Locality Services in Mental Health

Developing Home Treatment & Assertive Outreach

THE NORTHERN BIRMINGHAM EXPERIENCE

Booklet 1

The Sainsbury Centre for Mental Health

Northern Birmingham Mental Health NHS Trust

This is a time of enormous change and great opportunity for mental health care. The message has at last hit home that we need to develop mental health services that offer comprehensive and well integrated care, 24 hours a day, 7 days a week, balancing high quality care for service users with the wider needs of society. The Government's mental health policy emphasises the importance of access, engagement and treatment adherence for people with severe mental health problems. Essential services to achieve these aims are crisis and assertive outreach teams, backed up by a range of support services including 24-hour places of care.

This approach makes intuitive sense and is evidence based. Research has shown that users, carers and staff prefer this style of working, and that safety is not compromised. Nevertheless, only very few services in the UK have introduced this style of care. This means that dissemination of good practice is a priority.

An influential example of good practice is Northern Birmingham, where well-integrated community services have been run now for some 5 years, following the closure of the local asylum. Many lessons have been learnt, both positive and negative. All these have great relevance for others, whether they address how to configure services or how to achieve a competent workforce.

The importance of this publication is that it gives an honest account of how services were set up, run and sustained, as told by the people who did it. This should help managers and clinicians elsewhere to replicate the successes, but avoid the pitfalls.

I very much hope that it will achieve its aim: supporting people anywhere to improve care in a practical and accessible manner. Good luck!

Matt Muijen
Director, The Sainsbury Centre for Mental Health

The Sainsbury Mental Health Initiative

In 1994, the Sainsbury Centre invited mental health services across the UK to bid for a share of £3 million, to establish innovative new services for people with severe and long-term mental health problems. The eight sites, selected from over 300 applications, were awarded a three-year grant as pump priming to get their services up and running. Each of the projects has undergone an evaluation by the Sainsbury Centre.

The range of services developed include assertive outreach, home treatment and intensive community support teams, joint health and social service initiatives, a carers' support team, an advocacy project and a rural out of hours intensive support service.

Many vital service development and evaluation lessons have been learnt from each of the sites. These will be published in a series of journal articles, resource manuals and reports. This is the first in a series of service development manuals providing practical guidance on setting up these services.

The Initiative was funded by the Gatsby Charitable Foundation, the Sainsbury Centre for Mental Health, the Department of Health in England and Wales and overseen by a Steering Group of national experts and leaders in the mental health field.

Acknowledgements

Northern Birmingham Mental Health NHS Trust would like to acknowledge the contributions of all those staff within the Trust who participated in the development of its services. In particular, it would like to make the following special note.

'Without the dedication, determination and co-operation of all the staff within theservices in the Yardley and Hodge Hill Locality, the re-modelling and maintenance of the service could not have happened.

The pioneering work of Dr John Hoult – his passion and energy to make the changes happen was crucial.'

Edited by Helen Wood & Sarah Carr
The Sainsbury Centre for Mental Health

Designing Local Mental Health Services

Helen Wood
Sarah Carr

THIS BOOKLET IS Nº **1**
OF A SERIES OF **5**

1

Context for Service Development

Moving towards the millennium, innovation in mental health service development continues to challenge and excite us. We are beginning to see innovative examples of alternatives to hospital-based care emerging from around the world and the UK.

In this series of service development manuals, we will be describing the implementation experiences and lessons from the Sainsbury Mental Health Initiative sites.

This manual describes the experiences of Northern Birmingham Mental Health Trust, as they implemented a re-configuration of their locality services. In particular, it provides practical guidance about the development of home treatment and assertive outreach services. The evaluation results for the home treatment service can be found in ***Open All Hours*** (Minghella *et al*,1998)

This manual will provide you with:

- *an overview of the issues around service development and the management of change*
- *a review of the evidence base supporting the development of home treatment and assertive outreach services*
- *practical service based examples of how to shape and drive change forward*
- *local service profiles & operational policy development*
- *implementation and service development strategies*

Mental health service systems are constantly evolving.

> *"The challenge of planning for new patterns of service provision is to go beyond existing and known forms of provision" (Towell & Kingsley, 1989)*

Questions commonly asked by service developers include:

- What should a comprehensive mental health system look like?
- What are the key success factors for designing local services?
- How do I successfully implement our local strategy?
- What is the evidence base supporting community based alternatives?
- What are the effective models of service delivery?

Kingsley and Towell (1989) argue that new services can only be successfully achieved by attention to the design and service development process.

Framework for service development:

- *on-going awareness of and sensitivity to the context that shapes and influences change*
- *knowledge of local need*
- *understanding of potential benefits and awareness of best practice models*

Continued...

Framework for service development/ Continued:

- *planned process of implementation and management of change*
- *investment in personnel and practice development*
- *mechanisms for evaluating and learning from the process.*

By pulling together these elements, it is then possible to form a coherent strategy for innovation and service development.

The context for change

There are several established methodologies for analysing the driving forces for change (Beckhard & Harris, 1987; Upton & Brooks, 1995; Young, 1993).

The key elements currently influencing mental health service development can be gathered under the following headings:

Political and legislative context

- Legislation and guidance i.e. Community Care Act; *Health of the Nation*; *Spectrum of Care*; *Building Bridges: The New NHS* (White Paper) 1998.
- Role of commissioners in determining need and purchasing appropriate services.
- Structural re-organisation: Trust mergers, primary care groups and local authority re-configurations.

Ideological context

- Citizenship
- Consumerism
- Normalisation

Technological context

- Advancement of expertise in evidence based interventions.
- Research and evaluation evidence of effective services models.
- Methodologies for needs assessment.

Local context

- Socio-economic factors, local needs and resources.
- Pressure on local services.
- Presence of 'change agents'.

Political and legislative context

Over the past decade, central government has consistently moved the focus of service delivery towards a community base. Ten years ago the White Paper Caring for People stated, *"Community care means providing the right level of intervention and support to enable people to achieve maximum independence and control over their own life"* (HMSO, 1989).

The struggle to achieve this has not been without its difficulties and tragedies. More recently, the *Health of the Nation*, *Building Bridges* and *Spectrum of Care* documents have outlined the range of service components and inter-agency partnerships required to achieve a comprehensive service system.

The latest government White Paper, *The New NHS* (1998) outlines a structural system in which mental health must be developed and provided. It increases the emphasis on clinical effectiveness through the proposed national service framework, a National Institute for Clinical Excellence and clinical governance.

Key features of governmental policy relevant to this manual:

- *needs led service planning and commissioning*
- *joint working across agencies in the development and provision of a comprehensive service system*
- *focus on locality based provision*
- *prioritisation of resources to people with severe mental health problems*
- *community teams as central focus for provision of community care to this group*
- *safe alternatives to hospital for acute care when appropriate*
- *provision of intensive community support for those most difficult to engage and most in need*
- *focus on clinical effectiveness.*

Ten core components of a comprehensive service

- *case identification, needs assessment and care planning with integrated CPA and Care Management systems*
- *a range of hospital and community beds*
- *case management, rehabilitation and assertive outreach provision*
- *a day care, education and employment network*
- *crisis intervention and prevention strategies*
- *assessment and consultation services in the hospital, home, team base and primary care clinics*
- *a primary care liaison system, negotiated with local primary health care teams*

Continued...

