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**MENTAL ILLNESS IN THE
COMMUNITY**

**The Pathway to
Psychiatric Care**

**DAVID GOLDBERG AND
PETER HUXLEY**

 **Routledge**
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THE PATHWAY TO PSYCHIATRIC CARE

David Goldberg and Peter Huxley

Foreword by Michael Shepherd



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Professor Michael Shepherd of the Institute of Psychiatry of the University of London has kept us informed about the research programme carried out under his supervision at the General Practice Research Unit, and provided the facilities for the development of the General Health Questionnaire. Our conviction that those who wish to study psychological disorder in community settings should concentrate their attention on events in the family doctor's office, and our interest in social variables as determinants of the course of minor psychiatric disorders can both be traced to research carried out by the GPRU.

We make no apology for having seized the opportunity of writing this book to set forth the programme of research carried out in the past decade in the Department of Psychiatry at the University of Manchester. It is not easy for readers of our various publications to see how one study relates to another, or to appreciate the viewpoint which informs our research

strategy. We have tried to give a reasonably comprehensive account of the context in which our research has taken place, but inevitably we will have omitted many studies and given very brief descriptions of others.

We are indebted to the family doctors in Philadelphia, Manchester, and Charleston who collaborated with us on the three surveys reported in Chapter 4, and to the many patients who have completed questionnaires and allowed us to interview them, and we would like to thank M.E. Sharpe, Inc. for permission to reproduce the portion of Chapter 8 originally published in the *International Journal of Mental Health* in 1979.

Manchester 1979

Foreword

The term 'community psychiatry' has gained increasing acceptance in recent years. While its precise meaning has been disputed, most workers in the field would probably subscribe to the view expressed at a recent symposium devoted to its critical appraisal, namely that it be '... identified as the best possible clinical care delivered to individuals and to population groups in community settings. Services are delivered in communities and their institutions rather than within the setting of total institutions (state hospitals, asylums etc.).'¹

The emphasis here is on the major psychiatric illnesses, particularly the schizophrenias and the affective disorders. In line with this opinion the principal concerns of community psychiatrists have been with the extramural fate and management of psychotic patients who were formerly regarded in largely institutional terms. Paradoxically, most community psychiatrists have seemed unaware of the fact that the bulk of mental illness in any community never comes to their attention at all. The reason, as Professor Goldberg and Dr Huxley point out in this book, is 'that psychiatrists base their concepts of mental illness on the highly selected sample of patients who are referred to them'. As they rightly argue, 'this selection process is therefore important in determining what will be thought of as a psychiatric case'. Accordingly, they subject the selection process to a detailed scrutiny by bringing together and reviewing much of the relevant published work, including their own, which relates to the pathways of psychiatric care. The evidence clearly establishes the major role of the primary care system in the detection and management of mental illness in the community, confirming the conclusion of a World Health Organisation report that 'The primary medical care team is the cornerstone of community psychiatry'.² In their further discussion of the types of disorder encountered and of their treatment, the authors deal with some of the practical implications of these studies, including the importance of associated social factors and the significance of the findings for the training of primary care workers.

In the light of this information it is apparent that a new perspective

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must be brought to the concept of community psychiatry if it is to survive. The primary health care team rather than the psychiatrist occupies the centre of the stage; the patient-population comes to be dominated by a large group of so-called minor psychiatric disorders which rarely confront the hospital-based physician. In defining the issues and presenting the facts, Professor Goldberg and Dr Huxley have not only helped clarify the role of psychiatry within the broad framework of public health to which it rightly belongs; they have also provided a pointer to future developments in the rational development of a discipline which has still to demarcate its own territory and delineate its own boundaries.

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Professor of Epidemiological Psychiatry

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NOTES

1. Astrachan, B. (1977): In *New Trends of Psychiatry in the Community*, edited by G. Serban. Cambridge, Massachusetts: Ballinger. p. xviii.
2. Report of Working Group (1973): *Psychiatry and Primary Medical Care*. Copenhagen: WHO.

CHAPTER 1

Introduction

Knowledge about mental illness and its social correlates has until recently largely been derived by studying those treated by the psychiatric services. This is reasonable for major disorders which are relatively rare and which are likely to reach the psychiatric services, but it is unreasonable for common conditions which often do not reach them. For example, a study that is based only on those under treatment by psychiatrists cannot possibly demonstrate the importance of a possible social correlate which may itself be associated with a reduced chance of receiving treatment.

Although there have been notable attempts to define psychiatric illness on theoretical grounds,¹ there is a more prosaic sense in which psychiatric illnesses are those disorders that occur among the clients of psychiatrists. These illnesses are enumerated in the World Health Organisation's *Glossary of Mental Disorders* (World Health Organisation 1974). Since people consult psychiatrists for a variety of reasons, it is hardly surprising that the classification offered by the Glossary is strikingly inclusive; so that the clinician is even able to use ratings keys for classifying those with long-standing traits, such as lesbians, eccentrics, and stutterers. If only psychiatrists were in the habit of saying to their patients, 'You don't have a psychiatric illness, go away', they might be said to have some part in the definition of mental illness: but such behaviour is very rare. Until quite recently psychiatrists did not *define* psychiatric illness, they *described* it. The descriptions which have resulted from their efforts are systematic and intelligent, but they are based on a study of a small subset of patients who present themselves – or who are presented by others – for psychiatric care.

What a given society understands by psychiatric illness is effectively defined by the characteristics of the referral pathway to the psychiatrist's office. Paradoxically, psychiatrists have very little to do with the decisions which must be taken before a patient comes to see him, although naturally psychiatrists collectively contribute to the climate of ideas which will influence non-psychiatrists in their decisions concerning referral. Once a patient arrives in his office, the psychiatrist will typically concur with lay

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judgement and assign a diagnostic label, since his client has defined himself as psychiatrically ill by occupying the formal patient role.

Countries where there are large numbers of psychiatrists, and where members of the public can refer themselves directly to psychiatrists without the necessity of using a primary care physician as an intermediary, are therefore likely to have patients referred to psychiatrists with relatively minor disorders and life problems and to use rather over-inclusive criteria for deciding what constitutes a psychiatric illness. There is a real sense in which such psychiatrists are functioning as specialized primary care physicians, and it is hardly surprising that their colleagues in countries where patients are typically referred by primary care physicians have developed more conservative notions of what constitutes a psychiatric case.

