

# Scoping report.

Using behavioural science to increase inactive  
Wolverhampton residents' physical activity levels.

Draft V7

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## Executive summary

This report summarises the scoping phase of a project that aims to increase physical activity levels in Wolverhampton residents in lower socioeconomic groups. The project is joint funded by The City of Wolverhampton Council (CofWC) and the Local Government Association (LGA) and is being delivered in partnership with Active Black Country (ABC). The Behaviouralist (TB) won a competitive tender process to deliver this project.

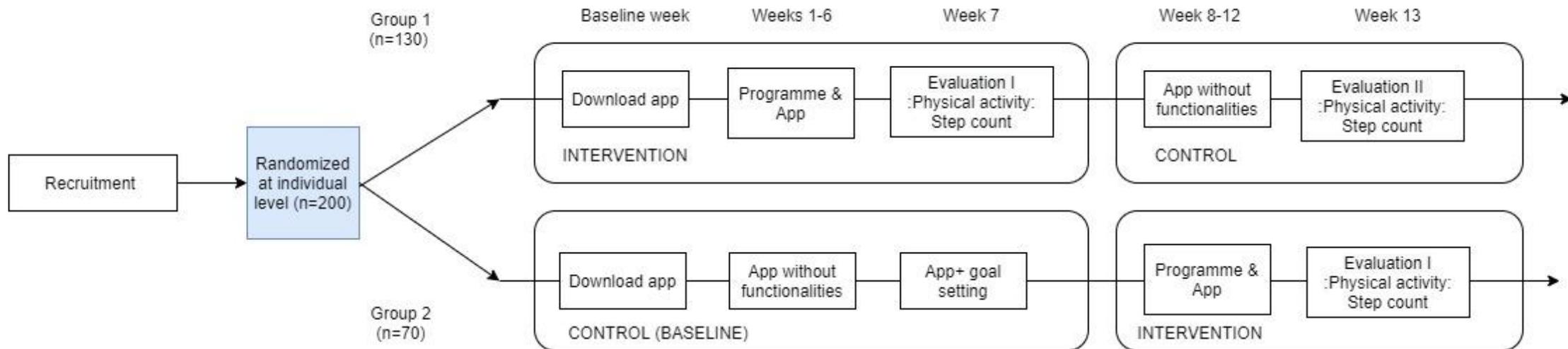
The scoping phase was used to explore the options and resources available to deliver against the project's aims and scope. There were multiple opportunities to explore and constraints to consider to deliver a feasible project. We have identified a preferred route to deliver this project and have also explored several fallback options if our preferred route is not possible.

During the delivery phase, we will pilot a six-week physical activity (PA) intervention. This will be an online resource or programme which will be developed drawing on behaviour change theories and principles. It will integrate existing local resources and materials which have been developed to promote walking and exercise to Wolverhampton residents. We will deliver the programme through a 3rd party exercise App (Movespring), which allows us to design and administer a programme that meets our requirements for this intervention. This App enables us to measure objective data on physical activity, enabling us to evaluate the impact of the programme, to design challenges and administer messages and communications direct to participants.

Our target is to recruit 200 participants onto a pilot programme through existing local partners. Initially this will include The Community Champions network, Wolverhampton Carers Network and foodbanks. If we cannot reach 200 participants, we have identified secondary partners to work with.

## Executive summary

Recruiting 200 participants and using the Movespring App will enable us to objectively track the impact of the intervention on participants' Physical Activity. We will then split these participants into two groups and stagger the start of the programme, giving us 2 start dates. Using the later start date will give us a control group which will enable us to capture comparison data for Physical Activity Levels between the two groups and to evaluate the impact of the programme. We have provided a diagram of our proposed trial design below:



The evaluation and trial design is expanded on in the evaluation section (4.3)

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## Executive Summary:

If we cannot recruit 200 participants we have identified an alternative evaluation approach which will provide more qualitative and subjective learnings. These will be valuable in iterating and scaling the programme in the future.

We have mapped the structure of the intervention, identified the key components and challenges of the intervention. This has enabled us to make decisions to move forward and develop strategies to mitigate risks in delivering the project.

We have spoken with project partners who are in principle engaged and have the capacity to assist with the recruitment of participants. We will continue to develop these relationships during the Delivery Phase of the project.

We have put in place strategies, contingencies and plans in place which will enable us to adjust our project delivery. This is also a realistic approach given the changing nature of COVID-19 and the reality of delivering projects in this context.

During the delivery phase we will continue to explore and finalise the project approach and design. The key final decisions include: 1) Deciding on how the programme will be delivered - using a 3rd party app (Movespring) 2) the recruitment numbers we will aim to reach 3) Designing and developing the programme and messaging and 4) reviewing the impact of these decisions on ethics and GDPR applications.

