

**UNIVERSITY OF  
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**Intermediate Care National Evaluation Team (ICNET)**

**A National Evaluation of the Costs and  
Outcomes of  
Intermediate Care for Older People**

**Executive Summary**

**January 2006**

# **A National Evaluation of the Costs and Outcomes of Intermediate Care for Older People**

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Using our principal research questions as an organising framework, this executive summary presents the main conclusions from our national evaluation of intermediate care and sets out policy implications resulting from these. First of all, the aims and objectives of the evaluation are described.

## **1. Aims and methods**

The Leicester-Birmingham evaluation of intermediate care was one of three projects commissioned by the Department of Health and Medical Research Council as part of a national intermediate care research programme.

### **1.1 Aims**

The evaluation had five main aims:

1. To establish the range, spread and speed of development of intermediate care services across England
2. To explore the views of intermediate care leads on the benefits and challenges of implementing intermediate care policy
3. To assess the impact of intermediate care on the service system as a whole and on individual service users
4. To explore the costs of intermediate care schemes in relation to their outcomes
5. To synthesise evidence from this and other research on the costs and outcomes of different models of intermediate care and on best practice.

### **1.2 Methods**

These questions were addressed via three main research activities:

- Postal survey of intermediate care co-ordinators (aims 1 and 2)
- Case-studies with whole systems (PCTs) of intermediate care (aims 3 and 4). Five case-study sites participated in the collection of both quantitative and qualitative data
- Systematic review of evidence for effectiveness of intermediate care (aim 5)

## **2. Main Conclusions**

### **2.1 The range, spread and speed of development of intermediate care services across England**

Our findings reveal a significant level of diversity in the development of intermediate care (IC) nationally. IC services differ markedly in terms of size and function (admission avoidance/supported discharge), whether 24-hour cover is provided, location of care, host and throughput.

There is significant variation in how the official definition of IC has been implemented in local systems. Many services pre-dated the official guidance and our research suggests that some have continued to operate in much the same way. The six-week time limit is often perceived as being too narrow and restrictive.

In presenting a picture of intermediate care provision at the national level, our findings suggest that the majority of intermediate care services have been concerned with providing support for discharge from inpatient hospital care (although this picture was not reflected in our case-study sites).

In terms of strategic developments, most localities are attempting to make the transition from collections of individual services to single integrated systems. At the same time, however, our research suggests that it will take some considerable time for services to overcome the legacy of the ad-hoc, evolutionary development which characterised IC in its early stages.

Many localities had great difficulty in providing simple descriptive data on intermediate care service provision.

### **2.2 Views on the benefits and challenges of implementing intermediate care policy**

Locally, the development of intermediate care has largely been driven by the need to address pressures upon acute beds, while the national policy thrust has provided further momentum especially via the use of performance targets.

Effective partnership working between health (PCTs) and social services organisations at both operational and strategic levels was identified as the most important lever in facilitating the development of intermediate care in local contexts.

Poor partnership working, insufficient or short-term funding and workforce problems (i.e. staff shortages and difficulties in recruiting staff) were all identified as impediments to the development of intermediate care.

The perceived benefits of intermediate care were often attributed to the setting within which care was delivered; care delivered at home or in 'home-like' settings was contrasted favourably with traditional care (i.e. hospitalisation).

For users, intermediate care was thought to represent patient-centredness, flexibility and opportunities for independence. The opportunities associated with working in a multi-disciplinary/inter-disciplinary environment were identified as key benefits for staff in intermediate care teams.

The main concerns surrounding the implementation of intermediate care centred upon capacity issues and 'whole-systems' working. Weaknesses in service capacity (as illustrated by limited operating hours, staff shortages and insufficient access to mainstream services) were generally attributed to inadequacies in the funding and infrastructure required to support intermediate care.

In terms of the relationship between intermediate care and mainstream services, lack of awareness, resistance, concerns about effectiveness and the inability of intermediate care services to always respond positively to referrals means that intermediate care is not being used to its full potential or is being used inappropriately at times.

