Economic Evaluation of an "Experts by Experience" Model in Basildon District

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1 Introduction

1.1 Project purpose

The aim of the project was the development of a business case based on economic evaluation methods which supports local commissioners in Basildon in the reconfiguration of services, following the implementation of Turning Point’s Connected Care community led audit and recommendations for commissioning and provision of services in the communities of SE Pitsea and Vange. One of the recommendations made by the Connected Care Community researchers was for a community led and delivered service, Experts by Experience (EbE). The business case examined likely costs and outcomes of a community navigator programme, (EbE), which targets high-risk individuals and those with complex or multiple needs in the deprived neighbourhoods of SE Pitsea and Vange in Basildon district. The service design was developed by members of the community, commissioners and other stakeholders, based on the audit of local needs carried out by local people. The economic evaluation explored, from a societal and total public budget perspective, the short-term (1 year) likely costs and benefits of a hypothetical implementation of the EbE programme. An interactive toolkit was developed to illustrate the contributions of different service pathways to the costs and benefits of the EbE programme.

1.2 Description of the service scheme

The Basildon EbE service is a hybrid service that employs a mix of local people and volunteers, with knowledge of their community, experience of using health, housing and social care services, and a vision for co-creating a new type of service embedded in the local community that builds the capacity and resilience of local people. In total, the model assumes 3 full-time employees, and 6 part-time volunteers, and co-produces a service with the community in order to provide four distinct but interconnected services: housing support, benefits and debt advice, time banking, and community support groups. The full-time employees – known as navigators – provide the first point of contact, support and onward referral, and the volunteers encourage and support service users to join and contribute through the time bank and support groups.

The navigator model is a concept that has been implemented and reviewed under different names in a wide range of places and countries\(^1\).\(^2\).\(^3\) Despite varying objectives and intervention designs, the navigators are characterised by the fact that they are volunteers from the community who have been trained in reaching out to vulnerable groups and in order to provide them with emotional, practical and social support and skills. An important part of their role is to inform members of the community about locally available services and resources and to signpost and refer to those. They typically act at the interface between the community and public services where mainstream support

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\(^1\) Hudson B (2010), Local Area Coordination and Neighbourhood Development: A review of the evidence base, North East Improvement and Efficiency Partnership, Peter Fletcher Associates and BV Hudson Consulting, School of Applied Social SciencesPWC 2010

\(^2\) Anderson J E and Larke S C (2009), The Sooke Navigator project: using community resources and research to improve local service for mental health and addiction, Mental Health in Family Medicine 2009;6:21-8

has failed to meet the needs of the hard-to-reach groups⁴. In this business case analysis it was assumed that the navigator scheme in Basildon would focus on debt and benefits assistance and on housing support services. These priorities reflected proportions of caseload activities of similar service schemes run locally or in neighbourhoods with similar characteristics⁵. Health promotion was recognised to be another component of the navigators' role although the set of interventions was not specified at the time of the modelling and therefore could not be included in the toolkit. Instead, evidence on a number of health promotion interventions which can be provided by volunteers was added to the analysis separately.

A key finding from the Basildon Connected Care Audit was that local people currently lacked the capacity for meaningful and ongoing engagement with the complex array of local services across health, housing and social care. In response to this the EbE model was co-designed to include platforms that would develop community capacity and self-help, such as time banking and support groups. It is anticipated that these parts of the service will build the confidence of service users, enabling them to share skills and experience with the wider community. The aim of the overall service model is to help people move from social need to social productivity. The flow of service users entering the service, and then contributing to the wider community through a time bank and support groups is captured in the diagram below.

Graph 1: Hypothesized pathways of effects associated with the Expert by Experience model

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⁴ Turning Point (2010), Citizen’s Advisors: A review of the evidence DRAFT REPORT, Turning Point June 2010
⁵ For example: Citizen Advice Bureau Tendering Reach Out Pilot Project, Evaluation report by Linda Isaac, April 2009
Running the EbE scheme was assumed to require the following resources:

- Three paid whole time equivalent navigators, who were assumed to have a caseload of 432 clients per year as well as to take a supervisory role for three whole time equivalent volunteers and to organise the self-help group.

- Two of the whole time equivalent volunteers, assumed to look after 224 clients per year, and one whole time equivalent volunteer assumed to take responsibility for running the time bank. In addition, the time bank was assumed to require £10,000 worth of equipment.

Caseload estimates were based on the Connected Care navigator scheme implemented by Manor Residents Association in Hartlepool. A graph with details of the proposed service model and required resources can be found in Appendix A.

2 Methodology

2.1 Cost-benefit approach

Cost-benefit analysis, used in the present evaluation, expressed both the costs and outcomes of an intervention in monetary units, and therefore allows the derivation of an estimate of its net benefit. A ‘rate of return’ or ‘return on investment’ can be calculated by comparing this net benefit against the investment required by the scheme.