Ten core components of a comprehensive service/Continued:

- *initiatives with community agencies and carers, including service protocols, joint planning and provision of 24 hour, 7 day services*
- *a range of effective clinical and management interventions, offered by appropriately trained staff*
- *user involvement in service planning and evaluation and links with advocacy projects.*

(Strathdee, Thompson & Wood 1997)

Ideological context and principles of service development

Our challenge as service developers is not only to develop service systems that fulfil the requirements set out above, we must also embrace the ideology behind the creation of a system that preserves and fosters a sense of dignity, control and choice for those who use it.

> *"For people with psychiatric disabilities, citizenship implies the right to participate in economic, social and cultural life and to receive the support necessary to make this possible — decent housing, income, work opportunities and professional help when required"* (Towell & Kingsley, 1989)

Normalisation ideology has greatly influenced the way some professionals, service developers and managers think about services. Principles guiding service development would thus focus on achieving:

- integration
- personal value
- developing empowering lifestyles
- rights for self-determination.

The influence of service users and carers in determining service provision has begun to play a major role in changing the shape and content of services. Their role has strengthened politically through consumerism, citizenship, and the self-empowerment movements. The Audit Commission review on mental health services, *Finding a Place* (1994), highlighted the key expressed needs of these groups.

What do service users want?

A survey of service user literature and research clearly demonstrated the need for more community based support (Wood, 1994). This included:

- ***alternatives to hospital admission*** *including: 24 hour 7 day access to crisis services, access to crisis and respite facilities, more home based treatment and support, crisis cards*
- ***access to out of hours non crisis support***
- ***practical help*** *with housing, benefits, assistance at home, finding employment and meaningful occupation*
- *more* ***support to carers***
- ***access to user run and self–help facilitates***

Technological context

Advances in both mental health interventions and service models has fostered creative innovation in service design. A summary of the evidence base for the two key service areas discussed in this manual, home treatment and assertive outreach, is presented later in this section.

The key areas of technological advancement that have a major impact on service development include:

- *efficacy and viability of specific service models e.g. Assertive Community Treatment (ACT)*
- *benefits and outcomes of evidence based interventions and service structures necessary to support their implementation*
- *development of reliable and creative methodology for needs assessment.*

Needs assessment

Needs based approaches to planning and service provision have begun to influence and change the shape of mental health services.

However, some assert that this remains an ill-defined area. *"There is no shared single understanding of either needs or needs assessment in mental health service settings... Unfortunately, the needs assessment process can be distorted to meet service requirements, rather than the true needs of consumers/clients"* (Baldwin, 1998).

Despite this word of caution, alternative practical approaches for quantifying local need have been developed (Baldwin, 1998).

Johnson and colleagues (1996) describe four methods for assessing service needs and provision.

1. Use of epidemiological studies estimating need based on national prevalence figures (*Health of the Nation* [DoH, 1992]; National Psychiatric Morbidity Scale [OPCS, 1995])
2. Levels of local service provision expected based on national and international patterns of service use and provision (Goldberg & Huxley 1980,1992; Wing 1992)
3. Comparing local services with expert views on desirable levels of service provision (Wing 1992; Strathdee & Thornicroft, 1992; Audit Commission, 1994)

4 Validity of the above can be increased by using a deprivation-weighted approach (Jarman indices, York indices, Mental Health Needs Index [MINI]; Thornicroft 1991)

Greater insight into the nature of need and particular local diversity can be gained by using mechanisms to meet more directly with service users, carers, and other local providers. Strategies such as search conferences and stakeholder forums have been successfully used to identify needs in a more practical and person centred way (Smith *et al*, 1996).

Needs assessment activities should also take into account existing information on need and service provision from CPA and Care Management sources. In addition, local audits can help quantify local characteristics, particular patterns of service use by key groups and unmet need.

Practical strategies for needs assessment:

- *stakeholder forums*
- *service and care pathway audits*
- *aggregating individual met and unmet need (CPA, Care Management data)*
- *use of population and deprivation indices i.e. Jarman indices, York Index, MINI scores*
- *locality profiles mapping out existing resources*
- *national prevalence and census data (OPCS, 1995; DoH, 1994)*

Local context

In addition to an in-depth understanding of the needs of an area, some of the most powerful factors influencing change originate from the local context. These may include:

- arrival of new managers and/or clinicians who are experienced innovators
- organisation of existing services and their effectiveness at meeting current demand
- demands on high cost services (e.g. acute in-patient and medium secure beds)
- critical incident inquiries
- degree of dissatisfaction with existing services
- change in contractual obligations
- existence of local pressure groups (e.g. service user and carer groups, community health councils)
- organisational culture and experience of fostering innovation.

Effective models of service delivery

Designing a local system of care raises many dilemmas, not least finding the most effective model of service delivery. Although there is evidence to suggest positive benefits of specific components of the system, such as case management, there is currently little evidence about the most effective organisation of a locality system.

Requirements will also differ according to the nature of the area.

Configuring local systems of care

The effectiveness of a locality system will largely depend on:

- presence of the necessary component parts
- how they are organised in relation to each other
- whether they reflect local need.

The most vital ingredient of any local system will be what it looks and feels like for the people using it. Any local system must therefore be integrated at the point at which it delivers services to the public.

What influences optimal mental health service configuration?

There are many factors that influence the way services are organised and fit together in a locality system, including:

- **Levels and nature of mental health morbidity:** the National Psychiatric Morbidity Scale (OPCS 1995) has shown that levels of psychosis can be 3–4 times the national average in inner city areas.
- **Staff, skill and financial resources available:** a number of districts funding does not reflect local morbidity.
- **Primary care structures:** e.g. number and proportion of fund-holding practices, and after April 1999, primary care group commissioning priorities.
- **Location:** urban, rural and inner city areas have different characteristics which influence accessibility, safety, service spread etc.
- **Sectorisation:** local authority and GP practice boundaries influence communication strategies and service plans.
- **Strengths and weaknesses in existing services:** e.g. disbanding a good rehabilitation service without analysis to strengthen a poorly functioning acute service may not be the best way forward.

(Strathdee, 1997)

Thus, a comprehensive locality needs assessment will be one of the single most important determining factors in how services should be configured for that area.

Other key determining factors may include:

- level of integration between health and social services
- presence and strength of independent sector provision
- line management arrangements (if separate systems exist across professional groups and or service areas, i.e. locality manager for all services including in-patients).

