

# Problems in measuring and evaluating the quality of care in mental handicap hospitals

by Andy Alaszewski, MA Cantab.

This paper is concerned with indices for measuring performance within the National Health Service. The emphasis is on hospitals for the mentally handicapped. The paper briefly traces the history of current indices. It is argued these indices are concerned mainly with resource input and it is suggested that although these indices may have been adequate during a crisis, health service personnel at operational level need additional indices to understand and control the care process.

The author shows how a new set of indices could be created and presents a case study showing how the proposed indices would improve on existing ones. The problems of utilising indices are discussed together with suggested alternatives. The paper does not advocate the use of any one index but is more concerned with showing why such indices are important and how they can be created.

Prior to reorganisation the fragmented, dispersed nature of health care production and the unclear confused relationship between different tiers in the NHS tended to conceal the direct and indirect impact of the NHS on the national economy in terms of production and consumption. The reorganisation of the health service in 1974 and the series of industrial disputes and wage settlements in 1973 and 1974 focused attention on the fact that the NHS is one of the largest nationalised industries in the UK.

Although it has been fairly easy to assess the role of the NHS as a consumer of resources, it has been far more difficult to assess its role in production. The output of the NHS in terms of cure, care and control is difficult to cost. Not only are problems of value involved, but also problems of labelling and definition. Concepts such as health, illness, disability and handicap all contain a social element which makes them in varying degrees specific to social groups or cultures. Despite these problems evaluation is not only a necessary aspect of health care but probably inevitable. Since the health service is a nationalised industry, one aspect of public accountability must include the effectiveness with which resources are utilised.<sup>1</sup> The matter is made more urgent by the reduced level of overall growth and the proposed cutback in certain services. If services are to be improved in these areas it is only by more effective utilisation of resources.<sup>2</sup> Therefore rather than allowing evaluation to remain, as it often is at the moment, implicit, it is a useful exercise to make it explicit.

In developing measures for performance three problems can be defined:

1. What indices currently exist for evaluating performance and in what ways are they inadequate?
2. What indices could be used to supplant them and in what ways would they be better?
3. Who would be responsible for utilising these indices?

I have chosen, as the subject of this paper, an area in which evaluation is especially difficult, mental handicap. I shall structure the paper around the first two problems and discuss the third more

briefly. My main concern will be to show how present systems of evaluation are inadequate and suggest methods by which new ones can be created.

## Existing criteria for measuring performance

Traditionally, standards of facilities and care in mental deficiency colonies were assessed by inspection. Assessment by both external (ie board of control, visiting committee and later hospital management committee) and internal agents (ie medical superintendent and chief male nurse or matron) was by personal inspection of facilities. This procedure dates back to the late 18th and early 19th century asylum legislation which was intended to bring private madhouses under public scrutiny. The external inspectors were primarily concerned with the inspection of legal documents, as the colonies were part of a quasi-judicial system that deprived individuals of their civil liberties. However, they also inspected and commented on ward and recreational facilities. The 1957 Royal Commission,<sup>3</sup> wishing to clarify the judicial and administrative aspects, dismantled the Board of Control and with it the embryo of an inspectorate system.

The shock of the Ely Report<sup>4</sup> and 'Put away'<sup>5</sup> in 1969 led to a reassessment of the monitoring system. The committee of inquiry at Ely recommended the revival of a system of inspection. Crossman, the Secretary of State, visited many hospitals to see for himself and set up the Hospital Advisory Service (HAS). Although HAS teams intended to seek information on areas other than resource input, (ie physical condition and staff ratios), their initial recommendations focused mainly on deficiencies in the resource input.<sup>6</sup> As Alex Baker, the first director of the HAS, pointed out: 'the assessment of the physical provisions of a hospital is relatively easy.'<sup>7</sup> At the same time hospital return forms were adapted into a system for evaluating and monitoring facilities. In 1969 and 1970 a new set of standards, modelled closely on P. Morris' work, were introduced. The hospital returns were used to measure the extent to which individual hospitals reached these standards.

'The paper reference RHB Chairman 10/69...and RHB Chairman 10/70...issued guidance on the minimum standards for existing hospitals for the mentally handicapped. In order to measure the extent to which these minimum standards are being achieved, relevant information is called for in this return.'<sup>8</sup> The return forms concentrated on resource input, eg physical facilities, staffing, patient amenities and educational/occupational facilities. There was also some direct assessment of care practice, ie visiting arrangements, but the emphasis was on resource input rather than care output.

The initial objectives were a rapid improvement in the physical environment. For example, most of the initial proposals concern such items as cupboard and individual clothing.