The costs of the EbE scheme considered in the study are those associated with the employment of staff and volunteers, and the equipment costs of the time bank service. A key benefit of the EbE model is that employs local people, including those who have had experience of using a range of local services. Estimates of staff costs were derived from the PSSRU Unit costs of health and social care 2009. They represent the long-run marginal opportunity costs of the service, and include salary and salary on-costs, costs for training, capital, managerial and other overhead costs. The salary of paid navigators was assumed to be equivalent to the mean salary of family support workers (£21,828 in 2009), with a total unit cost of £38,547 per FTE navigator. Assumptions underlying these costs are presented in Table 1.

The unit cost of volunteers was estimated at £11,000 per year, including the costs of training, supervision, travel expenses, etc. For the time bank coordinator an additional cost of £10,000 was proportioned to the minimum wage rate in order to take account the cost of technical equipment and material needed to run the time bank database. The analysis estimated benefits and costs for the scheme assuming a steady state, which means that start-up or set-up costs were excluded from the evaluation.

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7 Allen C and Beecham J (1993), Costing services: ideals and reality, in: Netten A and Beecham J (eds), Costing Community Care: Theory and Practice, Ashgate, Aldershot
The value of somebody entering employment following a stint on benefits was estimated as the average entry salary for incapacity benefit leavers (£11,130)\(^8\). The economic value of increases in volunteering was estimated in terms of the minimum wage rate (£5.8 per hour)\(^9\). The value of quality of life improvements were estimated assuming a willingness to pay of £20,000 per quality of life adjusted year (QALY) gained. The impact on quality of life of depression was taken from Revicki and Wood (1998)\(^{10}\).

**Table 1: Unit costs for Family Support Worker**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wages/salary</strong></td>
<td>Information taken from the Local Government Earnings Survey 2007 showed that the mean salary for a family support worker was £21,296.2. This has been up-rated based on increases for a social worker reported in the Local Government Earnings Survey 2009(^{11})</td>
</tr>
<tr>
<td>£21,828 per year</td>
<td></td>
</tr>
<tr>
<td><strong>Salary oncosts</strong></td>
<td>Includes employers’ national insurance plus employers’ contribution to superannuation (18.6 per cent)</td>
</tr>
<tr>
<td>£6,158 per year</td>
<td></td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td>1996/1997 costs inflated by the PSS pay and prices index. The training consisted of 12 day sessions attended by 14 FSWs(^{12}). The costs included the payments to trainers and their expenses, accommodation in which the training took place and lunches. Allowance was made for the opportunity cost of the FSW’s time which otherwise could have been spent delivering the service. It was assumed that two years was the expected length of time over which the training package would deliver. Half the staff left during the second year so the total number of ‘trained years’ that were delivered from the course was 21. This initial investment was annuitised over two years and allowed for drop outs to reach an annual cost of £2,327.</td>
</tr>
<tr>
<td>£2,327 per year</td>
<td></td>
</tr>
<tr>
<td><strong>Overheads</strong></td>
<td>1996/1997 costs inflated by the PSS pay and prices index. Office, travel, clerical support and supervision costs were categorised under the general heading of overheads.</td>
</tr>
<tr>
<td>£8,234 per year</td>
<td></td>
</tr>
<tr>
<td><strong>Total Unit cost</strong></td>
<td>£38,547 per year</td>
</tr>
</tbody>
</table>

**Source:** PSSRU Unit costs for Health and Social care (2009)

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\(^9\) Asserting the appropriate value to volunteering is a highly contested subject and a range of different valuation methods are suggested in the literature ranging from minimum to average wage rates (Ironmonger 2000). Following a conservative approach we took the lowest value for the purpose of the analysis.


\(^12\) Netten, A (1999) Family support workers: costs of services and informal care, PSSRU Discussion Paper 1634, Personal Social Services Research Unit, University of Kent, Canterbury.
2.2 Literature review

Given the prospective nature of the evaluation the evidence used in the analysis had to be extracted by reviewing the literature and other already existing sources of information. These data sources included:

- Peer-reviewed published literature on effectiveness and cost-effectiveness of interventions (NHS EED, health technology assessments, NICE guidance).
- Grey literature, in particular about case studies from the UK.
- Data from national surveys and statistics, local strategy documents and performance reports.

In addition, relevant experts (e.g. local commissioners and professionals running similar interventions) were consulted throughout the process to refine the assumptions in the analysis. A list of individuals who were consulted and their organisations can be found in Appendix. Text box 1 summarizes the principles that were followed in the evidence gathering process.

