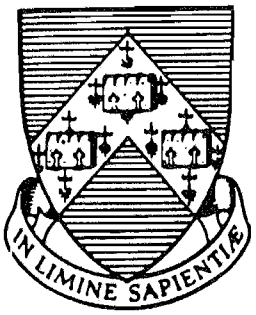

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Mental Health Care Policy in England:

Objectives, Failures and Reforms

by

Owen O'Donnell

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Abstract

For thirty years it has been government policy to shift the balance of mental health care from institutional to community care. But progress towards the objectives of 'normalisation' and integration of individuals with a mental health problem in the wider community has been slow. The fragmentation of responsibility and resources for the provision of care in the community has been a major deterrant to the development of services. For this reason, establishing a budget holder with clearly defined responsibility for meeting the needs of individuals with a mental health problem is necessary for more efficient and equitable service delivery. Sir Roy Griffiths (1988) and the Audit Commissions (1986) have suggested that this reform be accompanied by greater competition between the suppliers of services, however, the nature of mental health care rules out significant efficiency improvements from such competition.

The evidence presented in this paper shows that the decline in the psychiatric in-patient population, 1976-86, exceeded the development of services in the community. More individuals with a mental health problem now spend a greater part of their life in the community, but for many the quality of life in the community is likely to be poor, given the lack of services available to give these individuals the support they require.

Assessing whether the development of community care has been stifled by a lack of resources is difficult because there is no budget for community care that can be examined and data on the expenditure on mental health care are incomplete. Figures presented in this paper show that, so far, resources have not been diverted from in-patient care. Consequently, additional funds must be relied upon to develop new services in the community.

The growth of real expenditure on mental health care at £137.5 m (13%) 1976/77-1986/87 has probably been insufficient to develop a comprehensive community care service. As savings made by hospitals lag behind the discharge of patients, there is a strong case for bridging finance in the short term to facilitate the transition to community care.

Given the fragmentation of responsibility and resources for the provision of community care, the disincentives inhibiting the development of the service are such that, even if additional resources were available, there is no guarantee that this would result in the development of the appropriate services. The proposal of both the Audit Commission (1986) and Sir Roy Griffiths (1988) to make one authority responsible for meeting all the community care needs of individuals with a mental health problem is essential to the success of the policy. But at present no authority possesses the skills to arrange for both the 'medical' and 'social' needs of individuals to be met. One solution is to invest in training NHS staff to meet the 'social' needs of individuals with a mental health problem, which would enable the NHS to assume the lead agency role.

The Audit Commission and the Griffiths Report both advocate the introduction of competition to the provision of care in the community, insisting that the lead agency purchases services from a number of providers and does not act as a monopoly provider. The expectation is that competition will improve efficiency but it is demonstrated in this paper that a number of the characteristics of mental health care provision are likely to limit efficiency gains from competition.

Mental Health Care Policy in England: Objectives, Failures and Reforms

Objectives

Shifting the balance of mental health care from institutional to community care has been a goal of government policy in England since the 1959 Mental Health Act. Initially the rationale for the policy was not explicitly stated, little detail was given of what objectives it was meant to achieve (Jones, 1972). Later policy statements revealed some of this rationale. The 1975 White Paper, 'Better Services for the Mentally Ill' (DHSS, 1975) describes the underlying theme of community care, 'as a philosophy of integration rather than isolation'. Community care is claimed not to be merely about relocating the provision of in-patient care, but involves moving from institutionalised, inward-looking care to integration in the wider community (op cit). In evidence to the Social Services Committee the Department of Health and Social Security (DHSS), as it then was, reaffirmed this objective of normalisation, stating as one of the objectives of community care, 'the provision of help by the means causing the least possible disruption to ordinary living' (DHSS, 1984).

For these objectives to be achieved through community care the service must possess certain features. The DHSS has identified the key characteristics of community care as, 'a network of services, coordination between various parts of the total service, balance of services geared to the balance of service needs, accessibility, flexibility, choice and accountability' (DHSS, 1984). Specifically, it is policy for all specialist psychiatric treatment to be provided in a psychiatric department, with the exception of individuals requiring special security measures or long term accommodation for the elderly mentally infirm. The latter should be cared

for in small local hospitals (DHSS, 1985). Area mental hospitals not well suited to providing community care were to be closed over the ten years from 1981 (DHSS, 1981). Accommodation for new long stay patients should not be in a hospital but in more community orientated facilities, such as hospital hostels (DHSS, 1985).

In the community the District health service should aim to provide mental health care through the primary care team for all persons not in contact with the specialist services (op cit). Community psychiatric nurses should be available to provide treatment, nursing and after care (op cit). Central government is less prescriptive with respect to the provision of other services in the community. Day hospitals may be attached to an in-patient unit, or situated separately. There may be crisis intervention teams or community mental health teams; sometimes there may be community mental health centres (op cit). This autonomy is required to give Districts the flexibility necessary to provide a service which is best suited to the particular needs of the population being served. But there is a danger that Districts will exploit the independence and fail to provide adequate community care for individuals with a mental health problem.

Two of the four main policy objectives in the 1975 White Paper were to increase the provision of Local Authority personal social services for individuals with a mental illness, and to establish strong organisational links between health and local authorities (DHSS, 1975). Other statutory authorities, voluntary organisations and private bodies are also expected to complement the services provided by the NHS.

In summary, the objectives of Government policy are to achieve the integration of individuals with a mental health problem in the community,

where they can lead as close to an ordinary life as a member of society as is possible. To achieve this, mental health care must consist of a comprehensive range of services, allowing the unique needs of individuals to be catered for, services must be locally based so they are accessible to individuals without moving from their usual environment, a continuity of care should be ensured and there should be scope for individual choice to determine the services received. This rhetoric is reassuring but there remains the question of how consistent current provision of mental health care is with these stated objectives.

Recent trends in the provision of mental health care

A comparison of current provision with government objectives is made difficult by the lack of data about the existing service. The official statistics concentrate on the services provided by hospitals, making it difficult to assess the development of community care services.