In recent years an important development has occurred which allows psychiatrists to play a decisive role in the definition of what constitutes a psychiatric illness. The arrival of standardized psychiatric interviews and psychiatric screening questionnaires has allowed researchers to study systematically the distribution of symptoms among patients receiving psychiatric care.² It has become clear that, with certain interesting exceptions, most psychiatric patients have a common core of symptoms which relate to mood disorders—notably anxiety, depression, fatigue, irritability, and sleep disturbance.³ The exceptions fall into two groups: on the one hand, major disorders such as hypomania, certain forms of schizophrenia, and some organic states which can readily be diagnosed by the possession of other florid patterns of psychopathology; and on the other hand, various kinds of abnormal personality which may occur without the critical symptoms of mood disorder, and which therefore fail to meet the criteria for a psychiatric illness.

The most elaborate attempt to specify a psychiatric illness in operational terms is John Wing's Index of Definition derived from the Present State Examination (see Wing *et al.* 1977; Wing 1980), the latter being a 140 item research interview developed at the Institute of Psychiatry and now used throughout the world by the World Health Organisation. An alternative, rather cruder attempt to define a psychiatric illness is represented by psychiatric screening questionnaires such as the General Health Questionnaire.⁴ In order to satisfy the Index of Definition, one must have more than a critical number, type, and severity of PSE symptoms, while in order to be considered a 'probable case' on the GHQ a respondent must endorse more than a critical number of symptoms from a checklist offered to him. It is worth noticing two rather arbitrary characteristics of both these ways of identifying a psychiatric illness. In the first place, the 'psychiatric

patients' who were used to generate the calibration groups on which each system depends were produced by a particular health care delivery system: in both cases, the British National Health Service. From a British viewpoint this may seem very reasonable, but it might seem less reasonable viewed from Washington DC, or New York, where the copious availability of analytically trained psychiatrists taking direct referrals from the community may result in many patients failing to meet the Index of Definition. The second point is that either measuring instrument will produce distributions of patients without a clear division between 'cases' and 'normals'; so that the decision as to where subclinical disturbance ends and being a psychiatric case begins is, in the last analysis, arbitrary. For example, the concept of a 'case' which was used in the validation studies of the GHQ had regard to a degree of psychological disorder which was 'just clinically significant' in relation to a patient's visit to his general practitioner. Several studies have shown that this is equivalent to a 'Borderline Case' in Wing's scheme; if one required the two instruments to produce similar rates one would need to raise the threshold score used by the GHQ.

The same arbitrary standards are used by the rival American scheme, the Research Diagnostic Criteria of Spitzer, Endicott, and Robins (1975). In order to be diagnosed as, for example, a 'major depression' a patient must possess certain key symptoms and then at least five out of a shopping list of eight associated symptoms. Naturally, some patients just fail to make it to the criterion. This sort of procedure is perfectly reasonable; but it is also completely arbitrary.

In the past few years these research instruments have been used to measure rates for psychiatric illness in the general population in order to arrive at estimates of prevalence independent of the illness behaviour of the patient or the ability of his medical attendants to detect and treat any disorder that may present. When this is done the concepts of psychiatric illness which have been derived from those patients seen by psychiatrists are being back-projected onto the general population in order to assess the numbers of those with similar patterns of symptoms who have not sought psychiatric care.

Despite the somewhat different theoretical underpinnings of the various methods of psychiatric case findings now in use, two conclusions are unmistakable. First, there is far less variation between recent estimates for rates of illness in random samples of populations than there were in the studies reported up to the early 1970s;⁵ and second, it is quite clear that even in the developed countries of the world, most mentally disordered patients are not being treated by the psychiatric services.⁶

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AIM OF THE BOOK

We will attempt a summary of research findings that have used the case-finding techniques which have recently become available, with particular emphasis on research which deals with the detection and management of psychiatric disorders by family doctors. As we shall show, the greatest share of the burden falls on their shoulders both in England and the United States. The book has three aims:

1. To describe the *selection processes* which operate on psychologically disordered individuals which determine which of them will seek care; having sought care, which will have their disturbances detected; having been detected, which will be treated in a primary care setting and which will be referred for psychiatric care. A schematic model will be used to illustrate these steps.
2. To describe the *kinds of psychiatric disorder* commonly encountered among patients at each stage of the help-seeking process, and to summarize what is known about *social factors* associated with psychological disorders at each level.
3. Since most psychologically disordered patients who seek care will continue to receive treatment in primary care settings, our third aim is to describe the forms of treatment which should be available in such settings, and the training which primary care physicians and other health professionals should receive to enable them to provide such care.

THE MODEL TO BE USED

A simplified model will be presented with five levels, each level representing different populations of subjects. In order to pass from one level to another it is necessary to pass through a filter.

Level 1 represents the community: at this level, our knowledge is derived from surveys of psychiatric morbidity which have either screened entire populations or which have been based on random samples of a particular population.

Level 2 is represented by studies of psychiatric morbidity among patients attending primary care physicians, irrespective of whether or not the physician has detected the illness. The first filter is between the first and second levels. The factors which determine whether or not an individual passes through the first filter are often referred to as 'illness behaviours' of the patient.

Level 3 consists of those patients attending primary care physicians who are identified as 'psychiatrically sick' by their doctor. These patients collectively represent psychiatric morbidity as it is seen from the vantage point of the primary care physician, and they will be referred to as the 'conspicuous psychiatric morbidity' of general medical practice. The second filter is represented by their doctor's ability to detect psychiatric disorders among patients in the second level. It will be shown that passage is through this filter is determined by characteristics of both doctor and patient.

Level 4 is represented by patients attending psychiatrists in out-patient clinics and private offices. In England, the primary care physician is critically placed to determine who will be referred for psychiatric out-patient care, and he will therefore be thought of as the third filter. In the United States it will be shown that in addition to patients being referred to psychiatrists by primary care physicians, there is a considerable 'short circuit' of the second and third filters, in that a substantial number of patients are self-referred and thus pass directly from the first filter to level 4. However, even in the United States, many patients enter psychiatric care by referral from primary care physicians and thus passage is through the second and third filters (detection and subsequent referral).

Level 5 is represented by patients admitted to psychiatric hospitals and mental hospitals. They form the population most commonly referred to in national statistics of mental illness. The psychiatrist now appears for the first time, as the gate-keeper to in-patient beds. Even here, his powers are not absolute, since the number of patients he allows through the fourth filter depends on the number of beds made available to him by the health authorities. In all countries it is possible for an acutely psychotic patient to short-circuit the entire system and pass directly from level 1 to level 5, pausing only to be vetted by the psychiatrist acting as the fourth filter. However, these patients typically display major psychotic syndromes and once more the psychiatrist usually plays little part in deciding that a patient is referred to him in this way.