**Text box 1: Principles followed in the evidence gathering process**

- Focus on up-to-date evidence from the UK and England in particular.
- Initial analysis of broad evidence, including systematic reviews, key government documents and pragmatic overviews.
- Identification of further, more specific references via snowball method.
- A lack of robust sources of evidence was addressed by triangulating evidence from a range of sources (MRC 2008).
- Evidence was prioritised based on consistency and data that were found to be conflicting were excluded.
- National experts on community development topics in particular time banks consulted to identify any key documents missed by main literature search.
- Checking of hypotheses with local commissioners and volunteers involved in the Connected Care process

3 Evidence about service pathways

3.1 Debt and benefits advice
The published evidence examined describes debt advice services as a highly cost-effective intervention. Williams and Sansom (2007) found that face-to-face services alleviate 56 percent of unmanageable debt. Pleasence et al. (2007) showed that debt advice provided via the telephone alleviates 47 percent of unmanageable debt. Debt problems have been linked to increased use of health services. The average cost to the public purse and in terms of lost economic output has been estimated at over £1,000 per case with debt problems. Some studies even suggest that debt advice can reduce offending. Two surveys have been carried out in the UK on the effects of debt problems and they show that:

- 40 to 43 percent of individuals reported that their debt problem led to ill health, with half of them stating that this led to an average of 3.5 extra GP visits – these figures are still likely to be conservative.

- Individuals also reported an increase in appointments with counsellors, community psychiatric nurses and hospital outpatient visits.

- Debt problems were linked with a loss in income: 9 to 12 percent of individuals said that they lost their job as a result of their debt problem and for 6 percent this resulted in the take-up of unemployment benefits; 42 percent of people in employment reported to have taken time off work as a result of their debt problems.

- 11 percent reported a breakdown in their relationship due to debt problems and 17 percent reported a loss in confidence.

The link between debt problems and depression in particular was also confirmed by research by Skapinakis et al (2006) who showed that unmanageable debt increases the risk of developing depression and anxiety by 2 percent in the general population.

### 3.2 Housing advice

The long-term costs of homelessness are significant and figures from different sources range between £24,000 and £28,000 per average homeless person. Differences are shown in the

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18 English and Wales Civil and Social Justice Survey CSJS (2004)
19 Advice Agency Client Study (2007)
21 New Policy Institute for Crises (2003), How many, how much?, Single homelessness and the question of numbers and cost – A report for Crisis by Peter Kenway and Guy Palmer from the New Policy Institute
kind of services that were included to estimate costs such as accommodation, hospital and drug treatment, medication, other health services, failed tenancy, resettlement, police and criminal justice, care for children, benefit claims, other support.

The long-term consequences of unstable accommodation and homelessness include stress-related problems associated with the trauma of dislocation and disruption of family life, schools, friends, health and social care support and homelessness. A study by Villanueva (2004)\textsuperscript{24} found that depressed homeless families felt depressed because of their living situation and almost half reported that their health was affected. The psychological costs are likely to be more severe for individuals where domestic violence is the reason for homelessness.

The experience of homelessness is associated with severe long-term consequences not only for the health (in its widest sense) of homeless households, but also for the future economic prospects of adults and children through impaired educational achievement. Negative economic outcomes of homelessness are associated with high rates of absenteeism from work, loss of employment, mental illness, substance abuse and in some cases criminal activity. Even worse outcome are found in cases where homelessness leads to rough sleeping. Children in homeless families are thought be more likely to develop emotional, cognitive and behavioural problems which will impact on their educational achievement and employment prospects.

In recent years, housing services have focussed on preventative interventions\textsuperscript{25}. These include advice on housing, employment and welfare benefits, access to different housing support schemes, family mediation, support with domestic violence, access to detoxification services and employment training. Heriot-Watt University published research in 2007 that showed preventing homelessness by those means is likely to save money when compared to the cost of helping someone who is already homeless\textsuperscript{26}. These savings are based on the assumption that the cost to the public purse of providing temporary accommodation and subsequent re-housing amounts to £5,300 per case per year whereas prevention initiatives are estimated to cost between £275 and £860 with mediation services costing circa £645.

There is also evidence demonstrating the effectiveness of low-level support for individuals at risk of homelessness. This is likely to be particularly relevant for youth homelessness where the most common risk factors for homelessness are relationship breakdown with parents or family. Youth homelessness accounts for approximately 38% of all homelessness acceptances\textsuperscript{27}.

\textsuperscript{22} nef (2008), Work it out: barriers to employment for homeless people, Research conducted by nef (the new economics foundation) for Business Action on Homelessness (BAOH)
\textsuperscript{23} MEAM Manifesto (2009), A four point manifesto for tackling multiple needs and exclusions, Making Every Adult Matter (MEAM), accessible from www.meam.org.uk
\textsuperscript{24} Villanueva T (2004) Homeless families in England report high levels of depression
\textsuperscript{26} Pawson H, Netto G, Jones C, Wager F et al (2007), Evaluation Homelessness Prevention, School of the Built Environment, Heriot-Watt University, Department for Communities and Local Government Dec 2007
\textsuperscript{27} DCLG (2007), Statutory Homelessness in England: The experience of families and 16-17 years old, A report by Pleace N et al, Centre for Housing Policy, University of York
The evaluation of a local mental health case worker scheme showed that the extra support provided helped to reduce the use of home crises services.  