Determining the best configuration for local services is not straightforward. Decisions about needs and resources should be made based on:

- *data collected about local epidemiology and service demand*
- *consumer pressure, e.g. what users, carers and the local community want from services*
- *research about what constitutes effective, comprehensive mental health services.*

Fidelity to known effective models

The difficulties associated with replicating model services have been well documented (Bacharach, 1980). However, to retain the benefits and anticipated outcomes of specific service models, fidelity issues need to be addressed.

Assertive outreach teams, for example, have specific characteristics that need replication if the predicted outcomes reported by the studies highlighted later in this section are to be achieved.

There are few service models within the mental health field which do have these fidelity characteristics. We are constantly evaluating different models of service configuration to determine the core characteristics required for effectiveness.

When reviewing the evidence base for guidance on effective models of service delivery, it is crucial that attention is paid to the key characteristics of the service that facilitated specific outcomes.

Poorly thought through applications of crisis service models, for example, where the anticipated outcomes for the service were not achieved have been evident. Such services may have not been available 24 hours, 7 days week, not had a central gatekeeper for hospital beds, no central referral point, poor targeting criteria and inadequate training in appropriate interventions.

Deciding what is best for your area

Designing a local system of care is a complex task requiring in-put from multiple partners. Naya and Ford (1998) propose a simple checklist to assist this process, based on three key principles:

1. Care should be built around the individual needs and views of users and carers.
2. A range of services that function as a system should be available.
3. Mental health services should be sensitive to local needs, resources and culture.

Learning the lessons from research, other service examples and local experience helps to highlight critical success factors and key pitfalls. The process of service design needs to be a creative, dynamic and multi-partner undertaking.

Home Treatment Teams: The Evidence Base

Home treatment teams are now emerging as a viable alternative to hospitalisation, in the support and treatment of people with acute mental illness. Developments in Birmingham were not a direct replication of the models used in the research presented below, however, they were influenced by the original research papers presented later in this section.

The provision of a home treatment service can result in the following outcomes:

- *prevention of admission in emergencies/ compulsory admission*
- *avoidance of lengthy hospitalisation*
- *greater client satisfaction often resulting in better engagement and compliance*
- *greater carer satisfaction, education and support*
- *more suitable treatment for minority ethnic groups.*

This section reviews the recent home treatment service evaluations and studies which provide evidence for the above outcomes. Afterwards, a summary of a key research paper, influential for the Birmingham home treatment team, is given.

Recent study outcomes

Prevention of admission in emergencies/ compulsory admission

- A 1 year audit of the treatment records of 94 home treatment patients and 78 clients receiving standard hospital care revealed that only 19% of the former had been admitted compared to a third of the latter. Overall, the home treatment team was found to admit fewer people, for less time, with fewer repeat admissions (Burns *et al*, 1993).
- An investigation into the feasibility of supporting acutely ill people in the community using home-based care found that in the year after the introduction of a 24 hour on-call element to the home treatment service, the number of people treated at home had risen from 45% to 65% (Dean & Gadd, 1990).

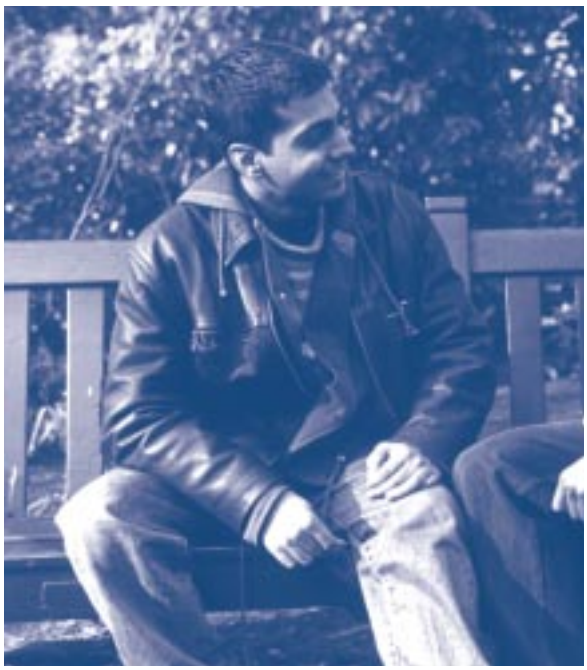
Avoidance of lengthy hospitalisation

- An inner London study comparing home treatment with standard hospital care for psychiatric emergencies found that from 3–18 months home care reduced the number of in-patient bed days by 80%, provided the home treatment team was responsible for people during their stay in hospital (Marks *et al*, 1994).
- An overall mean of 6.7 in-patient bed days per home treatment client and 13.8 in-patient bed days per control client was calculated for 1 year as a result of a random controlled study comparing acute home-based care with ordinary hospital care (Burns *et al*, 1993).

- When the efficacy of home-based treatment was compared with hospital-based care for the severely mentally ill over 3 months, home care was found to reduce hospital stay by 80% and did not increase the number of admissions (Muijen *et al*, 1992).
- Following the introduction of a 24 hour on-call assessment and treatment element to a home care service average in-patient bed occupancy was halved during the first year (Dean & Gadd, 1990).

Greater client satisfaction often resulting in better engagement and compliance

- A long-term randomised controlled study of home-based vs. hospital-based care in London revealed that although clinical and social gains had lessened over time at 45 months, client and carer satisfaction was still high (Audini *et al*, 1994).
- At the 1 year follow up of one controlled study 80% of people receiving home treatment were still in contact with their psychiatrist and over 50% were still being seen by a CPN. The authors conclude that this was due to greater satisfaction with the service (Dean *et al*, 1993).
- A 1 year controlled study of home vs. hospital-based care found that although no significant differences in clinical and social outcome functioning were found, assessment attendance and access to care was better for the home treatment group (Burns *et al*, 1993).
- The authors of one study concluded that the low drop-out rate of home care clients suggested that they appreciated the attention given to difficulties which effect their quality of life at least as much as their psychiatric illness (Muijen *et al*, 1992).



Greater carer satisfaction, education and support

- Relatives of those receiving home-based assessment and care were found to be more satisfied with services for patients and the amount of support they received than relatives getting hospital-based care (Dean *et al*, 1993).
- One report revealed that as soon as carers and clients were informed that home care meant constant support, they were very positive about the treatment and appreciated the efforts made to prevent hospital admission and facilitate early discharge (Muijen *et al*, 1992).
- A 20 month controlled study of patients facing emergency admission found that over the study period home treatment had enhanced both carer and client satisfaction (Marks *et al*, 1994).

More suitable treatment for minority ethnic groups

- A London controlled study of home vs. hospital-based acute care revealed that the home-based programme was well accepted by African-Caribbean clients, many of whom were young men with schizophrenia living alone (Muijen *et al*, 1992).

- When the effectiveness of a 24 hour home treatment service in a deprived multi-racial area of Central Birmingham was evaluated, researchers found that clients of Asian origin were more likely to get help through home-based care (Dean & Gadd, 1990).

