*The omnipresence of illness**

BY IRVING KENNETH ZOLA**

The conception of disease. In most epidemiological studies, the definition of disease is taken for granted. Yet today's chronic disorders do not lend themselves to such easy conceptualization and measurement as did the contagious disorders of yesteryear. That we have long assumed that what constitutes disease is a settled matter is due to the tremendous medical and surgical advances of the past half-century. After the current battles against cancer, heart disease, cystic fibrosis, and the like have been won, Utopia — a world without disease — would seem right around the next corner. Yet after each battle a new enemy seems to emerge. So often has this been the pattern, that some have wondered whether life without disease is attainable.

Usually the issue of life without disease has been dismissed as a philosophical problem — a dismissal made considerably easier by our general assumptions about the statistical distribution of disorder. For although there is a grudging recognition that each of us must go sometime, illness is generally assumed to be a relatively infrequent, unusual, or abnormal phenomenon. Moreover, the general kinds of statistics used to describe illness such as specific diagnoses, days of disability and work absence, and doctor visits occur for each of us so relatively infrequently (one to several times a year) that they tend to support such an assumption. Although such statistics represent only treated illness, we rarely question whether such data give a true picture. Implicit is the further notion that people who do not consult doctors and other medical agencies (and thus do not appear in the „illness" statistics) may be regarded as healthy.

The „real prevalence of illness". Yet studies have increasingly appeared which note the large number of disorders escaping detection. Whether based on physicians' estimates or on the recall of lay populations, the proportion of untreated disorders is staggering. The most consistent and reliable data come from the „periodic health examinations" conducted by industry and other large scale institutions like the university and the military. From business executives to union members, from college students to college professors, the reports note that at the time of their annual check-up, there was scarcely an individual who did not possess some symptom, some clinical entity worthy of treatment. The figures range from 50 to 90 percent of all 'examinees' — an even more striking number when we realize that these statistics are based on supposedly healthy populations — employed and financially secure individuals. One, the Peckham study, found that only 9 percent of their patient group were free from clinical disorder. Moreover, the investigators were wary, even of this figure and noted that 1, some of these 9 percent had subsequently died of a heart attack, and 2, that the majority of those without disorder were under the age of five. Such data as these give a perplexing statistical picture of illness. Instead of it being a relatively infrequent phenomenon, the empirical reality may be that illness, definined as the presence of clinically serious symptoms (i.e. worthy of medical attention) is the statistical norm.

Does what is "missed" matter? Before reflecting on the implications of this alleged omnipresence of illness, we need to deal with a few of the more obvious criticisms. The first is that the bulk of this high prevalence figure is made up of relatively minor problems. Yet, minor does not mean insignificant, for many problems, such as abesity are regarded as the potential precursors of much more serious conditions. Moreover, studies of doctors' practices reveal that the bulk of the problems they daily confront are of such 'minor' variety. On the other hand it is necessary to ask how 'minor' are the illnesses which are not seen by the physician. The above mentioned Peckham study (as do many other more recent clinical surveys) noted that among the untreated population were disorders of every type and degree of seriousness - from multiple sclerosis to cancer, tuberculosis, and the many cardiovascular diseases. Thus the epidemiologist, Morris, estimated that "in an

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average British general practice of 2,250 persons, for every 8 in one year he sees, there are 69 with "latent" diabetes and for every 5 with ischeamic heart disase there are 15 more undetected".

In short, there is a vast amount of illness — much of it medically significant by any criteria — which never reaches the doctor's office.

The implications for medicine's clinical role. While the previous data and reasoning has many implications for how medicine is currently organized and practiced, I would like to state some broader concerns. On the most practical level, it is necessary to more concistently reflect on how "representative", even clinically, are those cases and individuals which do come for treatment.