### **2.3 The impact of intermediate care on the service system as a whole and on individual service users**

Baseline quantitative data from our case-study sites underscore the fact that older people are the main recipients of IC but also highlight the reality that IC is not entirely an age-related service.

The relatively small number of episodes of care delivered over the 7-month period observed suggests that, at present, IC schemes have limited capacity to make a significant impact on other types of care provision.

Patients admitted to our case-study IC services appear to have been less dependent (i.e. with lower Barthel scores) at admission compared to patients in earlier trials of hospital at home. This suggests that IC may be providing services for patients who would otherwise not need hospital care. This is supported by the finding that about as many cases for admission avoidance were referred by nurses or social workers, who cannot admit to hospital, as by GPs or A&E doctors, who do have admission rights.

The suggestion that IC is providing an additional as well as substitute service is also supported by responses to questions about what would have happened to the patient if IC had not been available. For supported discharge cases about a third would not have had their stay extended, and a quarter would have been sent home. Similarly, about one third of admission avoidance cases would have been admitted to hospital and a quarter would have remained at home.

Our findings indicate that patient satisfaction levels with IC are broadly comparable with those found by other surveys of health service provision. The one aspect of care in IC settings that received the lowest satisfaction scores from service users was the timing of discharge.

## **2.4 The costs of intermediate care in relation to outcomes**

In seeking to identify predictors of the cost of IC episode, our results suggest that for the most part demographic characteristics of patients (i.e. age, gender) are not good predictors. For example, older patients were not systematically more (or less) costly than younger patients. However, the clinical need or severity of the patient does appear to be a predictor of cost. The characteristics of the IC service itself also appear to be important predictors of IC episode costs; residential IC services have a higher cost than non-residential services, and admission avoidance schemes have a lower cost than supported discharge services.

Our process modelling work expanded the scope of the cost analysis to consider both IC episode costs and potential cost savings from shorter or avoided hospital stays. A clear finding was that admission avoidance IC tends to be associated with cost savings whilst supported discharge tends to lead to increases in costs overall.

Quality of life was assessed before and after the IC episode using the EuroQol EQ-5D instrument. The personal characteristics of patients did not predict size of gain in quality of life and so, for example, older patients had similar quality of life gains to younger patients. In terms of service characteristics, the largest gains in quality of life were seen for residential services (compared to non-residential), and for admission avoidance schemes (compared to supported discharge).

## **2.5 Evidence on the costs and outcomes of different models of intermediate care**

It is clear that the literature evidence supporting the development of specific intermediate care service models is quite heterogeneous. It includes interventions with a range of different objectives of care including the avoidance of acute hospital admission and supporting discharge from inpatient hospital care, including providing for recuperation and planned discharge.

The bulk of the evidence from the systematic literature review relates to services intended to support or facilitate discharge from inpatient hospital care. The overview of international studies shows the development of disease specific models, which are often designed to reduce inpatient lengths of stay (sometimes with quite substantial effect sizes).

## **3. Implications for policy makers**

### **3.1 The diversity of intermediate care provision**

The variation of intermediate care services is considerable and what is or is not labelled as intermediate care has been left to localities. As a result, the IC label is being used to describe services that pre-dated the official guidance and some conventional services (community hospitals, domiciliary care, community rehabilitation) have been relabelled as ‘intermediate care’. The government may wish to consider the need for further prescription in the light of these findings.

The diversity in provision becomes problematic when trying to evaluate intermediate care and gather evidence for its effectiveness. Given that different types of services provide radically different interventions (e.g. level of professional input, intensity, duration etc.) it may be more useful to talk about different types of intermediate care (residential vs. non-residential, admission avoidance vs. delayed discharge) rather than about ‘intermediate care’ generally.

Ready access to basic information is essential if systems are to plan an integrated approach to intermediate care, understand its impact and further develop services. A review of routine data collection and performance measures for intermediate care is timely.