During the scoping phase we have explored the feasibility of delivering a project which is practically feasible to deliver, can be evaluated and learnings generated and will be scalable and deliver value for the partners and residents of Wolverhampton.

We would recommend that the project can proceed.

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# 1. Introduction

More than a third of the adult population living in Wolverhampton do less than thirty minutes of moderate-intensity physical activity (PA) a week ([Public Health, annual report 2018-2019](#)). This figure is well below the national average. Furthermore, during the COVID pandemic, individuals in lower socioeconomic groups have also not engaged in exercise as much as other groups ([Survey into adult physical activity attitudes and behaviour. Sport England](#)).

In this context, the City of Wolverhampton Council (CofWC) commissioned The Behaviouralist (TB) to design, deliver and evaluate a pilot behavioural change project in partnership with Active Black Country (ABC) which is jointly funded by the Local Government Association (LGA) as part of their [Behavioural Insights Programme](#). The project's focus is to deliver a resource that applies theories and principles of behavioural science to increase inactive Wolverhampton residents' physical activity levels. The scoping phase aims to explore the feasibility of delivering an impactful and evidence-based project, ensuring that value is delivered for the project partners, Wolverhampton residents, and the Local Government Association. This scoping report summarises this work.

The slide deck is structured as follows: Section 2 provides an overview of the work we completed during the Scoping Phase; section 3 further defines the project aims, deliverables and acknowledges challenges due to digital access; section 4 outlines the critical decisions we have made about delivering the project and provides an overview of the programme steps; section 5 provides the project management; section 6 provides the conclusions, and lastly the Appendix contains a bibliography, the pros and cons of using an App and the project partners roles.

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## 2. Scoping phase overview

During the scoping phase, we completed the following:

1. Held a kick-off meeting and regularly convened the core project group. This comprises City of Wolverhampton Council, Active Black Country, and The Behaviouralist. As well as managing and reviewing the progress of the scoping phase, we also took the time to align the project partners' expectations. As the project evolves, we will continue to review the progress against these expectations.
2. Assimilated and reviewed existing materials, previous research and information on projects and campaigns run in the local area. This included similar projects using social prescribing models run by ABC across the region.
3. Identified and confirmed the existing local resources that can be included in the programme. These will provide the practical local tools, resources and incentives that can prompt people to get active and will be central to the programme.
4. Mapped the participant journey for the programme, identifying the core components and subcomponents we need to consider. This helped identify key touchpoints, challenges, data gathering capabilities, and initial ideas to address PA behavioural barriers.
5. Conducted a brief literature review on behavioural science work on PA and the local context.
6. Reviewed the existing data which was available on PA in Wolverhampton and opportunities to collect data across the project.

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## 2. Scoping phase overview

7. Conducted interviews with local stakeholders, subject experts and potential partners. The purpose of these interviews was to learn more about the local context and start to understand some of the barriers to PA in the target population. Many of these groups are currently or previously have delivered PA initiatives, so this provided an opportunity to review these materials. We also discussed their capacity and interest in supporting the project. During the scoping phase, we spoke with the following groups:

### CofWC

- Lesley Johnson from the Adult Carers team
- Kye Bond and Charley Barton from the Carers Outreach team.
- Matthew Leak from Public Health
- Sam Axtell - Community Involvement Officer
- Alice Vickers from the Youth Engagement Strategy team

### Community Groups who work with the target population.

- Mahmood Khan and Kalpna Joshi from [TLC College](#)
- Suffia Perveen from the [Ethnic Minority Council](#)

### WV Active - Gym who are participating in this project

- Charlotte Lavender, Victoria Morgan and Kerry Williams from [WVActive](#)

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## 2. Scoping phase overview

The scoping phase enabled us to:

- Further define the scope and key deliverables for this pilot project.
- Define the characteristics of the resource we are looking to develop.
- Identify and engage potential project partners to establish their capacity and interest in supporting the project.
- Develop a project plan and process that adapts to the current context and feasible given the project scope.
- Develop a recruitment strategy to recruit participants onto the project. This includes further defining our target population.
- Identified a range of behavioural principles and behaviour change theories that can underpin the resource. These will be developed further in the delivery phase.
- Identified a range of evaluation approaches that can capture learnings and show the impact of our work.
- Identified risks to the project and how they can be mitigated. For example, exploring different recruitment routes if we cannot achieve the expected number of participants.
- Considered the impact of Covid-19 on the project.

These outputs are captured in the following slides and collectively comprises our scoping report.