In-patient care

Since the publication of the 1975 White Paper there has been a significant decline in the institutionalised population. The number of individuals resident in mental illness hospitals and units in England fell by over 23,000 between 1976 and 1986, a decline of 29 per cent from 180 residents per 100,000 population in 1976 to 128 in 1986[1]. The rate of decline has not been uniform across all age groups, the elderly institutionalised population declining less rapidly than the younger groups (see Table 1). This difference in the rates of decline, together with the one

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1 1986 is the latest year for which data on the provision of mental health care are available from Department of Health.

per cent growth of the elderly population since 1976, has produced a change in the age structure, as well as a decline in the size, of the institutionalised population in England (see Table 2). The elderly now constitute the majority of the residents of mental illness hospitals and units. Since elderly in-patients have quite different needs from younger individuals with a mental health problem, it must be expected that the nature of the in-patient service has changed in recent years.

Table 1: Mental Illness Hospitals and Units Residents - age specific rates per 100,000 population - England

	1976	1986	% change 1976-1986
All ages	180	128	29%
Less than 15 years	11.5	6	48%
15 - 64 years	141	82	42%
65 - 74 years	455	306	33%
75 and over	899	693	23%

Source: DHSS (1987 and 1980)

Table 2: Age Distribution of Mental Illness Hospitals and Units Residents - England

Age group	1976	1986
Less and 15 years	0.8%	0.8%
16 - 64 years	49.6%	42.2%
65 - 74 years	23.4%	21.3%
75 or more	26.2%	35.7%
All ages	100%	100%

Source: DHSS (1987 and 1980)

The size of the in-patient population is determined by the number of individuals entering hospital and the length of time they remain there. At first glance the data appears to describe the development generally of a 'revolving door' regime, the decline in the institutionalised population 1976-86 being attributable to reduced lengths of stay outweighing increases in admission rates (see Tables 3 and 4). But again the pattern differs

Table 3: Length of Stay in Mental Illness Hospitals and Units (Discharges and Deaths) - England

Length of Stay	Age Group							
	All ages		15-64 years		65-74 years		75+ years	
	1976	1986	1976	1986	1976	1986	1976	1986
All Durations	182,187	200,253	138,356	123,526	21,386	28,092	20,508	41,854
- per cent lasting								
less than 1 month	54.3%	59.0%	59.4%	63.8%	42.3%	50.9%	35.3%	51.1%
1 month - 1 year	38.9	35.5	37.4	33.6	45.4	41.3	39.6	36.0
1 year or more	6.7	5.5	3.3	2.5	12.3	7.9	25.0	12.8

Source: DHSS (1987 and 1979)

across the different age groups. Although the average duration of stay has fallen in all age groups, rates of all admissions and readmissions increased only among the elderly population. The replacement of long term institutionalisation with a 'revolving door' regime appears to be confined to the elderly population. Among the population less than sixty five years

of age, less individuals are entering hospital, those who do remain there for shorter periods, and once discharged more of them remain in the community for longer periods.

Table 4: Rates of Admission to Mental Illness Hospitals and Units per 100,000 population - England

Age Groups	All Admissions		First Admissions		Re-admissions	
	1976	1986	1976	1986	1976	1986
All ages	383	417	122	109	261	308
15 - 64 years	468	413	137	101	331	312
65 - 74 years	486	656	158	157	328	499
75+ years	758	1276	360	406	398	870

Source: DHSS (1987 and 1979)

In addition to reducing the size of the in-patient it is policy to change the nature of the in-patient service, by closing Area Mental Hospitals and shifting specialist psychiatric care to psychiatric units in District General Hospitals. To date there has been little progress in implementing this policy, by 1986 little more than one sixth of all psychiatric beds in England were in such units (DHSS, private communication).

Alternatives to in-patient care

The reduction in the number of individuals resident in mental illness hospitals and units, raises the important question of what services have replaced long term in-patient care for these individuals. Local authority accommodation for individuals with a mental illness increased by 1732 places in England over the 1976-86 period to a total of 4470 places

(Department of Health, 1988). The number of places in voluntary and private homes for individuals with a mental health problem increased by 2183, giving a total expansion of accommodation in the community provided by local authorities and the independent sector of 3915 places between 1976-86 (op cit). This growth is insufficient to meet the increased demands resulting from the reduction of the institutionalised population by over 23,000 and the rise of one percent in the elderly population over the period.

The development of day care services has also been inadequate. The number of day patients in England per 100,000 population increased by 4.9 between 1976-86[2] (DHSS, 1987). This rate of growth compares poorly with the decline of 52 in-patients per 100,000 population over the same period. Age specific figures are only available for those day patients attending day hospitals (see Table 5). The figures show that the growth in the number of day patients has been concentrated among the elderly population. Since the decline in the number of elderly in-patients accounts for only 27% of the total reduction in the institutionalised population, it would appear that the expansion of day patient services has been in response to the demand created by the increase in the elderly population rather than the reduced number of in-patients.

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2 Excludes in-patients attending day hospitals.

Table 5: Day Patients Attending Day Hospitals per 100,000 population - England

Age Groups	1976	1986
All ages	13.2	18.8
0 - 64 years	11.3	13.4
65 years or more	24.2	48.4

Source: DHSS (1987 and 1980).

In addition to the increased number of day patients, local authority day centres provided an extra 2159 places for individuals with a mental illness in 1986 over the number provided in 1976 (Department of Health, 1988), giving a total increase of 4569 in the number of day care places not filled by hospital in-patients. This still compares poorly with the fall of 23,000 in the institutionalised population and the rise in the 'high need' elderly population.

A study recently carried out in Camberwell (Brewin et al, 1988) assessed the adequacy of the day care services currently available. The study attempted to identify met and unmet need among long term users of psychiatric day hospitals and day centres. The ratio of met to unmet need was found to be 5 : 1. Among individuals with current and recent problems, 13% were found to have unmet needs for assessment or treatment. The highest number of unmet needs were found to be in the areas of neurotic symptoms and basic literacy. The identification of this significant amount of unmet need is worrying, since, as the authors point out, Camberwell is an area with relatively good facilities for psychiatric day care. A larger amount of unmet need would be expected in most other areas of the country.

