YHEC
York Health Economics Consortium

# Bradford CCG Inequalities Reduction Programme: Critique of Funding Proposals

The Bradford CCG has developed a list of 42 potential projects aimed at reducing inequalities in health and will be prioritising these in mid-September, with the successful ones being funded later this year.

Bradford Institute for Health Research (BIHR) has commissioned York Health Economics Consortium (YHEC) to provide a critique of the projects with the highest spend. For these projects, or such others as BIHR advises, YHEC will:

- Undertake a highly pragmatic literature search on the intervention. Relevant systematic reviews and meta-analyses, pivotal clinical studies, associated economic analyses and policy documents from relevant UK organisations will be retrieved.
- Critically appraise the proposal and express views on the confidence levels for estimated population uptake, clinical efficacy, distributional impact and costs using a traffic light system (red, amber, green) for each factor. Appendix A provides a definition of each factor.
- Produce a very short report on each project identifying its strengths, weaknesses and risks.

This draft report addresses the first six such projects.

## 1. CENTRAL LOCALITY INTEGRATED CARE SERVICE (1)[1]

The Central Locality Integrated Care Service (CLICS) project covers three community partnerships (CP) and comprises:

1. Enhanced primary care using person centred care, practice based multidisciplinary teams (MDT) and increasing capacity in key functions, including GPs and nurse practitioners.

[1] The number after the intervention is that used in the RIC combined proposal list

2. Enhancing the community development service by adding community connectors, enabling community development workers to undertake asset mapping and volunteer peer education training.
3. Building programme infrastructure to develop integrated teams, mentoring in QI techniques and setting up project progress reporting.

The goal is to integrate clinical and non-clinical services and combine health and community development input to offer patients tailored personalised care. This is anticipated to reduce demand for reactive health care.

**Method**

A literature search was undertaken using google scholar for terms including 'compassionate communities', 'Frome community project', 'Hale community services', Guy's and St Thomas's Urban Health Programme', followed by a search of NICE Evidence search for primary care interventions to reduce hospital admissions. A second search on reducing health inequalities in the UK was conducted using NICE Evidence search and google. The references provided in the proposal were also reviewed.

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 1.1.

**Table 1.1: Comments on, and critique of, CLICS proposal**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | Not quantified in proposal but paper suggests it is all patients registered with participating GPs. The main clinical study informing the proposal is the Frome study (Abel, 2018). This had well-defined inclusion criteria[2] and was within a single GP practice. There is thus a risk that the population planned for CLICS is different from the evidence base. Moreover, the proposal does not quantify the planned uptake and hence one cannot judge if it is consistent with planned staff complement. |
| Clinical efficacy | The main evidence of clinical efficacy comes from the Frome study (Abel, 2018). The proposal claims 'emergency admissions to hospital reduced by 30% over the last 3 years.' This is at odds with the Abel clinical study which states there was a 14% reduction in admissions over the 3 years, together with a 21% reduction in the cost of admissions. Abel did compare this cohort to patients in the rest of Somerset where admissions increased by 28% but no relative risk reduction rates were calculated.<br><br>The Frome study was set in 1 GP practice and had 4 elements:<br><br>• Patient identification<br>• Goal setting and care planning<br>• Enhancement of naturally occurring supportive networks<br>• Linkage to community resource<br><br>It is not clear if the CLICS project will replicate all elements and hence if the results will generalise to the CLICS setting. The intensity of the |

[2] Included patients were over 95 years; with dementia; with stage 4 or 5 kidney disease; on discharge from hospital; care and nursing home residents and those on palliative care register.