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### 3. Project Ambition

*To increase physical activity levels in Wolverhampton through a sustainable behaviour change intervention to at least 30 minutes a week for low socio-economic and inactive residents across the city*

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## 3. Project Deliverables

To meet the project ambition, across the project duration, we will deliver the following:

- Design and pilot a Physical Activity programme in the City of Wolverhampton.
- Evaluate the pilot programme to a) ensure that it delivers meaningful impact on the participants' PA b) capture learnings from the pilot to iterate and improve the programme c) to share learnings from the project across the city, partners and with the LGA.
- Produce a final report which will include: the evaluation of the impact of the pilot; learnings from the project and lastly a plan to scale the resource, or learnings, across the city. We will also look to provide an evaluation plan if the resource was to be scaled across the city.

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## 3. Programme definition

During the scoping phase, we further defined the key features of the programme or resource we wish to develop. They include:

- The programme will be a local, Wolverhampton based programme including resources for residents to complete or engage with.
- We are looking to develop a 6-week programme.
- It will be a self-contained resource and relatively 'light touch' to deliver and administer. This is a requirement to be able to scale the programme or learnings across the city.
- We would like to pilot the programme at the start of June. The hope is to launch a resource as COVID-19 lockdown is eased. This also would enable us to scale or expand the programme in time for school summer holidays.
- It can be delivered remotely, recognising the challenges of delivering face-to-face during COVID-19.
- The resource will be an online resource, supported by downloadable and physical resources.
- It will incorporate existing local resources which have been developed to support residents PA.
- The physical activities will be accessible, with low entry barriers, such as walking and light exercise that participants can complete at home and free to access.
- The programme will draw on behaviour change theories and principles with a view to maximise engagement and build lasting PA habits. This will include messaging, support materials and activities.
- Either the pilot, or learnings from the pilot, can be scaled across the city and potentially beyond.
- The branding and name of the programme(s) are still to be determined. This will be finalised during the delivery phase with the support of the City of Wolverhampton Council's Communications and web team.

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### 3. Acknowledging digital access and inclusion challenges

#### *Digital Inclusion*

Across the scoping phase many of the local partners highlighted the challenge of digital inclusion and access to data in the city. This is a real challenge for a high proportion of residents and by delivering an online resource or requiring the use of an App we are likely to exclude a high proportion of our target audience.

We recognise this and acknowledge this challenge. During the Delivery phase of the project we will add a work package which will explore how to make this resource accessible offline or in a physical format. We will look where possible to ensure that content can be downloaded and printed.

#### *English to Speakers of Other Languages*

We will also explore how to provide translations of the final programme to ensure English to Speakers of Other Languages (ESOL) residents are included in accessing this resource. This can be facilitated by the CofWC's web page Recite toolbar which can translate into 52 languages.

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## 4. Project Delivery Overview

During the scoping phase we took the time to map the phases and component parts of how the programme or resource could be delivered. This enabled us to identify challenges and opportunities linked with delivering the project. The key challenges we focused on during the scoping phase were:

**Recruitment** - how do we recruit participants onto the programme to ensure the project leverages local networks, remains scalable and can be evaluated robustly.

**Programme Delivery** - how can we remotely deliver an engaging programme that integrates the local resources; provides messaging and communications direct to participants; is self-contained and can be administered with relatively low resource and cost.

**Evaluation** - How can we evaluate the pilot programme and extract meaningful learning which can be scaled and shared across the city and more broadly. This is linked to both recruitment and to collecting data (ideally objective).

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## 4. Project Delivery Overview

**Project Management** - How can we deliver a project in a timely fashion, ensuring we have an appropriate and scalable resource which can be deployed by the CofW quickly.

It is important to acknowledge that for each of these challenges there are multiple solutions available, and they often inter-relate. For example, the numbers of participants we can recruit directly informs the evaluation that we conduct.

Having reviewed these options in the scoping phase we have identified a 'preferred route' to follow. We have elaborated on this route in the scoping document. If we need to adjust our approach or some of our assumptions are incorrect we have identified alternative or fallback options. These serve as mitigation against risk factors. For example, if we cannot recruit the required participant numbers onto the programme we can adjust our evaluation approach.

The table on the following pages provides an overview of the programme we intend to deliver. It also provides a useful framework to elaborate on the decisions we have made across the project.

