

EPIDEMIOLOGY IN COUNTRY PRACTICE

BY

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WITH A PREFACE BY

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P R E F A C E

IN a book of mine I spoke of William Budd as "almost the last of the old race of epidemiologists", and, in his charming biography of that great man, my old friend and teacher, the late Dr. E. W. Goodall, objected to the phrase. It was, perhaps, an unskilful one, because it might be interpreted to mean that Budd was a believer in theories now obsolete. That was not my intention. I meant that Budd was one of the last of those physicians who did their own epidemiology, and were not content to sow for others to reap. Happily, Dr. Pickles is proving that even in the sense I intended I was wrong. The old race of epidemiologists is *not* extinct. We have indeed had to wait a long time for a second Budd, but I think we have found one.

I know that one's judgement on the work of a friend is partial. In reading this book I cannot altogether escape from an atmosphere of pleasant memories: memories of happy hours in Wensleydale both with Dr. Pickles himself and with a very dear comrade dead these many years; memories of Dr. Pickles' literary affinity, dear old Gilbert White. Still, intellectual self-esteem encourages me to believe that I am not mistaken in holding that the publication of this book is an important event. Not only does it make positive contributions to epidemiological knowledge, but it holds out a prospect of still greater successes. It clearly expounds a method which many men can apply.

I am not alone in regretting the segregation of what are called researchers. Although we have been called a nation of amateurs, we do not value amateurs as we should;

'amateurish' is an adjective of scorn. I know that in some kinds of research professionalism is inevitable. Even in epidemiology we must have 'experts' of different kinds. But these experts are no wiser than amateurs, and the mere fact that they are experts deprives them of many fruitful opportunities.

I firmly believe that, just as tropical epidemiology received its greatest stimulus from Manson the 'doctor', so will the epidemiology of our own country receive a fresh impulse from discoveries made, not by experts, but by medical practitioners working patiently on the lines of Dr. Pickles. *Magnus ab integro sæclorum nascitur ordo.*

MAJOR GREENWOOD.

INTRODUCTION

PARTS of this book have from time to time appeared in papers published in medical periodicals, and I have to acknowledge with gratitude the permission, readily granted, of the editors of the *British Medical Journal*, *The Lancet*, the *British Journal of Children's Diseases*, and the *Proceedings of the Royal Society of Medicine* to make use of these contributions.

It also affords me much pleasure to acknowledge my sense of indebtedness to Professor Major Greenwood, firstly, for his invaluable help in reading through the manuscript and making many useful criticisms and suggestions, and secondly, in consenting to write a preface ; to Professor W. B. R. King, of London University, for the details on the geology of Wensleydale, and for the accompanying chart ; to Miss Mary Kirby for the epidemiological charts, the plan of the district, and the sketch on page 36 ; to Mr. Eric Barwell for the three photographic illustrations, which I believe I shall be forgiven for describing as very beautiful. While these illustrations are included primarily for the purpose of assisting to explain the geology of the neighbourhood, they serve a further purpose in that they afford some charming views of our lovely dale, a circumstance which cannot be altogether irrelevant even in a book devoted to epidemiology ; and lastly, my thanks are due to Mr. J. J. G. Lodge and Mr. R. M. Chapman for extracts from Askrigg parish registers.

The aims of this book are sufficiently explained in the chapters that follow to render an introduction virtually unnecessary, but some explanation of the large amount of space devoted to epidemic catarrhal jaundice and epidemic myalgia

is needed, for the "gleaning of hedge-side chance-blades" such as these in face of the "full-sheaved cornfields" of the commoner diseases may seem somewhat disproportionate.

My experience of these two diseases in particular illustrates the opportunities offered to country doctors for epidemiological observations, and to all general practitioners for clinical observations. It has been my duty to attend a large number of sufferers from the first of these diseases. I have put down my observations to the best of my ability, but I feel that these are, considering the relatively large numbers of patients, woefully inadequate.

The general practitioner is in the forefront of the battle, and his experience must necessarily be personal and vital. No consulting physician can ever have the opportunity to follow the whole course of such a disease as epidemic myalgia in the same way as the general practitioner, because of the latter's more intimate association with his patients.