Sometimes this "unrepresentativeness" may lead to an underestimation of a problem's extent and seriousness. Thus, May Clarke (Trouble With Feet) noted that between 55 and 90 percent (patient report versis chiropodist examination) of her sample of 1,100 adults had something the matter with their feet. The conditions ranged from corns to skin infections, from ingrown toenails to hammer toes. Yet only 17 percent of these problems had ever been treated. For the vast majority of these respondents it is not that such conditions are not painful and inconvenient — ironically for the aged, though clinically not 'serious' they are often functionally crippling — but that they have come to be regarded as an ordinary consequence of life and worthy only of 'self-treatment'. It seems likely that simply through not seeing these problems we have no idea as to the extent, type, treatability and preventability of such foot disorders. A case in which the seriousness of a disease was over-estimated is histoplasmosis. For until the late 1940's it "was thought to be a rare tropical disease, with a uniform, fatal outcome. Recently, however, it was discovered that it is widely prevalent, and with fatal outcome or impairment extremely rare.

Sometimes the lack of representativeness may lead to incorrect cause interpretations. Thus it was formerly believed that Buerger's disease was prevalent in Eastern European Jews. Later it was discovered that this evidence was due not so much to the nature of the disease as to the fact that Dr. Buerger made his observations at Mount Sinai Hospital in New York City - an institution which served predominantly Jewish patients. A recent study by Cobb has shed doubt on the traditional emphasis on arthritis as being a predominantly female disease. When all the employed males in a factory were surveyed for prodromal arthritic symptoms, their rates were as high as any of those traditionally reported for women. It thus seems that the oft reported sexual difference in arthritis was due more to a greater tendency for women to seek aid for arthritic-type symptoms and, thus, to appear in morbidity statistics. A final example is seen in a study of peptic ulcer. For in studying the rates of peptic ulcer among African tribal groups Raper first confirmed stereotype that it was relatively infrequent among such groups and therefore that it was associated (as many had claimed) with the stresses and strains of modern living. Yet when he relied not on reported diagnosis but on autopsy data, he found that the scars of peptic ulcer were no less common than in Britain.

Occasionally, the lack of representativeness may lead to a questioning of the very conceptualization and measurement of the disease entity. Thus in the case of high blood pressure it was discovered with some surprise that a fair proportion of the general population outside the consulting room manifests the signs without any apparent complaint or ill effects. Finally, a community study of undetected diabetics revealed so many cases which by clinical standards should have resulted in much more serious impairment if not in a comatose condition, that Betterfield wondered if the very clinical criteria of diabetes, based as they are on treated cases, might need to be changed.

The implications for medicine's social role. The list of daily activities to which health can be related is ever growing and with the current operating perspective of medicine it seems infinitely expandable. The reasons are manifold. It is not merely that medicine has extended its jurisdiction to cover new problems ("The Medicalizing of Society" which appeared in the June 1972 issue of this journal), or that doctors are professionally committed to finding disease (The numerous studies of clinical bias), or even that society keeps creating disease (Dubos' The Mirage of Health). For if none of these obtained today we would stiff find medicine exerting an enormous influence on society. The most powerful empirical stimulus for this is the realization of how much everyone has or believes he has something organically wrong with him.

This omnipresence of illness is, however, not merely confined to the findings of clinical surveys. It is apparent that the general public increasingly shares this concern with illness. For while there has been no appreciable increase in doctor utilization over the past few yars, there has been an increase in other "medical" actions. Thus two recent studies in the United States and the United Kingdom report that within a given 24-36 hour period from 50 to 80 percent of the adult population has taken one or more 'medical' drugs.

The potentiality for being or feeling "ill" is only

exacerbated by reading the scientific pharmacological, and medical literature. One finds a growing litany of indictments of 'unhealthy' life activity. From sex to food, from aspirins to clothes, from driving your car to riding the surf, it seems that under certain conditions, or in combination with certain other substances or activities, or if done too much or too little, virtually anything can lead to certain medical problems. In short, every aspect of our daily life has in it elements of risk. Living has become injurious to health!

All of these phenomena bring the general population increasingly under the purview of medicine. For medicine is the exclusive purveyor and primary judge of what is and is not disease, and what one should or should not do to prevent, relieve, or eliminate its presence. The more paramount a value "good health" becomes, the more medicine may well set the very terms in which people think and act to live the "good life".