It is more difficult to compare the change in the provision of out-

patient with in-patient care, since there are no data available describing the change in the number of individuals attending out-patient clinics. It is only known that the number of out-patient attendances per 100,000 population increased by only 7% over the 1976-86 period compared with a 29% fall in the number of resident patients per 100,000 population (DHSS, 1987a). There has been a significant increase in the number of Community Psychiatric Nurses (CPNS) from 700 in 1976 to 2973 in 1986, (op cit) but this total remains small relative to the demand for services. There is also evidence from the Salford Case Register that CPNs are not substituting for institutional forms of care but are meeting the previously unmet need for mental health care in primary care settings (Woof et al, 1986).

It is not possible to give a completely accurate description of the development of community care for individuals with a mental health problem, since national figures on the provision of a number of community services, e.g. community mental health centres, crisis intervention teams, social work support, are simply not available at present. A national survey of community care developments is currently being carried out by the National Unit for Psychiatric Research and Development, the results from which should provide a more accurate description of the services available. At present only preliminary results are available from a survey of community mental health centres[3]. The survey of all English Health Districts and Social Services Departments identified 208 such projects either existing or planned with funding assured at mid 1987. (Sayce, 1987). Whilst this number is relatively small, these services have been growing rapidly in recent years: in 1977 only one service of this type was set up compared with 54 in 1987 (op cit).

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3 Defined as non-hospital based adult mental health services staffed by multi-disciplinary teams, but excluding traditionally structured day care.

Failure to meet objectives

This review of the evidence available has found little consistency between government objectives in mental health care and the actual provision of services. The in-patient population is falling, but the development of care in the community has not been sufficient to give individuals the support required for them to lead 'an ordinary life'. Among the elderly population long periods of in-patient care have been replaced by a greater number of admissions for shorter durations. This 'revolving door' regime has not been experienced, generally, among the population less than 65 years. On average individuals in this younger group are entering hospital less often, they are spending more of their life in the community. But given that alternatives to in-patient care have been growing slowly relative to the decline in the in-patient population, a number of these individuals must have experienced a poor quality of life in the community.

Despite the objectives stated in the 1975 White Paper to increase local authority provision of services for individuals with a mental health problem, the increase in accommodation supplied by local authorities and the independent sector has fallen short of the decline in the institutionalised population by approximately 19,000 places, 1976-86. Some of the individuals who have not been provided with accommodation specifically for individuals with a mental health problem will have found suitable alternatives. But there must be a large number of individuals for whom this is not the case. Some will be living on their own in accommodation without the characteristics necessary to meet their particular needs. Others will be living with relatives, for whom the individual's mental health problem may present a substantial burden, and given the vulnerable position of many individuals with a mental health problem in society, it would be expected that a number have joined the growing homeless population.

The development of support services has also been inadequate. The increase in local authority day care and day hospital provision has fallen short of the decline in the in-patient population by approximately 18,500 places, 1976-86. These gaps in service provision lead to the conclusion that the policy of community care, as a means of promoting 'normalisation' and 'integration of individuals in the community' has, so far, existed more in rhetoric than in action.

Why have objectives not been achieved?

The slow development of community care in general is often attributed to two factors. An insufficient amount of resources with which to develop a new service and a lack of incentives, within the current organisation of the finance and provision of care, for any agency to take the initiative in developing this service. The validity of these explanations will now be examined before proceeding to assess the feasibility of, and advantages which can be expected to result from, reforms to the organisation and finance of mental health care which have recently been proposed.

Are resources adequate?

It is difficult to assess whether the development of community care has been constrained by a lack of resources because no fixed budget is set from which the service must be provided. Consequently, there is no way of identifying the resources which are available to develop the service. Calculating total expenditure on community care for individuals with a mental illness provides no indication of whether the service has been constrained by a lack of resources, since the real expenditure figures are

no more than indications of the volume of service. Low growth of real expenditure on the service is just another way of describing the slow development of the service.

Examining the growth of total expenditure on mental health care is more appropriate. Assuming that this expenditure indicates the exploitation of all of the resources which are available to provide mental health care, it may be possible to assess whether the growth of total expenditure has been sufficient for a new service to be developed.

The most comprehensive description of total expenditure on mental health care is provided by the Department of Health in its Programme Budget. Data are available on a consistent basis from 1976/77 and by applying pay and price deflectors specific to Hospital and Community Health Services (HCHS) and Personal Social Services (PSS), the growth of real expenditure on mental health care between 1976/77 and 1986/87 can be identified. Unfortunately these data do not provide a completely accurate indication of total expenditure on mental health care, information about services is often incomplete or absent, requiring that estimates be made and the expenditure on some services omitted completely. The figures describing health service expenditure on mental health care presented in Table 6 are limited in a number of respects. They do not fully cover expenditure on CPN services, nor do they include expenditure on mental health care from General Community Care. Also excluded are Family Practitioner Committee (FPC) resources deployed in caring for individuals with a mental health problem. The most comprehensive estimates of the resources available within the health service to provide mental health care are therefore incomplete.

It is noticeable from the figures presented in Table 6, that de-

spite a reduction of 28% in the number of residents of mental illness hospitals and units, expenditure on in-patient care actually increased by 5.9% in real terms, over the 1976/77-1986/87 period. This reflects a number of facts. Firstly, although the number of residents of mental illness hospitals and units at a given point in time fell over the period, the number of cases treated in these hospitals actually increased (see Table 3). Secondly, the shift towards the elderly in the age distribution of the in-patient population (see Table 2) would be expected to raise the average level of need and so the costs of care per patient. The unit costs of psychiatric hospitals have indeed risen consistently over this period (DHSS, 1988). This must reflect the 'greying' of the in-patient population, but it would also be predicted to result from the fall in the number of in-patients as hospitals are 'run down'. This is because some costs are not sensitive to the number of individuals resident in hospitals e.g. administration, heating and lighting, as the number of residents declines there are no savings in expenditure on these components of total costs and so the average cost of care per resident increases. Unit costs would also be expected to rise with the decline of the in-patient population because the patients discharged first are likely to be the least dependent, the costs of caring for whom are less than the average to the hospitals. For these reasons hospitals do not make savings at the same rate as patients are discharged. This presents a short term resource problem in achieving the transition from hospital to community care. Significant amounts of resources will not be released from the hospitals in the short term, requiring that additional funds be made available in order to develop new services to cater for the needs of the discharged individuals in the community. In the short term there is a need for bridging finance to facilitate the transfer of care to the community.