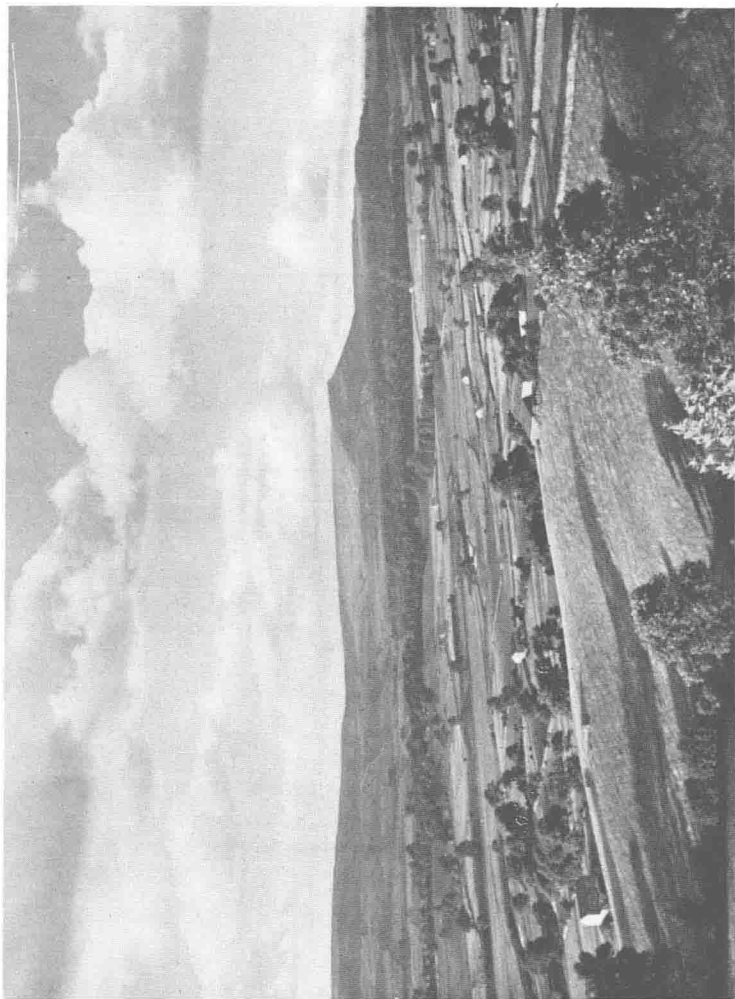
In dedicating this book to the people of Wensleydale, I cannot acknowledge too warmly the encouragement and help of my many friends in this neighbourhood in its preparation. Some of the patients who have provided material for this book are no longer alive, some have left the district, but most are still with us. As a chart-keeper, however, I am in a position similar to that of the Recording Angel, the entries in whose book would probably convey little even to those whom they intimately concern.

While I feel that there is nothing in the following pages to wound the feelings of the most susceptible, if by any mischance there is, I ask forgiveness.

W. N. PICKLES.

Aysgarth, Yorkshire.

May, 1939.



BROAD WENSLEYDALE

PUBLISHER'S NOTE

When this book was first published in May, 1939, it was quickly recognized as being one of those rare books which are destined to become 'classics'. The demand was regular and continuous until April, 1941, when unfortunately the entire bound and sheet stock and the type were destroyed by enemy action. Since then there have been many requests for a re-issue, and it is in response to these numerous appeals, and because the Publishers feel that the book is so obviously worthy of re-publication, that they have had it entirely re-set. No changes were considered necessary, and the book remains virtually the same as when first issued.

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EPIDEMIOLOGY IN COUNTRY PRACTICE

CHAPTER I

AN APPEAL

A GIPSY woman driving a caravan into a village in the summer twilight, a sick husband in the caravan, a faulty pump at which she proceeded to wash her dirty linen, and my first and only serious epidemic of typhoid, left me with a lasting impression of the unique opportunities of the country doctor for the investigation of infectious disease. This incident showed me clearly the ease with which the *fons et origo* of an epidemic could be traced in the country and the simple steps that were sufficient to bring it to an end. As in the Broad Street pump episode, in which John Snow played so prominent a part, the pump was rendered inoperable. On this occasion the handle was chained to the pump, where indeed it remains to this day, and there were no more primary cases.

It was many years after I had realized this peculiar opportunity of the country practitioner that I read in William Budd's *Typhoid Fever*: "It is obvious that the formation of just opinions on the question how diseases spread may depend less on personal ability than on the opportunities for its determination which may fall to the lot of the observer. It is equally obvious that where the question at issue is that of the propagation of disease by human intercourse, rural

districts, where the population is thin, and the lines of intercourse are few and always easily traced, offer opportunities for its settlement which are not to be met with in the crowded haunts of large towns.

“This is one of the cases in which medical men practising in the country have for the acquirement of medical truths of the highest order, advantages which are denied to their metropolitan brethren, and which constitute, on the whole, no mean set-off against the greater privileges of other kinds which the latter enjoy.”