'Towards the end of the year boards were asked to work out programmes of improvements for the mentally handicapped which should give priority to standards of food and clothing and should achieve interim standards of staffing and of

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patients' living conditions within a period of five years.<sup>9</sup> The results of the hospital returns were, and still are, published in a form that makes the comparison of resource allocation explicit.<sup>10</sup> For example, all hospitals that fail to achieve minimum standards in terms of staffing and facilities are listed.

These measures based on resource input and quality of physical environment were suitable in a crisis. The mentally handicapped have, as Abel Smith pointed out in 1958,<sup>11</sup> long been deprived of the basic necessities of life and an injection of resources was a necessary, although not a sufficient, condition for improving standards and care.<sup>12</sup> However, the minimum standards exercise creates certain problems. Measurement of resource input either in terms of staff allocation or quality of physical environment has tended to be used as a measure of output, in this case the quality of care.

Table 1 is an extract from a recent survey made by one AHA of its mental handicap facilities. The report was entitled 'Aims and standards of provision and care in hospitals for the elderly, mentally ill and mentally handicapped.' Thus it purports to be a survey not just of input, ie provision, but also of output, ie care. As Table 1 indicates, the report concentrates overwhelmingly on resource input. There is only one section devoted directly to care—the organisation of the patient's day. On closer examination even this section is concerned with resource input. For example, the provision of therapy is equated with the construction of therapy facilities and the provision of therapy staff.

Interviews with senior hospital personnel confirm not only that they had adopted DHSS standards, but also that they have not created alternatives. Consider the case of therapy. The emphasis in official returns on the provision of therapy helps to create the impression that the provision of 'therapy' facilities and more particularly attendance at a therapy unit is equivalent to the provision of therapy, irrespective of what the patient does in the therapy unit. In other words, it tends to displace the problem of therapy from the therapist-patient interaction to the provision of facilities. For example, in the following interview a unit administrator is able to argue that the hospital is providing therapy by equating attendance at therapy units with the provision of therapy. This interview took place during a period when staff in the hospital therapy units were undergoing a crisis of confidence.

**Q.** Is the existence of two specialised types of units, wards and therapy units really necessary? Wouldn't one combined therapy-basic care unit be better?

**A.** No. Ordinary people in everyday life live in one place and go out to work in another. By having separate departments it is possible to ensure that all patients are getting therapy.

**Q.** It might just cover up the problem. It's very difficult to design therapeutic programmes for severely and profoundly subnormal patients. The movement of patients between wards and the therapy units might conceal the fact that the patients weren't receiving therapy in the therapy unit. It might merely displace the problem.

**A.** No. I don't think it's a real problem. The very existence of therapy units is a guarantee that therapy is taking place.

Since the emphasis of official evaluation is on the quality of the physical environment and the level of staffing resources, senior hospital personnel have concentrated on improving the physical environment, ie 'upgrading' the wards, and on obtaining more staff. The result is that mental handicap hospitals in general have improved their performance on these measures, but this tells us very little about the changes in quality of care. For example (taking a pessimistic view) all it may mean is that the quality of the physical environment is an increasingly unreliable indicator of the quality of care.

The relationship between the physical environment and the nature of patient treatment is not a direct one. A poor physical environment can and has been taken to indicate poor standards of care but as a Hospital Advisory Service Report notes 'even when the best physical conditions and facilities are provided in brand

**Northside Area Health Authority: Services for the Mentally Handicapped: North Health District, Broadhill Hospital.**

Facility assessed	Target	Achieved	Action needed
A. Maintenance of minimum standards of physical accommodation	1a. Over 50 sq ft day space per bed	No	2 bed reduction
	1b. Over 70 sq ft day space per bed		28 bed reduction
	2a. Over 30 sq ft dormitory space per bed	Yes	
	2b. Over 48 sq ft dormitory space per bed	No	48 bed reduction
	3. All wards less than 30 pts	No	2 adult wards
	4. All pts with individual cupboards	Yes	
5. Adequate play and recreational facilities		Yes	
	6. Adequate and private wcs and washing facilities	No	3 wards need more privacy in wcs
B. Patients' clothing	1. Each patient to have individual clothing	Yes	
C. Staffing	1. Medical	Yes	
	2. Nursing	Yes	
	3. Chiropody	Yes	
	4. Domestic	No	More staff for therapy units and staff residence.
	5. Rehabilitation	No	More in 1977
	6. Dental	Yes	
	7. Psychologist	Yes	
	8. Social worker	Yes	
D. Catering	1. Minimum standards for meals	Yes	
E. Organisation of patient day	1. Therapy	No	More facilities and staff needed.
	2. School	No	New schools under construction.
	3. Visiting-open	Yes	
	4. Entertainment	Adequate	
F. Staff complaints	1. Procedure for complaints	Adequate	