It will be seen that 'psychiatric illness' proper begins at level 4; yet psychiatrists do not define such illnesses, since they seldom send patients away undiagnosed. However we choose to define a psychiatric illness in theory, in practice it is defined by the process of passing through the first three filters. Each of the filters is selectively permeable, so that some individuals are more likely to pass through than others. And we can already see that the key people deciding who shall pass through are the patient and his family doctor.

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MEASURES OF PSYCHIATRIC MORBIDITY

If one wishes to study the distribution of a disorder in a human population, it is necessary to distinguish between the inception and prevalence. Inception refers to the *rate* at which new cases occur per unit time, and prevalence to the *level* of disorder, either at a point in time, or over a period of time. Generally speaking, surveys of illness in random samples of the general population will report point prevalence, while surveys in consulting populations will report period prevalence and sometimes inception rates. The definitions of each will be given so that the relationships between them may be more readily understood:

Annual inception rate (Synonym: Incidence rate)

This refers to the number of individuals with a new episode of a given disorder each year, per 1,000 of the population at risk. If the disorder only affects a particular age group, it is permissible to adjust the population at risk to take this into account.⁷ The decision as to what is to be considered a 'new' episode is of course arbitrary; where psychiatric morbidity is concerned, it is usual to define it as one for which the patient has not previously consulted for at least one year.⁸

Point prevalence

This refers to the number of people with a given disorder in a population at a point in time. It can obviously be expressed either as a percentage or as a rate per 1,000 at risk. If the age of the population surveyed is known, one can use point-prevalence data to calculate 'morbid risks' or disease expectancies in populations.⁹ In a large survey it is often impracticable to assess everyone on the same day unless the condition is very easy to count. Provided that each member of the population is only considered once, it is usual to allow such surveys to continue over a short time-period.

One-year period prevalence (Synonym: Annual patient consulting rate)¹⁰

This refers to the number of people who suffer from a disorder during the course of a calendar year on at least one occasion, per 1,000 population at risk. Individuals may be seen on numerous occasions during a year, and they will be counted as cases if they display the condition at any time during the survey year.

It is always possible to calculate one of these parameters if one knows the other two, since: One-year period prevalence = Point prevalence + Annual inception rate, and it is possible to calculate the mean duration of a disorder

if one knows period prevalence and inception, since: $\text{Point prevalence} = \text{Annual inception} \times \text{Mean duration of episode}$.

It will be noticed that both the prevalence and the inception rates are expressed 'per 1,000 population at risk' rather than as a percentage of all those attending doctors. In countries where people are free to shop around for medical care – going perhaps to one primary care physician when their child has a rash, but to another for a gynaecological complaint – such measures are almost impossible to calculate. In Britain, where as part of the National Health Service, every member of the population is registered with a single general practitioner, it is relatively straightforward matter, and estimates have been available for many years.¹¹ In the United States it has only recently become possible to calculate similar rates by studying populations registered for care with Neighborhood Health Centers and various forms of Health Insurance Plan; but even recent estimates suffer from the disadvantage that the populations receiving care from such schemes may not be fully representative of the general population.

We will not be concerned in this book with the numerous studies which report that 'x per cent of a particular physician's patients are emotionally disturbed', since such estimates tell us nothing about the population at risk, and indeed the size of the estimate tells us more about the physician making the assessment than it does about the level of symptomatology among his patients.¹² However, if we have a large representative sample of primary care physicians, and we know what percentage of their patients are thought sick, then we can make a rough estimate of treated sickness by multiplying this percentage by the proportion of people in that population who seek care each year. This procedure was used by the National Institute of Mental Health in order to estimate the period prevalence of conspicuous psychiatric morbidity in the USA,¹³ and it will be used in this book to estimate the prevalence of morbidity at level 2.

It is now time to put some flesh on the skeleton of the model. Where the established psychiatric services are concerned (levels 4 and 5), the existence of psychiatric case registers allows us to examine prevalence and inception rates on both sides of the Atlantic. It is possible to add to these measures data from studies in primary care, notably Shepherd's study of seventy-six London general practitioners, and the more recent estimates made by NIMH for American primary care and out-patient medical practices: these are shown in *Table 1*.

Despite the major differences in the health care systems, the similarities between the two countries are more striking than the differences. The NIMH estimates that the ratio of total (level 1) inceptions to inceptions

Table 1(1): *Britain and the United States compared: Rates per 1,000 population at risk for the inception and prevalence of psychiatric morbidity*

	annual inception rate		annual period prevalence	
	Britain	United States	Britain	United States
level 5: psychiatric in-patients only	3.3 (Salford) 3.8 (Camberwell)	not known	6.3 (Salford) 6.8 (Camberwell)	7.0 (de Facto) 7.5 (Monroe County)
levels 4 and 5: all psychiatric patients (case registers)	9.0 (Salford) 12.5 (Camberwell)	10.0 (Monroe County)	14.6 (Salford) 20.1 (Camberwell)	29.0 (de Facto) 27.0 (Monroe County)
level 3: conspicuous psychiatric morbidity (primary care)	52.0 (Shepherd)	(not known) level 1 estimated to be 50.0 (de Facto)	102 (Shepherd: formal psychiatric) 139.4 (Shepherd: total psychiatric)	90 (de Facto) 93.4 (Pasamanick)

Note: For references see Note 14 to this chapter.

treated by the psychiatric services is 5:1, and it can be seen that this is the approximate ratio of Shepherd's inceptions in general practice to those reported to the Camberwell Register. Although inceptions are no more frequent in Monroe County than in Britain, it can be seen that one-year period prevalence is substantially higher in the United States, indicating that cases stay longer in treatment.

It has already been admitted that the model presented in this book can to some extent be bypassed in the United States since patients can refer themselves to psychiatrists directly. It is impossible to calculate the size of this bypass with available data, but there are two reasons for supposing that it is not so great as to invalidate the model completely. First, of the 24.0/1,000 patients in treatment, only 4.0 are being seen by psychiatrists in private offices, and only 2.0 by private practice psychologists: the remainder are seen in hospital and community health centres. Secondly, of the 2.1 million new patients seen by office-based psychiatrists in 1975 and 1976, 30 per cent were referred by another physician, and therefore obeyed the model presented here.¹⁵ Unfortunately, it is not known what proportion of visits to hospital-based psychiatrists are self-referrals, although a study by Horwitz (1977) showed that only 30 per cent of patients at the Connecticut Mental Health Centre had not been seen by another professional before coming to the psychiatric service. Even for those who bypass the system by directly referring themselves to psychiatrists, the fact that psychiatric care must be paid for means that the first filter will be less permeable to those in lower socioeconomic groups. A study by Fink and others (1969) showed that when psychiatric consultations became free for those registered with the Health Insurance Plan of Greater New York, the referral rate to psychiatrists jumped from 6.6 to 11 per 1,000 at risk. At this stage we can conclude that the first filter is somewhat more important in the United States than it is in Britain, but that even there the majority of patients probably pass the second and third filters in order to obtain specialist care (see p.53 'The American Bypass').