| Factor | Comments and rating |
|---|---|
| | planned intervention in Bradford seems lower (e.g the Frome group mapped over 400 groups in the community and set up new ones where gaps were found. The proposal refers to 'Support for 10 existing groups per area per 12 mth period'.)<br>The absence of well-defined inclusion criteria in CLICS compared with in Frome also suggests the results may not generalise.<br><br>One element in CLICS is social prescribing. A recent systematic review by Bickerdike (2017) concluded: 'Social prescribing is being widely advocated and implemented but current evidence fails to provide sufficient detail to judge either success or value for money.'<br><br>A second systematic review and meta-analysis by Poupard (2019) found community-based case management did not reduce hospital admissions (standard mean difference -0.09, not statistically significant), but did reduce emergency department presentations (mean difference -0.26 and statistically significant). These are all risks to the efficacy of the intervention. |
| Distributional impact | The Institute of Heath Equity report (2018) was commissioned by NHS England, developed in collaboration with the vanguard sites, and recommends sustainable, effective approaches to reducing health inequalities, noting ways of mitigating the risks associated with these approaches. The CLICS proposal contains plans to implement many of the recommended approaches including collaborating working, MDTs, community development, support for infrastructure and monitoring, community engagement with cultural awareness and social prescribing.<br><br>The project also seems consistent with the recommendations by NICE on community engagement to reduce health inequalities.<br><br>If the risks with the care model are adequately addressed and the barriers to integration overcome then the evidence suggests this project should have a positive distributional impact. However, the proposal is not clear about how the new service will work with existing services and the extent of current buy-in from key stakeholders such as GP practices, voluntary and community services and the community. The proposal recognises these are key risks. |
| Costs | £1,951,717 is provided as an indicative annual budget figure, with the authors' noting the 'project needs to be fully worked up and co-designed with practices and stakeholders.' The phasing of the spend is unclear.<br><br>No estimate of the cost of the Frome model was identified from the literature search. Abel (2018) recommended that any implementation project should be funded for 3 years. Their experience is that cost reductions begin after the first year; 3-year funding gives time for overall cost reduction to pay for the model. The return in investment for Frome was £6 for every pound spent.<br><br>The total spend in the CICS proposal is judged to be an underestimate given the number of patients to be provided with personalised care, the planned capacity and infrastructure developments and the challenges presenting in integrating the various groups. Hence there are material risks around the costings. No information on start and completion dates, phasing of costs, or the split between recurring and non-recurring are availabe. |

**References**

Abel J, Kingston H, Scally A, Hartnoll J, Hannam G, Thomson-Moore A, Kellehear A. Reducing emergency hospital admissions: a population health complex intervention of an enhanced model of primary care and compassionate communities. Br J Gen Pract. 2018 Nov;68(676):e803-e810. doi: 10.3399/bjgp18X699437. Epub 2018 Oct 8.

Bickerdike L, Booth A, Wilson PM*, et al.* Social prescribing: less rhetoric and more reality. A systematic review of the evidence. *BMJ open* 2017;7:e013384. doi: 10.1136/bmjopen-2016-013384.

Institute of Heath Equity. Reducing health inequalities through new models of care: a resource for vanguards. 2018.

NICE. Community engagement: improving health and wellbeing and reducing health inequalities NICE guideline Published: 4 March 2016. nice.org.uk/guidance/ng44.

Poupard N, Tang CY, Shields N. Community-based case management does not reduce hospital admissions for older people: a systematic review and meta-analysis. Aust Health Rev. 2019 Feb 7. doi: 10.1071/AH18135. [Epub ahead of print].

## 2. DEVELOPING SKILLS AND INCREASING CAPACITY IN GENERAL PRACTICE TEAMS (24)

This proposal is to:

1) Recruit an additional 25% healthcare assistants and practice nurses to increase capacity (absolute numbers not provided).
2) Develop a clinical team of GPs with a special interest in long term conditions.
3) Ensure training (to accreditation level where required) will be provided for clinical staff to access to develop and build skills within our current resource.
4) Increase capacity within the non-clinical teams within general practice.

The benefits are claimed to be that the increased capacity will deliver reduced heath inequalities in in Bradford City which will reduce premature mortality and ensure people live longer healthier lives. The main evidence source used is The King's Fund. Managing people with long-term conditions. 2010.

**Method**

A literature search was undertaken using google scholar for terms including 'managing long term conditions and chronic illness in primary care' 'GP support and long term conditions', GPs and multiple morbidities' and 'clinical studies in GP practices to manage long term conditions'. Only studies published after 2015 were reviewed.