Key influences for Northern Birmingham: original research paper

John Hoult (1986) Community Care of the Acutely Mentally Ill (*British Journal of Psychiatry* **149**: 137–144)

This study, carried out in Sydney, Australia in 1979-1980 aimed to:

- demonstrate the feasibility of treating people with mental illness in the community as an alternative to hospital admission
- show that this can be done without detriment to the client, their carers and the community
- demonstrate that such community treatment costs no more than standard care.

The experiment and evaluation

Two groups of 60 severely mentally ill people were monitored over a 12 month period at 1, 4, 8 and 12 months. The respective models of care received by the control and experimental groups were as follows:

Control group

- Standard hospital and after-care.
- Hospitalisation for 3 week average on a 35-bed ward.
- Ward staff consisted of:
  - 1 psychiatrist
  - 3–4 trainee psychiatrists
  - 15 nursing staff
  - 2 social workers
  - 1 psychologist
  - 1 occupational therapist.

On discharge the people in the control group were referred to after-care by a multi-disciplinary team based at the local community mental health centre (CMHC). They were assigned a care manager and had access to:

- regular medication reviews by the psychiatrist
- counselling or psychotherapy
- individual and family support.

The CMHC operated during normal office hours, and the researchers concluded that the style of care received would be of a 'passive-responsive' nature, because clients and carers were expected to take the initiative.

Experiment group

- Assertive community treatment.
- After-care similar to that received by control group, but '*the time frame and the commitment to community treatment were different*', insofar as care was assertive and on-going.
- After the initial assessment, subsequent assessments were carried out by the psychiatrist and a home treatment team member in the client's home.
- The 24 hour community treatment team consisted of :
  - 3 psychiatric nurses
  - 2 social workers
  - 1 occupational therapist
  - 1 psychologist
  - 1 part-time psychiatrist.

  Staff were rostered on 2 shifts per day, with one member on-call from 11pm to 8am.

The initial home assessment was necessarily more detailed than the one carried out in the hospital, with close involvement of carers and other members of the client's social network. Areas assessed included:

- The presenting problem – accurate definition and appropriate response.
- Clinical symptoms and signs – diagnosis.
- Behaviour – if this can be safely tolerated in the home environment.
- Interpersonal relationships – are these part of the presenting problem?
- Social supports and needs.
- Willingness to co-operate.

Clients and carers were involved in formulating individual care management plans. Information on the illness, medication and community team treatment was provided.

Staff initially stayed with the client for several hours monitoring behaviour, effects of medication and reassuring the carers. They could be called at anytime thereafter, and visited frequently for the first few days to provide medication adjustment, patient monitoring and carer respite as necessary.

After the initial stages, the people in the experiment group received assertive community treatment, including training in daily living tasks and social integration.

The results

Outcomes after 12 months were as follows:

- Over the 12 month study period control group clients spent an average of 53.5 days in hospital, while experiment group clients spent 8.4 days.
- 60% of people getting home treatment had no admissions, compared with only 4% of those getting standard care.
- 73% of control clients were admitted to hospital for more than 1 week. With one exception, the 14% of experimental clients who were admitted to hospital for more than 1 week were chronically, rather than acutely ill.
- The mean total Present State Examination (PSE) results at 12 months were 9.8 for the experiment group and 15.4 for the control group.
- Both clients and relatives considered community treatment to be more satisfactory and helpful than standard care.
- 80% of the experiment group who were not admitted to hospital were pleased and grateful about it, compared with 30% of the control group.
- Over the year, the average treatment cost for each home treatment client was A$4,489 and A$5,669 for each standard care patient, resulting in the latter costing 26% more than the former.

Conclusions and recommendations

Drawing conclusions from their own experience, and that of others in the field, the authors recommended that an effective emergency home treatment team should follow these care principles:

- *24 hour 7 day availability with an easily accessible, rapid, mobile response service to allow early intervention and relapse prevention.*
- *The home treatment team needs to offer an on-going and extensive, rather than time-limited service.*
- *The intensive nature of initial assessment and treatment and the time spent with the clients and their carers helps to form a therapeutic bond and lessens the burden of care for the family.*

Continued...

- *Clients and carers need to be involved in the care management programme and should be given information, support, guidance and counselling where appropriate.*
- *Consistent care by one team is needed.*
- *A personal care manager who accepts responsibility for ensuring the person's needs were met and co-ordinating care is vital.*
- *The team must be prepared to go out to clients and their carers assertively, without being intrusive.*
- *Teaching practical living skills in the place where they will be used is important.*

Assertive Community Treatment: The Evidence Base

"We believe that until we are able to prevent or cure chronic psychiatric disease we should change our treatment strategy from preparing patients for community life to maintaining patients in community life" (Stein & Test, 1980)

Key features

A recent comprehensive, international research review of 75 Assertive Community Treatment (ACT) studies (Mueser *et al*, 1998) noted that the defining features were:

- *delivery by a multi-disciplinary team, usually including a psychiatrist, a nurse and at least two case managers*
- *low staff to client ratios (1:10 rather than 1:30 or higher)*
- *most services provided in the community (in peoples' homes or cafes) rather than in an office setting*
- *caseloads shared across clinicians, rather than individual caseloads*
- *24 hour coverage*
- *most services provided directly by the ACT team and not brokered out*
- *time-unlimited service.*

In addition the authors note:

- *"The low patient to staff ratio, the emphasis placed on treatment in the patients' natural environment, and the preference for providing direct services rather than referring patients elsewhere reflect the ACT model's priority on providing practical supports in daily living, such as shopping, laundry and transportation."* (Mueser *et al*, 1998)

Key research findings

The latest research reviews into the efficacy of assertive community treatment for people with severe mental illness and complex needs suggest that this type of community care has the following effects:

- *better engagement with community services*
- *higher client satisfaction with services*
- *does not appear to add to family burden and is favoured by carers*
- *improvement in quality of life and social relationships*
- *greater housing stability*
- *some symptom improvement*
- *reduction in the number of hospital admissions*
- *reduction in the time spent in hospital*
- *generally costs less per client per day than standard hospital care.*

(Mueser *et al*, 1998; The Sainsbury Centre for Mental Health, 1998; Scott & Dixon, 1995; Holloway *et al*, 1993)

A recent Sainsbury Centre for Mental Health report identified the following key features of assertive outreach services:

- Assertive outreach teams can achieve engagement for 95% of people with the greatest difficulties.
- These services are effective and efficient and liked by users and carers.
- Low caseloads are an essential feature of assertive outreach.
- Assertive outreach is only as good as the services that are available locally.
- A full range of social, rehabilitative and treatment services is required.
- Continuity and integration of care are essential components, both over time and across all services, including hospital and the community.
- As far as possible these services should be provided directly by the team, rather than the team merely brokering care, so as to avoid multiple interfaces.
- A multi-disciplinary group of staff should carry out the assertive outreach function, covering the essential skills.