Another point to notice is that although the American prevalence rates for conspicuous psychiatric morbidity are fairly similar to Shepherd's rate for 'formal psychiatric' illnesses, the British doctors have substantially higher rates than their American counterparts when 'psychiatric-associated' illnesses are included. One probably cannot conclude that there is any true difference between the patient populations however, since different survey forms were used in the various studies, and the design of the survey form critically affects the level of morbidity reported by the physician.¹⁶

In order to complete the comparison at all five levels it is necessary to

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combine the data shown in *Table 1(1)* with data from community surveys and from consulting populations, and here a major difficulty arises. Most community surveys report point prevalence rates, yet these can never be directly observed in surveys of consulting populations at levels 2 and 3. This would not matter greatly if inception rates at level 1 were known, since this would enable us to convert the level 1 point prevalence rates to period prevalence rates, and thus affect a comparison (see equation on p.6). Unfortunately, inception rates are very hard to come by in the community, although it is to be expected that in the future greater efforts will be made to collect data in such a way that estimates of inception can be made. In order to allow a rough comparison to be made despite these problems, we have relied on point prevalence of psychiatric disorder at levels 1 and 2 estimated from responses to the General Health Questionnaire made by two samples of respondents. The first was a sample of 4,067 unduplicated consecutive attenders to General Practitioners in Greater Manchester, and the second was a random sample of 213 patients in the community in South Manchester. In order to calculate the period prevalence rates at level 2 it was assumed that 60 per cent of the Manchester population attended during a year, and that approximately one third of illnesses detected by the GHQ are new illnesses.¹⁷ There are no data with which to compare the level 2 estimates, although the fact that the physicians studied were detecting only 55 per cent of the expected true positives fits in with it fairly well. A comparison of morbidity at all five levels can therefore be made for one-year period prevalence using recent British data, and this is shown as *Figure 1*.

The figures given here for period prevalence at level 1 are somewhat higher than one would predict from estimates of point prevalence made by Wing's PSE-ID method, to be described in the next Chapter. It must be concluded that many of the mood disorders detected by the General Health Questionnaire (GHQ) are transient, non-specific disorders which would not satisfy Wing's Index of Definition for 'definite disorders'. There are two reasons for nevertheless using estimates based on the GHQ for our present purposes. First, it will enable us to make valid comparisons between levels 1, 2, and 3 of the present model: whatever the shortcomings of the method of measurement, like will be being compared with like. Second, even if the GHQ tends to produce slightly higher rates than the PSE-ID method, numerous investigators have shown that GHQ scores correlate highly with summed severity scores based on the PSE or the Clinical Interview Schedule (for review, see Goldberg 1978).

There are several points to notice about *Figure 1*. The factors that decide which seventeen individuals are to be referred to psychiatric services

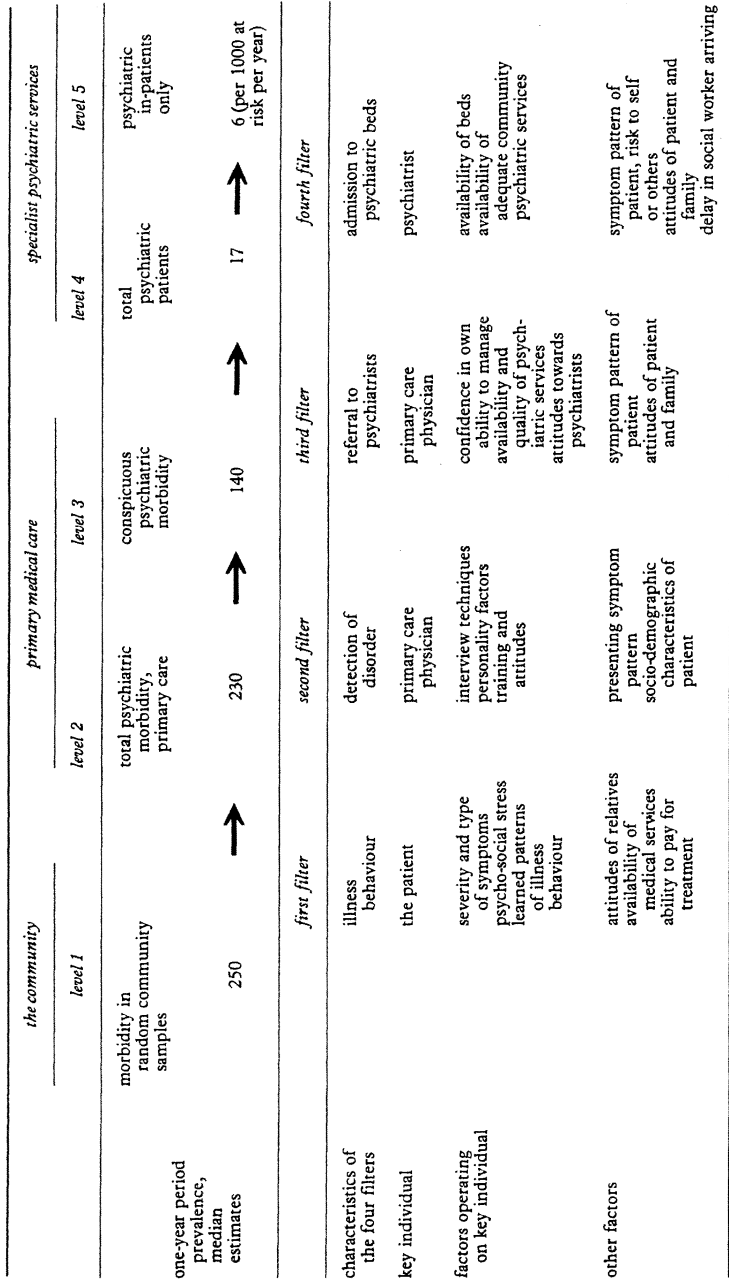


Figure 1: The pathway to psychiatric care: 5 levels and 4 filters. (For full discussion of the estimates of one-year period prevalence, see text and note 17.)