Other sites searched included:

- Royal College of GPs: Responding to the needs of patients with multimorbidity A vision for general practice 2016.
- NHS England House of Care – a framework for long term condition care which draws on several more recent Kings Fund reports.
- NHE England Five year forward view for primary care where main focus is to boost GP numbers.
- Other reports on general practice authored by the Kings Fund.
- A NICE Evidence search for 'GPs and long term conditions', 'GPs and multiple morbidities' and 'primary care interventions to reduce hospital admissions' was also undertaken.

The references provided in the proposal were also reviewed.

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 2.1.

**Table 2.1: Comments on, and critique of, developing skills and increasing capacity in General Practice Teams proposal**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | Not quantified in proposal but described as all patients registered with participating GP practices within the City CCG. This seems appropriate for planned intervention (but see distributional impact).  |
| Clinical efficacy | The main evidence source referred to in the proposal is the Kings Fund 2010 report which identifies the roles of GPs & the general practice team in delivering high-quality care for several long term conditions. No estimates of the degree of improvement in quality of life or life expectancy are provided in that source document. There are several more recent Kings Fund reports on this topic but these have a wider focus that general practice (e.g. primary care networks, innovative models of general practice and the House of Care).<br><br>The literature search identified books and guides on how GPs should manage patients with multiple morbidities but none were as well-researched as the Kings Fund report. Hence the evidence source is somewhat dated but may be the most relevant given the CCG's starting position.  |
| Distributional impact | The proposal seeks to address health inequalities by improving the identification of people at risk of, or with, long term conditions. The additional monies will also increase capacity and hence may improve access to services for people in the City CCG. This is a location with a poor socioeconomic status, mixed ethnicity and high prevalence of illness. However, the proposal does not offer new access routes for those who do not currently access GP services. It is also not clear how the project leaders will ensure the new capacity is not absorbed by existing users but will rather be targeted to those with protected status and experiencing health inequalities.<br><br>Moreover, the GP-led model of care is no longer judged to be optimal in developing and delivering sustainable, effective approaches to reducing health inequalities (see Institute of Heath Equity, 2018 and NICE, 2016).  |

| Factor | Comments and rating |
|---|---|
| Costs | The estimated costs are £1.03 m recurrent monies for GPwSI and £1m non-recurrent (£200k GPwSI, £400k ANP & £400k Nurse and HCA). No return on investment is provided. This estimate seems reasonable, with the caveats that no completion date nor staff numbers to be recruited are provided. I am surprised at the 50/50 split between recurrent and non-recurrent given the aim is capacity building. Some additional funding may be warranted to measure if quality of service for patients improves as a result of such an investment and its distributional impact.<br><br>The main risks noted in the proposal are recruitment and retention and these seem appropriate. |

**References**

Institute of Heath Equity. Reducing health inequalities through new models of care: a resource for vanguards. 2018.

NICE. Community engagement: improving health and wellbeing and reducing health inequalities NICE guideline Published: 4 March 2016. https://www.nice.org.uk/guidance/ng44.

The King's Fund. Managing people with long-term conditions. 2010.

## 3. PROACTIVE CARE TEAM (25)

This proposal is to develop a community-based Proactive Care Team (PCT) for people with the most complex health needs in the three CPs in central Bradford. The PCT will work collaboratively with existing mental health, primary care and community services. Bradford District Care NHS Foundation Trust will be the Lead Provider. It, together with partners, will deliver a MDT to identify those with highest need and deliver preventative and recovery interventions in the community. The aim is to reduce health inequalities and hence reduce premature mortality and improve quality of life. It may also reduce A&E hospital attendance and unplanned admissions, whilst improving access to other existing community-based services. The focus will be those with cardiovascular, respiratory, cancer, frailty, dementia disorder, or requiring end of life care or are socially isolated. The proposal suggests that the cost of the service will be recovered through avoided costs in secondary care but no details of the savings are provided.

The proposal references several evaluations of integrated care, including the vanguard programme.