(The Sainsbury Centre for Mental Health, 1998, p51–52)

Recent study and review outcomes

Better engagement with community services

- One 18-month controlled study reported that all people receiving ACT type care were in contact for the duration of the project, while 17% of the standard care control group were refusing all contact at 18 months (Holloway & Carson, 1998).
- An 870 day study comparing usual care and ACT found that the latter had retained 68% of its clients at the end of the project, compared with 43% for the group receiving standard care (Herinckx *et al*, 1997).
- One research review noted an average retention rate of 83% across 9 studies of ACT, significantly higher than the 51.5% found in comparison conditions (Bond *et al*, 1995).
- Retention rates to ACT programmes can be as high as 80% when compared to that in traditional aftercare, which was found to rarely exceed 50%, even for a 6 month period (Bond *et al*, 1995).
- More people admitted to an assertive community treatment team in one Birmingham study were in touch with both a psychiatrist and a community nurse after 1 year than those getting standard treatment (81% vs. 62% and 56% vs. 14% respectively) (Dean *et al*, 1993).
- Over a 2 year period clients with schizophrenia receiving ACT used significantly more mental health services during the study period compared with those in the control group receiving usual treatment (Hornstra *et al*, 1993).

Higher client satisfaction with services

- Six out of seven relevant studies in a recent review have reported higher client satisfaction with ACT (Mueser *et al*, 1998).
- In a London controlled study of ACT, 35 clients reported that satisfaction with care was greater among those getting community treatment than among those getting standard treatment (Holloway & Carson, 1998).

- One controlled study found that usual care clients were more than twice as likely as ACT clients to drop out for reasons related to dissatisfaction with treatment (Herinckx *et al*, 1997).
- An evaluation of community vs. hospital treatment, clients were found to prefer community care, with overall satisfaction reported by 83% of the ACT group compared with 54% of those receiving hospital care (Merson *et al*, 1992).

Does not appear to add to family burden and is favoured by carers

- A 28-week study investigation of hospital vs. outreach treatment of people with severe mental illness found that burden on carers did not increase during the community treatment period (Minnen *et al*, 1997).
- A report on family-aided ACT concluded that systematic family involvement enhanced rehabilitation and family members reported significant improvement in their objective and subjective burden (McFarlane *et al*, 1996).
- An evaluation of ACT at 6 sites found that overall it had improved family and social support (McGrew *et al*, 1995).
- A study of the comparative effects of ACT on carer burden and client outcomes reported that the relatives of the people getting ACT were less distressed by their burden at the initial assessment (after 3 days) than relatives of those getting standard hospital treatment and follow-up. Relatives were also more satisfied with the treatment they received and the treatment received by clients after 1 year (Dean *et al*, 1993).

Improvement in quality of life and social relationships

- A recent London controlled study of 35 people receiving ACT (57% of whom were non-white) found the quality of life was significantly improved after 9 months (Holloway & Carson, 1998).
- A study of the 'Community Support and Rehabilitation Program' (a mobile ACT service in Baltimore serving a population of 73,000, with a staff : patient ratio of between 1:10 and 1:15) indicated that, compared with shorter contact clients, those in contact longest with the programme demonstrated improved social functioning, quality and quantity of their social networks, despite experiencing no difference in symptoms or global functioning (Thornicroft, 1992).

Greater housing stability

- In 75% of the 12 controlled studies taking into account housing stability found that this was improved by ACT (Mueser *et al*, 1998).
- A 1 year study comparing short-term and long-term assertive community treatment found significant differences in patterns of service use for family and housing. The long-term care group family and housing related service use remained stable over the study period, while the use of these services decreased dramatically for the short-term care group (Ryan *et al*, 1997).

Some symptom improvement

- Half of the 16 controlled studies evaluating symptomatology reported significant reductions in symptoms under ACT (Mueser *et al*, 1998).
- Following the introduction of ACT for clients with severe mental illness in Sydney total life-skills profile scores increased from 75% to 83% over 12 months (Hambridge & Rosen, 1994).
- A 3-month controlled study of people receiving ACT reported that those referred to the community treatment team showed greater improvement in symptoms (Merson *et al*, 1992).

Reduction in the number of hospital admissions

- A 2-year study comparing 2 models of care revealed that admission to hospital was more likely in the hospital-based care group than among those being treated in the community (Tyrer *et al*, 1998).
- A recent Dutch study noted that, over 28 weeks, admission to hospital could be prevented for 84% of people receiving ACT (Minnen *et al*, 1997).
- The author of a meta-analysis of 9 studies involving ACT concluded that *'as a rule of thumb, providing assertive outreach programmes for frequent users of hospitalisation can be expected to reduce inpatient days by about 50%'* (Bond *et al*, 1995).
- An 18-month multi-site study of client outcomes in ACT found that hospitalisation had been reduced by 1/3 (McGrew *et al*, 1995).
- An Australian investigation into the effectiveness of an assertive outreach team reported that the implementation of the programme was associated with a reduction in the annual re-admission rate from 38% to 21% over 1 year (Dharwadkar, 1994).
- Following the introduction of ACT over 1 year for 64 clients with severe mental illness in Sydney there was a 35% decrease in admissions (Hambridge & Rosen, 1994).
- Two studies concentrating on hospital use found that the introduction of an assertive outreach programme had reduced bed use by 65-94% in those areas, when compared with the previous year (Muijen, 1994).

Reduction in the time spent in hospital

- 61% of 23 controlled studies examining hospitalisation time have reported significant reductions when ACT has been implemented (Mueser *et al*, 1998).
- An evaluation of ACT at 6 sites over 18 months revealed that the number of in-patient days were reduced by 50% after admission to the programme (McGrew *et al*, 1995).
- One Australian investigation into the effects of ACT on hospital admission rates reported that after 1 year the total length of hospital stay had been decreased by 80% (Dharwadkar, 1994).
- After ACT was introduced for a group of 64 clients with severe mental illness in Sydney, the number of bed days was reduced by 62% over 1 year (Hambridge & Rosen, 1994).
- A controlled study carried out in Birmingham reported that people getting ACT spent significantly fewer days in hospital over the 12-month study period than those admitted to standard care, the difference being 20.6 vs. 67.9 bed days (Dean *et al*, 1993).
- Utilization of bed days by patients in an ACT programme was reduced by 28% in the third fiscal year after the programme's implementation, compared with an increase of 15% among persons in hospital care (Dincin *et al*, 1993).
- A 3-month research project comparing hospital and community treatment in London found that people treated in the hospital-based service spent 8 times as many days as psychiatric in-patients as those receiving ACT (Merson *et al*, 1992).
- One assessment report of several operations concluded that before intake into an ACT programme, the average client has spent approximately 50 days during the previous year in a state mental hospital; after the intervention, admission rates and lengths of stay had been reduced by 30-40% (Burns & Santos *et al*, 1990).

Generally costs less per patient per day than standard hospital care

- Most studies of the cost-effectiveness of community care models have focused on ACT with many reporting net savings and a few finding no difference (Mueser *et al*, 1998).