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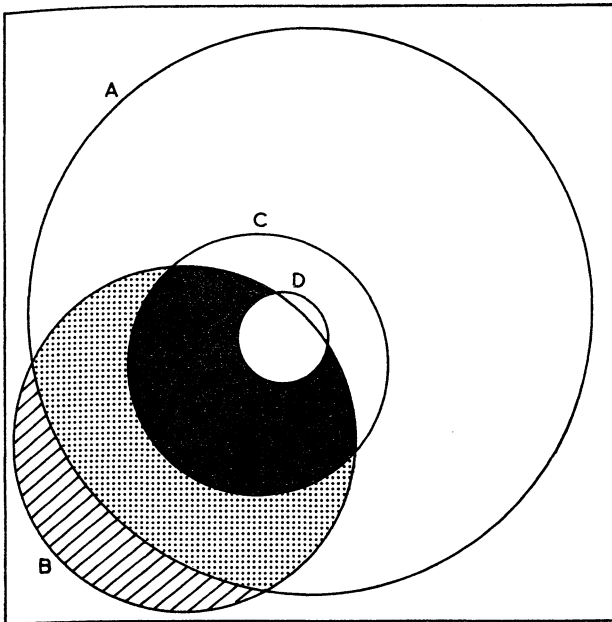
from the 250 who may experience distressing psychological symptoms are those that relate to the sick individual, the attitudes of those in his environment, and his family doctor. The psychiatrist plays almost no part at all in this process, except that he may have influenced the family doctor's concept of what constitutes a mental illness during his training. At each level in the model, severity and type of symptoms will influence the permeability of the filters. There is evidence for example, that all four filters are selectively permeable to psychotic symptoms, and the reverse is true for transient mood disorders.

The most striking thing about the figures shown is that the first filter is very much more permeable than the second or third. The predicted prevalence of disorder among attenders is only slightly smaller than the predicted prevalence in the population at large, leading one to suppose that the majority of psychiatrically disordered individuals—at least within the ambit of the British National Health Service—do consult their doctors. We shall review what is known about the characteristics which determine illness behaviour in the next chapter; but wish to emphasise at this point that the factors which reduce a prevalence of 230 at level 2, to seventeen at level 4 are those which occur in the primary care physician's office. This stark epidemiological finding is the one which caused us to give major emphasis to the processes by which psychological disorders are detected and subsequently managed by the primary care team.

A final point to make is that it should not be thought that the patients allowed through by each filter should necessarily have been allowed through: a Venn diagram for the five populations of patients would not be a series of concentric circles. *Figure 2* shows what a Venn diagram does in fact look like and takes into account consultation behaviour at the first filter, as well as the tendency of some patients who would not meet a research criterion for psychiatric illness to pass through the second and third filters.

In this diagram, A represents the population who will attend their doctor in the course of one year: it therefore takes up to 66 per cent of the enclosing square (Royal College of General Practitioners 1979). B represents the population who will be psychiatrically disturbed during the course of the year: our best estimate is that about 80 per cent will attend their doctor during an episode of disturbance, so that it is drawn with the 20 per cent who do not pass the first filter sticking out from circle A. The population identified by their doctor as 'psychiatric' is shown as C, and although it overlaps with B there are considerable numbers of patients whose illnesses are unrecognized by their family doctor, as well as substantial numbers labelled 'psychiatric' who report very few symptoms on self-report

Figure 2: Venn Diagram showing relationship between the first 3 levels



- A = Consult their doctor during year
 B = Psychiatrically ill during year (level 1)
 C = Identified by their doctor as psychiatrically ill (level 2)
 D = Referred to a psychiatrist (level 3)
- ▨ Do not pass 1st filter (ill, but do not consult)
 ▩ Do not pass 2nd filter (illness unrecognised by doctor)
 ■ Do not pass 3rd filter (not referred to a psychiatrist)

questionnaires. Even when allowance has been made for the known errors associated with self-report questionnaires, these patients remain: we shall consider why this should be in Chapter 4. Finally, the patients referred to psychiatric services are shown as D: the reason that this circle is not completely within B is that some patients are referred to psychiatrists with minor personality problems which fail to satisfy research criteria for psychiatric illness.

Now psychiatric case registers, and official statistics concerning mental illness, are wholly concerned with D. Medical sociologists have conducted much research into the determinants of 'illness behaviour' in patients – but such research is really concerned with whether or not a patient passes the

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first filter. If we compare D with B, the most striking thing is that failure to pass the second and third filters are more important reasons for a symptomatic patient not being identified as psychiatrically ill: yet they have been relatively neglected compared with the interest which has been lavished on the first filter. In this book, we will try to state what is known about each of the three filters which stand between the experience of distressing psychological symptoms by individuals in the community and receiving treatment for such symptoms by the psychiatric services.

NOTES

1. Easily the most lucid essay on the concept of mental illness was written by Sir Aubrey Lewis in his article 'Health as a Social Concept' (*British Journal of Sociology* 1953, 4: 109-24; also reprinted in *The State of Psychiatry*, Routledge and Kegan Paul 1967). In this article, Lewis argues that health is a single concept, and that it is not possible to set up essentially different criteria for physical health and mental health. Besides subjective feelings and the degree of total efficiency of an individual, the criterion of health is adequate performance of functions, physiological and psychological. The part-psychological functions in which there may be a disturbance for an individual to be thought ill include perception, learning, thinking, remembering, feeling, emotion and motivation. In order for illness to be diagnosed, the patient's symptoms should conform to a recognisable clinical pattern: that is to say, psychiatric illnesses are essentially syndromal in nature. The argument is taken further by Kendell in his book *The Role of Diagnosis in Psychiatry* (1975) in which he insists that mental illness is a concept, not a thing. A change in the defining characteristics of a disease may alter the population of patients embraced by the term, or even their symptoms and signs.

'To our generation it is self-evident that diseases, tuberculosis as well as schizophrenia, are nothing but man-made abstractions, inventions justified only by their convenience and liable at any time to be adjusted and discarded. Our present outlook is so wholeheartedly empirical that we find it difficult to credit how an earlier generation could have talked of disease being "discovered" like so many golden sovereigns on a beach, or have imagined that there were a finite number of them waiting to be identified. Yet although we know these things perfectly well, we have still not rid ourselves of the old Platonic assumption. Claims are still made even now that this or that syndrome is a "disease entity", in spite of the fact that the word entity, defined in the Oxford dictionary as "a thing that has real existence", is meaningless outside its original Platonic context. . . . In fact, it is equally meaningless to assert on behalf of any abstract noun or concept either that it does or that it does not exist. The only question at issue is whether it is a useful concept, and even this question has to be asked within a defined context.'