3.3 Time banks

In time banks, participants contribute their own skills, practical help or resources in return for services provided by fellow time bank members. Hours of time rather than pounds are used as community currency. Time banks vary significantly in the way they are organized including the way credits are exchanged, eligibility criteria, route of access, the administration of the database and ways of accessing it. The services and activities exchanged at TB are likely to depend on the characteristics of their members and the environment. Consequently, evidence from one time bank cannot be easily transferred to another.

- More than 30% of the activities offered and requested in a US TB concerned web design and other IT skills. The focus of this TB on skills development in areas which are highly valued on the labour market could result in a greater number of people returning to employment than could be assumed for other TBs.

- A TB based on a Health Maintenance Organisation in Virginia, US, which provided peer support for people with asthma, led to reduced use of hospital admissions, of asthma services and lower visits to casualty. The scheme was estimated to save $217,000 over two years.

Generally, time banks appear to lead to improvements in social inclusion. A 2001 survey in the UK found that time banks were more successful than traditional forms of volunteering in attracting socially excluded groups, with a greater proportion of members being disabled, unemployed, on low incomes and from an ethnic minority in comparison to profiles from the 1997 National Survey of Volunteering. In the study, 58% of time bank participants had an annual household income of under £10,000 a year, compared to only 16% among traditional volunteers.

Time banks are also generally associated with increases in self-confidence and self-esteem among their members, which in turn contributes to physical and mental wellbeing as well as improved economic prospects (Bailis and Chipperfield, 2002). In a survey conducted of 120 active community members in Spice time credit projects, 66% reported an improvement in their self confidence.

28 Citizens Advice Bureau Mental health Casework Monitoring Report, Citizens Advice Bureau Tendering, June 2009-May 2010  
33 Spice Looking Back (Date not cited), A review of the Community Time Credit Systems that have given birth to Spice, University of Wales, Newport; accessible via http://justaddspice.org/docs/Spice_Looking_Back.pdf
3.4 Self-help groups

There is robust evidence on the economic benefit of self-help groups in the areas of mental health self-help groups and the Expert Patient Programme (EPP). Findings from randomized controlled trials showed that mental health related self-help groups led by a lay individual were as effective as those led by a professional and as effective as group-based Cognitive Behavioural Therapy. Thus, in the analysis, the benefits of mental health self-help groups were derived from the published evidence on computerized CBT, which was assumed to show similar effectiveness than group-based CBT. McCrone et al (2004) determined the cost-effectiveness of computerized CBT based on a randomized controlled trial. The study showed reductions in the uptake of incapacity benefits and higher labour force participation amongst CBT users. The increase in service costs for individuals who received CBT (£40 in 2004) was by far outweighed by the improved employment related benefits associated with the scheme (£407 in 2004).

Cost effectiveness studies have been undertaken for the Expert Patient Programme and found a small return on investment of £27 (at 2008 prices) and a quality of life improvement of 0.02 per individual\textsuperscript{34}.

3.5 Other evidence

A recent study undertaken by Pringle et al (2010)\textsuperscript{35} looked at a range of cost-effective interventions that promote physical activities in the UK. The study found that the cost-effectiveness of the intervention depends on the individual’s readiness to change. For example, they found that

- Exercise for cardiac patients was more cost-effective in secondary than in primary care (£398 vs. £1,405).
- Exercise referrals in primary care were more cost-effective when addressed at people who already attended an entry programme and those presenting with risk factors.
- Exercise classes that employ outreach methods with local communities were less cost-effective (£962 to £1,269) than those that did not (£503 to £563).

Similarly, interventions were found to be more cost-effective if completion rates could be increased although more research was deemed to be needed on how to achieve this. The research found high cost variation within the same kind of intervention depending on how interventions were implemented in terms of frequency, intensity, mode and duration.

There is strong evidence about the cost-effectiveness of community interventions targeted at older people. For example, the evaluation of the Partnership for Older People Projects (POPP) funded by the Department of Health showed that even low level support interventions can increase individual’s independence and quality of life and contribute to the prevention or delay of the need for higher


\textsuperscript{35} Pringle A, Cooke C, Gilson N, Marsh K, McKenna J (2010), Cost-effectiveness of interventions to improve moderate physical activity: A study in nine UK sites, Health Education Journal 69 (2) 211-224
intensity or institutional care. Similar evidence comes from the Brighter Futures Group programme in East Kent, a programme of ‘low-level’ preventive services run by the voluntary and community sector, and heavily reliant on volunteers and the LinkAgePlus programme set up to promote ‘joined-up’ services to improve the social inclusion, well-being and independence of older people. There is also evidence that physical activity interventions targeted at older people are successful in reducing the symptoms of depression, heart disease, stroke and dementia and the likelihood of needing high-intensity, institutional care and hospitalisation associated with these conditions.

4 Cost benefit estimates for individual pathways

We summarise below the findings about the costs and benefits of the four service pathways examined in the study. The effect relate to the average expected effects per individual receiving the intervention.