- A study comparing hospital-based and assertive community treatment found that health care in the hospital group were 14% greater per client than in the community care group (Tyrer *et al*, 1998).
- A Dutch economic analysis of hospital vs. community treatment over 28 weeks found that treatment costs per client per day were lower for the outreach team at $268 vs. $148 (Minnen *et al*, 1997).
- A critical review of community treatment research studies found that the investigations making comprehensive economic evaluations reported a decrease in costs for groups getting assertive case managed treatment when benefits such as increased income through higher rates of employment were taken into account (Holloway *et al*, 1995).
- An economic evaluation of intensive support vs. generic community teams in London found that generic group costs averaged £89 per patient per week more, but this difference was only significant for the first 6 months (McCrone *et al*, 1994).
- One London study concluded that an assertive community treatment programme was significantly less costly in the short and medium term than was standard hospital-based treatment and out-patient care (Knapp *et al*, 1994).

Key influences for Northern Birmingham: original models

The initial and core studies into assertive community treatment were carried out in the 1980s. The model of care developed in North Birmingham drew on two important pieces of original research which are described below:

Study 1

Leonard Stein & Mary Ann Test (1980) Alternative to Mental Hospital Treatment (*Archives of General Psychiatry* **37**: 392–397)

This pioneering piece of research sought to test a conceptual model of assertive community outreach characterised by intensive support and psycho-social interventions, against traditional hospital treatment and aftercare.

The conceptual model

The authors identified several community care issues that remained unaddressed by conventional aftercare, and designed their 'Training in Community Living Program' (TCL) to accommodate these unmet needs:

- Material resources: food, housing, clothing and medical care.
- Life skills: personal grooming, budgeting, cooking, household maintenance, negotiating public transport systems.
- Motivation to remain involved in community life and to develop social relationships.
- Freedom from pathologically dependent relationships and greater personal autonomy.
- Support and education for families, carers and other involved community members.
- A supportive system that assertively helps the client with the previous five requirements and actively ensures continuity of care.

The evaluation

A 28-month random controlled study was designed to test the effects of the TCL program on client functioning. A follow-up study was undertaken to examine the comparative effects of withdrawal from the program.

The random controlled study compared 65 people receiving hospital treatment and standard aftercare with 65 using only the TCL Program for 14 months. All people had sought admission to the Mendota Mental Health Institute in Dane County, Madison, Wisconsin, and only 17% had never been hospitalised before. The average number of previous admissions was five. The average client age was thirty-five and 55% were male, with 73% of the total being single. Half of the cohort were diagnosed as having schizophrenia. All were randomly assigned on admission and then interviewed at four-month intervals.

The experimental TCL treatment was available 7 days a week, 24 hours a day and care programmes were designed to meet the individual needs of each person. Staff were available to give intensive community support and 'in vivo' treatment and were 'assertive' where necessary (i.e. going to see the client if he or she was losing contact). Medication was used for people with schizophrenia and manic depression. The staff to client ratio was low (1:10).

Within-treatment results

The first year of research produced these key results:

- The hospital readmission rate for the people receiving ordinary treatment was 58% compared with 6% for the TCL group.
- Although there were no significant differences between the groups for leisure time activities and quality of environment, TCL subjects scored far higher on the scales measuring attendance and membership of social groups and 'contact with trusted friends'.
- The TCL group spent less time unemployed and had better engagement with sheltered employment schemes. They also reported that they were more satisfied with life situations at 12 months.
- During the experiment those receiving assertive community treatment showed better functions on 7 of the 13 symptom measurement scales, including suicidal trends, paranoid behaviour and thought disorder.

Follow-up results

The significant data from the period when the TCL subjects were withdrawn from the programmes was as follows:

- There was a gradual but definite increase in hospital use by the experiment group.
- The time spent in sheltered employment decreased strikingly after the cessation of the TCL program.
- Although leisure pursuit levels remained constant, contact with friends dropped after the programme closed.
- The greater satisfaction with life disappeared.
- The positive effects of the TCL program on client symptoms ceased at closure.

Conclusions

The authors conclude that:

- Without effective community treatment the hospital will be the primary locus of treatment, rather than being used for specialist and acute care.
- Supporting people with chronic and severe mental illness in the community is an ongoing rather than a time-limited task.
- Community support systems for this client group need to be flexible, assertive and responsive to patient needs:

Study 2

John Hoult, Ingrid Reynolds, Marie Charbonneau-Powis, Penelope Weekes & Jennifer Briggs (1983) Psychiatric Hospital vs. Community Treatment: The Results of a Randomised Trial (*Australian & New Zealand Journal of Psychiatry* **17**: 160–167)

Stein and Test's model of assertive community treatment has been replicated in other localities and modified accordingly. This Australian 12-month randomised controlled trial compared traditional hospital and aftercare treatment with an assertive community treatment model.

The evaluation

One hundred and twenty people presenting for admission at Macquarie Hospital in Sydney were randomly allocated into two groups. The control group received standard hospital treatment and aftercare while the project group were given assertive community treatment alone (no project clients were admitted to hospital if this was avoidable). Those with dual diagnosis and organic disorders were excluded, but people with severe mental illness such as acute psychosis or suicidal tendencies were included.

Of the total group, 75% had been admitted to hospital one or more times. About 65% were under 40 years of age, and just under half were male. Those fully employed numbered 20% and 20% of the group were married. Three quarters were suffering from a form of functional psychosis, half of whom had schizophrenia. Interviews took place at one, four, eight and twelve months.

The assertive team model

The assertive treatment team was comprised of:

- 3 psychiatric nurses
- 2 social workers
- 1 occupational therapist
- 1 psychologist
- 1 part-time psychiatrist.

It offered these key services to the clients and carers being supported in the community:

- 7 day a week 24 hour crisis service
- medication administration
- family intervention, support and education
- counselling
- training in basic living skills.

The results

At the end of the 12-month study period the project had produced the following significant results:

- 60% of the project group had no hospital admissions compared with only 4% of the control group.
- Of those from the project group who were admitted, 26% stayed for less than 1 week and only 14% for over 1 week, compared with 23% and 73% respectively for the control group.
- The people receiving assertive treatment were significantly more pleased at not having been admitted to hospital.
- When asked to rate how much their treatment had helped them, 46% of the standard treatment group said it had helped while 80% of those getting assertive community treatment answered positively.
- The majority of the project (87%) and the control (61%) said they would prefer community treatment.
- 58% of project clients reported that they were 'very satisfied' with the support and care received compared to 29% of those getting standard care. The 24 hour availability was particularly appreciated by the project group.
- Relatives and carers favoured the community treatment and appreciated the continuous, readily available support of the community team.

- It was estimated that standard hospital treatment and aftercare cost 26% more than the assertive community treatment.

Conclusions

The authors recommend that the effective assertive community treatment team should incorporate these key elements:

- 7 day 24 hour availability
- crisis intervention
- continuity of care
- assertive and directive approach
- teaching living skills to patients
- support and education for relatives and carers.