There has been significant growth in real expenditure on both out-patient and day patient services over the 1976/77-1986/87 period (Table 6). But since these services are still small relative to the provision of in-patient care, the growth of hospital based expenditure on mental health care has been less pronounced, at 11.6%, 1976/77-1986/87.

The Personal Social Services (PSS) expenditure figures (Table 6) identified in the Programme Budget cover residential and day care funded by local authorities, but regrettably no figures are available on care funded by Social Security. This omission will produce an under-estimate of the growth of expenditure on residential care, since this has been a rapidly expanding source of funds since the rules on entitlement to Supplementary Benefit support were relaxed in 1983. The PSS expenditure figures are inclusive of joint finance spending, this makes a relatively small contribution to expenditure on mental health care since only 4.7% of all joint finance spending on PSS[4] was used in the provision of such care in 1986/87 (CIPFA).

The figures in Table 6 show a 37% growth of real expenditure on residential care and a 130% increase in day care expenditure 1976/77-1986/87. These significant rates of growth still leave PSS expenditure on care for individuals with a mental health problem at only 3.7% of the total expenditure on mental health care identifiable by the Department of Health. Inpatient care still dominates the service, accounting for 84% of identifiable expenditure. These figures exaggerate the domination of the service by in-patient care since a number of more community orientated services are

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4 Total joint finance spending on PSS amounted to approximately £70m in 1986/87 (CIPFA).

omitted. However, there is little evidence that the provision of these services is significant relative to hospital based mental health care.

Identifiable expenditure on services for individuals with a mental health problem increased, in real terms, by £137.5m (13%) 1976/77-1986/87. Among the items of expenditure excluded from this estimate the General Community Care component of the Community Health Services budget grew in real terms by £131.4m 1976/77-1985/86. Whilst this looks significant relative to the growth of identifiable expenditure on mental health care, the amount must be spread over community care developments for all of the 'priority care groups'.

The resources to develop care in the community for individuals with a mental health problem can come from savings made from the reduction of other services and/or through growth of real expenditure on the whole service. The figures presented above demonstrate that, so far, resources have not been diverted from in-patient care, consequently additional funds must be relied upon to develop new services. The estimated growth of real expenditure at £137.5m 1976/77-1986/87 is probably insufficient to develop comprehensive community care services. As savings made by hospitals lag behind the discharge of patients, in the short term there is a strong case for bridging finance to facilitate the transition to community care. In the longer term, whether the replacement of institutional with community care will require a significant increase in real expenditure on mental health care will depend on how the costs of providing a service in the community compare with the costs of the existing service. This question can only be answered by carrying out evaluations comparing different types of institutional and community care, for individuals with different levels of need and in different locations (Knapp, 1987). This evaluation has been

absent in the UK (O'Donnell et al, 1988).

Disincentives to the development of community care

It is widely accepted that the development of community care, not only for individuals with a mental health problem but for all of the priority care groups, has been impeded by the current organisation of the finance and provision of the services. Both the Audit Commission (1986) and Sir Roy Griffiths in his report on community care (1988) identified the fragmentation of responsibility and resources for the provision of care in the community as major disincentives to its development. Currently, there is no incentive for any agency to take the initiative in developing the service, rather there is an incentive to 'pass the buck', thereby shifting the cost of the service onto another's budget.

Under the present system the authority paying for a service is usually the one providing it. The NHS incurs the vast majority of the costs of caring for individuals resident in psychiatric hospitals but only incurs a minority of the costs of caring for the same individuals in the community (Knapp et al, 1987). The NHS, therefore, has an incentive to discharge patients. But local authorities have no incentive to respond by developing community care, since in doing so they would incur a cost burden previously met by the NHS. Given the lack of incentives for either the NHS or local authorities to develop community care, it had to be expected that the decline in the in-patient population would exceed the expansion of services in the community.

Joint finance and the dowry system are attempts to ameliorate these perverse incentives, however, neither of them is wholly satisfactory. Since joint finance money is temporary, in the longer run local authorities

must meet the cost of providing an additional service from their limited budgets. Perhaps in response to this, as has already been pointed out, joint finance has had little impact on mental health care, only about 5% of the total joint finance monies spent in PSS are used in the provision of this care (CIPFA 1988). The dowry system, by which a hospital discharging an individual transfers to another agent a budget to cover the provision of care for that individual in the community, creates its own perverse incentives. The transfers from hospital to community care budgets have usually been equal to the average costs of the hospital care. As has already been noted, hospitals will not make savings at the same rate as patients are discharged because the individuals discharged first are likely to be the least dependent, who cost the hospital less than the average and not all costs decline with the number of patients cared for. Setting dowry payments equal to average costs will therefore leave hospitals with insufficient resources to provide adequate care for the individuals remaining there. Consequently, the dowry system, in its present form, provides a disincentive to hospitals to develop an aggressive discharge policy. But average cost dowries act as a positive incentive to local authorities and other agencies who see they are only resettling low dependency/marginal cost patients. However, the evidence presented above demonstrates that neither of these incentive effects are having a particularly large impact on service provision. Despite the disincentives created by average cost dowries, hospitals are reducing their in-patient population and despite the incentive effect, local authorities are not providing adequate alternatives.

Proposed reforms

The Audit Commission (1986) and Griffiths (1988) have both proposed that the perverse incentives be removed by making one budget holding agency

responsible for meeting the community care needs of a defined population, providing them with all of the resources available to fund the service. This organisation is expected to create an environment in which there will be no opportunity to shirk responsibility for developing community care and also provide greater incentives to use the available resource efficiently. Since one authority will have a given amount of resources from which to meet all of the needs of a defined population, and there is no potential to utilise a service without facing the cost of it, that authority will be forced to recognise the cost of each service utilised, that is, the provision of other services which must subsequently be foregone. If the greatest amount of need is to be satisfied from the available resources, then the costs and benefits of each alternative use of those resources will have to be considered by the budget holding authority.

The Audit Commission and Griffiths both stressed that the agency given responsibility for meeting needs was not to become a monopoly provider but was to act as a purchasing agent. Some services would be provided by the lead agency itself but others would be purchased from a range of providers in the public, private, voluntary and informal sectors. This model is similar to the proposals in the Government's White Paper on health care (Department of Health, 1989) that District Health Authorities and General Practitioner (GP) budget holders purchase services from a range of providers in the public and private sectors on behalf of the individuals in their catchment areas or on their lists. From such provider market arrangements it is believed that competition between providers will result in a better quality service being provided from the resources available. Purchasing agents attempting to make the best use of the resources at their disposal, will have an incentive to issue contracts to the providers who are the most efficient, i.e. achieve a given quality of service at the

lowest cost. Providers who are not efficient will not win contracts and so will go out of business.