I cannot better support the appeal I am attempting to make to country practitioners than by continuing to quote from this unique work:—

“Having been born and brought up in the village, I was personally acquainted with every inhabitant of it; and being, as a medical practitioner, in almost exclusive possession of the field, nearly every one who fell ill, not only in the village itself, but over a large area around it, came immediately under my care.

“For tracing the part of personal intercourse in the propagation of disease, better outlook could not possibly be had.”

William Budd shows how, in his position as a country doctor, he was able to collect the evidence which led him to the conviction that typhoid fever was a communicable disease, and particularly that the unknown specific infective agent could be conveyed by a water supply from one patient to another. His views were looked upon as peculiar and he himself as cantankerous, but in time the truth, derived as it was from careful observation, was acknowledged by most of his contemporaries. It is unlikely that discoveries of such magnitude will fall to the lot of the country practitioner of to-day, but there is much even now to be done to enrich our

knowledge of the infectious diseases, and careful 'natural-history' observation, undertaken over long periods, will inevitably add to the sum of that knowledge.

In a former essay I wrote of a memorable evening in early summer, when I stood on the summit of one of the noble hills of Wensleydale, and watched the 'eight' train creep up the valley with its pauses at our three stations. In the north-east, Mary Stuart's early prison, Bolton Castle, was lighted up by the setting sun, the attractive little lake, Semmerwater, appeared to lie at my feet, and one by one I made out most of our grey villages, with their thin cloud of smoke. In all those villages there was hardly a soul, man, woman, or child, of whom I did not, and do not, know even the Christian name, and every country doctor of long standing could say the same of his own district.

It is therefore no idle boast for us to say that we stand on a strategic pinnacle for the investigation of infectious disease. Moreover, country doctors tend to remain in one practice and to become part of their district. There is something in country practice—I believe it is the deep bonds of friendship which exist between doctor and patient—that breeds content, and it would be unthinkable in most of us to change our habitat. Also we do not readily retire, and keeping before us always the fate of Milton's carrier, Hobson, have it firmly rooted in our natures that retirement makes for early death.* This wide personal knowledge and love of the country in which we live fit even the most commonplace of us for epidemiological research, and I have known several country practitioners with useful knowledge to impart, gathered from their own observations, but who considered it too

* Ease was his chief disease and to judge right,
He died for heaviness that his cart went light.

trivial even to write down, much less to publish. Nothing, I believe, is further from the truth, and by withholding these observations from the public, these men are damming up sources of information that are among the only accurate ones from which such information can be drawn. It is probable also that these opportunities will not remain available indefinitely as communication with the outside world in these remote districts increases with improved methods of transport.

At the present time, for many of us, these advantages do hold good, and the origin of an epidemic is nearly always traceable. The daily, even hourly, exposure to infection so easy to ascertain gives us the opportunity of fixing the incubation period and the infectivity period in a way which is withheld from our town brother. Without conscious effort the country doctor knows all about his patients. My old anatomy teacher used to say that we should learn our anatomy as a cabby learns London, and in the same way it is no effort to know the ins and outs of our simple country happenings. We know a great deal about each other in country districts, and the village doctor, with his numerous friends and acquaintances—well over three thousand in many practices—has probably a greater knowledge than any other single inhabitant. He knows the relationships, friendships, and love affairs of all his patients, because he is interested in the people and they are a major part of his life. He knows the markets they frequent, the schools which their children attend, and the memorable trips to the seaside or the pantomime. The annual feast is not quite a thing of the past, although in most of our villages it is now merely a memory of what has been. Every year the inhabitants of one of the villages, with due solemnity and ritual, burn the effigy of their patron saint—St. Bartholomew being thinly disguised as “Old Bartle”—and

a large gathering from all the district round about assists at this ceremony. Something like a revival of the old carefree gaiety of pre-war days was seen in the Silver Jubilee and Coronation celebrations, but it is a melancholy reflection how often these and similar festivities have been responsible for the spread of infectious disease. A short time ago, isolated cases of diphtheria were occurring in young people who seldom left their homes. Every one of these had gone joyfully to a dance or a fair about three days before he or she was stricken, and that joyful occasion provided the only possible source of infection. To discover the carrier is no easy task, but to immunize a large proportion of our dalesfolk against this disease—for of naturally acquired immunity there appears to be little—seems to be the remedy against future incidents of this nature.

The object of this book is primarily an attempt to stimulate other country doctors to keep records of epidemic disease and to put before them the unique advantages that their position gives them, to impress on those interested in epidemiology the value of the natural-history method of investigation of these diseases, and to awaken some interest in the layman, whose help in these matters cannot be over-estimated.