Further they conclude that:

- A minority of patients will still need 'asylum' or hospitalisation, so as well as community treatment, there is a continued need for *"some form of care which offers refuge and asylum".*
- *"If community treatment is opted for purely because it is the cheaper mode of treatment and attention is not paid to the quality of community treatment, then the consequences will be negative rather than positive."*

References

Context for Service Development

Audit Commission (1994) *Finding a Place: a review of mental health services for adults* London: HMSO

Bacharach, L (1980) Overview: model programmes for chronic mental patients, a synthesis In Talbot J (ed.) (1980) *The Chronic Mental Patient* Grune and Stratton

Baldwin (1998) *Needs Assessment & Community Care: Clinical Practice & Policy Making* Oxford: Butterworth Heinemann

Beckhard R & Harris, R (1987) *Organisational Transitions* London: Addison-Wesley

Department of Health (1994) *Health of the Nation* London: HMSO

Department of Health (1994) *Health of the Nation Key Area Handbook: Mental Illness* (2nd ed.) London: HMSO

Department of Health (1996) *Spectrum of Care: Local services for people with mental health problems* London: HMSO

Department of Health (1989) *Caring for People* London: HMSO

Department of Health (1998) *The New NHS* London: HMSO

Johnson S, Thornicroft G & Strathdee G (1996) Population-Based Assessment of Needs for Services In Thornicroft G & Strathdee G (eds.) (1996) *Commissioning Mental Health Services* London: HMSO

Kingsley & Towell (1989) Designing local processes for service development In Towell D, Kingsley S & McAusland T (1989) *Managing Psychiatric Services in Transition* London: Kings Fund

Minghella E, Ford R, Freeman T, Hoult J, McGlynn P & O'Halloran P (1998) *Open All Hours: 24-hour response for people with mental health emergencies* London: The Sainsbury Centre for Mental Health

Naya K & Ford R (1998) *Laying the Foundations: Choosing the Right Trust Configuration in the New NHS* London: The Sainsbury Centre for Mental Health

Smith H, Kingdom D & Peck E (1996) Writing a Strategy In Thornicroft G & Strathdee G (eds.) (1996) *Commissioning Mental Health Services* London: HMSO

Strathdee G, Thompson K, & Wood H (1997) *Mental Health Service Development Skills Workbook* London: The Sainsbury Centre for Mental Health

Strathdee G & Thornicroft G (1996) Configuring Mental Health Services: A Needs Assessment Approach In Strathdee G & Thornicroft G (eds.) (1996) *Commissioning Mental Health Services* London: HMSO

Towell D & Kingsley S (1989) Elements in a strategic framework for developing local psychiatric services In Towell D, Kingsley S & McAusland T (1989) *Managing Psychiatric Services in Transition* London: Kings Fund

Upton J & Brooks B (1995) *Managing Change in the NHS* NAHAT London: Koogan Page

Wood, H (1994) What do Service Users Want from Mental Health Services: Report to Audit Commission: summary in Audit Commission (1994) *Finding a Place: a review of mental health services for adults* London: HMSO

Young T (1993) *Planning Projects* London: Industrial Society

Needs Assessment References

Goldberg D & Huxley P (1980) *Mental Illness in the Community* London: Tavistock

Goldberg D & Huxley P (1992) *Common Mental Disorders: A Bio-social Model* London: Routledge

Strathdee G & Thornicroft G (1992) Community Sectors for Needs-Led Mental Health Services in Thornicroft G, Brewin C & Wing JK (eds.) *Measuring Mental Health Needs* Royal College of Psychiatrists, Gaskell Press

Thornicroft G (1991) Social deprivation and rates of treated mental disorder. Developing statistical models to predict psychiatric service utilisation. *British Journal of Psychiatry* **158** p475–484

Wing J (1992) *Epidemiologically Based Needs Assessment: Mental Illness* London: NHSME

Home Treatment Teams: The Evidence Base

Audini B, Marks I, Lawrence R, Connolly J & Watts V (1994) Home based vs. out-patient/ in-patient care for people with serious mental illness: Phase II of a controlled study *British Journal of Psychiatry* **165** p204–210

Burns T, Beadsmoore A, Bhat A, Oliver A & Mathers C (1993) A controlled trial of home based acute psychiatric services I: Clinical and social outcome *British Journal of Psychiatry* **163** p49–54

Burns T, Raferty J, Beadsmoore A, McGuigan S & Dickson M (1993) A controlled trial of home based acute psychiatric services II: Treatment patterns and costs *British Journal of Psychiatry* **163** p55–61

Dean C & Gadd E (1990) Home treatment for acute psychiatric illness *British Medical Journal* **301** p1023

Dean C, Phillips J, Gadd E, Joseph M & England S (1993) Comparison of community based services with hospital based service for people with acute, severe psychiatric illness *British Medical Journal* **307** p473–476

Hoult J (1986) Community Care of the Acutely Mentally Ill *British Journal of Psychiatry* **149** p137–144

Knapp M, Beecham J, Koutsogeorgopoulou, Hallam A, Feyno A, Marks I, Connolly J, Audini B & Muijen M (1994) Service use and costs of home based vs. hospital based care for people with serious mental illness *British Journal of Psychiatry* **165** p195–203

Marks I, Connolly J, Muijen M, Audini B, McNamee G & Lawrence R (1994) Home based vs. hospital care for people with serious mental illness *British Journal of Psychiatry* **165** p179–194

Muijen M, Marks I, Connolly J & Audini B (1992) Home based care and standard hospital care for patients with severe mental illness: a randomised controlled trial *British Medical Journal* **304** p749–754

Assertive Community Treatment: The Evidence Base

Bond G, McGrew J & Fekete D (1995) Assertive Outreach for Frequent Users of Psychiatric Hospitals: A Meta-analysis *Journal of Mental Health Administration* **22** p4–16

Burns B & Santos A (1990) New Directions in Research on Assertive Community Treatment *Hospital & Community Psychiatry* **44** p642–646

Dean C, Phillips J, Gadd E, Joseph M & England S (1993) Comparison of a community based service with a hospital based service for people with acute, severe psychiatric illness *British Medical Journal* **307** p473–476

Dharwadkar N (1994) Effectiveness of an assertive outreach community treatment programme *Australian & New Zealand Journal of Psychiatry* **28** p244–249

Dincin J, Wasmer D, Witheridge T, Sobeck L, Cook J & Razzano L (1993) Impact of Assertive Community Treatment on the Use of State Hospital Inpatient Bed-Days *Hospital and Community Psychiatry* **44** (9) p833–838

Hambridge J & Rosen A (1994) Assertive community treatment for the severely mentally ill in suburban Sydney: A programme description and evaluation *Australian and New Zealand Journal of Psychiatry* **28** p438–445

Herinckx H, Kinney R, Clarke G & Paulson R (1997) Assertive community treatment vs. usual care in engaging and retaining clients with severe mental illness *Psychiatric Services* **48** (10) p1297–1306