Although the Government has opted for the provider market in health care, it has been slow to react to the Griffiths proposals for community care. For the remainder of this paper the discussion will focus on the feasibility of introducing 'Griffiths type' reforms to the organisation of the finance and provision of mental health care and on examining whether the advantages it is claimed will result from these reforms are likely to be realised.

Who is to be the purchasing agent?

The first issue which must be resolved, if mental health care is to be organised along the lines described above, is to identify the agency to be vested with the responsibility and the resources to meet the needs of individuals with a mental health problem. Griffiths and the Audit Commission have different suggestions. The latter propose that the purchasing agent be either the District Health Authorities (DHAs) or independent managers who would receive funds from both the NHS and the local authorities. Unlike the Audit Commission, Griffiths made no distinction between different client groups in making his proposals. He suggested that local authorities should be responsible for meeting all community care needs.

There are obvious advantages and disadvantages to both health authorities and social services departments being given responsibility for this service. The major problem with Griffiths' proposal is that social services departments currently have little experience of the needs of individuals with a mental health problem. The low priority given to this client group by social services departments is illustrated by the fact that

only 2.7% of total expenditure on residential and day care by local authorities in 1986/87 was on facilitates for individuals with a mental health problem (Department of Health, 1988). This relative inexperience of the needs of the client group together with the lack of managerial skills social services departments are said to possess, may indicate that they would not be able to cope with the heavy administrative demands responsibility for meeting all of the community care needs of individuals with a mental illness would bring.

The NHS has much more experience of the needs of individuals with a mental health problem, but making DHAs responsible for meeting these needs may result in the service continuing to be run on a 'medical model', which is less consistent with the philosophy of community care than the 'social model' on which social service departments operate. However, recent experience in the provision of care for individuals with a mental handicap, where it is small NHS facilities that are leading the way towards normalisation, demonstrates that NHS provision is not inconsistent with achieving the objectives of community care.

What services would be included in a provider market?

Griffiths has been more conservative than the Audit Commission by suggesting that there should not be a lead agency with responsibility for meeting all of the needs of individuals with a mental illness. Rather, a distinction is made between 'community care' and 'medical' needs. The NHS would remain responsible for the latter with social services departments acquiring responsibility for the former. It is questionable whether this distinction between 'community care' and 'medical' needs can actually be made in the case of individuals with a mental health problem. The clinical

condition of these individuals is closely related to their social environment, and so any distinction between social and medical needs will be slight.

Griffiths defines medical needs, to be met by health authorities, as those for 'investigation, diagnosis, treatment, rehabilitation and health promotion' (Griffiths, 1988). But are the needs for these services distinct from those for community care? For example, when does rehabilitation end? Will social services departments always accept that day care is part of community care and not rehabilitation? This is not to belittle the problem confronted in attempting to place responsibility for meeting all of the needs of individuals with a mental health problem with one agency. The problem lies in identifying an agency which has the knowledge and experience to be able to arrange for all of the needs of individuals with a mental health problem to be catered for. At present social services departments do not have this experience and for health authorities to assume the role successfully, further training of NHS staff in catering for the social needs of these individuals would be required. Because the social and medical needs of individuals with a mental health problem are so closely related, if responsibility for meeting these needs remains fragmented, then the disincentives to any agency taking the initiative in the development of community care will remain.

Achieving efficiency through competition in mental health care

The argument presented above for the responsible authority being a purchasing agent, choosing between a number of providers, was that competition would result in a more efficient service. The validity of this argument requires further examination.

The theory of markets predicts that efficiency will result from consumers choosing to purchase from those providers which offer the best quality goods, or services, at a given cost. However, in the provider market described above, consumers would not choose the providers, this would be done on their behalf by their guardian, the purchasing agent. This raises the question of whether the purchasing agent would have the ability to choose the most efficient providers. If the purchasing agent is detached from the consumers, then the former may have little knowledge of the latter's preferences and so find it difficult to assess the quality of the services being offered. Even if purchasing agents had the ability to purchase efficiently, there would have to be incentives, e.g. monitoring of their awarding of contracts and/or bonus payments, for them to do so.

Case management

One way of ameliorating these problems would be to delegate responsibility and the resources for meeting the needs of individuals with a mental illness to case managers. By achieving closer contact between 'purchasers' and the recipients of services, it would be anticipated that the former will be more responsive to the preferences of the latter in choosing providers. Davies (1988) has claimed that a model of financial control case management is the way to operationalise the proposals of the Audit Commission. Rather than the lead agency negotiating a price, quantity and quality with each provider, it need only fix a price and set a budget (notional or real) against which the services demanded by the case manager would be charged.

Financial control case management is an attempt to create the demand side of the market, in which consumers have a limited budget, face a

set of relative prices and have preferences for the goods on offer. They maximise their welfare by purchasing goods such that the ratio of the benefit enjoyed from the last unit bought to the price paid is equal across all goods. If case managers are able to interpret the preferences of their clients then they can purchase the pattern of services which maximises the welfare of these individuals from a given budget. But there is still the question of what incentive the case managers have to purchase efficiently. The problem will not be as manifest as it is without case management, since the relationships between the case manager and the client is likely to create pressure for the former to act in the latter's interest. Financial incentives to purchase efficiently could be introduced either through a system of bonus payments or by allowing the consumers choice of their case manager.

Consumer choice could be introduced to the model by having a number of case management organisations competing for the custom of the clients being served (Glennerster, 1988, Davies, 1988). The potential for a client to switch to another case management organisation would create financial pressure for the case managers to act in their clients best interests. However, such competition might also have deleterious effects on efficiency and equity. The organisations would make a surplus equal to the difference between the revenue raised from per capita payments for each client catered for and the expenses incurred in providing care. Each organisation would, therefore, have an incentive to select the least dependent individuals who will require the least intensive care i.e. to 'cream-skim'. They also have an incentive to limit the quantity and quality of services provided, within the constraint of remaining competitive with other organisations.