De profylactische behandeling van twee hemofiliepatiëntjes door de huisarts

DOOR D. POST, HUISARTS TE WEZEP

Samenvatting. Hemofilie is een probleem waarmee tot voor kort de huisarts voor wat betreft de behandeling slechts zijdelings te maken kreeg. Sinds enkele jaren wordt een profylaxe toegepast in de vorm van het regelmatig geven van de ontbrekende stollingsfactoren. In dit artikel wordt aan de hand van de behandeling van twee hemofiliepatiëntjes de aandacht gevestigd op het feit, dat de huisarts een groot aandeel kan hebben in de behandeling van hemofilie.

Het probleem van de hemofilie is al zeer oud. Iedereen heeft bij de geschiedenislessen geleerd dat de Engelse en Russische koningsfamilies aan deze ziekte leden, maar hemofilie komt niet alleen in koningsfamilies voor. Tegenwoordig wordt deze ziekte in toenemende mate aangetroffen in alle lagen van de bevolking. In Nederland schat men het aantal lijders aan hemofilie op 2 000 (*Loeliger en Veltkamp; Veltkamp*), van wie ongeveer de helft aan een ernstige vorm ervan. Vroeger was de gemiddelde leeftijd van een hemofiliepatiënt achttien jaar, thans kan de hemofilielijder door de vooruitgang in de behandelingswijze waarschijnlijk de normale gemiddelde leeftijd bereiken. Het aantal hemofiliepatiënten zal hierdoor dus ook kunnen toenemen.

Bij de hemofilie worden twee vormen onderscheiden: hemofilie A en B. Ongeveer viervijfde van de lijders heeft de A-vorm en een vijfde de B-vorm. *Van Creveld* heeft de stoot gegeven tot een intensief speurwerk op dit gebied. In 1936 ontdekte hij dat een antihemofiliefactor bestond. Hij constateerde dat bij hemofilie A factor VIII in het bloed ontbrak, terwijl bij hemofilie B factor IX niet aanwezig was. Later ontdekte hij dat deze factoren in verschillende hoeveelheden in het bloed aanwezig konden zijn. Er werd vervolgens een onderscheid gemaakt tussen de ernstige vormen van hemofilie, waarbij minder dan 1 procent van de antihemofiliefactor (A.H.F.) in het bloed aanwezig is en de minder ernstige vormen, waarbij dit percentage hoger is. De normale hoeveelheid kan schommelen tussen 50 en 150 procent.

Brinkhous en medewerkers (1966) vonden dat bij een A.H.F.-gehalte van meer dan 5 procent geen spontane bloedingen meer optreden, maar dat dan de bloedingen ontstaan tengevolge van een trauma. Aanvankelijk werden bij ernstige bloedingen ter substituering van de ontbrekende factor bloedtransfusies gegeven. Men streefde er echter naar een zodanig concentraat van de A.H.F. te vinden, dat zo weinig mogelijk andere stoffen uit het bloed erin aanwezig waren, om diverse bijverschijnselen te voorkomen. Eerst vond men, dat in plaats van bloed beter vers plasma kon worden gegeven. Ook dat gaf echter teveel bijverschijnselen, zodat naar een nog zuiverder preparaat werd gezocht.

In 1965 verkregen *Webster en medewerkers* een meer gezuiverd preparaat: het zogenaamde glycineprecipitaat, dat echter in ons land niet veel toepassing vond. De grote uitvinding werd echter gedaan door *Pool en Shannon*. Zij bevroren plasma en lieten het weer ontdooien bij een temperatuur vlak boven het vriespunt. Daarna werd het gecentrifugeerd bij 4 graden Celsius. Op deze wijze werd het koudeonoplosbare precipitaat verkregen: het zogenaamde cryoprecipitaat. Hierin wordt een zeer hoog percentage A.H.F. gevonden.

Brinkhous en medewerkers (1968) verkregen een nog geconcentreerder preparaat, bereid uit gepoold cryoprecipitaat. Dit evenwel wordt in ons land niet gebruikt, omdat het geen verbetering is van het