knowledge. In case anybody thinks I believe that only doctors will do, may I cite Karl Sabbagh, of BBC 2's "Inside Medicine," and Ronnie Bedford, of the *Daily Mirror*. Both have rare qualities among those handling medicine for the media: knowledge of the facts; willingness to consider both sides of an argument; and not making up their minds on an issue at the beginning. Certainly, even on grounds of public expenditure alone, for a service that is the largest employer in Britain, it is about time that this "trivialisation" of health by our press stopped.

Of course, other sections of the community also have important parts to play in a fuller debate on health; ultimately we should have health as an important subject in the "O" level syllabus. If they abandoned their preoccupation with local politics, community health councils could have an important role, while the community physician has an ideal opportunity to influence local decision-making about important matters such as fluoridation of the drinking water as well as to develop local schemes of health education. Just as important is the role of the family doctor, who at every consultation with a patient is in a unique position to talk about health from a personal point of view. Finally we need some sort of central policy-making body, composed of individuals of proved worth, which would constantly debate health issues and priorities. This could possibly resemble the French *Commissariat du Plan*, which has played such an important part in the economic recovery of that country.

Persuasion, and rewards

All these schemes sound good on paper, but they need a lot of impetus to get started. Both the public and the doctors need to be convinced that they would be worth while. But health must surely benefit from more and better public discussion than it gets at present. To take one obvious example, there is the plight of our hospitals. Few laymen realise the extent to which these are being, and will be, run down. Although many of our consultants were content to start their careers in patched-up

workhouses, the oft-repeated promises by politicians that these would soon be replaced has now been broken, and these dirty, inefficient, and depressing buildings will still be serving the public at the end of the century. Add to this the shortage of junior staff (and, equally important, of nurses), and the stupid Illich-type idea in many lay minds that hospitals are full of arrogant A-award specialists doing useless procedures, such as uncommon transplants, and (political troubles apart) it is not surprising that the cream of our new graduates has been emigrating or is now going into general practice. Yet the press are quick to criticise missed skull fractures in casualty departments; the Ombudsman has recently commented on a three-hour delay in an obstetric clinic; and there was a storm about the failure to provide facilities to isolate patients with suspected Lassa fever.

Through ignorance or antipathy, or both, our newspapers omit to say that these deficiencies are none of the doctors' doing: indeed, for years doctors have been pressing to have something done about them. They omit to say that, rightly or wrongly, somebody has preferentially allocated money to swell the ranks of the administrators at the expense of a new casualty department, or even that the effect on the country's balance of payments of a week's strike at one of our car factories probably costs the country the equivalent of a new district general hospital. In fifteen years' time our district hospital service could be almost run down, with your prognosis for survival if you are run over outside Slagthorpe Infirmary totally different from that if a similar accident befalls you outside UCH. It was public pressure that created the Health Service to abolish this differential: it is public pressure that must see that it does not return.

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Personal Paper

On the probability of a committee meeting

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In the beginning, when we were few, we would meet often in various formal and informal guises. The difference between a conversation and a committee was marginal. Now we are numerous. We have adopted a constitution and bylaws and set up a structure of standing committees which seems to work quite well. Nevertheless, ad hoc matters are always arising to which the normal response is to convene a committee to ensure broad representation and participation. As the school gets

larger these ad hoc committees get larger and more difficult to convene, so they are arranged further in advance and after normal hours. These responses—planning ahead and working harder—seem laudable, but we are doubtful. The analysis described below not only lends respectability to our doubts but is so sobering that we think it worth sharing with those similarly afflicted.

Varying probabilities

We considered the probability of an ad hoc committee meeting, assuming that the members of such a committee have a working week—that is, are "on the premises"—of 40, 45, and 50 hours in each of which 20, 25, or 30 hours are committed. We further assumed that the committed and uncommitted hours

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are randomly and independently distributed throughout the working week in units of one hour. We then calculated the probability that an ad hoc committee of n people, where n varied from 2 to 8, could be brought together for a one-hour meeting in a given week (see table).*

Probability of an ad hoc committee of n people being able to meet for one hour

Working week (hours)	No of hours already committed					
	30		25		20	
	n	Probability	n	Probability	n	Probability
40	2	0.9646	2	0.9999	2	1.0000
	3	0.4919	3	0.9219	3	0.9993
	4	0.1478	4	0.5750	4	0.9511
	5	0.0386	5	0.2641	5	0.7492
	6	0.0097	6	0.1067	6	0.4834
	7	0.0024	7	0.0411	7	0.2754
	8	0.0006	8	0.0156	8	0.1469
45	2	0.9995	2	1.0000	2	1.0000
	3	0.8552	3	0.9946	3	1.0000
	4	0.4443	4	0.8651	4	0.9963
	5	0.1724	5	0.5651	5	0.9378
	6	0.0603	6	0.3010	6	0.7654
	7	0.0204	7	0.1450	7	0.5400
	8	0.0068	8	0.0667	8	0.3443
50	2	1.0000	2	1.0000	2	1.0000
	3	0.9815	3	0.9999	3	1.0000
	4	0.7558	4	0.9772	4	0.9999
	5	0.4142	5	0.8229	5	0.9918
	6	0.1885	6	0.5623	6	0.9304
	7	0.0793	7	0.3316	7	0.7821
	8	0.0324	8	0.1801	8	0.5881

*This table was derived from some basic concepts in probability theory using a programme specially written for our HP 3000 computer.