Case management organisations would be analogous to the health maintenance organisations (HMOs) which have developed in the US in the field of

medical care and to GP budget holders proposed in the Government's White Paper on health care (Department of Health, 1989). The experience of HMOs in the US provides some evidence that they do 'cream-skim' (Eggers, 1980, Luft, 1981), although it appears this is not always the case (Berki and Ashcraft, 1980 and Blumberg, 1980). Evidence on the efficiency of HMOs is also inconclusive. One study found that HMOs reduced costs by 28% and this had no damaging effects on outcome for most patient groups, the exception being poorer individuals with a chronic illness (Manning et al, 1984). But more recent evidence shows significantly higher mortality in populations with a greater proportion of HMO enrolees (Shortell and Hughes, 1988). The evidence available from the related field of medical care does not show conclusively that introducing competition, in the form of consumer choice of the purchasing agent, will necessarily lead to more efficient service provision.

A more fundamental question to ask of financial control case management is how feasible it would be to introduce it to mental health care. The model has proven to be successful in the UK in the studies carried out in Kent (Challis and Davies, 1986) and Gateshead (Challis et al, 1988). In both cases the model was applied to the care of the elderly. Social workers acted as the case managers, demanding services from social services departments and other providers, which were charged against notional budgets. In both studies financial control case management was found to be more efficient than the traditional organisation of service provision. But whether the model would meet with the same success in the field of mental health care is questionable.

The provider markets operating in both Kent and Gateshead were very narrow. Case managers 'purchased' domestic services which would otherwise

have been directly provided by social services departments. There was no purchase of services from other agencies, such as the NHS. It has already been noted that it is difficult to separate out the medical and social needs of individuals with a mental health problem, and so the case manager would have to be responsible for both, if the perverse incentives inherent with fragmented responsibility are to be avoided. The case manager would have to be sufficiently knowledgeable of the services available and have the power and capability to purchase services from a wide range of providing agencies. The predominance of the NHS in providing care for individuals with a mental illness has already been described, this places doubt on the ability of case managers administered by social services departments to purchase the optimum pattern of care. Within the NHS the alternatives which could be considered include GPs, CPNs, or generic mental health workers with a combination of nursing and social work training.

In both the Kent and Gateshead studies the case managers were mainly involved in arranging for the fairly stable needs of elderly persons for domestic services. The task of case managers in mental health care would be much more difficult. The needs of many individuals with a mental illness tend to fluctuate between periods of low and intensive support. Whilst case managers may be an effective way in alerting services to these fluctuations, they would also have to be able to respond. This would require flexibility in the budget held by the case managers, which directly conflicts with the need for a limited budget if there is to be pressure on case managers to act efficiently. These problems in applying financial control case management to mental health care may explain why only one of the Care in the Community projects has adopted the model (Renshaw, 1988).

Paying providers

Neither Griffiths nor the Audit Commission make any suggestion of how providers of services should be paid by the purchasing agent, despite this being an important factor in determining the incentives for efficiency within a provider market. Three types of payment systems are possible : full cost retrospective reimbursement, prospective payment systems and competitive bidding. The first involves paying providers what they claim for the care provided. Under this system providers have little incentive to act efficiently. Rather providers would be expected to exploit the opportunity they have to maximise their reimbursement, with the result that there is likely to be inflation of the costs of care.

In order to instil greater pressure for providers to be efficient, fees should be set in advance of the service being provided. This can be done either by the purchasing agent setting a fixed fee schedule or by providers bidding for contracts. The disadvantage of the former is that the prices set will inevitably be arbitrary, not necessarily reflecting costs. Under competitive bidding, competition between providers should result in prices being bid down to the marginal cost of providing the service (McCombs and Christianson, 1987).

Defining a unit of payment

Both a prospective payment system and competitive bidding require that a unit of payment be specified. This may either be a case or a unit of service. The disadvantage of the latter is that it introduces a retrospective element to the reimbursement and so encourages cost inflation. If fees are set, or providers offer bids, per unit of service, then once

contracts have been completed, providers have an incentive to maximise the provision of those services. By fixing a price per case this incentive is removed, since providers receive the same amount for each case cared for, irrespective of what is done for each client.

Making the unit of payment a 'case' requires a means of classifying different cases, such that, within each case type clients are relatively homogeneous in their resource needs. In the US, Diagnostic Related Groups (DRGs) have been developed to define different case types within medical in-patient care. Some work has been carried out exploring the feasibility of using DRGs to define cases within psychiatry (Taube et al, 1984). This has met with little success. DRGs were found to account for only 3% of the variation in the length of stay of psychiatric in-patients compared with 30-50% explanation among non-psychiatric in-patients. Even after extending the DRGs by including information such as age, marital status, previous hospitalisations, referral status, they could only account for 12%, at most, of the variation in length of stay (op cit).

Two explanations for this inability to account for variations in the resource use of psychiatric in-patients through DRGs are advanced by the authors. Firstly, the needs of each client are more likely to be indicated by the clinical features of their condition than by their defining features (Taube et al, 1984). Therefore, a classification of cases based on diagnosis would not be expected to produce groups of individuals homogeneous in their needs for health care. This explanation implies that psychiatric in-patients could be categorised into groups, relatively homogeneous in needs, if only the correct variables were used. A more pessimistic explanation is that for many clients the episode of mental illness is longer than the length of stay in hospital. Individuals with a mental illness are not usually admitted to hospital for a specific treatment,

cured and then discharged. Rather, individuals with the same clinical diagnosis will be admitted for quite different objectives, in some cases it will be to control certain symptoms, and for others to improve social skills (Taube et al, 1984). Consequently, the length of stay of patients will vary tremendously. Under these circumstances case type reimbursement for psychiatric care is not feasible. What is required is payment to providers at per diem rates for specific services (op cit). This unit of payment will not place as much pressure on providers to be conscious of the resources used. But if payment is made by case type, whilst groups of individuals relatively homogeneous in resource needs cannot be identified, then the outcome is unlikely to be efficient. Providers will be under pressure to discharge some patients prior to the length of stay which is most effective.

This discussion has concentrated on the unit of payment to be used in reimbursing the providers of in-patient care. It is likely that most of the purchasing of services under a provider market in mental health care would not be for in-patient care but for services provided in the community. For these services a per case unit of payment will be even less appropriate, since the need for support in the community is even less episodic.