Table 1

new hospitals, the milieu in the hospital does not necessarily improve',<sup>13</sup> ie a good physical environment can conceal poor care. Even the relationship between poor environment and poor care cannot be taken for granted. For example, Dr Scott argued in his defence of conditions at Napsbury Hospital that these conditions were a necessary part of the treatment regime.<sup>14</sup>

In view of the unreliability of the physical environment as an indicator of the quality of care both senior personnel and outside observers require more direct methods of measuring care. In the following section I suggest ways in which measures of performance could be generated and in the next section I develop one measure to show how it can be utilised.

**Developing indices of performance**

In industrial organisation (operating in a market situation, with sophisticated costing arrangements and well defined boundaries) performance can be evaluated by contrasting the costs of input in terms of materials, labour and capital with the benefits of output in terms of sales of finished products. There is a temptation to transfer this model directly to health care organisations. Indeed,

this is precisely what health economists such as Culyer and Williams have tried to do. There are two problems. First there is a technical problem. Health care is not delivered in a market situation and only some elements are costed, for example output is not costed and only some input is, eg doctor's time but not patient's time. One possible solution is to pretend that health care is delivered in a market situation and introduce shadow pricing, eg pretend prices to patients' time. This solution leads one on to the second problem - a conceptual problem.

Concepts such as health, illness, and handicap are social definitions. In other words they cannot be defined solely in biological terms but are relative either to specific cultures or to an individual's position in society. For example a disability such as a foot injury will have different consequences for a professional footballer and for a university professor. One way of avoiding this problem is to concentrate on conditions that can be clearly clinically defined such as Down's syndrome (mongolism) for the mentally handicapped and utilise comparisons which minimise social aspects. For example, Culyer, Lavers and Williams in their attempt to develop indicators of effectiveness have to start by constructing indicators of health state based on pain and degree of disability and propose initially to limit their measures to comparisons of different regimes for specified medical conditions.<sup>15</sup>

The health economists are basically utilising a black box approach. Since my usage of the term black box may be unfamiliar I shall develop the concept. The concept is derived from systems theory and analysis. In this type of analysis two types of system can be identified - closed systems and open systems. Open systems interact with their environment through a system of exchange. A black box approach focuses on the nature of this exchange rather than on the system itself. The main interest is on the output that different types of input create - the system is treated as a black box whose operations cannot be examined. This approach suggests another way of looking at the technical and conceptual problems involved in evaluation. Instead of contrasting input with output it is possible to focus on the process. Input/output analysis tends to treat the process by which input is converted into output as a black box. It is more concerned with the performance of different black boxes, ie different treatment regimes or types of care organisation, than with the way in which one black box works and can be improved.

For the academic observer or policy maker concerned with a comparison of different treatment regimes or types of care organisation the comparative perspective is obviously attractive. Furthermore it avoids issues of clinical autonomy - these are inside the black box. However, the practitioner or administrator concerned with operational management is in fact committed to one particular type of black box and his concern is the way in which the process can be improved. Thus the policy making input/output analysis must be complemented by an operational process analysis.

In mental handicap hospitals it is, despite policy statements, difficult to define output. Mental handicap can be seen as a chronic mental condition defined in social rather than physical or biological terms. The social categorisation exists at two levels. Firstly, mental handicap is legally defined by different types of social incapacities. The emphasis is on the social effects rather than any physical cause. Secondly admission to and discharge from hospital is at present primarily determined by social factors, ie the existence of alternative social support systems, whether family or local authority hostel. Although change can be created in the mentally handicapped person's skill, these changes are not related in any simple or direct way to his discharge potential. Discharge is determined by the existence of alternative care facilities. It is possible to avoid this dilemma by restricting the term output to discharge and utilising the outcome to indicate changes in a patient's condition.

However, apart from the practical reasons for focusing on the contents of the black box (on the process of care and therapy

rather than output or outcome) there are also theoretical grounds. Health care, apart from the preventative aspects, is primarily a service industry, providing various types of highly personalised service. This means that the product is mainly consumed at its point of production and the act of giving care takes place at the same time and in the same place as the act of receiving it. This is unlike the situation in industrial organisations where the product can be stored and the act of production is separate in time and space from the act of consumption. In this situation the two are joined by a series of exchanges.