4.1 Housing pathway

The final outcomes considered in the model were the avoidance of homelessness and the reduction in the use of home crises services. Whilst the vast majority of clients (80 percent) were assumed to be referred to statutory housing services, it was assumed that 20 percent of individuals would be provided directly with low level support from the care navigators, hence avoiding the need for home crises services. All individuals receiving statutory services via the navigator system were assumed to first receive preventative services such as mediation and advice. Only for those where – based on national averages – no reconciliation could be achieved an assessment of their eligibility for support under the homelessness duty was assumed to be carried out and accommodation to those eligible to be provided.

Average cost savings per person from avoided homelessness and reduction in the use of home crisis services, were estimated at £3,540. The care navigator costs were estimated at £240 per client, and the additional use of the statutory housing services at £1,270 per patient (prevention and assessment activities). Thus, overall the housing pathway was estimated to achieve a net benefit of £2,030 per client.

Improvements in quality of life due to reductions in homelessness were estimated at £580 per individual seen by the navigators.

PSSRU (2009), National Evaluation of Partnerships for Older People Projects, Final Report

Hamer and Chida Physical activity and risk of neurodegenerative disease: a systematic review of prospective evidence Psychobiology Group, Department of Epidemiology and Public Health, University College London, UK
4.2 Debt and benefits pathway

The analysis explored the following outcomes linked to debt and benefits advice services:

- Avoided loss of productivity due to time taken off from work and unemployment, and associated reduction in benefit claims.
- Reduction in the number of GP visits
- Increase in number of referrals to the state debt advice services.

These outcomes were estimated from two national surveys\(^\text{41}\). The evidence suggested that 56 percent of debt problems become manageable with the help of face-to-face advice. It was assumed that navigators referred ninety percent of cases to local debt advice services. Improvements in productivity were valued at the minimum wage rate. GP visits were assigned costs from the PSSRU Unit costs 2009. Because of the close link between unmanageable debt problems and depression\(^\text{42}\) it was assumed that the average time taken off work for someone with unmanageable debt was equivalent to the average of 30 days off taken by individuals with anxiety and depression\(^\text{43}\).

Overall, per patient, the intervention was associated with productivity gains of £920, reductions in benefits claimed of £180 and reductions in unnecessary GP visits of £14. The costs of running the scheme were estimated at £200 per individual and the costs of increased use of statutory debt advice services at £180. This means that the average net benefit was estimated at £730 per client. In addition, improvements in mental health problems among clients with depression and anxiety related to debt problems could be valued at £3,000 per person.

4.3 Time bank

Three types of monetary outcomes were considered for time bank.

- The value of the activities produced through the scheme (an estimate of the number of service hours was taken from case studies\(^\text{44}\)).
- Improved labour market outcomes.
- Increased volunteering because of an increase in self-esteem, social support networks and acquired skills\(^\text{45}\).

Assumptions about the likelihood that people would enter or return to employment were based on performances from similar local service schemes and expert opinions (reference). Because of a lack of local information, the number of people engaging in volunteering due to their involvement in the

\(^{41}\) English and Wales Civil and Social Justice Survey CSJS (2004), Advice Agency Client Study (2007)

\(^{42}\) Skapinakis et al 2006 – see above

\(^{43}\) Health and Safety Executive UK 2005/06

\(^{44}\) From Rushey Green Practice in: Keeping the GP away – A NEF briefing about community time banks and health, February 2002

time bank was estimated based on national data. The national percentage of people engaged in regular formal volunteering across socio-economic groups was taken and compared with the national percentage of volunteering among low socio-economic groups living in deprived areas. The difference in proportion multiplied with the expected number of time bank members was taken as an upper value for an expected increase in number of people entering volunteering.

The analysis assumed that the time bank would attract 50 members in the first year.

The hours of services generated and consumed through the time bank were valued at market price of activities typically exchanged at time banks and were estimated at £510 per member. The analysis also considered benefits associated with increases in the rates of volunteering (£80), employment (£500) and with reductions in benefit claims (£240). Costs of running the time bank were estimated at £430 per member. The average net benefit from a total public sector perspective was therefore £900 per individual receiving the intervention.

Quality of life improvements were estimated at £645 based on evidence on reduction in depressive symptoms associated with an increase in social support.

4.4 Mental health self-help group

The economic evaluation was based on estimates of the effectiveness of group-based and computerized Cognitive Behaviour Therapy. Improvements in productivity linked to the service were estimated at £520 and a net increase in health and social service costs at £50. The resources required for setting up and running the self-help group were estimated at circa £290 per individual so that the net benefit was £180 per person.

The potential for improvements in quality of life was valued at £5,400 per group member based on a reduction in depressive symptoms.

5 Key overall findings for the Experts by Experience model

From a governmental perspective, the EbE programme is associated with

- An average net benefit per client of £1,047 not including quality of life benefits, and of £3,319 including the value of quality of life improvements
- A total net benefit of £550,000 not including quality of life benefits, and of £1,750,000 including the value of quality of life improvements, (for an initial investment of £112,000)
- An average rate of return of 4.44 not including quality of life benefits, and of 14.07 including the value of quality of life improvements.