Evidence on the relative efficiency of competitive bidding and regulated prices

Payment by competitive bidding rather than prospectively set fixed fees should encourage greater competition among providers and consequently result in a more efficient service. The experience of competitive bidding for services in the US does not entirely support this prediction.

Competitive bidding was employed in five out of the ten channelling

projects for the care of the elderly, in three of these provision was organised in some form of financial control case management, similar to the Kent and Gateshead projects (Christianson, 1987). Comparing the cost of the services employing competitive bidding with those reimbursing at regulated prices, the former did not appear to be cheaper (op cit). The exceptions were two projects in which competitive bidding operated on the basis of the lowest bidder winning the contract. This is probably because when bidders know there will only be one winner they have a greater incentive to bid low in order to win a large contract. But the administration costs of monitoring and enforcing contracts under this system were greater. This was because all provision had to be recontracted if a contract was revoked. When there are multiple contractors, if one fails to provide at the required standard then provision can be switched to one of the existing providers making the threat of revoking a contract more credible (McCombs and Christianson, 1987).

The failure of competitive bidding to achieve significant reductions in costs over regulated pricing may be partly explained by the coexistence of the two systems. Providers were simultaneously being paid for some services by competitive bidding and others by fixed prices. In such circumstances, there is a disincentive to bid too low for fear of this jeopardising the payment of higher regulated fees (McCombs and Christianson, 1987).

Competitive bidding has not been any more successful as a means of selecting providers of mental health care. In Massachusetts small savings in costs were achieved through competitive bidding, mostly reflecting the lower wages paid by contracting agencies (Schlesinger et al., 1986). This reduction in wages was accompanied by an increase in staff turnover. Assuming that continuity of staff is consistent with a better quality of

service being provided, it is not obvious that the reduction in wages following from the introduction of competitive bidding has actually improved efficiency (Schlesinger et al., 1986).

In Massachusetts a low degree of competition for contracts to supply mental health care actually occurred. Each request for proposals received an average of only 1.7 submissions and two-thirds of contracts were awarded to a single bidder. Competition was limited by attempts to regulate providers. Administrators found it very difficult to monitor and evaluate the quality of contractors, making it difficult to maintain a credible threat to revoke contracts. Consequently, in an attempt to limit the number of contracts awarded to poor quality providers, experience of service provision was used as a screen for quality. But this is a direct constraint on competition and, therefore, removes much of the advantage of competitive bidding (Schlesinger et al., 1986). Competition was further restricted in this case because the purchasing agent announced the total resources available to provide services when the requests for contract proposals were made. This was done because of the difficulty of specifying in contracts the quality of service required and so by announcing the resources available the purchasing agent could give some indication of the level of service expected (Schlesinger et al.).

The experience in Massachusetts demonstrates that in practice competitive bidding for the provision of mental health care may differ greatly from the simple principles of contracting out (Schlesinger et al., 1986). A major problem arises from the difficulty of monitoring quality accurately. This means that competition must usually be accompanied by regulation in order to protect clients from poor quality providers, who are difficult to detect. But regulation inevitably restricts the degree of

competition and may create further disincentives to act efficiently. A study carried out in the US found that hospitals in States with the most stringent regulation had the highest rates of mortality (Shortell and Hughes, 1988).

Conclusions

This paper began by documenting the lack of progress which has been made towards the objectives of developing community care in mental health care. It is difficult to determine whether this has been due to a lack of resource because of the way community care is financed at present and because the expenditure data available are incomplete. What can be said is that, in the short term at least, the transition from institutional to community care will require a significant increase in the resources available to provide mental health care. This is because funds are required to develop services in the community in advance of resources being released from the hospitals as a result of discharging patients.

Given the existing organisation of the finance and provision of mental health care, the disincentives inhibiting the development of community care are such that, even if additional resources were available there is no guarantee that this would result in a significant development of the appropriate services. The major reform which has been proposed to deal with these incentive problems is the removal of the fragmentation of responsibility and resources for community care. A number of issues will have to be resolved if this change is to be successful.

In practice, removing the fragmentation of responsibility and resources is difficult to achieve in mental health care. This fact is reflected in Griffiths' proposals which stop short of identifying a lead

agency to take responsibility for meeting all of the needs of individuals with a mental health problem. Rather a distinction is made between 'community care' and 'medical' needs, with responsibility for meeting these falling to different agencies. But because the mental health of individuals is closely related to their social environment, if responsibility and resources for meeting 'community care' and 'medical' needs are fragmented then the perverse incentives which deter the development of community care will remain. One solution is to train NHS staff in catering for the social needs of individuals with a mental health problem. Such investment in staff training would enable the NHS to assume the lead agency role, removing the fragmentation of responsibility and resources.

The proposals made by the Audit Commission and Sir Roy Griffiths were not only to remove the fragmentation of responsibility and resources but also to introduce competition to the provision of care in the community by insisting that the lead agency purchase services from a number of providers and does not act as a monopoly provider. Competition is expected to improve efficiency, but given a number of the characteristics of mental health care provision, there is reason to believe that gains in efficiency will, at most, be limited. In the absence of consumer choice, the link between competition and efficiency is weakened. Financial control case management could be used to make purchasers more responsive to the needs and preferences of clients but if case managers are to be able to respond to the fluctuating level of needs of many clients, then the budgets they draw on must be flexible, which directly conflicts with the requirement that these budgets be fixed, in order that case managers are forced to be aware of the opportunity cost of the services they utilise.

A further problem in achieving efficiency through a provider market in mental health care arises from establishing a method feasible for paying

providers. In order to remove the incentive for providers to supply the maximum amount of each service, payment should be a fixed amount per case rather than an amount per unit of service provided. But this requires the ability to define different case types, which is not feasible for mental health care not provided for an episode of illness. Paying providers of mental health care per unit of service will weaken the incentives to be conscious of resource use.

Finally, the expectation that competition will lead to efficiency must be questioned in circumstances in which it is difficult to monitor the quality of care provided. The danger then is that competition will encourage cost cutting, achieved at the expense of the quality of patient care. Attempts to prohibit this through regulation inevitably rely on proxies for quality, which limit competition and can create their own perverse incentives with deleterious effects on efficiency.

