conclusions can only be valid in respect of the small sample of the population actually dealt with, and that the numbers are too small for statistical generalization. But the layman must realize that the findings have a very wide *probable* reference, with certain allowances for different conditions, to the rest of the country.

FOREWORD

The layman, then, is not primarily concerned with the findings of the scientist except in so far as they bear directly upon his own problem of living under 1938 conditions. But nor is he bound to ignore the scientist's findings simply because they are 'statistically non-significant'.

We start with a premiss which few will challenge—that health is one of man's greatest assets. We are concerned, therefore, with how to give our members the opportunity to maintain and develop their health, and how to detect and suppress the first signs of illness. On the first point science is ill-equipped, so that our object there is research. On the second, the diagnosis and treatment of disorder in its early stages, science has a fund of knowledge with little opportunity to apply it. Our object here is to apply what knowledge we have, and to extend it by practice and experience.

1. First, is the long-term research worth doing? Is it worth collecting money so that scientists may try to study health? There could be no point in studying health if it were no more than the absence of disease, as there would be nothing to study. Does the report convince us that there is something positive in health, that there is a quality emergent from the harmonious functioning of the undiseased organism which *can* be studied? Here I think a case has been made which, though unproven, is worth investigation. It is reasonable to believe that health is different from mere absence of disease, and therefore it is reasonable to undertake a study of health. But reasonable is not enough—is it likely to be useful? It is clear from the remarks in Section III that, if the health standard of 100 per cent haemoglobin had not been adopted, the extraordinary prevalence of worms would not have been discovered. So the study of health can have even a clinical value. This is shown again by the very interesting remarks on nutrition. Starvation has been studied and reported upon again and again in the last few years, by governments, by the League of Nations and by private individuals. It is not until nutrition is studied in apparently healthy material that we find the heavy incidence of malnutrition among the well fed, and that we begin

FOREWORD

to realize that the physiological utilization of the food is almost as important as the food itself. This implies that though the supply of a sufficient quantity and quality of food is a necessary factor in the building up of a healthy individual, it is not by itself a sufficient factor.

It is also clear that the general condition described as 'hypotonia' would not have loomed so large had not the angle of the investigation been the health angle. The hypotonic seems to fill exactly the hypothetical position of the man with no trace of disease and yet with no sign of health in him. Study of this hypotonic condition amounts to an indirect study of health itself, and seems an obvious and necessary piece of research. From the immediately practical point of view, too, it seems that it might have a direct bearing upon the problem of the birth rate. As this question is of real importance to-day, it is urgent that anything which even seems to be relevant to it should be followed up closely.

But, particular considerations apart, the study of health is obviously worth pursuing on general grounds. We know nothing whatever about ourselves and our society beyond the fact that an extraordinarily high proportion of people seem unable to adjust themselves to modern conditions of living. There is urgent need for the study of society and society's problems; sociologists are beginning to study these problems and are receiving increasing help and encouragement in their work. But society must be studied not only as an organic unity, but also in its composition. From a biological angle, at any rate, it is composed of families. So that the Centre's study of the family in its environment is one of the studies most essentially needed to-day.

'We are victims of the backwardness of the sciences of life over those of matter. The only possible remedy for this evil is a much more profound knowledge of ourselves. . . . Since the natural conditions of existence have been destroyed by modern civilization, the science of man has become the most necessary of all sciences. . . .

'In order to develop definitive knowledge, experiments on groups of human beings should be started under such conditions that they could be continued by several generations of scientists.'—Alexis Carrel: *Man the Unknown*.

FOREWORD

These words of so distinguished a scientist as Dr. Carrel, together with the findings and hypotheses in the report, should be enough to convince us that the long-term study of health and of the family in its environment is a study which *cannot* be a waste of time, and which on the contrary should have been begun generations ago.

2. Second, has anything of value emerged from the short-term research, the survey of the families that have come up for overhaul? The report tells us that in eighteen months 1,530 people have been examined, excluding babies; in 9% nothing wrong can be found; 8% are diseased and already under treatment; 83% have something the matter and are doing nothing about it. Of this last group, some are aware that something should be done for them, but are not yet sufficiently uncomfortable to take action; the majority are unaware that they are less than perfectly healthy.

The only way of evading the urgency of these figures would be to maintain that the 83% was mostly made up of trifling disorders which were of no importance. It is true that the incidence of serious disorder here is only 1 in 10. (Even this is high for mostly unsuspected and wholly untreated conditions.) But many of the remaining 9 in every 10 conditions are such as are known to grow into serious disorder over a period of years, and at the least to lead to premature social incapacity.