Wing, Cooper, and Sartorius in their book *The Measurement and Classification of Psychiatric Symptoms* (1974) write:

'our present sophisticated medical knowledge has accrued because of centuries of observation and description, in which the describers and classifiers have played as dynamic and creative a part as those concerned with the process. It is hardly helpful to tell psychiatrists that there is no need to begin at the beginning; that Kraepelin was unnecessary and that all they have to do is to look at their patients' problems. Such advice, if taken seriously is likely to be translated into a purely *ad hoc*, symptomatic approach, or one in which any theory is acceptable since none is meant to be tested'.

Where major psychiatric illness is concerned, such as organic mental states and the major psychoses, problems of taxonomy are not so great since these conditions are discontinuously distributed in human populations, and, although the matter is still not beyond controversy, a typological rather than a dimensional model better fits the facts as they are known. But there are still major difficulties concerning the most sensible way of classifying minor depressions and anxiety states, with which we will be largely concerned in the present book. Wing and his colleagues write: 'in some important conditions, such as diabetes and hypertension, the processes underlying disease are now seen to be complex and even continuous, rather than discrete, as they were in some of the simpler and more obvious disease models provided, for example, by acute bacterial or viral infection.'

It is still too early to say whether the processes underlying depressive illnesses are continuous or not. A complex model allowing for an interaction between genetic predisposing factors and environmental factors, leading to release of depressive phenomena, seems to be appropriate. At the epiphenomenal level, there is an unbroken continuum between severe, psychotic states on the one hand and minor moods swings on the other. It is possible to arrange patients in some fairly stable rank order, between cheerful individuals on the one hand and severely depressed patients on the other: somewhere on this continuum the line must be drawn between those whose mood disorder is impairing their social and psychological functioning, and those in whom normal homeostatic mechanisms may be expected to operate. Needless to say, the point where the line is drawn will depend upon the purpose of a particular investigation. If we wish to obtain an optimal discrimination between those who will, and those who will not commit suicide, we are likely to choose a different cutting point from that which will best discriminate between those who will or will not benefit from discussing their problems with another person. A third point might be needed to discriminate between those who will or will not respond to antidepressant drugs.

2. The standardized psychiatric interview most often used in international studies of psychiatric illness is the 'Present State Examination' (PSE) described by Wing, Cooper and Sartorius (1974). There are many others. Spitzer's 'Schedule for Affective Disorders and Schizophrenia' (SADS) is now being widely used in the United States. From this it is possible to make diagnoses using the Research Diagnostic Criteria of Spitzer, Endicott, and Robins; just as it is possible to make diagnoses from the PSE using Wing's CATEGO computer programme. Many of the surveys to be reported in this book have used the 'Clinical Interview Schedule' of Goldberg, Cooper, Eastwood, Kedward, and Shepherd (1970). This is a fairly brief interview designed for use by a psychiatrist in a community setting. The Dohrenwends have used a standardized research

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interview called the Psychiatric Status Schedule, while the research group at Washington University, St Louis, have produced the Renard Interview. Both the Renard Interview and Spitzer's SADS Interview can be used to make psychiatric diagnoses using the research diagnostic criteria of Spitzer, Endicott, and Robins. The procedure used by Dohrenwend and his colleagues in constructing the PSS is somewhat different from that used by the psychiatrists who have constructed the other two research interviews: Dohrenwend has demonstrated that his various scales have internal consistency using a coefficient alpha (Cronbach 1951) and he then proceeds to show that patients and prisoners have higher mean scores on their scales than random community samples. The latter is not, of course, a very demanding requirement to make of a scale of psychopathology; but presumably further tests of validity will be forthcoming from this research group. The four internally consistent scales produced by the PSS are delusions and hallucinations; alcoholism; depression-anxiety; and suicidal tendencies. There are also large numbers of psychiatric screening questionnaires, some of them (like the General Health Questionnaire) aim at detecting non-organic psychiatric disorders regardless of diagnosis, while others are directed at a particular syndrome, such as depression. A fuller description of these screening questionnaires is to be found in Goldberg (1972).

3. The validation studies for the General Health Questionnaire lead one to suppose that the possession of *any* twelve from a checklist of sixty symptoms of psychiatric illness will cause an independent observer to conclude that a significant psychiatric illness is present. Although some of these sixty symptoms are more discriminant than others, it is not possible to stipulate any particular symptoms which *have* to be present in order for the respondent to be thought psychiatrically ill. If one examines the twelve most discriminant items, they consist of the sort of symptoms enumerated in the text. Furthermore, if one examines the other psychiatric screening questionnaires which have been used by other researchers, the same sort of symptoms regularly make their appearance. In his book *The Hierarchical Nature of Personal Illness* (1976) Foulds argued that psychologically disturbed individuals should be arranged in a hierarchy, with florid, psychotic syndromes at the top of the hierarchy, and less specific symptoms at successively lower levels. Individuals who have ascended to higher levels of Foulds' hierarchy are said to have all the symptoms of patients at lower levels in addition to the more differentiated symptoms. This hierarchical model has recently been tested by Surtees and Kendell (1979), who have found that about 75 per cent of the psychiatric patients examined by them using the Present State Examination obeyed Foulds' model by exhibiting symptoms at all lower levels as well as the higher levels which justify their position on the hierarchy. However, there were important exceptions. About 50 per cent of those diagnosed by conventional psychiatrists as schizophrenics or manics (and so occupying one of the upper two classes of Foulds' hierarchy) failed to exhibit the neurotic symptoms they required lower in the hierarchy. The arguments advanced in this book do not depend upon a hierarchical model along Foulds' lines, and we have always conceded that estimates of psychiatric morbidity made by the General Health Questionnaire are estimates that are prone to errors of various sorts. Even though it is not possible to say that a person with a high score will necessarily be a psychiatric case, or that a person

with a low score will necessarily be normal, it is nevertheless possible to make predictions of the likely level of morbidity in a population of respondents to known limits of error.