Thus, in industrial organisations it is possible to study the production system separately from the distribution system and from the consumer. In fact very little attention need be paid to the consumer beyond the fact that he has a demand for the product and is prepared and able to pay for it. His income and consumer behaviour is of more interest than his motives or beliefs. In health care organisations a very different set of relations is formed. The consumer is often inside the organisation and in some senses part of it (in a long stay institution some of the patients may remain within the organisation longer than some of the staff). The act of production is not separate from that of consumption by a chain of exchanges. They cannot be separated in practice. Thus measurement of the performance of care organisations must start with the nature of the production/consumption care relationship and must take into account consumers' needs. This argument is, of course, different from the one about the 'commodity' status of the health care product. Even where, as in the United States, health care becomes a commodity with a market value, it still remains significantly different from other commodities because of its production and consumption characteristics.

Leaving aside these theoretical issues, let us consider how we can concentrate on the contents of the black box. If outcome is defined in terms of changes in a patient's condition, it must be the product of therapy. Therapy can be seen as having four aspects.<sup>16</sup>

1. Objectives for individual patients;
2. a set of methods for achieving these objectives;
3. a procedure for assessing at the end of the specified time the extent to which these methods have reached the objectives;
4. a procedure for creating new targets or methods.

A full analysis of the outcome of the therapeutic process would require a longitudinal study of patient populations such as the Brooklands experiment.<sup>17</sup> This type of study is both expensive and time consuming. A useful indicator of the existence of a therapeutic programme can be based on the four aspects of therapy. Since therapy is defined as a time-based activity, one of the most important indicators must be the existence of records indicating the presence of individual objectives, including a set of methods for achieving these objectives and a time schedule for achieving them. The author conducted a comprehensive examination of 235 sets of patients' notes in one progressive mental handicap hospital. The survey showed that 194 patients (83 per cent) had been discussed by interdisciplinary case conference but in only 86 cases (37 per cent) were individual objectives agreed upon and in only 36 cases (15 per cent) were methods of achieving these objectives agreed upon. In nine cases (4 per cent) it was also agreed to reconsider the case after a set period of time, but in no case was there a repeat conference.

Since therapy programmes, defined in a strict sense, are not a common feature of mental handicap hospitals, the performance of most mental handicap hospitals, must be measured by the quality of care. Whereas therapy is only meaningful in terms of objectives and outcome, care can be defined without reference to specific objectives. Care is the nature or pattern of interaction between staff and patients at a given time. Thus it can be divided into four components:

1. Staff activity patterns;
2. staff interaction patterns;
3. patient activity patterns;
4. patient interaction patterns.



A comprehensive study of the care process would include all four variables in both the recording system and analysis. However, a system based on indicators could utilise a more restricted record and/or more limited analysis. In her study of an American institution for chronic physically ill patients<sup>18</sup> Rose Coser suggests just such an indicator. She utilises staff interaction patterns as an indicator of the quality of care. She suggests that when a high percentage of the total recorded staff interactions are with patients rather than with other staff, this indicates good care, whereas if a low percentage of the total recorded staff interactions take place with patients then it indicates poor care. This indicator can be used to rank different care situations, the higher the percentage of total recorded staff interactions that take place with patients, the better the care.

The indicator suggested is really one for measuring standards rather than effectiveness and efficiency. Tom McKeown defines standards as 'how well we do what we do'; effectiveness as 'whether what we do is worth doing'; and efficiency as 'whether what we do makes better use of health resources than the available alternatives.'<sup>19</sup> Thus, the measurement of standards takes the existing pattern of services for granted and is concerned with the operational aspects, whereas efficiency and effectiveness both question the nature of the existing pattern. Thus practitioners and operational managers must be concerned with standards, whereas policy makers and those wishing to influence policy should be concerned about efficiency and effectiveness. In the next section, I shall utilise Coser's indicator to show how it can be used to provide a way of examining standards.