### **3.2 The process of implementing intermediate care**

The government's emphasis on the importance of partnership working as the main vehicle by which the delivery of intermediate care may be achieved is supported by our research. Indeed, a significant number of health and social care organisations are planning to move towards integrated provision in the future (using Health Act flexibilities) as a means of most effectively delivering intermediate care.

Fragmentation and poor integration with other services remain features of current provision and continue to have an impact upon the ability of intermediate care to deliver patient-centred care and contribute towards health and social care systems as a whole. While it would appear that capacity needs to be expanded, these findings should be regarded in conjunction with the baseline quantitative data which suggest that a significant proportion of IC referrals represent an additional service rather than a substitute service.

While a range of stakeholders have been involved in the development of intermediate care, our research suggests that there is much more scope for this. The independent and voluntary sectors may be part of the solution to capacity pressures, although there appears to be a need for greater clarity regarding the role of sheltered housing in the context of under- and inappropriate use. The increased engagement and involvement of medical staff (i.e. GPs and hospital doctors) is another priority.

With regard to workforce development, the government might wish to support initiatives aimed at promoting awareness of intermediate care to health care professionals and better preparing them to work in this environment (via education, rotations etc.). Although the need for additional support workers in intermediate care is recognised, our findings reflect a note of caution concerning the appropriate skill mix and balance between qualified and non-qualified staff.

In terms of further policy announcements on IC, our findings highlight a desire for a shift in emphasis away from IC beds towards non-residential forms of intermediate care and admission avoidance schemes. With regard to performance monitoring, a greater focus upon

outcomes (rather than activity) and the development of joint health and social services targets would be welcomed by many.

The need for the government to promote intermediate care both amongst the general public and professionals (via the dissemination of evidence) was regarded as crucial if it is to establish itself as a genuine alternative to more traditional forms of care.

### **3.3 The costs and outcomes of intermediate care**

Our statistical analyses have important lessons for policy makers in terms of *which patients to select* for IC. If the policy objective is to target IC resources towards patients and/or services associated with the largest benefits (e.g. gains in quality of life and/or improvements in functional status) then there is support for targeting patients with the greatest clinical need (who would otherwise have been cared for in an acute setting). The adoption of such a policy would, unsurprisingly, require a price to be paid – higher levels of severity are associated with higher IC episode costs.

The other policy implications from the statistical and model-based analyses concern decisions about *which types of IC services* might be the most appropriate on which to focus resources. In considering a choice between admission avoidance or supported discharge, the results provide strong support for a focus more on admission avoidance IC services. However, the literature contains relatively little evidence on the effectiveness or cost-effectiveness of admission avoidance services, and across the UK, the practical emphasis in service development has been on services to support discharge from inpatient hospital care. Further, the admission avoidance services studied in this evaluation appear not to have been used to avoid hospital admission in more than about one third of cases.

A related policy conclusion concerns the desire to move away from IC beds towards greater provision of non-residential forms of IC. Whilst this would clearly be associated with lower costs, our results suggest larger short-term gains in both quality of life and functional improvements for patients treated in residential settings.

### **3.4 Literature on the effectiveness of intermediate care**

Acute hospital units and their admission and discharge processes are only one element in a complex system of services serving the needs of older people in their homes, including community health and social services, primary care, rehabilitation, residential and nursing home care, voluntary organisations, and the care of family and friends. For example, differences in the availability of community services (e.g. residential care beds) can have a marked and enduring impact on the capacity of acute units to discharge older patients. Consequently, the effectiveness of interventions to improve the speed and quality of discharge or to avoid admission altogether will depend to a large extent on the broader service context in which they take place. Interventions that are shown to work well in areas with well-resourced and efficient community support services may have little or no impact where these services are inadequate or lacking. This highlights the need for integrated community based intermediate care services to work well in a ‘whole-systems’ context.