Holloway F & Carson J (1998) Intensive case management for the severely mentally ill: a controlled trial *British Journal of Psychiatry* **172** p19–22

Holloway F, Oliver N, Collins E & Carson J (1995) Case Management: A critical review of the outcome literature *European Psychiatry* **10** p113–128

Hornstra R, Bruce-Wolfe V, Sagduyu K & Riffle D (1993) The Effect of Intensive Case Management on Hospitalisation of Patients with Schizophrenia *Hospital and Community Psychiatry* **44** (9) p844–847

Hoult J, Reynolds I, Charbonneau-Powis M, Weekes P & Briggs J (1983) Psychiatric Hospital vs. Community Treatment: The results of a randomised trial *Australian and New Zealand Journal of Psychiatry* **17** p160–167

Knapp M, Beecham J, Koutsogeorgopoulou V, Hallam A, Marks I, Connolly J, Audini B & Muijen M (1994) Service use and costs of home-based vs. hospital-based care for people with serious mental illness *British Journal of Psychiatry* **165** p195–203

McCrone P, Beecham J & Knapp M (1994) Community psychiatric nurse teams: Cost effectiveness of intensive support vs. generic care *British Journal of Psychiatry* **165** p218–221

McFarlane W, Dushay R, Stastny P, Deakins S & Link B (1996) A Comparison of Two Levels of Family-Aided Assertive Community Treatment *Psychiatric Services* **47** (7) p744–750

McGrew J, Bond G, Dietzen L, McCasson M & Miller L (1995) A Multi-site Study of Client Outcomes in Assertive Community Treatment *Psychiatric Services* **46** (7) p696–701

Merson S, Tyrer P, Onyett S, Lack S, Birkett P, Lynch S & Johnson T (1992) Early intervention in psychiatric emergencies: A controlled clinical trial *The Lancet* **339** p1311–1314

Minnen A van, Hoogduin C & Broekman T (1997) Hospital vs. outreach treatment of patients with mental retardation and psychiatric disorders: a controlled study *Acta Psychiatrica Scandinavia* **95** 515–522

Mueser K, Bond G, Drake R & Resnick S (1998) Models of Community Care for Severe Mental Illness: A Review of Research on Case Management *Schizophrenia Bulletin* **24** (1) p37–74

Muijen M (1994) The Rehabilitation and Care of the Mentally Ill *Current Opinion in Psychiatry* **7** p202–206

Ryan C, Sherman P & Bogart L (1997) Patterns of services and consumer outcome in an intensive case management program *Journal of Consulting and Clinical Psychology* **65** (3) p485–493

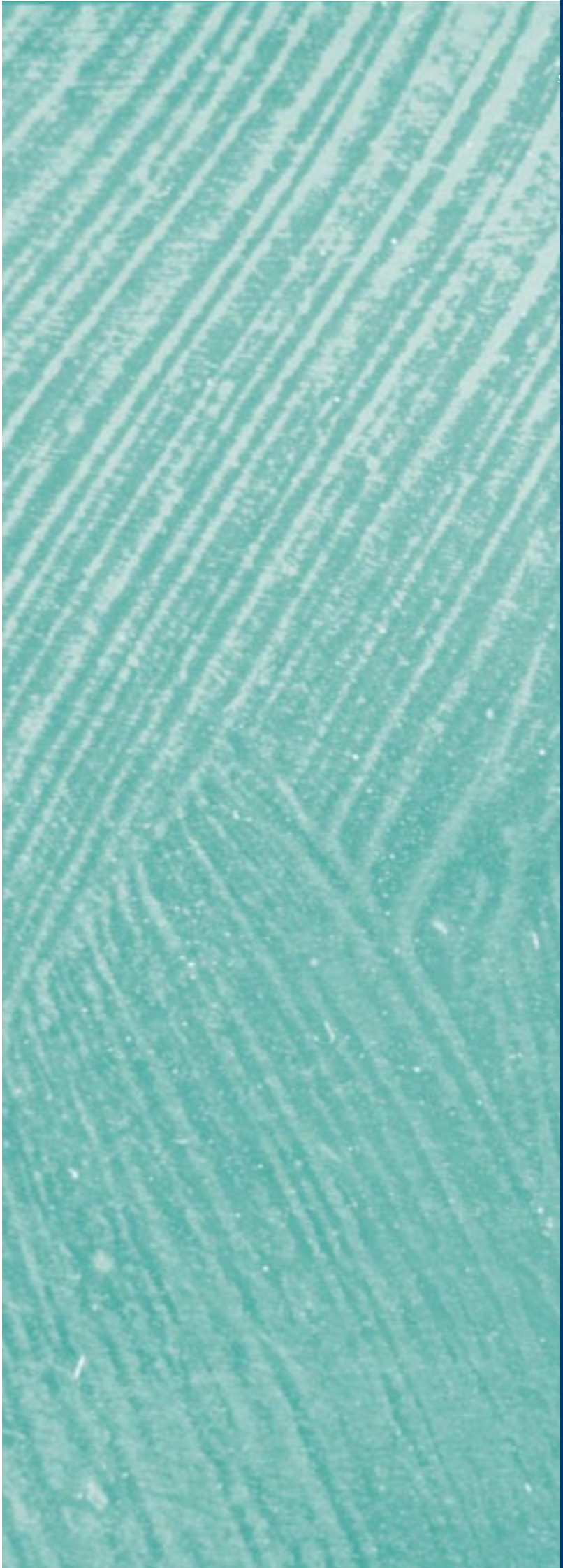
Sainsbury Centre for Mental Health, The (1998) *Keys to Engagement: Review of care for people with severe mental illness who are hard to engage with services* London: The Sainsbury Centre for Mental Health

Scott J & Dixon L (1995) Assertive Community Treatment and Case Management for Schizophrenia *Schizophrenia Bulletin* **21** (4) p657–668

Stein L & Test M (1980) An Alternative to Mental Hospital Treatment: Conceptual model, treatment model and clinical evaluation. *Archives of General Psychiatry* **37** p392–397

Thornicroft G (1992) *Innovative approaches to Mental Health Care: Psychosocial Interventions and Case Management.* Geneva: W.H.O.

Tyrer P, Evans K, Gandhi N, Lamont A, Harrison-Read P & Johnson T (1998) Randomised controlled trial of two models of care for discharged psychiatric patients *British Medical Journal* **316** (7125) p106–109



The Sainsbury Centre for Mental Health

Working for Excellence in Mental Health Services

Published by
The Sainsbury Centre for Mental Health
134–138 Borough High Street
London SE1 1LB
Tel: 0171 403 8790
Fax: 0171 403 9482
www.SainsburyCentre.org.uk

Charity Registration No. 291308

Edited by
Helen Wood & Sarah Carr

North Birmingham photographs *Sarah Carr*
Additional photographs *John Birdsall Photography*

ISBN: 1 870480 40 6