**Method**

A literature search was undertaken using google scholar for terms including 'Proactive Care Team in UK NHS', 'Evaluation of Proactive Care Team in UK NHS', 'Lead Provider model in UK NHS' 'Evaluating Lead Provider model in UK NHS' and 'Integrated care models in UK NHS' and ' Evaluation of Integrated care models in UK NHS'. Only studies published after 2015 were reviewed.

Other sites searched included:

- Royal College of GPs: and Royal College of Physicians: Joint statement on integrated care 2014.
- NHS England: Integrated care systems which draws on the experience of the 50 vanguard sites.
- Kings Fund: Making sense of integrated care systems.
- A NICE Evidence search for 'proactive care team', 'lead provider model' and 'integrated care model' was also undertaken.

The references provided in the proposal were also reviewed.

Three relevant systematic reviews were found. The Strategy Unit (2018) included five reviews and found there is inconclusive evidence on the impact of new care models on use of healthcare services, with limited evidence of reduced A&E admissions and GP appointments. Staff value their enhanced roles which can lead to improved job satisfaction, lower absenteeism and staff turnover. The patient experience of care may also improve through the use of shared decision making to develop realistic goals, care closer to home and improved access to services.

Baxter et al. (2018) included 167 studies of integrated care models and found evidence that these improve quality of care, increase patient satisfaction and improve access to care. Evidence was rated as either inconsistent or limited regarding other outcomes, including system-wide impacts on primary care, secondary care, and health care costs.

Desmedt et al. (2016) included 26 studies in a systematic literature review of the economic impact of integrated care models for patients with chronic diseases. It found that the majority of studies reported positive economic impacts.

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 3.1.

**Table 3.1: Comments on, and critique of, Proactive Care Team**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | Proposal quantifies the number of patients who will receive services from the PCT, with detail provided on its derivation. A contingency plan is in hand should referrals number be materially lower than proposed. |
| Clinical efficacy | Several evidence sources are used in the proposal including findings from the evaluation by the National Audit Office of the 50 vanguard models. This highlights that NHS areas operating integrated care models may reduce emergency admissions relative to other areas but may show a lower reduction in elective bed days. NHS England claims that costs and benefits from the vanguard sites using this model will be equalised by 2020/21 but this cannot be evidenced.<br><br>The findings in the proposal are mainly consistent with those from recent systematic reviews, except the claim that the service will be cost efficient is not supported by robust evidence. Thus, the sustainability of the PCT is a risk. This can be managed by |

| Factor | Comments and rating |
|---|---|
| | undertaking regular evaluation to inform factors such as the selection of patients at high risk of emergency admission, effective interventions and drivers of change of outcomes and costs. |
| Distributional impact | Proposal includes many of the approaches identified from the vanguard sites as consistent with reducing health inequalities, in part because these manage patients with protected characteristics and improve access by developing new pathways, informed by user feedback. The diseases which will be the focus of the PCT are identified, together with a discussion on how the team will integrate into existing mental health and other services.<br><br>The proposal also addresses key issues for distributional impact such as data integration and using outputs from the same to identify at risk people. The proposed evaluation, including robust user feedback is also essential to drive impact.<br><br>The proposal also has an emphasis on engaging the voluntary and community sectors, essential for community engagement as a step to reduce health inequalities. |
| Costs | The estimated costs are £1.64m, with details provided in a spreadsheet. No return on investment is provided. This estimate seems reasonably robust. All costs are recurring which seems valid.<br><br>The main risks are around delays in implementation arising from several factors including recruitment. |

**References**

Baxter S, Johnson M, Chambers D, Sutton A, Goyder E & Booth A. Understanding new models of integrated care in developed countries: a systematic review. Health Serv Deliv Res 2018;6(29)
The Strategy Unit. New models of care – what's the evidence? Summary findings. 2018.

Desmedt M, Vertriest S, Hellings J, Bergs J, et al. Economic Impact of Integrated Care Models for Patients with Chronic Diseases: A Systematic Review. Value Health. 2016 Sep - Oct;19(6):892-902. doi: 10.1016/j.jval.2016.05.001.

The Strategy Unit. New models of care –what's the evidence? Summary findings. 2018.