4. The Index of Definition (ID) is derived from ratings made by Present State Examination (PSE). The ID is based upon the number, type, and severity of PSE symptoms, and was constructed in order to find the threshold point at which sufficient information was available to allow classifications into one of the functional psychoses or neuroses (Wing *et al.* 1978). The Index of Definition does not use cut-off scores, although these are incorporated. Just as important is the presence or absence of key symptoms, both singly and in combinations. The lowest four levels are called 'below threshold'. Level 1 is defined by the absence of PSE symptoms, level 2 is between one and four PSE symptoms, and level 3 between five and nine symptoms. Level 4 is more complex, it can be determined by a total score of ten or more non-specific neurotic symptoms, or by the presence of a single key symptom such as depressed mood, autonomic anxiety, or hypomanic affect, without other related symptoms such as slowness or guilt being present as well. At this level of disorder, insufficient information is thought available to justify attempt at the clinical classification such as that embodied in the CATEGO programme. Level 5, the 'threshold level', usually provides a minimum basis for such a classification. The essence of the defining rules is that key affective symptoms (moderate in severity) are present together with each other or with certain other important symptoms. For example, a combination of hypomanic and depressed affect; of depressed affect and autonomic anxiety; or of depressed affect and psychomotor slowness or pathological guilt would be sufficient for level 5, even though a total PSE score of 10 was not reached. Levels 6, 7, and 8 provide increasing degrees of certainty that the symptoms present can be classified into one of the conventional categories of the functional psychoses or neuroses, either by clinical judgment, guided by the WHO glossary, or by using the CATEGO programme.

Whereas screening techniques such as the GHQ simply measure the mass of a patient's current symptoms and try to convert this into a probability statement that the patient is, or is not significantly psychiatrically disturbed, the ID is clearly a more subtle and elaborate system which is capable of discriminating between those symptom patterns which are thought particularly significant even though they may comprise a small number of critical symptoms. It seems likely that many patients who would be described as 'threshold' on the ID, would be declared cases by the GHQ. This is not merely because of the differences between the two which have just been mentioned, it also relates to the different concepts of a case used by ourselves on the one hand and Wing's group on the other. The GHQ was designed as a community research tool, and it was linked to a concept of a 'just clinically significant psychiatric illness' that was thought appropriate to conditions of general medical care. In the validation studies of the GHQ a respondent was deemed to have a 'mild' psychiatric illness if emotional disorder was thought to be either entirely or largely accounting for that day's consultation. Inevitably this meant that many patients with transient emotional disorders were counted as cases; as well as some who had fewer symptoms than might be expected in a psychiatric outpatient clinic of a hospital. Interested readers will find case examples in note 2, Chapter 4. Wing and his

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colleagues have preferred to produce operational criteria for defining 'cases' as defined by the specialist psychiatric services. In either case, the decision is sensible, but arbitrary; and ultimately depends on the nature of the primary care and hospital services in which each set of researchers develop their notion of a significant psychiatric illness. It is not intended to suggest that Wing and his colleagues have produced their criteria for a 'definite' illness by stipulating detailed criteria in such a way that a perfect discrimination is obtained between community samples and samples treated by hospital services: there is in fact no way of doing this, all one can do is to use the criteria in such a way that the overlap between the various populations is minimized. For example, in Wing *et al.*'s (1978) paper, sub-threshold (5 or below) disorders are reported in 20.8 per cent of a series of psychiatric inpatients, 33 per cent of a series of psychiatric outpatients, and 97.1 per cent of a general population sample. The last figure is of particular interest, since it is considerably higher than what one might expect from the figures reported in Chapter 2. The reason for this is that 'threshold' disorders are usually counted as cases in the studies reported in Chapter 2; if this is done, 91 per cent of the general population sample report by Wing (1979) are at level 4 or below. Duncan-Jones and Henderson (1978) have proposed a two-phase design for use in population surveys linking the GHQ with the PSE-ID and this is described further by Henderson and his colleagues (1979). The two-stage procedure used by Henderson and his colleagues in essence consists of a stratified sampling strategy using the scores of the GHQ-30 to form the strata, and using a progressively greater sampling fraction for ascending levels of GHQ scores. This is more sophisticated than the cruder practice usually used in Britain where the population is divided into two strata: high scorers and low scorers. However, it is only really suitable for large-scale surveys which would generate sufficient numbers in each of the various strata to enable realistic sampling. The Australian investigators then use methods of logit regression in order to calculate case rates from the GHQ scores in the original samples.

5. In 1969, Dohrenwend and Dohrenwend reviewed forty-four field studies of mental disorder in their book *Social Status and Psychological Disorder*. In 1974, in their 'Social and Cultural Influences on Psychopathology', they reviewed twenty-six further studies; a total of seventy studies in all. The range for reported prevalence is from 1.1 per cent to 69 per cent. The main value of such an anthology seems to us to be a scholarly one; that is to say, it is useful to have a collation of various field studies of mental disorder that have been made throughout the world. Inevitably, the various research studies gathered together by the Dohrenwends are very heterogeneous and often relate to different types of mental disorder: it seems pointless to try to build a wall with bricks of such varying quality.
6. The number of psychiatrists made available per 100,000 population at risk by different countries around the world is determined more by the given country's expenditure on health care than it is by the demands posed by the proportion of psychiatrically disordered patients in any particular country. It should therefore surprise no-one that in those countries where there are very few psychiatrists per 100,000 at risk, the majority of even the psychotic patients are not being cared for by psychiatrists. However, even in a country like the United States which spends a high proportion of its GNP on health care and which is lavishly supplied with psychiatrists compared with developing countries, a recent paper

by the Division of Biometry and Epidemiology of the National Institute of Mental Health indicates that the majority of psychologically disordered individuals in the United States are not being cared for by the specialist mental health services (Regier, Goldberg, and Taube 1978). This paper argues that the *de facto* US mental health services system is provided for by the primary care/out-patient medical sector. The division estimates that at least 15 per cent of the US population is affected by mental disorders in any one year, but that in 1975, only one fifth of these were served in the specialty mental health sector; whereas three fifths were identified in the General Medical (primary care) sectors.