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47 From a government perspective, all cost and consequences are included which influence the expenditure or benefits associated with services provided by governmental bodies, such as the local NHS, District Authority, County Council and Central government.
Table 1 summarizes the cost and benefit results from a state perspective.

From a societal perspective\(^4\), Connected Care is associated with

- An average net benefit per client of £912 not including quality of life benefits, and of £3,184 including the value of quality of life improvements.
- A total net benefit of £480,000 not including quality of life benefits, and of £1,680,000 including the value of quality of life improvements, (for an initial investment of £112,000).
- An average rate of return of 3.87 not including quality of life benefits, and of 13.50 including the value of quality of life improvement.

Table 2 summarizes the results from a societal perspective i.e. exclusive of transfer payments (benefit claims).

**Table 1 Costs and benefits of CC from a governmental perspective**

<table>
<thead>
<tr>
<th>Average per client</th>
<th>Debt advice</th>
<th>Housing support</th>
<th>Time banks</th>
<th>MH self-help</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheme costs</td>
<td>£ 202</td>
<td>£ 240</td>
<td>£ 226</td>
<td>£ 289</td>
</tr>
<tr>
<td>Increase service utilisation</td>
<td>£ 176</td>
<td>£ 1,271</td>
<td>£ 200</td>
<td>£ 51</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of life (QoL)</td>
<td>£ 3,000</td>
<td>£ 580</td>
<td>£ 645</td>
<td>£ 5,400</td>
</tr>
<tr>
<td>Productivity</td>
<td>£ 918</td>
<td>£ 1,085</td>
<td>£ 522</td>
<td></td>
</tr>
<tr>
<td>Reduction in service use</td>
<td>£ 14</td>
<td>£ 3,536</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in benefit payments</td>
<td>£ 180</td>
<td>£ 241</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net benefit per client without QoL</strong></td>
<td>£ 734</td>
<td>£ 2,025</td>
<td>£ 900</td>
<td>£ 182</td>
</tr>
<tr>
<td><strong>Net benefit per client</strong></td>
<td>£ 3,734</td>
<td>£ 2,605</td>
<td>£ 1,545</td>
<td>£ 5,582</td>
</tr>
<tr>
<td><strong>Total net benefit for all clients without QoL</strong></td>
<td>£ 240,752</td>
<td>£ 263,250</td>
<td>£ 45,000</td>
<td>£ 3,640</td>
</tr>
<tr>
<td><strong>Total net benefit for all clients</strong></td>
<td>£ 1,224,752</td>
<td>£ 338,650</td>
<td>£ 77,250</td>
<td>£ 111,640</td>
</tr>
</tbody>
</table>

**Table 2 Costs and benefits of CC from a societal perspective**

<table>
<thead>
<tr>
<th>Average per client</th>
<th>Debt advice</th>
<th>Housing support</th>
<th>Time banks</th>
<th>MH self-help</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheme costs</td>
<td>£ 202</td>
<td>£ 240</td>
<td>£ 226</td>
<td>£ 289</td>
</tr>
<tr>
<td>Increase service utilisation</td>
<td>£ 176</td>
<td>£ 1,271</td>
<td>£ 200</td>
<td>£ 51</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of life (QoL)</td>
<td>£ 3,000</td>
<td>£ 580</td>
<td>£ 645</td>
<td>£ 5,400</td>
</tr>
<tr>
<td>Productivity</td>
<td>£ 918</td>
<td>£ 1,085</td>
<td>£ 522</td>
<td></td>
</tr>
<tr>
<td>Reduction in service use</td>
<td>£ 14</td>
<td>£ 3,536</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^4\) From a societal perspective, the analysis excluded changes in benefit claims, as they represent pure resource transfers not directly linked to a productive activity.
Net benefit per client without QoL          £  554  £  2,025  £  659  £  182
Net benefit per client                      £  3,554  £  2,605  £  1,304  £  5,582

Total net benefit for all clients without QoL £ 181,712  £  263,250  £  32,950  £  3,640
Total net benefit for all clients            £ 1,165,712  £  338,650  £  65,200  £ 111,640

<table>
<thead>
<tr>
<th>Total net benefit for all clients without QoL</th>
<th>Total scheme</th>
<th>Rate of return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per client without QoL</td>
<td>£  1,681,202</td>
<td>13.50</td>
</tr>
<tr>
<td>Per client</td>
<td>£       912</td>
<td></td>
</tr>
<tr>
<td></td>
<td>£       3,184</td>
<td></td>
</tr>
</tbody>
</table>

### 6 Study limitations

It is important to stress the key limitations of the analysis and implicit assumptions in the study.

It was not possible to include the governmental or societal benefits that would accrue through employing local people, some of whom would otherwise be unemployed and in receipt of benefits.

It was also not possible to include the specific impact that the Time Bank could have locally in terms of supporting people into the labour market, as this will depend on the type of skills and services that the Basildon Time Bank develops.

The analysis was exclusively based on evidence extracted from the literature, and therefore assumes that the implementation of the EbE would have the same costs and outcomes as similar interventions in other settings.