### Case study of interaction patterns used as indicators of care

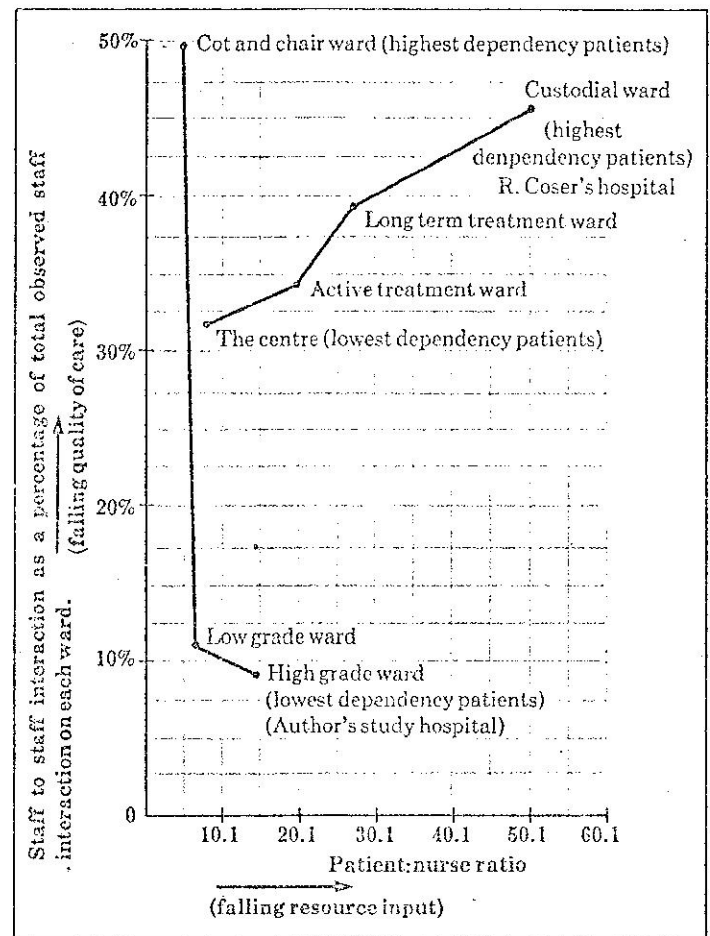
In this section, I will show not only how an interaction pattern can be used as an indicator of care but also the inadequacies of resource inputs as indicators of care. The analysis will start with a reconsideration of Coser's study and then explore some of the problems utilising material from the author's own research in a hospital for the mentally handicapped.

Traditionally staffing resources in chronic hospitals have been allocated on an 'economic' basis. Patients expected to improve the most received the greatest allocation of resources. This meant that the wards with the least able and most dependent patients had the least staff. Coser described this type of situation in her study, and found that the more dependent the patients, the less optimistic the staff and the lower the allocation of resources.

Coser suggested that care could be evaluated by observing the extent to which staff interact among themselves rather than with patients, ie the extent to which staff withdraw from the patients. She found that 'the greater the number of patients in relation to nurses in a ward, the more staff tend to spend time among themselves',<sup>20</sup> ie the more staff withdraw from patients and compensate by interacting with their peers. She argued that 'an acute shortage of personnel does not necessarily increase each person's load; it may get so bad that it legitimises withdrawal from the task.'<sup>21</sup> If Coser's arguments are accepted, then resource allocation can be utilised as an indicator of the quality of care and emphasis placed on increasing resource allocations to the most deprived wards. The solution is simple. The quality of care can be improved by providing more staff, especially on the wards with the most dependent patients.

How far does this work? At the hospital studied by the author, this philosophy had been accepted by senior hospital personnel and the traditional 'economic' allocation of resources had been reversed. At the study hospital, wards with the most dependent patients have the highest allocation of resources. Measures based solely on the input of resources would indicate an improvement of care, especially for the more handicapped patients, but are these changes reflected in Coser's indicator? Does the level of staff to patient interaction rise on high dependency wards? The answer is

A comparison of the relationship between quality of care (as expressed by interaction patterns) and allocation of resources as expressed by patient/nurse ratios) in two studies (see Coser, op.cit., 1963, Table 11).



Graph 1

no, if we accept Coser's measure. If we examine Graph 1, we can see Coser's original material represented diagrammatically. This graph is based on, and utilises, the same axes as Coser's graph. It is important to note that the conventional values along the two axes are reversed. Although the numerical values along each axis increase, both indicate a fall in real value.

For example, a shift in the patient/nurse ratio from 10:1 to 20:1 indicates a halving of the number of available nurses and therefore a fall in the resource input. Graph 1 shows that as resource input falls (measured by number of patients per nurse) so the quality of care (measured by staff to staff interactions as a percentage of total recorded staff interactions) also falls. In other words there is a small positive gradient. The observations from my study show exactly the reverse - there is a large negative gradient. In other words as the resource input falls (ie patient:nurse ratio rises), the quality of care rises (ie staff to staff interaction, expressed as a percentage of total observed staff interactions, falls). This indicates that in my case the resource input can no longer be utilised as an indicator of the quality of care because the positive relationship between resource input and quality of care that Coser found in her study no longer exists.