## 4. Programme overview

Phase	Step	Partners	Touchpoints	Behavioural Science	Evaluation	Timeline
Recruitment onto the programme	Promotion and outreach	TB+ABC+CofWC +Recruitment partners	Recruitment channels. Leaflets, materials and social media messages.	Social Prescribing. Salience of benefits / Reducing barriers / Incentivisation	N/A. We will track but are not evaluating the recruitment.	3 Weeks before the pilot.
Programme	Sign-up period	TB+ABC+CofWC	App / Online form / Wolverhampton Website	Reduce friction of sign up. Explore the use of incentives.	Collect participants data and demographics.	Week 1-2
	Introduction week (Baseline) week	TB+ABC+CofWC	App / SMS / Materials	Information in the form of FAQ / Resources /Social network	Establish baseline PA levels and subjective wellbeing measures.	Week 3
	Intervention	TB	App /SMS	Construal Level Theory of Psychological Distance / Goal setting	PA levels	Week 4-10

## 4. Programme Overview

Phase	Step	Partners	Touchpoints	Behavioural Science	Evaluation	Timeline
Programme	Programme close	TB	Email / Potential telephone calls	Habit formation. Signposting.	Difference in PA levels, subjective wellbeing.	Week 10
Follow-up evaluation		TB+ABC+CofWC	Follow-up form / Survey	Incentives to complete the survey	PA levels maintenanc and subjective wellbeing	Week 16

We have expanded on our key considerations, 'preferred approach', and actions for each of the key phases and component steps in the following slides

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## 4.1 Recruitment: Overview

How we recruit participants for the project is central to the success of the pilot programme but also relates to how the pilot can be scaled moving forward. There were four considerations we focused on when making our decision.

- 1) Evaluation Requirements - There are two recruitment targets we need to reach to evaluate the project:
  - a) 100 participants - will enable us to evaluate using primarily qualitative methods and providing an evaluation plan when taken to scale.
  - b) 200 participants - will enable us to evaluate the impact more robustly, this is our preferred route to take.Both of these approaches are expanded on in the evaluation section (4.3)
- 1) Leveraging the impact of social prescribing - the Messenger effect - [Active Black Country](#) have achieved success delivering projects using social prescribing (Roll & Stroll). Having a trusted source or authority promote PA has an impact on both the engagement and take up ([Kallings, Leijon, Hellénus, & Ståhle, 2008](#)). Balancing the opportunity to leverage local networks, whilst ensuring the recruitment is scalable in the future is a careful balance.
- 2) The feasibility of working with partners at this time; many services are stretched and cannot commit resources at this time. For example, we will not be engaging or making requests to GP surgeries.
- 3) Scalability - although we are developing a pilot programme it is important to remember our ambition of providing a resource (or learnings from the programme) which can be scaled the resource across the city. It would not be practical to develop a recruitment process which is resource intensive.

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## 4.1 Recruitment: Our target Audience

Broadly our target audience for this programme is:

Any Wolverhampton resident that exercises less than 30 mins a week, with a focus on areas of socio-economic deprivation.

For the purpose of the pilot and to ensure we can reach our target recruitment numbers, we will target our intervention on residents living in the following electoral wards in Wolverhampton: Etingshall , Heath town, Bushbury South and Low Hill, St Peter's, Bilston East. These wards have high areas of social deprivation as shown in the English indices of deprivation from 2019.

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## 4.1 Recruitment Strategy

For the pilot programme we have developed a strategy which balances the need of reaching the required numbers of participants, whilst leveraging local networks and influence. Our approach is to initially work with 3 partners and expand the partners we work with if we need to increase our recruitment numbers. We have initially identified and engaged the following recruitment partners:.

**The Community Champions Network** - A network of community based individuals who have been recruited and active in engaging with communities and disseminating messages during COVID-19. Through this network we will be engaging Faith Groups and other community networks. They have strong local reach and scale and as lockdown is eased will be sharing information on mental and physical wellbeing.

**Adult Carers** - Informal and Formal Carers Network - we have spoken with the Wolverhampton carers team about aligning our recruitment with National Carers Week in June and can promote information via their bulletin which reaches 5000 + informal and formal carers across the city.

**Food banks** - We will look to provide recruitment materials to be distributed at foodbanks within the selected wards

The Behaviouralist will provide online recruitment materials (emails, content) for each of these partners and physical materials (flyers, posters etc) and ask them to cascade the information to their members and display at local venues. We will review the need to translate materials into different languages as required.

Our second source of recruitment partners include: directly working with Faith Groups; vaccination hubs; ConnectED; GP surgeries, other community groups. Finally, as a fallback we can explore recruiting via social media advertising (Facebook) and could explore the use of incentives if necessary. ABC and CofWC have successfully recruited participants onto programmes previously using these approaches.

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## 4.2 Programme: what platform to use

During the scoping phase we have looked at how this programme or intervention can be delivered. We have identified two routes we can follow:

- 1) Using an exercise App - Movespring to support and deliver the pilot programme. This is our preferred route to take.
- 2) Using a blended approach, using SMS services (<https://www.notifications.service.gov.uk/>), Email programmes (Mailchimp) and Surveys to track exercise. This is a fallback route if Movespring is ruled out.