The purpose of pointing out these issues is not to encourage the preservation of the status quo. The failures of the current arrangements have been described in this paper. Without incentives for agencies to develop care in the community, individuals are being dicharged from hospital in the absence of the support required for them to achieve the objectives of 'normalisation'. The problem faced is a difficult one and there are no simple solutions. Which ever changes are adopted problems will inevitably arise. The temptation to avoid change because it will bring problems, as well as advantages, must therefore be resisted. Instead the main implications of a number of reforms should be thought through and evaluated by carrying out clinical trials accompanied by economic apprraisals, and a choice made on this basis. This paper attempts to inform such choices by examining some, but by no means all, of the implications of some

of the reforms which have been proposed recently.

References

Audit Commission (1986) Making a Reality of Community Care, HMSO, London.

Berki, S.E. and Ashcraft, M.L.F. (1980) HMO Enrollment: Who gains What and Why? A Review of the Literature, Milbank Memorial Fund Quarterly 58: 588-632

Blumberg, M.S. (1980) Health Status and Health Care by Type of Private Health Coverage. Milbank Memorial Fund Quarterly, 58: 633-655

Brewin, C.R., Wing, J.K., Mangen, S.P., Brugha, T.S., MacCarthy, B. and Lesage, A. (1988) Needs for care among the long-term mentally ill: a report from the Camberwell High Contact Survey, Psychological Medicine, 18: 457-468.

Challis, D. and Davies, B. (1986) Case Management in Community Care, Gower, Aldershot.

Challis, D., Chessum, R., Chesterman, J., Lucket, R. and Woods, B. (1988) Community Care for the Frail Elderly: An Urban Experiment, British Journal of Social Work, Supplement, 13-42.

CIPFA (1988) Personal Social Services Statistics 1986-87 Actuals CIPFA, London.

Christianson, J.B. (1987) Competitive Bidding for Home Care under the Channeling Demonstration, Health Care Financing Review 8 (4): 73-86.

Davies, B. (1988) 'Financing long-term social care: challenges for the nineties', Social Policy and Administration, 22 (2): 97-114.

Department of Health (1988) Health and Personal Social Services Statistics for England 1988 edition, HMSO, London.

DHSS (1975) Better Services for the Mentally Ill, HMSO, London.

DHSS (1981) Care in Action, HMSO, London.

DHSS (1984) Community Care Policies for Mentally Handicapped and Mentally Ill People, Memorandum submitted by the DHSS to the Second Report from the Social Services Committee, 1984-5, Community Care, Vol II, HMSO, London.

DHSS (1985) Mental Illness : Policies for Prevention, Treatment, Rehabilitation and Care, reprinted as Appendix to The Provision of Mental Health Services in Britain: The Way Ahead, Royal College of Psychiatrists, Gaskell, London.

DHSS (1987) Mental Health Statistics for England, 1986, Government Statistics Service, London.

DHSS, (1988) Public Expenditure on the Social Services, Memorandum submitted by the DHSS to the Social Services Committee, 1987-88, HMSO, London.

Eggers, P.W. (1980) Risk Differential between Medicare Beneficiaries enrolled and not enrolled in a HMO, Health Care Financing Review, 1 (3): 91-99.

Glennerster, H. (1988) Half Right : A Comment on the Griffiths Report on Community Care. A paper given at the ST/ICERD Welfare State Programme Seminar on Financing Health Care, 2 November 1988, London School of Economics.

Goldberg, D. and Huxley, P. (1980) Mental Illness in the Community, Tavistock, London.

Griffiths, R. (1988) Community Care: Agenda for Action, HMSO, London.

Jones, K. (1972) A History of the Mental Health Services, Routledge and Kegan Paul, London.

Knapp, M. (1987), Economic Barriers to Innovation in Mental Health Care: Community Care in the UK, Discussion Paper no 541/2, Personal Social Services Research Unit, University of Kent at Canterbury.

Knapp, M., Beecham, J. and Renshaw, J. (1987) The Cost-Effectiveness of Psychiatric Reprovision Services, Summary of Interim Report Submitted to North East Thames Regional Health Authority, Discussion Paper no 533/5, PSSRU, University of Kent at Canterbury.

Luft, H.S. (1981) How do Health Maintenance Organisations Achieve their 'Savings'? Rhetoric and Evidence, New England Journal of Medicine, 298: 1336-43.

Manning, W.G., Leibowitz, A., Goldberg, G.A., Rogers, W.H. and Newhouse, J.P. (1984). A Controlled Trial of Effects of a Prepaid Group Practice on Use of Services, New England Journal of Medicine, 310: 1505-10.

McCombs, J.S. and Christianson, J.B. (1987), Applying Competitive Bidding to Health Care, Journal of Health Politics, Policy and Law, 12(4): 703-22.

O'Donnell, O., Maynard, A.K. and Wright, K.G. (1988) Economic Evaluation of Mental Health Care: A Review, Centre for Health Economics, Discussion Paper no 51, University of York.

Renshaw, J. (1988), Care in the Community: Individual Care Planning and Case Management, British Journal of Social Work, 18 Supplement: 79-105.

Robinson, R. (1988) Efficiency and the NHS: A Case for Internal Markets, IEA Health Unit Paper no 2, London.

Sayce, L. (1987) Community Mental Health Centres, Report of the Annual Conference 1987, National Unit for Psychiatric Research and Development, NUPRD, London.

Schlesinger, M., Dorwart, R.A. and Pulice, R.T. (1986), Competitive Bidding and States' Purchase of Services: The Case of Mental Health Care in Massachusetts, Journal of Policy Analysis and Management 5(2): 245-62.

Shortell, S.M. and Hughes, E.F. (1988) The Effects of Regulation, Competition and Ownership on Mortality Rates Among Hospital Inpatients, The New England Journal of Medicine, 18(17): 1100-1107.

Taube, C., Lee, E.S. and Forthofer, R.N. (1984) DRGs in Psychiatry: An Empirical Evaluation, Medical Care, 22(7): 597-610.

Woof, K., Goldberg, D.P. and Fryers, T. (1986) Patients in Receipt of Community Psychiatric Nursing Care in Salford, 1976-82, Psychological Medicine, 16: 407-14.