The conflict between Coser's observations and mine is resolved if instead of focusing on patient/nurse ratios we examine nurses' attitudes towards patients on different wards. Nurses' expectations of patients at the study hospital are based on a tripartite classification of wards and patients into high-grade or mildly handicapped; low-grade or severely handicapped; and cot and chair or multiply and profoundly handicapped. This classification is associated with a complex set of beliefs which includes

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expectations about the patient's future. High-grade patients are seen as nearly socialised and are expected to improve and leave the hospital. Low-grade patients are seen as anti-social, even animal like. They are not expected to improve or leave the hospital. In fact they are seen as ideally suited to the hospital regime. Cot and chair patients are seen as non-social and are sometimes described as vegetables. They are expected to deteriorate and die. Thus, nurses expect patients on the high-grade ward to be discharged, those on the low-grade ward to remain static and patients on the cot and chair ward to deteriorate.

Although Coser does not explicitly discuss nurses' expectations of patients on her different wards, there is enough material in her article to enable us to compare the expectations of nurses in her study with those in ours. She provides a basic dichotomy between the Centre and the Sunnysdale wards. In Centre, nurses expect patients to improve and leave, 'all Centre nurses mention the goal of restoring patients to the community'.<sup>22</sup> Sunnysdale nurses do not expect their patients to leave, in fact they expect them to deteriorate. 'This is the end of the road, and the people here talk of them as vegetables.' Note that the term 'vegetables' is used both in the Sunnysdale wards and on the cot and chair ward at the study hospital. There appears to be a variation in expectations among the different wards in Sunnysdale. Coser does not discuss this, but the term she uses to classify the wards suggests that nurses expect patients' conditions to remain static on the active and long-term treatment ward, and deteriorate on the custodial ward.<sup>23</sup>

If we compare nurses' expectations with interaction patterns then we find the same trend in both studies (see Table 2). In both studies the greater the staff optimism, the higher the quality of care, as measured by staff to staff interaction as a percentage of total observed staff interactions. If anything the variation in the study hospital is greater than that in Coser's. At the study hospital the most able are getting even more and the least able even less within the existing pattern of resource allocation. This measure concentrates on the way in which staff on each ward allocate their time. To show variations in the amount of interaction patients on different wards receive, we need to analyse the material in a different way, ie we need to examine staff to staff interaction on each ward as a percentage of the total recorded staff to staff interaction. This measure takes into account variation in levels of staffing on the wards and variation in the overall level of interaction whereas the first measure is ward specific and does not take these factors into account.

The variation between the two studies is reduced by this technique of analysis. Table 3 shows that when resource input and overall interaction levels are taken into account, there is an even stronger similarity between the results of the two studies. Compare the wards on which staff expect the patients to be discharged. Table 2 shows that the high-grade ward in the author's study appears to perform better than Centre in Coser's study. On the high-grade ward only nine per cent of total staff interaction are staff/staff interaction (ie 91 per cent are staff/patient interactions) whereas on Centre ward 31.3 per cent of total staff interactions are staff/staff interactions (ie only 68.7 per cent are staff/patient interactions). However, Table 3 shows that if differences in staffing and overall interaction are taken into account, the differences between the two wards are considerably reduced. In the author's study the high-grade ward has less staff than the other wards. This means that although staff on that ward devote a smaller percentage of their time interacting with other staff than do staff on other wards, because there is overall a higher rate of interaction on the high-grade ward, it contributes more than the other wards to the overall staff/staff interaction. Table 4 provides the raw data from which both Table 2 and Table 3 could be constructed. The choice of analysis depends on the precise objectives of the analysis.

These type of results should create concern among senior personnel. They indicate that an increase in staff input does not

Relationship between nurse's expectations of change in patient's condition and staff/staff interaction. (The figures in each cell represent observed staff/staff interaction as a percentage of total observed staff interactions on each ward).

Nurses' expectation of patients		Discharge	Static		Deterioration
			Active treatment	Long-term treatment	
Coser's study	Wards	The centre	Active treatment	Long-term treatment	Custodial
	Observation	31.3%	34.5%	39.2%	45.7%
Author's study	Study wards	High grade	Low grade		Cot and chair
	Study observation	9%	11%		52%

Table 2

Relationship between nurse's expectations of change in patient's condition and staff/staff interaction adjusted for variations in staffing levels. (The figures in each cell represent observed staff/staff interactions on each ward as a percentage of total observed staff/staff interactions in all the wards studied.)

Nurses' expectation of patients		Discharge	Static		Deterioration
			Active treatment	Long-term treatment	
Coser's study	Wards	The centre	Active treatment	Long-term treatment	Custodial
	Observation	17%	19.5%	18.5%	45%
Author's study	Wards	High grade	Low grade		Cot and chair
	Observation	19%	23%		58%

Table 3

Observed staff interactions on three wards in the study hospital.