Whereas only short-term outcomes were included in the study, it is likely that the interventions examined would yield longer-term impacts on individuals and the community as a whole. Furthermore, the range of outcomes considered in the study was restricted to those outcomes that could be transformed into monetary values, and where the evidence was robust.

For feasibility reasons, the analysis assumed that the effects of the intervention would start immediately and would last for a whole year. In real life, effects would set in over a period of time and would last longer than a year.

The findings were not adjusted for the potential overlap of interventions amongst individuals i.e. when individuals receive more than one intervention but where the outcomes do not accumulate. Thus, the assumption is that each individual receives one intervention provided as part of the EbE scheme.

Given the complexity of the analysis, the benefits - such as increased self-esteem and reduced depression - and opportunity costs to volunteers of taking part in the scheme were not considered in the analysis, as were not the outcomes for families and carers.
Appendix A

**Pitsea and Vange Connected Care Service Response - Experts by Experience Service**

**Host Organisation**
(Not health related)

**Service Manager**
- Implements vision for new community based service that harnesses community capacity for self development
- Analyses and feeds back experiences of services collected by Navigators and volunteers to commissioners
- Manages relationship with partner providers
- Builds database with referral partners
- Develops Time bank
- Reports on activity and impact to steering group
- Recruits volunteers
- Supervises Navigators

**Steering Group:** ECC, NHS, BDC, CVS, Community representatives

---

**3 FTE Navigators**
Case work with complex cases 50%

Navigators will work with a caseload of approximately 10 each at any one time. The team would work with 129 individuals over the course of a year assuming each case take 2 hours per week and on average navigators would work with 290 individuals every 12 weeks. The navigator will encourage the individual to join the time bank from the outset, the emphasis their role in supporting others. Once the 12 week period is over the service user will join the time bank and receive support from other time bank members and volunteers. Case work (50% of their time) would be spent on:

- Assessments
- Referrals
- Advocacy
- Supporting take up of personal budgets

Navigators will also:

- Supervise volunteers (10% of their time)
- Set up and facilitate self help groups (20% of their time)
- Set up networks and participate in local community groups and planning (10%)

Navigators will not require any formal qualifications but will be supported to work towards an NVQ level 3 qualifications which will require 1 day every 2 weeks for a year (10% of their time)

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**1 x time bank coordinator**

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**5 x Volunteers each working 2-4 afternoons/ mornings per week (≈1.4 FTE) providing:**

- Outreach – (door knocking, visiting existing groups) – 50% of time
- Support work for a case load of 56 (low and medium complexity) at any one time assuming contacts average at 1 hour every 2 weeks (telephone contact – touching base, befriending, accompanying to appointments, helping people to use the time bank). It is assumed volunteers will support people for around 12 weeks and then help them move onto the time bank and therefore they will work with a total of 224 people in the year – 50% of time

Volunteers live locally, have a long term condition or complex needs or experience of providing unpaid care and navigating service locally.

After 3 months volunteering they are entitled to access locally developed action orientated training which will help them develop towards taking on a FT paid navigator role.
### Appendix B

#### Descriptions of consultations undertaken as part of the evidence gathering process

<table>
<thead>
<tr>
<th>Individual</th>
<th>Job Title</th>
<th>Organisation</th>
<th>Topic of Consultation</th>
<th>Way of Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syrie Cox</td>
<td>Chief Executive</td>
<td>Southend YMCA</td>
<td>Information on implementation, process and performance of SOS bus</td>
<td>Email</td>
</tr>
<tr>
<td>Brian Goodwin</td>
<td>Village Agent Manager</td>
<td>RCCE</td>
<td>Information on Village Agent scheme</td>
<td>Email, telephone</td>
</tr>
<tr>
<td>Michael Heptinstall</td>
<td>Delivery Officer SP&amp;C</td>
<td>Essex County Council</td>
<td>Liaison with commissioning partners on all topics</td>
<td>Email, telephone, face-to-face</td>
</tr>
<tr>
<td>Duncan Hall</td>
<td>Specialist Projects Manager</td>
<td>NHS South West Essex Community Services</td>
<td>Information on vitality bus</td>
<td>Email, telephone</td>
</tr>
<tr>
<td>Sharon Longworth</td>
<td>Senior Manager SP&amp;C</td>
<td>Essex County Council</td>
<td>• Pathway hypothesis, • Performance reports Citizen Advice Bureau • Information on health promotion, vitality bus</td>
<td>Email, telephone, face-to-face</td>
</tr>
<tr>
<td>Nicola Mallett</td>
<td>Performance Analyst</td>
<td>Essex County Council</td>
<td>• Performance data on Individualised budgets and direct payments • Research on carers support</td>
<td>Email, telephone, face-to-face</td>
</tr>
<tr>
<td>Emily Oliver</td>
<td>Mental Health Commissioning Team</td>
<td>Essex County Council</td>
<td>Information on volunteering</td>
<td>Liaison via Michael Heptinstall</td>
</tr>
<tr>
<td>Andy Payne</td>
<td>Community Wellbeing Strategy Manager</td>
<td>Essex County Council</td>
<td>Performance reports on Village agent scheme</td>
<td>Email, telephone</td>
</tr>
<tr>
<td>Martin Simon</td>
<td>Chief Executive</td>
<td>Timebanking UK</td>
<td>Information on implementation, process and outcomes of time banks in UK and US</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Mark Tebbs</td>
<td>Associate Director Mental Health and Learning Disabilities</td>
<td>NHS South West Essex</td>
<td>Information on employment pathways hypothesis</td>
<td>Email</td>
</tr>
<tr>
<td>John Tweddel</td>
<td>Supported Housing Manager</td>
<td>Basildon District Authority</td>
<td>Information on housing pathway</td>
<td>Email, telephone</td>
</tr>
<tr>
<td>Bauke Van der Meer</td>
<td>Placements and Procurement Manager Sourcing and Supply SCF</td>
<td>Essex County Council</td>
<td>Information on expert by experience service model and hypothesized outcomes</td>
<td>Email, telephone, face-to-face</td>
</tr>
<tr>
<td>Gerald Wistow</td>
<td>Visiting Professor in Social Policy</td>
<td>London School of Economics</td>
<td>Implementation and outcomes of the navigator scheme in Hartlepool</td>
<td>Face-to-face</td>
</tr>
</tbody>
</table>
Appendix C