## 4. DEMENTIA SPECIALIST NURSES (27)

This proposal is to recruit 1 band 7 and 5 band 6 dementia specialist nurses (Admiral nurses) to be hosted in local organisations in the City of Bradford. The nurses will support people with dementia and their carers, plus train others in providing competent care to these groups. Aims include to reduce avoidable demand for healthcare, reduce avoidable transitions of care, whilst improving the experience of people with dementia and the health of carers.

The proposal highlights some of the inequalities faced by people in central Bradford (for example language, high risk factors for CVD with associated risk of dementia, cultural and information needs) and some of the consequences including high rates of antipsychotic prescribing, high absolute and relative rates of mortality for people with dementia aged 65+, a high proportion of short emergency admissions for people with dementia and late diagnosis of the disease. The nurses will seek to address the inequalities faced by people at risk of dementia and their carers and thereby reduce the adverse health and resource consequences.

**Method**

A literature search was undertaken using google scholar for the terms 'dementia specialist nurses' and 'Admiral nurses'. Only systematic reviews and studies published after 2015 and set in primary care or community settings were reviewed. A similar search was undertaken in using the NICE Evidence search tool.

Other sites searched included:

- Department of Health. Making a Difference in Dementia: Nursing Vision and Strategy Refreshed. 2016.
- Public Health England. Dementia profile, August 2019 and other available resources
- NHS England. Getting Evidence into Admiral Nurse Services (GEANS) 2017.
- NICE dementia management pathway.
- Dementia UK .
- Alzheimer's Society.

The references provided in the proposal were also reviewed.

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 4.1.

**Table 4.1: Comments on, and critique of, proposal to recruit dementia specialist nurses**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | Proposal has quantified the estimated population at 500 to 600 and seems to assume 100% uptake of the service. Comparing the staff ratio for this proposal with those adopted in the Sutton and South Norfolk Admiral nurse services suggests there should be sufficient staff to manage the expected referrals. |
| Clinical efficacy | The evaluations of the Sutton and South Norfolk Admiral Nurse services identified that the services improved quality of life (QoL) for patients and carers (Sutton reported an increase in scores from 38 to 56 over the (unspecified) period using a validated QoL tool; Norfolk analyses were qualitative. Sutton also reported 88% of users experienced a reduction in stress/anxiety, with Norfolk noting 75% of carers experienced low mood, depression and anxiety symptoms, as well as an inability to cope with their situation, prior to input from the Admiral Nurses.<br><br>The evaluations also reported avoided or delayed admissions to care or nursing homes, a 15% reduction in emergency hospital admissions (Sutton), 29 avoided or delayed hospital admissions from 112 patients |

| Factor | Comments and rating |
|---|---|
| | (Norfolk) and a 5% reduction in A&E attendances (Sutton). Sutton also reported fewer referrals to psychological therapies and that 60% of GPs reported a reduction in contact time as a result of the Admiral service.<br><br>Bunn et al (2016) concluded it was not possible to demonstrate that the Admiral Nursing service was more or less effective than other support services, but the evidence showed it provided what carers wanted and appreciated. Maio et al. (2016) undertook a quantitative analysis of carer feedback and reached similar conclusions.<br><br>Bradford City has a well above average rate of short-term hospital admissions for people with dementia (Public Health England, 2019) so the scope for improvement in this setting may exceed that in Norfolk and Sutton. |
| Distributional impact | Many people with dementia have a range of protected characteristics including age and race. Many also experience difficulties in accessing services, including because of poor literacy. People with dementia can also suffer from stigma and discrimination. The overall impact of this project should be positive as virtually all users will have one or more protected characteristic. |
| Costs | The costings are limited to direct staff costs for the nurses, with no costs for factors such as their management, clinical supervision, accommodation, IT and other equipment, service infrastructure, liaising with other health and social care professionals, travel, measurement and evaluation of outcomes. Hence the costs could be a material underestimate. All costs are recurring which seems valid.<br><br>The proposal notes the main risk is the absence of discussion with local organisations on hosting the service. The Norfolk evaluation noted partnership working was key to the service's success. Hence the absence of consultation could delay implementation and be a longer-term risk to the success of the project. |

**References**


Bunn F, Goodman C, Pinkney E, Drennan V. Specialist nursing and community support for the carers of people with dementia living at home: an evidence synthesis. Health and Social Care 24:1, 48-67, 2016.