	High grade ward	Low grade ward	Cot and chair wards	Total
Observed staff/staff interactions	25	10	8	43
Observed staff/patient interactions	23	78	79	180
Total observed interactions	48	88	87	223

Table 4

automatically improve the quality of care because, despite changes in the pattern of resource allocation, the traditional pattern of care persists. There appears to be a mediating influence between resource input and the quality of care - staff beliefs or attitudes. By focusing on the care process it is possible to examine the effect of this mediating process. In the next section, I shall examine some of the practical problems in utilising this type of evaluative system.

### Problems in utilising the system

The main problem in utilising this system is not cost, (it would probably cost little more to implement than completing the exist-



ing DHSS returns), but the reaction of staff and more especially the organisations protecting staff interests, the unions and the professional associations. The professions have traditionally been very powerful in the health service and they have tended to control work indirectly through the education system.<sup>24</sup> Furthermore they have traditionally been concerned to prevent evaluation of their work by non-professional bodies. For example Richard Crossman encountered considerable resistance when he proposed the formation of a health service inspectorate after the Ely Hospital scandal. Crossman's record (which some of the other participants have challenged) of the initial reaction of his senior advisers to the proposed inspectorate was as follows:

'They said my ideas were impracticable. An inspectorate would have all kinds of difficulties. The doctors would demand that their affairs should only be inspected by doctors.'<sup>25</sup>

As is clear from the following statement in which Crossman describes his meeting with a high powered delegation of doctors, he conceded the point that the inspectorate should be made up of health service professionals.

'I said "now we come to Ely", and told them about the inspectorate. What interested me was that they had got a completely false impression. They thought I was going to have an inspectorate of civil servants who would look over the doctors' shoulders. "No" I said. "They'll be drafted from the National Health Service and will be on short-term secondment to me. The whole idea is to have eyes and ears and let the health service people feel I really want to understand them." The more I talked the more the JCC (joint consultants committee) felt they had been misbriefed (by officials of the department).'<sup>26</sup>

What is at stake is power. The groups that control the system of evaluation will also have control over the form and direction of the service. As Klein has pointed out, administrative and central government control over the service is exercised through overall financial control, ie through the control of resource input. Apart from expenditure on drugs, this control has been relatively successful. Indeed Klein goes so far as to argue that it is the very success of this overall control that has permitted the medical profession in Britain such freedom from evaluation. He argues that:

'Within the NHS the medical profession paradoxically enjoys much more autonomy than doctors working in free-market systems. Precisely because the NHS has a strict system of financial control over the total amount of resources allocated, it has so far not had to devise a system of trying to control individual medical decisions. In contrast, the United States has gone much further in developing a system for questioning the decisions of individual doctors - by way of audit - because there the situation is the reverse of that in Britain: there are no overall limits on spending, and the fee-for-service method of payment means that doctors can, and do, generate extra demands. In other words, an open-ended system of payments breeds controls, but a closed budgetary allocation permits autonomy.'<sup>27</sup>

However, the pressure for evaluation caused by inflation, reorganisation of the health service and rise of union power, has probably increased to the point where the professions will only avoid external evaluation if they do the job themselves. Take for example the unions. From 1948 to 1974 the union membership trebled at a time when the NHS labour force doubled and union density rose from 39.9 per cent to 60.9 per cent.<sup>28</sup> Through their shop steward system unions can exercise close control over the work situation and challenge the traditional hegemony of the professions. Among the ancillary staff, bonus schemes and work studies have proved a useful technique for increasing both pay and membership. The unions are therefore fully aware of the power and danger involved in work evaluation and would be concerned to establish control over any new extension of this principle. If the professions, especially the nursing profession, are

to retain control of their work practice then they would have to control this type of work evaluation.

If the evaluation is to be done by the professionals themselves, it is possible that a less direct method might be preferred. I argued that care was made up of four elements:

1. staff interactions
2. staff activities
3. patient interactions
4. patient activities.

If the focus is shifted from staff to patients and from interaction to activity then much of the immediate threat to staff is reduced. This type of evaluation would follow the same pattern as the one discussed in the last section but emphasis would be placed on recording and classifying patient activities rather than staff interactions.

The Wessex Health Care Evaluation Research Team proposes several alternative approaches to this problem. The measure proposed in this section is based on its work.<sup>29</sup> In terms of fieldwork, the method proposed is similar to the one discussed in the previous section - recordings are made of patient (and sometimes staff) activities. The analysis is different.<sup>30</sup> The concern is to divide patient activity into positive and negative categories. The Wessex team in its later studies suggests a simple engaged/non-engaged dichotomy which indicates whether the patient is doing something or not during the observation period. The observations in my study were divided in six categories:

1. Asleep in bed
2. basic care activity
3. positive activity
4. negative activity
5. absent with relatives.

Any period, except one classified as 5, during which the observer was unable to observe a patient was classified as:

6. activity unobserved.