Navigator scheme EbE - Debt (and benefit) advice

Resource costs £202
- Probability that debt problem can be addressed: 0.56 (Williams and Sansom 2007)

Costs/ Quality of life improvement
Benefit (societal perspective)
Cost savings (public sector perspective)

Avoided productivity loss - time off work
30 days * £50.6 = £1,518
£357

Avoided benefit claims - job loss
£103/wk JSA (for couples) * 52 wks
£180

Avoided productivity loss - job loss
0.56 * 0.09
£11,132

Reduced number of GP visits
Average cost per GP visit (surgery): £35 * 3.5 (mean no. GP visits per year)
£14

Net increase in number of visits to citizen advice bureau and/or Job Centre Plus
Fixed fee figure for advice and debt problems set out by the Legal Services Commission: £196
£176

Quality of life improvement/Reduced depression and anxiety
Revicki and Wood (1998): 0.73 for mild depression and WTP for QALY £20,000
£3024

Cost savings

Probability that debt problem can be addressed: 0.56 (Williams and Sansom 2007)
Appendix D
Navigator scheme EbE – Housing support

Resource costs £240

Increase in number of cases receiving housing prevention/mediation
£645
0.4-0.5 0.5-0.6

Reduction in the use of home crises service (one episode per person)
Base case: £96, Range: £70-104
130*0.8*£96 = £2,496

Increase in number successful homelessness applications
£5,215
130*0.8*0.6*0.3*£5,215 = £95,846

Avoided homelessness costs (total public budget)
Base case: £24,350, Range: £24,350-26,000
130*0.8*0.6*0.3*£24,350 = £455,832

Sources:
a Performance reports mental health caseworker scheme in Essex
b PSSRU (2009) Unit costs; Section 6.1 Mental health teams: Crises accommodation services (costs per episode)
c From Nottingham Homelessness Report 2009
d MEAM Manifesto (2009), nef (2008)
e Heriot-Watt University 2007, inflated to 2009 with RPI

g Estimated maximum number of referrals to housing advice service
Appendix E

Time Banks

Resource input £226

- 1 time bank coordinator (volunteer)
- 50 members
- 1,446 hrs of service (taken from Rushey Green practice with 2,950hrs of service with 68 members over 18 months linear relationship assumed)

Value of services consumed at time bank following replacement cost approach

1,446hrs*£17.5 (Range £5-30)/ 50

Increase in number of people who enter volunteering

£5.8*12.5hrs/month * 12 months

Increase in number of people who enter employment (50%) or training (50%)

0.5*£11,132

Avoided number of benefit claims

0.5*£103/wk JSA (for couples)*52 wks

Quality of life improvement, reduction of number of days spend in depressed state due to increase in social support

WTP for QALY £20,000; utility score for depression from Revicki and Wood 1998; 38 fewer days (taken from Keves et al 2005 for older adults)

0.09 Range 0.06-0.12

£506

£78

£501

£241

£645

Costs for running time bank: training and supervision of coordinator, office space, IT equipment, telephone advertisement, etc) e.g. £10,000
Appendix F

Mental health self help groups

Resource costs £289

- 20 group members
- Moderate mental illness: panic disorders, anxiety and depression
- Lay-led
- Admin supported by paid navigators

Reduced lost employment costs

Aggregated figure from cost effectiveness study (RCT) by McCrone 2004: £519
- Inflated to 2009

Net increase in health and social care services costs

Aggregated figure from cost effectiveness study (RCT) by McCrone 2004: £51

\[ \text{£10,380}/20 = \text{£520} \]

\[ \text{£1,020}/20 = \text{£50} \]