Department of Health. Making a Difference in Dementia: Nursing Vision and Strategy Refreshed. 2016. National Dementia Strategy Equalities Action plan.

Maio L, Botsford J & Iliffe S. Family carers' experiences of the Admiral Nursing Service: a quantitative analysis of carer feedback, Aging & Mental Health, 20:7, 669-675, 2016. DOI: 10.1080/13607863.2015.1052776.

Public Health England. Dementia profile, August 2019.

## 5. BEEP EXERCISE REFERRAL (19)

The proposal is to expand the existing BEEP (Bradford Encouraging Exercise in People) service to people in Bradford City CCG with type 2 diabetes (T2DM) and muscular-skeletal (MSK) conditions. The aim of BEEP is to increase the activity rates of people with long term health conditions. Those referred are offered 52 weeks of bespoke, condition specific, exercise advice, support and motivation, with onward referral into community services. A multi-function app that monitors walking data, calorie use and sends motivational messages is also provided. Consistent with the NICE guideline on exercise referral schemes (ERS)[3], data collection and evaluation are routine within the service[4].

### Method

A literature search was undertaken using google scholar for terms including 'exercise referral schemes for people with type 2 diabetes', 'exercise referral schemes for people with muscular skeletal disorders' and 'exercise referral'. Only systematic reviews and studies published after 2015 and set in primary care or community settings were reviewed. A similar search was undertaken in using the NICE Evidence search tool.

Other sites searched included:

- NHS England
- Department of Health
- Public Health England
- NICE Physical activity: exercise referral schemes. Public health guideline [PH54]. September 2014; Type 2 diabetes: prevention in people at high risk. Public health guideline [PH38] Last updated: September 2017
- Diabetes UK
- Royal College of Physiotherapy
- Bradford Encouraging Exercise in People

The references provided in the proposal were also reviewed.

Two systematic reviews were found. Public Health England commissioned a 'A systematic review of the effectiveness of lifestyle interventions for the prevention of type 2 diabetes mellitus (T2DM) in routine practice' 2016 which found that physical activity programmes combined with dietary advice over a one year period were effective in achieving weight loss. Physical activity rate was not included as an endpoint.

[3] NICE. Physical activity: exercise referral schemes. Public health guideline [PH54]. September 2014
[4] The proposal has links to several evaluations but these were not available to YHEC.

Campbell F, Holmes M, Everson-Hock E, *et al*. authored a systematic review and economic evaluation of exercise referral schemes in primary care. This included eight studies with 5,190 participants with or without a medical diagnosis and deemed appropriate for ERSs. There was a significant increase of 55 minutes of physical activity per week in the ERS group compared with usual care and in the proportion of individuals achieving 90–150 minutes of at least moderate-intensity activity per week. The cost-effectiveness analysis reported an incremental cost per quality adjusted life year (QALY) of about £76,000 for ERS compared with usual care, with considerable uncertainty on the value[5].

The economic model informing the NICE guidance on exercise referral schemes reported an incremental cost of between £72,748 and £113,931 per QALY gained. However, this value was noted to be highly uncertain and the model was judged to overly simplify the clinical presentation. Hence NICE recommended these schemes provided that data are collected so that commissioners can take informed decisions based on costs and benefits attributable to their local schemes.

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 5.1.