A high probability indicates that such a committee can probably be called without any member failing to meet other commitments. A low probability implies that it will be difficult to bring the committee members together. This will demand a lot of "administrative energy" from the system, not only in unfulfilled other commitments by its members but also in secretarial time spent scheduling the committee and rescheduling the other work of the members. In other words, the lower the probability, the greater the cost.

Let us look at a few specific examples from this table. For a working week of 40 hours with people committed for 30 of those hours there is less than a 50% chance of a committee of three meeting without extra cost (working week 40; hours committed 30; $n=3$; $P=0.4919$). Adding one more member to this committee outweighs the benefit of working five hours longer per week (45; 30; $n=4$; $P=0.4443$). Even in an organisation in which each member keeps 20 hours uncommitted, increasing the size of the committee by one outweighs the effect of working 10 hours longer (compare top right (40; 20) with bottom left (50; 30)). A committee of eight has only a 50% chance of meeting without extra cost if composed of people working a 50-hour week of which only 20 hours are committed—a highly desirable but unrealistic state of affairs.

Implications

Many of the implications are obvious but some are not, and quantitatively most are sobering.

Obviously the smaller the committee the better, but note how much better.

Obviously the longer one works the better, but note how little better.

Obviously the more one plans one's time (the more hours committed) the worse for the system: in a sense, the more "efficient" one is, the less "effective"—available—one becomes.

Should it be felt that the purpose of one or more of these ad hoc committees has become a regular matter, the suggestion will be made that somebody should be employed to handle it. Unless this individual has no other responsibility—that is, none of his time is otherwise committed—either the problem is com-

pounded, because n is increased, or he must replace the committee.

So what?

In addition to the qualitatively obvious, but quantitatively surprising implications, we would make the following assertions and suggestions:

(1) Responsibilities should be given to individuals. Even if a committee is needed, the chairman should do as much as possible by himself.

(2) Committees should meet only to deliberate, not to disseminate or communicate.

(3) Committees may disseminate or communicate, but to do this they do not need to meet.

(4) By far the most powerful item in the table is " n ": the practical implication is obvious.

(5) The next most powerful item is the number of uncommitted hours, which were assumed to be randomly distributed. Herein is the second best hope of improvement: constrain the committed hours and protect the uncommitted time by habits which, as well as increasing effectiveness, if not "efficiency," are also more civilised than those currently observed. Thus: (a) do not have coffee at your desk—go to the cafeteria, the common room, the ward, or the laboratory, and at the same time as other people; (b) attend rounds, clinical conferences, and seminars; arrive a few minutes early and hang around afterwards; (c) have lunch together; (d) visit the bar before going home in the evenings.

We submit that the improvement in the dissemination of information and in the sounding of opinions will reduce the time wasted in committees and both directly and indirectly increase the probability of their meeting.

ONE HUNDRED YEARS AGO Whilst at Constantinople, I crossed the Bosphorus two or three times, and visited the hospital at Scutari. The interiors of the wards look clean, and the patients look comfortable and well cared for. The *French Pharmacopoeia* is used in Turkey, and all prescriptions are written in French. The diets range from 1 to 6. No 6 is the highest, and consists of a good supply of meat and rice, and bread. Hushaf, or stewed raisins, is an extra, and is a very favourite thing with the Turks. Mahalabie is also an extra, consisting of rice and raisins, and is often given with No 5 diet, as that contains less meat. Nos 1, 2, 3, 4 are soups, or soups and rice. This hospital is a large one, and contains chiefly medical cases. It holds, I think, six or seven hundred beds, but this I am not sure of. The wards are fumigated two or three times a day with incense.

In due time (the Turks never hurry themselves, no matter what it is or how important), I received my commission, and was fortunate in being sent to the front, where severe fighting was going on. I had to pass through Salonica, and thence by rail to Metraniza, thence a four days' journey on horseback to Sienitza, passing through Novi Bazar. The little hospital at Metraniza consisted of a few old haylofts, etc, knocked into one. I found a very large number of troops encamped by this village. Two of the camps were on perfectly flat ground by the side of a river. In wet weather, the place was like a swamp. The latrines are placed much too near the camps, and all around and close to the camp is freely used by the soldiers. The outpatients of this hospital chiefly suffered from ague, dysentery, and diarrhoea. The hospital at Novi Bazar is a large one, and contains four or five hundred beds. The wards are clean, and the chief medical officer here (Oshmed Bey) is, I think, a very suitable man for the position he holds. He has studied in Paris, and seems well up to his work. The privy accommodation here is of a very rude description, and large open gutters convey the faecal matter away from the hospital. The inmates of this hospital are chiefly convalescents from Sienitza. I stayed here for two days, and was much struck by the extraordinary number of cases of goitre I saw; many of them very large indeed. I am sure it is no exaggeration to say that every third person had this disease more or less developed. (*British Medical Journal*, 1876.)