Positive and negative activity categories approximate to the Wessex distinction between engaged and non-engaged. Classification of activities into positive and negative involved a judgement by the observer as to the usefulness and purpose of an activity. If an activity had no apparent use or purpose it was classified as a negative activity, where it did appear to have a purpose it was classified as a positive activity. In some situations there was little doubt. For example, when a patient fetched a clean pair of trousers that could clearly be classified as a positive activity, whereas if a patient was asleep in a chair that was classified as a negative activity. However, there were certain activities that were more difficult to classify. For example, was a patient sitting in front of TV watching it or not, or was a patient walking from one area to another actually going anywhere? To help differentiate between negative and positive activities the two categories were subdivided. Positive activities were subdivided into:

- a. purposeful activities, such as fetching a pair of trousers;
- b. entertainment activities during which the patient was a passive or active participant in a form of entertainment.

Negative activities were divided into:

- a. disturbed behaviour, such as throwing tables over;
- b. purposeless activities such as rocking in a chair;
- c. no activities, for example sleeping in a chair or staring blankly into space.

The results of observations made over one day during a weekend on the three study wards, confirm the pattern described in the previous section. The high-grade patients spent the longest engaged in positive activities, on average three hours 34 minutes out of a total awake period of 13 hours 12 minutes; the cot and chair patients fared worst, only 47 minutes out of 12 hours 9 minutes; and the low-grade patients were in between, one hour 50 minutes out of 12 hours 33 minutes (see Table 5). Again, the overall figures should cause concern, on no ward did the time patients spent in positive activities come close to matching the time spent

Activities on three wards during one weekend day expressed as an average per patient on each ward. (Note row 1 in this diagram is total period observed 13 hours 15 minutes minus activity category 1, sleep).

Number of patients	High grade 30	Low grade 22	Cot & chair 23
1. Total awake time	13 hrs. 10 mins.	12 hrs. 32 mins.	12 hrs. 14 mins.
2. Basic care time	2 21	4 3	3 45
3. Positive activities			
a. purposeful	1 46	42	22
b. entertainment	1 48	1 8	25
c. total	3 34	1 50	47
4. Negative activities			
a. disturbed behaviour	16	12	-15
b. purposeless	44	47	30
c. no activity	4 22	4 16	6 42
d. total	5 22	5 35	7 27
5. Period with relatives	50	1 17	
6. Unobserved period	1 3	7	15

Table 5

in negative activities.

Since the results obtained when using patients' activity as an indicator of care are similar to those obtained when using staff interaction patterns, it is possible to conclude that these two indicators are interchangeable. As they are interchangeable, it is possible to use whichever suits the practical or political situation. Although either unions or professions might object to the observation of staff and interaction patterns, there can be little objection to the observation of patient activity patterns. What is now required is a series of comparative studies to validate these observational tools so that they are more easily accessible.

## Conclusion

This paper has been concerned with examining existing methods of measuring the performance of care organisations, in this case hospitals for the mentally handicapped, showing their weakness and suggesting alternative indicators. Existing methods are based on resource input. Both conceptually and in practice resource input is inadequate as an indicator of performance. Conceptually because it does not give senior personnel any understanding or control over the care process, and in practice because as material presented in section two indicates, in some places at least, it is not positively correlated with indicators of care.

To develop indicators of care and therapy, I start from a redefinition of the concepts. Therapy can be defined as planned change created in a patient's condition over time. Thus, it has four components:

1. Objectives for individual patients;
2. methods of achieving them;
3. techniques for checking whether the objectives have been achieved and if so how far the methods contributed to this;
4. methods of creating new objectives or therapy methods.

An examination of case notes in one hospital for the mentally handicapped indicated the relative absence of therapy defined in these terms. Care is the staff/patient relationship at any specified time. Thus it is made up of four components: staff interaction

patterns; staff activity patterns; patient interaction patterns; and patient activity patterns.

In the third and fourth sections, I develop and discuss indicators based on staff interaction patterns and patient activity patterns. I suggest that, as one would expect, the two are interchangeable and a useful indicator could be based on either (depending on the practical and political problems involved). Indeed a care indicator could be based on any individual component or any combination, but any care indicator that disregards them would not be an indicator of care.

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30. Conceptually it makes little difference whether the analytical categories are derived before the observations, ie, the observation schedule is preceded, or after the observations. It is a technical problem, observations in the latter situation are likely to be richer but more difficult to record.