The prime reasons for choosing Movespring as an app are:

- 1) We can use objective PA data to track the impact of the programme. This enables us to conduct more robust evaluations of the programme and understand resident behaviour in more detail. The alternative option is to use self-report surveys.
- 2) It provides a flexible platform for us to design and administer communications, information, surveys, challenges and incentives to participants. This saves on administration and time and enables us to focus on the content, timing and structure of the SMS, communications to participants.

We have expanded on the Pro's and Con's of each approach in the Appendix to understand how we came to make our decision.

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## 4.2 Programme Steps

We have mapped the programme phases and steps in the Programme Overview Table (Section 4 above)

During the delivery phase of the project we will spend time to further research and understand the local context. This includes conducting mapping and co-creation sessions with partners and engaging with residents through interviews. The final format and content of the intervention will be finalised through this process. The provisional phases and steps of the pilot programme include:

1. Sign up period
2. Introductory Week
3. Programme / resource
4. End
5. Evaluation follow up.

We have expanded on these elements briefly on the following slides.

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## 4.2 Programme Steps:

### **Sign Up Period (Weeks 1-2)**

We will recruit participants onto the programme through the recruitment channels outlined previously.

This could be a rolling recruitment or could have a specific launch date. The sign up process will be hosted online at [Wolverhampton.gov.uk](http://Wolverhampton.gov.uk) but could also be linked to a QR code or other materials. The QR feature is still to be defined as previous experiences indicate that some users do not know how to use them. The goal of this is to make this process as smooth and frictionless as possible for residents.

### **Introductory baseline week (Week 3)**

We are considering introducing an introductory week when the participants are introduced to the programme. The sole reason for this is for evaluation purposes. This would enable us to track and establish baseline measures (step counts, self-report measures) of Physical Activity during this period. Content could include:

- FAQs addressing significant doubts the participants might have: Choosing the correct type of shoes, the right type of clothes, the best route...
- Public health advice from previous programmes
- Maps of the area
- Actions to take each day to prepare for the start of the programme.
- Introducing social networks using the App chat function - we are looking to leverage social support as part of this intervention.

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## 4.2 Programme Steps:

### 6 Week Programme

We will work with partners to design and develop the content of the final programme during the delivery phase of the project.. This will likely be a self contained 6 week programme. We have opted for a 6 week programme to enable participants to build a physical activity habit and also to be able to deliver the programme in the summer holidays.

There have been a number of studies exploring the length of time it takes to build a habit. These have ranged from 6 weeks ([Kaushal and Rhodes 2015](#)) to 28 weeks ([Fournier et al. 2016](#)). We will focus on the first 6 weeks of the programme and will provide lighter touch support for the following 6 weeks. We will also follow up after another 6 weeks (12 weeks in total). The programme could include:

- Onboarding survey and introductory materials
- A 'programme' integrating the resources across a 6 week period. This will include accessible, local activities which have low barriers to entry.

The resources which have been shared to date include:

- [Walking Resource from ABC](#) (We would include only the updated version for 2021 that includes Wolverhampton)
- [Love Exploring App](#) – based on West Park in Wolverhampton, this is primarily aimed at families, but also includes resources for adults.
- [WV Active](#) – there is some flexibility on what the final offer will be. This could include:
  - [Free online classes](#)
  - A membership pass or introductory offer
  - [Fit for a Fiver](#) – this could be explored as a resource to include-
- [West Midlands Cycle Share Scheme](#)
- Supporting messages (SMS, Emails, push notifications) to maintain engagement and PA across the programme.

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## 4.2 Programme: Behavioural science principles

We will co-create the programme with the partners and stakeholders, drawing on their applied expertise of delivering PA interventions in the region.

The programme and communications will be developed using principles from behavioural science intended to increase PA levels. We have identified several theories of change which we will draw on including: the Construal-Level Theory of Psychological Distance ([Trope & Liberman 2010](#)), the Theory of planned behaviour ([Ajzen, 1991](#)) and the B=MAT model ([Fogg, 2019](#))

Principles we will look to include are:

- Leveraging social networks and the positive social elements of exercise ([Nyer & Dellande, 2010](#)).
- Gamification and goal setting, we will look to incorporate goal setting in the challenge, ensuring people are motivated in engaged in the programme ([Marcus et al., 2013](#)).
- Habit building – encouraging daily activity to help build habits over the 6 week programme based on a messaging strategy ( SMS / emails/ push notification ([Bardus, 2012](#)))
- Rewards / incentivisation – randomising rewards to keep engagement high ([Horsley, Norman, Wells, 2012](#)).
- Daily or weekly activity guides - chunking goals can be beneficial([Epton, Currie.& Armitage, 2017](#))

At the end of the programme we will look to signpost or refer individuals onto other resources or local programmes.