7. The rate so obtained is called an age-specific incidence rate. There are problems in calculating inception rates. Where psychiatric case registers are concerned, the issues are relatively straightforward, in that the inceptions are the number of patients notified to the register the first time in a given year. Even here one must distinguish between inception from the point of view of the register and inception from the point of view of the patient: sometimes a patient has been treated elsewhere in the past, and is therefore having an inception from the register's point of view, but a readmission from his own. In Camberwell, for example, the annual inception rate of 707 per 100,000 at risk is made up in the following way: 362 first ever contact with psychiatric services; 175 not first ever contact but first on register; and 170 where previous contact was not known, although it was the first contact with the register (Wing and Fryers 1976:79). In community surveys, investigators sometimes try to estimate annual inception by asking those who are found to be disordered whether their illness began in the previous year. This procedure is bound to produce underestimates of inception, since there may well be patients who were disturbed in the previous year, but who are now functioning well and no longer remember their symptoms as vividly as they did. The best known study by a psychiatrist which has attempted to calculate inception rates was that by Hagnell (1966) where a psychiatrist visited almost every member of two adjoining parishes in South Sweden, and tried to build up a picture of each respondent's health over the previous decade. Although he had had access to each subject's full health records before his interview with them it is once more possible that his estimates of inception were lowered by a tendency of patients to forget symptoms which were now no longer troubling them. This criticism is actually not usually levelled against Hagnell's work, since his estimates of inception were so high.
8. The decision concerning what is to constitute a 'new' episode of illness of course depends upon the nature of the illness being studied. A new episode of Huntingdon's Chorea, for example, is defined by the occasion on which it is first diagnosed; all subsequent admissions are held to be readmissions. It is usual to deal with psychiatric conditions of relatively long duration, such as schizophrenia, in the same way. However, it would be absurd to deal in this way with conditions of short duration which are commonly recurrent—such as the common cold. Conditions such as this affect the entire population, and 'a new episode' of illness is a return to illness from a state of health. Minor mood disorders are somewhere intermediate between common cold and schizophrenia: they are subject to remissions and relapses, but they do not affect the entire population. Clearly, an arbitrary decision is called for. Shepherd and his colleagues (1966) defined a new psychiatric illness as one for which the patient had not previously consulted for at least one year.

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9. A 'disease-expectancy' or morbid risk, means the likelihood that any individual who survives long enough to be exposed during a period of risk in life when the particular disease usually arises, will develop the disease. In the case of schizophrenia, for example, the maximum period of risk exists between the ages of fifteen and forty-five: in Weinberg's shorter method of calculating a morbid risk, the method essentially consists of adjusting the denominator of the population at risk in a prevalence survey in the following manner: those who have not reached the age of risk for the disease are totally disregarded, while all those who have exceeded the period of risk (forty-five in the case of schizophrenia) are counted, together with half of those who are still in the risk period. The rationale for this simple correction is quite straightforward: the subjects who have been included in the survey whose age falls within the risk period but have not been found to have the disease may yet live to develop it, but those who have exceeded the risk period and not developed the disease may be assumed to have escaped it. Weinberg's shorter method has the merit of simplicity, and gives a satisfactory approximation to morbid risks calculated by more elaborate methods.
10. One-year period prevalence is preferred to the synonym 'annual patient consulting rates' since the latter tends to be confused with a consultation rate which is by no means the same thing. A consultation rate is defined as the number of consultations during the course of a calendar year, per 1,000 at risk. It is possible to count an individual patient more than once when computing a consultation rate, whereas a one-year period prevalence will only count each person once.
11. See for example Logan and Cushion's (1958) General Morbidity Survey, and the results of the General Morbidity Survey carried out by Shepherd and his colleagues with special attention to psychiatric morbidity.
12. The immense variability between estimates of psychiatric illness made by lone general practitioners has been described by numerous previous commentators, including Shepherd *et al.* (1966), Kellner (1963), and Goldberg and Kessel (1975). Goldberg (1979) has argued that the level of morbidity reported by an individual practitioner tells one more about him than it does about the actual level of morbidity among the patients consulting him: this argument is repeated more briefly in Chapter 4 of this book.
13. Data for the National Center of Health Statistics 1974 Health Interview Survey showed that 57 per cent of the civilian non-institutionalized US population was seen in a physician's office during one year – this would amount to 119,000,000 persons in 1975. Since 60 per cent of all visits in the 1975 National Ambulatory Medical Care Survey (NAMCS) were accounted for by the primary care specialties of family practice, internal medicine, and paediatric, the same percentages of the total patients seen were attributed to these specialties. Based on multiple special surveys of general practice populations, 15 per cent of primary care physician patients were estimated by NIMH to have a mental disorder. Other non-psychiatrist physicians, however, recorded a diagnosis of mental disorder at about one third the primary care physician rate in the 1975 NAMCS. Hence, 5 per cent of their patients were estimated to have emotional disorders. Reiger and his colleagues (1978) therefore calculated that slightly over 21,000,000 persons with mental disorder were seen in the primary care/out-

patient medical sector during 1975 in the United States, to be compared with 7.1 million who were seen by the specialized psychiatric services. The investigators then estimated the number of persons with mental disorder in general hospital in-patient nursing homes, and an allowance for duplications between these three segments of the health services, and added a very conservative estimate of those not in treatment: they produced a grand total of 31.9 million persons with mental disorder during 1975, which represents 15 per cent of the total US population.

14. For Salford and Camberwell see Wing and Fryer (1976); for Monroe County see Babigian (1977); for 'de Facto' see Regier *et al.* (1978); for Shepherd see Shepherd *et al.* (1966); for Pasamanick see Pasamanick *et al.* (1956).
15. Results of the National Ambulatory Medical Care Survey are reported by the National Center for Health Statistics (see *Advancedata* 1978). There is another, rather more indirect, reason for supposing that the ability of Americans to short-circuit this model cannot be all that great: in Chapter 6 we shall be reviewing evidence which suggests that the total volume of patients referred to American psychiatrists via American primary care physicians is roughly comparable to the reported rates in Britain: if there was substantial tendency for patients to short-circuit primary care physicians by direct referrals, we should therefore expect that the overall treated rates reported by American cases registers be substantially higher than those in Britain. However, we can see from *Table 1(1)* that this is not the case.
16. We shall be returning to this point in Chapter 3 (see note 1).
17. It can be seen from *Table 2(1)* on page 23 that the point prevalence of psychiatric illness in the South Manchester population is 18.4 per cent. If we make the assumption that approximately one third of the illnesses detected by the GHQ are new illnesses – and this has been the experience of many field surveys – then it is reasonable to assume that approximately a further 6.2 per cent of the population will suffer an episode of such illness in the course of the ensuing year. The one-year period prevalence therefore becomes approximately 25 per cent, and this figure has been shown in *Figure 1* on page 11. At level 2 we have followed the procedure adopted by NIMH in their 'de Facto' paper and taken the percentage of consecutive attenders on the very large multipractice survey in Manchester who were predicted to be psychiatrically disturbed by the GHQ, and multiplied this by the percentage of the Greater Manchester population who attend their general practitioners in the course of one year. The probable prevalence of 38.6 per cent seen among consecutive primary care attenders (see Goldberg 1978: 23) is therefore reduced to a probable prevalence of 23 per cent by taking into account the fact that only 60 per cent of the Manchester population attend their doctors during the course of one year.

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