I personally cannot acknowledge too gratefully the help I have received in my own investigations from my patients. Possibly our country people are unique in their intense interest in illness, whether in their own families or in those of others. During the outbreak of Sonne dysentery in 1931 three villages were affected, and I should never have traced the infection between these villages had I not had the help of a shrewd observant fellow of whose family the disease took its toll and who had decided correctly in his own mind how the malady had reached the village. In this very epidemic I was trying

to gather information from a mother in one of the affected villages, whose numerous offspring were grouped around her, when we were interrupted by the piping voice of her youngest son, aged 3, who was taking it all in, with "Jack S.'s got it, too". "Jack S." was an elderly giant, with whom all the children were on intimate terms, to which he doubtless owed his infection. This apt remark out of the mouth of a babe and a suckling gave me a useful clue on the spread of the disorder. During the earlier jaundice epidemic, one useful man actually had the initial symptoms of some of the patients in his family, whom I had not seen, recorded in his diary.

It requires very little encouragement to transform the school-teacher into an enthusiastic epidemiologist, and I take this opportunity of thanking those in charge of the schools in my neighbourhood for all the help I have received from them. It is very profitable to pay a visit to the school, and the attendance register will give most useful information.

For many years I have had a helpful ally in the headmaster of our grammar school. He is especially anxious to keep his school free from infectious disease, but even his zeal is sometimes powerless to prevent the school from acting as an exchange for the transmission of infections, for the children come from far and wide, miles out of our area. A few years ago we were particularly successful in stemming an epidemic of mumps. One morning, however, when the master asked a small girl why her face was swollen, she answered: "My mother thinks I've got mumps, but I don't." Thereafter the infection worked its will in the school.

This book is in no sense intended to be a text-book on infectious disease. It would be ludicrous to expect the information gained in a few years of investigation in one practice to provide knowledge which would materially alter

the conclusions, reached from a multitude of sources, in our text-books of medicine and infectious disease. I do, however, affirm that, in the determination of incubation period and the duration of infectiousness, the country practitioner is peculiarly favourably situated, as that short and only possible exposure is often so easy to discover. In my early days of practice in Wensleydale, twenty-five years ago, there were people in that district who had never been in a train, and even to-day many, especially women, seldom leave their homes; it is therefore possible for me to state definitely that such a one suffering from an infectious disorder could only have been infected on a certain date. In some instances, when the infecting patient is definitely known and the stage of the disease from which he is suffering is known, it is possible to say that that particular stage of the disease is an infectious stage.

Recently I had a very good instance of this: An elderly man commenced with symptoms of herpes zoster on Sept. 23. I was unable to find any possible avenue of infection in the neighbourhood, but one morning he showed me a letter from his son, who lives in a large seaport on the east coast, stating that his own little boy (6) had also suffered from herpes zoster.

It then transpired that my patient had spent the night of Sept. 9 at his son's house and had been in contact with the little boy on Sept. 9 and 10. This gives an incubation period of thirteen or fourteen days, and as the little boy commenced on Aug. 24, he was manifestly infectious on the seventeenth or eighteenth day of his disease.

My own opinion, based, as I freely acknowledge, on a very limited experience, leads me to believe that incubation periods, and, in the case of some diseases, infectivity periods, are much more definite than the writers of text-books would

have us suppose, but what is required is the pooled information from a large number of practices similarly situated.

Work on the lines of the School Epidemic Investigation of the Medical Research Council could well be undertaken by a number of doctors practising in remote districts in different parts of the country, and I would respectfully suggest the organization of such a service to that Council, as a necessary corollary to their present inquiry. Failing such an organization, I would like to make a strong appeal to any country practitioner who is interested enough to read this book to record all the information he can gather on the subject of epidemics.

Sir James Mackenzie wrote emphatically on the advantages of general practice as a medium for research, contending that it was the family doctor who alone saw disease in its true perspective, as he had the advantage of observing early symptoms and following an illness from beginning to end. In a similar way the country doctor is able to see an epidemic in its true perspective, as he can follow it from the very first patient to the last, see the epidemic as a whole, and trace accurately the spread of infection.

An enthusiast does not always realize that what is of profound interest to himself may evoke only an amused tolerance in others. Those who are not dog-lovers find it hard to take seriously the affection lavished by neighbours on their dogs. I cannot, of course, write too vividly of the interest which this study of epidemics has brought to me personally, quite apart from the conviction that it must inevitably lead in some small way to an addition to our knowledge of epidemic diseases. A large number of country doctors have been known to me, and many of them have had absorbing hobbies. Two great friends of mine were archæologists of