**Table 5.1: Comments on, and critique of, BEEP exercise referral proposal**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | The proposal is to increase the annual throughput of the service from 1,500 patients in 2017/18 by 4,000 to 5,500 per year. The proposal notes there is a risk that this step change in referral rates will not be achieved and hence there is a need for the service to be embedded in clinical pathways. No resources are allocated to achieve this change. Nor is there any discussion of why more people with T2DM may enter this expanded programme given many will meet the current referral criteria.<br><br>There is also no indication of how the 4,000 was calculated. |
| Clinical efficacy | Campbell et al (2015) found evidence that an ERS can significantly increase physical activity per week per person, with more clients achieving 90–150 minutes of at least moderate-intensity activity per week compared with usual care.<br><br>The NICE guidance was informed by a systematic review by the same authors. This noted similar efficacy adding that there was very little evidence on the medium- or long-term health benefits associated with ERSs. |
| Distributional impact | The evidence on distributional impact is mixed. NICE recommended research into why people from black and minority ethnic groups, people with disabilities and those from lower socioeconomic groups have lower joining and completion rates than other groups. Campbell et al (2015) also noted the risk that an ERS may serve to increase inequalities in health.<br><br>Hanson et al (2019) undertook a qualitative longitudinal study of an ERS in Northumberland and concluded: 'current ERSs appears to be for those with social confidence and previous positive experiences of PA. Conversely, such schemes may fail for those who struggle to access social support due to varying health condition demands, or |

[5] NICE has a cost per QALY threshold of £20,000 to £30,000 per QALY

| Factor | Comments and rating |
|---|---|
| | complex or impaired social circumstances. For those who are unable to adhere, feelings of ostracism and failure may further exacerbate outcome differentials Ultimately, even programmes that target disadvantaged sub-groups (in the case of ERSs, those with non-communicable diseases) appear at risk of reinforcing inequalities.'<br><br>Hence, whilst many members of the target group will have protected status and be from disadvantaged groups, those participating may have relative advantages compared to others in that group. |
| Costs | The costs of £275,000 a year seem to assume 3,000 patients a year, not the 4,000 referred to at other sections of the proposal (5 ERO's each managing 600 patients a year). If so, the cost per patient per year increases from £68.75 to £91.67. This is well below the cost of £225 per patient per year estimated by NICE in its Costing template for an ERS. The lowest annual cost used by NICE for a service was £150 It is not known if the cost includes an element for data collection and evaluation. The costs assume clinics will be provided free by GPs and exclude accommodation costs for the extra 7 staff. Hence these are likely to underestimate the actual costs. |

Hanson CL, Oliver EJ, Dodd-Reynolds CJ*, et al.* How do participant experiences and characteristics influence engagement in exercise referral? A qualitative longitudinal study of a scheme in Northumberland, UK. *BMJ Open* 2019;**9:**e024370. doi: 10.1136/bmjopen-2018-024370.

Campbell F, Holmes M, Everson-Hock E, *et al*. A systematic review and economic evaluation of exercise referral schemes in primary care: a short report. Health Technol Assess 2015;19:1–110.doi:10.3310/hta19600.

## 6. BABY STEPS (6)

The proposal is to offer Baby Steps to pregnant women and their partners in the Bradford City CCG as part of delivering Every Baby Matters (EBM) priorities.

The National Society for Prevention of Cruelty to Children (NSPCC), in conjunction with Warwick University, developed Baby Steps: an evidence-based perinatal education programme that is designed to help vulnerable and socially excluded parents prepare for parenthood. It focuses on parents who need additional support, including those who may have chaotic lifestyles and who traditionally might be called 'hard to reach' (Johnson et al, 2018).

Baby Steps is currently delivered through the Better Start Bradford Programme in three other council wards[6] and is judged to have worked well. It links with other programmes including safeguarding interventions.

**Method**

[6] The wards are Bowling and Barkerend, Bradford Moor and Little Horton.

YHEC was provided with a summary of three qualitative single-arm evaluations of Baby Steps from a literature search. YHEC also searched for 'baby steps' using google scholar and the NICE Evidence search tool.

Other sites searched included:

- NHS England
- Department of Health
- Public Health England
- NSPCC.

The references provided in the proposal were also reviewed. The only additional papers which were identified are more qualitative, single-arm reviews conducted by the NSPCC. There is thus no comparative or quantitative evidence of Baby Steps. This finding is consistent with the rating by the Early Intervention Foundation that Baby Steps does not meet the Level 2 threshold for a child outcome, having no direct evidence about the scale of impact of the programme (Asmussen et al., 2016).