To what extent can these minor maladies be put right? The interesting fact here for the layman is that, on the second overhaul, it is rare to find any minor maladies at all. This is not to say that the individual would be considered healthy; he might have been, for instance, hypotonic, and his hypotonia might be quite unimproved. But the list of things which could and should be put right by the application of existing knowledge will, in 90% of the cases, be found to have been put right. None of these adjustments would have been undertaken at all but for the Centre's regular overhaul. All of them have been effected through the existing services (panel-doctor, hospital, specialist, or in some cases our own research department), or through the home in consultation with the Centre doctor (e.g. questions

FOREWORD

of diet may be solved by the doctor and the wife in conference), or through the facilities for exercise and social activity in the Centre itself (e.g. the many cases of men who are overweight and who put themselves right by regular swimming and a diet). In each case the thing has been dealt with, and would not otherwise have received attention.

Now any good doctor, given reasonable equipment, the leisure to do his work properly, and the opportunity to examine his patients regularly, could detect and remedy a great many of these minor disorders. No unique powers are claimed in this report. But the Centre doctor has three great advantages.

(1) He sees the patient regularly. Ordinarily the sufferer will not approach his doctor until he is suffering from a major rather than from a minor malady.

(2) He has a well-equipped laboratory at his disposal. The average general practitioner is pushed out into the world with nothing but a stethoscope.

(3) He is in a much better position to conduct his overhaul because he sees and knows the whole family.

(All these points are fully discussed in the report, and need no further elaboration here.)

So that the health service at the Centre not only reveals a most disturbing state of affairs, but in a couple of years has at least made a start in remedying it, as far as the material submitted is concerned.

3. *Is the scheme practicable?*

We have to consider whether the organization of the Centre is one which will affect a large enough number of families, and can be run in an economical enough way, to bring it out of the category of caviare and old brandy. We all know that sufficiently lavish spending of money and attention on people may be expected to produce *some* benefit for them, though, as any charitable worker will tell you, the dividend of benefit is apt to be surprisingly small. So we must ask, is the organization of the Centre capable of sufficiently wide application and of sufficiently economical running to make it of more than academic interest?

First, we must consider whether some such organization

FOREWORD

as the Centre is necessary at all for such work, whether, for instance, existing services, such as the Health and Education Services, could not cover the ground equally well. We find that the existing services, however they might be extended and amplified, make no allowance for continuity between doctor and patient. One doctor is present at confinement, another sees the child at the welfare centre, a third inspects him at school, a fourth looks after him at the factory, and if he is laid off work he is treated by his panel doctor, while it is probably a doctor at the hospital who gives him his death certificate. There *can* be no continuity.

People will not submit themselves for overhaul when they think they are well unless it is made very easy for them. They will only go to a doctor who is in some sense their own employee, and it is probably almost essential that he should be housed in a building where they go often for their own recreation.

Much of the remedial work done at the Centre depends directly on the facilities for physical, mental and social activity provided in the building itself. This was abundantly proved at the small experimental Centre where no facilities were provided and where the work was seriously cramped in consequence.

So we must conclude that some such organization as the Centre is essential if the service we are discussing is to be provided.

Secondly, has the organization any value apart from its value as a means of collecting material for the doctors? Even from a social and educational point of view, the Centre is a most important experiment. The free association of families in one building and the provision of opportunity without leadership, particularly among the children, may well combine to form a new approach to social education. One county educational authority has already had the vision to pay the salary of a warden of a community centre, and it is to be hoped that such a wide definition of the word education may be freely adopted in official circles.

But once again, even this aspect has a direct bearing on to-day's problems.

We find in some cases that a child who will neither take

FOREWORD

part in organized gym nor in free gym nor in swimming will change his attitude when his minor maladjustments are disclosed and dealt with (for example, when he is cured of worms). At the moment the Government is spending money providing facilities and training leaders for physical education. The scheme is plainly a good one as far as it goes, but even its most sanguine admirer will not expect it to affect any but that minority already partial to healthy exercise. By all means let us provide facilities for those who want them. But let us not stop there. We must try to find out why so many do *not* want them, if the scheme is to have any national significance whatever. For instance, what about the 83% of our members who have each something which needs adjustment? Are we to push them into the gym and leave them there?

Surely three things are required at the moment, and the Centre supplies them all. First, an inquiry into method. Second, a technique for applying the knowledge we already have. And third, an organization which will bring the people voluntarily to the means of fitness.