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## 4.3 Evaluation

We reviewed a range of evaluation methods to ensure we capture the learnings and impact of the programme.

We have outlined two routes to which are both feasible for this project. Which route we take is dependent on how the intervention is delivered (Movespring, or blended approach) and the numbers of participants we can recruit. The options include:

- 1) Recruiting 200 participants onto the pilot project and using the Movespring App to capture objective data on PA. This is our preferred route to take. If we cannot use the Movespring App we would need to recruit a minimum of 300 participants and use self-report data (surveys) as opposed to step counts.
- 2) Evaluate the pilot programme with smaller numbers of participants (between 60 and 100). This is our fallback route if the higher participant numbers could not be recruited. This would be based on qualitative methods and administering surveys. If this route was selected we would use the pilot as a learning exercise to refine the programme. As part of the deliverable we would develop a robust evaluation plan for when the programme was taken to scale. When taken to scale at a citywide level it would be possible to conduct robust analysis of the project. Conducting this evaluation would not be a part of the scope of this project.

For both routes we will capture data on PA at the start, during, the end of the programme and finally 6 weeks afterwards. We are hoping to understand the impact of the programme and to understand if it builds any habits which are lasting.

**Our preferred route is using objective data, captured through the App on PA and trialing this robustly by recruiting 200+ participants onto the pilot.**

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## 4.3 Evaluation: Preferred route - 200 participants & objective data

We plan to recruit 200 participants onto the project. We will then split these participants into two groups and stagger the start of the programme. This will give us 2 distinct dates to start to the 'core' 6 week programme, This will enable us to capture comparison data for Physical Activity Levels between the two groups and to evaluate the impact of the programme.

We propose a repeated measures design, tracking Physical Activity levels through the inbuilt pedometer in participants' smart phones. This is captured in the Movespring App and will give us objective data to track. Power calculations show we would need a sample size of 144 splitting the participants between the first group (94) and the second group (50). This sample size calculation is based on the following assumptions:

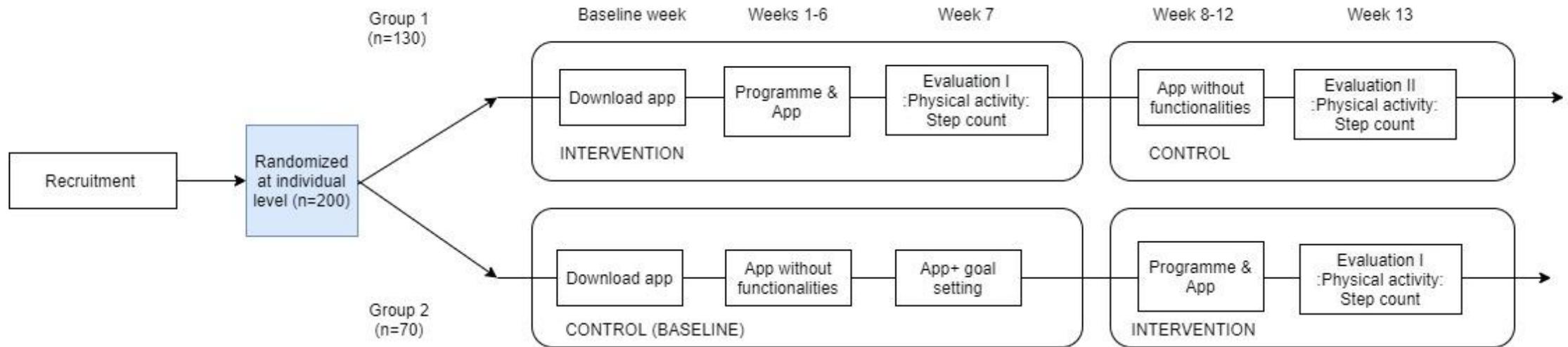
- Evaluation will be using a repeated measure ANOVA.
- The app will enable us to capture data on physical activity three times a week for six weeks (18 measurements)
- The expected effect size is small: Eta square of 0.01, or Cohen's d of 0.2. Using a more common effect size, this trial is sensible enough to detect a probability as small as 52% that a person from the experimental group will have a higher physical activity than the person from control. ([Coe, 2002](#))
- The expected correlation between measures is 0.2 . A correlation is an estimate of how related two variables are. The scale runs from 0 to 1, where 0 indicates a complete lack of a relationship and 1 indicates a perfect relationship. The 0.2 correlation is a conservative estimate.
- The two groups have a 2:1 ratio due to time and budget constraints maximising statistical power ([Torgerson, 2008](#)).