Findings from these searches plus the proposal and a report embedded therein informed the findings in Table 6.1.

**Table 6.1: Comments on, and critique of, Baby Steps**

| Factor | Comments and rating |
|---|---|
| Estimated population uptake | The estimated number of pregnant women eligible for, and taking up, Baby Steps is 600[7]. The take-up rate is consistent with current practice in Bradford. The proposal notes this may over or under-estimate actual numbers and identifies steps to address either scenario. |
| Clinical efficacy | As noted there have been several qualitative evaluations of Baby Steps by NSPCC. Findings are similar across the reports being that parents attending Baby Steps reported:<br>• an improvement in the quality of their relationship with their babies<br>• a decrease in anxiety & some parents felt less depressed<br>• increased levels of self esteem<br>• some parents improved their relationships with their partners<br>• a lower caesarean rate, higher birth weight and fewer premature babies compared to the general population.<br><br>There are several problems with the methodology used in the study including sample sizes were small, it is not possible to judge if parents responding are representative of parents on the programme as a whole; the comparisons of factors such as anxiety and depression are from programme start date to the last post-natal visit. Many other factors may have contributed to the change in say self-esteem or anxiety but such confounders are not discussed. There is also no comparison with usual care so it is not known if the changes in such factors are better or worse with Baby Steps.<br><br>There is also no evidence to support the anticipated benefits around fewer children requiring tiers 3 and 4 interventions and a reduction in |

[7] The proposal advises baby Steps is to be delivered in the City of Bradford but deducts births in the City CCG (800) to arrive at the estimate of 1,200 eligible women. I am unclear why eligible population is not 8000 rather than 1,200.

| Factor | Comments and rating |
|---|---|
| | perinatal mortality and harm in early childhood.<br>  |
| Distributional impact | Pregnancy is a protected characteristics. The programme is designed to be used with parents facing health inequalities. An evaluation of its use with 14 ethnic parents found positive outcomes, with it being a particularly important source of information and support for parents who were socially isolated. Beneficial factors included: the use of interpreters; cultural competence among practitioners; and practitioners working flexibly by offering additional support and making themselves available to liaise with other agencies on behalf of the parents (Brookes et al., 2015).<br><br>The need for such a programme is demonstrated a survey by The Royal College of Midwives and Netmums that found 75% of expectant mothers in low-income households receive no antenatal education at all (Hogg et al., 2015).<br>  |
| Costs | The costs presented of £340,828 per year are to enable 180 parents to attend the programme, not the 600 parents advised to be the expected uptake. With 600 parents the costs would be over £1.1m, assuming all costs change in line with the number of parents. Given 96% of costs are staff related this seems a reasonable assumption.<br><br>A recent evaluation of scaling-up Baby Steps (Johnson et al., 2018) identified that:<br>• Senior management support is highly desirable<br>• Need to establish strong referral pathway<br>• The programme was more costly to run than they had anticipated, due to the time required for preparation and delivery of groups<br>• There were unanticipated costs around additional training for new staff.<br><br>These factors suggest the current estimated spend is likely to be a material underestimate of the costs to implement and operate a programme to be delivered to 600 parents a year.<br>  |

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## APPENDIX A: DEFINITION OF EACH FACTOR

| Factor | Definition |
|---|---|
| **Estimated population uptake** | **Estimated population uptake** is a measure of the number of people who will receive an intervention. It is usually smaller than the total population who are eligible for it. |
| **Clinical efficacy** | **Clinical efficacy** is a measure of how well an intervention succeeds in improving clinical outcomes. In this context any safety issues such as adverse events associated with the intervention are also noted. |
| **Distributional impact** | **Distributional impact** is a measure of the impact of an intervention on health equity. Inequities may include differences in the prevalence of diseases, health outcomes, or access and inequalities associated with underlying socioeconomic factors. Other relevant aspects include eliminating discrimination particularly for people who share the protected characteristics defined in the Equality Act 2010[8]. |
| **Costs** | **Costs** are a measure of the monetary value of the resources needed to implement and operate the intervention. These can be expressed as annual costs or total costs over the life of the project. |

[8] These characteristics are age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.