Let us pause for one moment to consider finances. The subsidy required in 1937 to run the Centre was £4 15s. per head per annum. This can certainly be reduced, by increased membership, to between £1 and £2, and can probably be wiped out altogether. But even at its present figure it can be seen to be a not unreasonable expenditure. Using the figures in the P.E.P. Health Report, we find that the annual loss through absence from work owing to illness is £100 millions. Add to this the annual cost of treating and maintaining the sick, £175 millions,* and we get a total of £275 millions, or over £6 per head of the population. When we appreciate that spending on prevention and preventive measures amounts yearly only to £13 millions or about 6s. per head, and Government research to no more than £200,000 or just over 1d. per head, we begin to see that our figures of under £5 per head may not be so extravagant.

But is there any chance that the Centre can be made self-supporting? The number of families is increasing steadily,

* Excluding the figures for Workmen's Compensation, mostly due to accidents.

FOREWORD

which means that the net loss per head is decreasing steadily. There is little doubt that it *can* be made self-supporting, given time to grow and develop at its own pace. There is *no* doubt that it should be given the chance to try.

The report amounts, then, to a clear-cut challenge. It reveals a most unsatisfactory state of affairs. It shows how this can be remedied up to the existing limits of medical knowledge, and how, by experience and experiment, these limits can be extended. The Centre should be a permanent research station into the origin and treatment of minor maladies, and at the same time should continue its inquiry into how to develop health and thereby forestall the onset of disorder.

But even this is not all. The Centre is already one form of the long-term experiment which Dr. Carrel asks for in the words quoted above from his book. And from the Centre can be laid down and developed a technique which can be applied elsewhere in the country, *mutatis mutandis*, so that the Centre health service can become an integral part of the national drive for a fitter Britain.

Without becoming rhapsodical, it does seem that the Centre's success would have unusually useful and far-reaching results. Millions of money are wasted annually through illness. Millions are spent each year on research into treatment and diagnosis. This knowledge, so expensively acquired, is then distributed among the sick, who are already past any chance of real rehabilitation. Is it too much to ask that fifty or a hundred thousand be spent a little more carefully? That we try to find a method of distributing the very considerable knowledge we already have, instead of waiting for the socially incapacitated wreck to knock at the doctor's door? It does not take much intelligence to see that money spent on prevention and research is a better investment than money spent on trying to patch up material which is spoilt and which need never have been spoilt. The £5 per head which we are spending must be worth £20 at the other end of the journey.

Summary of Argument

1. The Centre has begun a valuable long-term research

FOREWORD

into health. This research has already produced incidental information bearing on the problems of nutrition and the birth rate, and is collecting and sifting data which may be of the greatest social and medical importance.

2. The Centre has surveyed a small average section of the population, and has disclosed an alarming incidence of unsuspected serious illness, and a still more alarming incidence of unsuspected minor disorders.

3. The Centre has made good headway in getting the major illnesses referred out for treatment, and in finding, from the existing services or from its own facilities, remedies for the minor conditions.

4. 1, 2, and 3 have been made possible by the Centre organization, and could not have been accomplished, it seems, in any other way.

5. The Centre organization, a family health club, seems to have great possibilities in itself of a social and educational kind, quite apart from health considerations.

6. There is every chance that, given time, the service provided by the Centre can be put on a self-supporting basis.

7. The subsidy per head at the moment, when the Centre is at its most expensive and experimental stage, is £4 15s. per head per annum. This must be contrasted with the figure of over £6 per head of the population wasted annually through illness.

The implications

1. The research into health is already sufficiently fruitful to justify the making of further experiments along similar lines, independently and elsewhere.

2. The regular overhaul and health supervision is of such obvious value that some attempt should be made to incorporate it as a service (omitting the research side) in existing community centres, on a voluntary basis. At least no new community centre should be planned without catering for some form or other of this service.

3. This Centre should be used as a training centre for medical and social workers attempting this work.

4. Such questions as nutrition, the birth rate, the campaign for physical fitness, should be approached through a

FOREWORD

study of the normal man in normal surroundings. Action based upon careful research is more likely to be effective than mere *re-action* to popular outcry.

5. Above all, the Centre must be allowed to continue its experiment, and money must be provided to make this possible.

INTERIM REPORT ON THE WORK OF THE NEW CENTRE 1935-1937

This is a progress report on the work of the Centre, written primarily for those who have given us their support and encouragement. It is not a scientific statement of conclusions, but a presentation of hypothesis, of procedure and of technique, together with an analysis on broad lines of the material which came under review during the first eighteen months. Any conclusions that may be drawn will apply only to the limited populace of the Centre.

Every experiment has its own basic procedure dictated by the material under observation. So it is with this experiment. The basic procedure has three defined steps:

1. To discover the method of collecting, and retaining for observation and study, human material as *families*.
2. To disclose the present condition of that material by systematic overhaul—that is, to sort out the healthy from the unhealthy.
3. To study the physiology of the healthy.