To compensate for participant attrition we will aim for 130 participants in the first group and 70 in the second. 200 participants in total.

**If we cannot use Movespring we would need to recruit 300 participants to conduct a similar evaluation (using a control and treatment group structure) using self-report data.**

## 4.3 Trial Design: Diagram - 200 participants & objective data

We plan to recruit 200 participants onto the project. We will then split these participants into two groups and stagger the start of the programme, giving us 2 start dates. Using the later start date will give us a control group which will enable us to capture comparison data for Physical Activity Levels between the two groups and to evaluate the impact of the programme.



Group 1 starts the programme in week 1, whilst Group 2 start the programme in week 8. This will give us data to compare between Group 1 (Programme) and the control (baseline) Group 2, who will have the App running in the background capturing step counts.

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## 4.3 Evaluation: Preferred route - 200 participants & objective data

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- Evaluation will be using a repeated measure ANOVA.
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- The two groups have a 2:1 ratio due to time and budget constraints maximising statistical power ([Torgerson, 2008](#)).

To compensate for participant attrition we will aim for 130 participants in the first group and 70 in the second. 200 participants in total.

**If we cannot use Movespring we would need to recruit 300 participants to conduct a similar evaluation using self-report survey data.**

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## 4.3 Evaluation: Fallback route - 100 participants using subjective measures

As a fallback option, if we cannot recruit 200 participants we would look to recruit 100 participants and evaluate the impact using self-report measures. The main components of this evaluation include:

**Regular (1x week) short survey** - Alongside the programme we would provide a short survey, once a week, which includes the a single item physical activity question ([Milton, Bull, Bauman, 2011](#)). We will also include information on participant subjective wellbeing and elements reviewing specific aspects of the programme.

**PA Survey at key points** - We will also administer a longer survey at the start, 3 weeks in, at the end of and finally 6 weeks after completing the programme.

**Reference population to track** - During the scoping phase we looked to find a potential comparison or reference group who we could also survey during the pilot. The goal would be to find and track a reference group to understand PA levels. We did not identify a suitable group, but we will continue to look for this during the delivery phase.

**Interviews** - We will supplement this with short qualitative interviews with participants and stakeholders, looking to engage those who both completed and dropped out of the programme.

Using this approach we will learn about how engaging the programme is and also look to improve the programme. We hope to also show a marked improvement in self-reported physical activity across and after the programme.

As part of the final report we will work with the partners to devise a large scale field trial to evaluate the impact of the programme at a city level.

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## 5. Project Management

To deliver this project TB will adjust and finalise the project plan. This will be used as a reference document across the project to monitor progress, highlight and mitigate potential risks. We have highlighted the following key considerations we continue to monitor and progress for this project.

COVID-19 Contingency - Captured within the Risk Register primarily. However, COVID-19 and the changing lockdown rules, especially in relation to sport and social activities has a direct bearing on what is feasible to deliver. We are developing a programme which can be self run, can be administered remotely and will be flexible and adaptable to lockdown rules.

GDPR and Information Governance - CofWC have completed an Impact Assessment of the project with their Information Governance team. The Behaviouralist have also completed a provisional Data Processing agreement, and will submit this during the delivery phase when the intervention has been finalised. We are currently in conversations with Movespring, the PA app, and they have expressed that they would be willing to enter into a data processing agreement if necessary for this project.

Ethics approval - when the final route has been approved and the intervention has been developed we will review the need to submit an ethics approval. We have several possible routes (CofWC internal, or affiliations with Universities) to explore.

## 5.1 Risk Assessment and mitigation

We present all the potential risks assessed during the scoping phase, including a mitigation strategy for each identified risk. We calculate risk by multiplying Likelihood X Impact. This gives us Low (1-8), Med (9-16) and High (17-25) Risks.

Identified Risk	Likelihood (L)	Impact (I)	Risk Factor (L x I)	Mitigation Strategy
Coronavirus Risk 1 - TB Internal staff capacity is reduced or diminished due to sickness and or leave.	3	2	6	<p>TB have developed an active policy response to the Coronavirus pandemic. We will share our updated policy which will help to ensure business continuity. As a business TB are experienced in remote working and will continue to stay abreast of best practice in this space. Currently we have three dedicated staff on the project who can equally step in and manage the project if there is a significant break due to illness. TB also brief all staff at least once a week about the project progress. The project plan is updated to ensure if needed a smooth handover between staff can be completed.</p> <p>We are anticipating there will be delays due to sickness and are adjusting all of our project timelines to be flexible and build in delays as necessary. Clear communication between TB and CofWC will be set up to ensure that any potential delays are clearly</p>
Coronavirus 2- Work volume / Covid-19 reducing the ability for staff / stakeholders to engage in the project.	4	3	12	<p>Although positioned as a collaborative piece of work - with significant co-creation as a key part of the project. If necessary, TB can lead on generating ideas and have stakeholders feed in and sign off on final interventions.</p>
Data protection - Liabilities arising from handling personal data	1	5	5	<p>TB are ICO Registered and have stringent Information Security Management System which has been developed in line with ISO 27001. Our server and encryption keys meet the following standards: AES 256 and FIPS 140-2. We will ensure that movespring also has the highest standards for data handling.</p>

## 5.1 Risk Assessment and mitigation

Identified Risk	Likelihood (L)	Impact (I)	Risk Factor (Lx I)	Mitigation Strategy
Delays to the project due to ethics review - there could be delays in reviewing our ethics application.	3	4	12	This could impact the timeline if this is required. This is an ongoing conversation. We have started to explore routes to obtain ethics including obtaining ethics through associations with Universities as well as through CofWC internal processes.
Ensuring there is adequate financial resource to complete the project.	1	4	4	The PM will review the budget at least fortnightly, and potential issues will be addressed with the partners.
Challenges recruiting participants onto the study	3	3	9	We have explored multiple routes to recruit participants and engaged with the local community to ensure we achieve the numbers required. We have identified alternative recruitment partners and strategies if our initial partners do not recruit enough participants.
Risks to evaluation due to participant drop out	3	4	12	We would look to mitigate this through recruiting excess participants if this did not impact the quality of the delivery of the trial.
Risk of over-run due to not being able to use the Movespring App (due to data control GDPR issues or other constraints)	2	4	8	If we cannot use the Movespring App there are alternative evaluation approaches we have considered. This includes self report surveys capturing PA. We can also develop an approach to deliver the content which includes email and SMS programmes. This will add to the timing and workload of the project.

## 5.2 Timeline: Overall project

The timeline and Gantt below provide an overview of the project.

Phase	Notes	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<i>Project Scoping</i>											
Scoping Phase		Delivering	Delivering								
Scoping Report		Delivering	Delivering								
Submit Project Scoping Document		Delivering	Milestone								
<i>Project Delivery</i>											
Project Delivery Kick off Meeting			Milestone								
Delivery Phase Research			Delivering	Delivering							
Partners conversations	Carers, faith leaders, food banks		Delivering	Delivering							
Partners onboarding	Bedding down partners (Recruitment)		Delivering	Delivering							
Decision on Final Intervention Format	Recruitment and delivery		Delivering	Delivering							
Intervention Design	Depends on partner involvement			Milestone							
Ethics / GDPR review				Timeline float	Timeline float						
Recruitment materials shared				Delivering	Delivering						
Field Trial					Delivering	Delivering	Delivering	Delivering	Delivering		
Analysis and reporting									Delivering	Delivering	
Project Report Delivered										Delivering	Milestone

Key	
<span style="display:inline-block; width:15px; height:10px; background-color:red; border:1px solid black;"></span>	Milestone
<span style="display:inline-block; width:15px; height:10px; background-color:yellow; border:1px solid black;"></span>	Delivering
<span style="display:inline-block; width:15px; height:10px; background-color:gray; border:1px solid black;"></span>	Timeline float

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## 6. Conclusions and next steps

We have the following key recommendations and main takeaways from the fieldwork carried out during the scoping phase:

- There are multiple feasible interventions which could be developed and trialled robustly across the city. The final design will be decided in cooperation with the rest of the partners once the delivery phase starts.
- Project stakeholders have indicated they are ‘in principle’ engaged in the project and have the capacity to assist with the intervention. Data sharing agreements and gaining permission(s) from the stakeholders around data sharing could also be achieved.
- Following the submission and acceptance of the scoping report, a workshop will be held with key stakeholders including members from The City of Wolverhampton Council and Active Black Country to discuss intervention ideas, revise project plan and timelines if necessary, and take into consideration any changes that need to be made due to current/ changing circumstances around vaccination and Covid-19 policies.
- The Behaviouralist recommends that the project goes ahead. We have identified several feasible routes through which to deliver and evaluate the project.

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# APPENDIX

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## 200 participants & objective data

### Pros:

- We can design the goal settings, timing of messaging, content of messaging, incentives, chat functionality and grouping.
- This provides a simple way of administering the challenge from a project management and data perspective.
- Objective data on physical activity through the whole challenge
- We can send push notifications to all / certain participants
- We can brand the[1] app with a logo for an extra cost (included in the price quoted below)
- People can access through the app on their phone or their computers.
- People can manually add their steps into the app in case they forget their phone or it runs out of battery[SA2]
- It has 24h support for users
- Goal-setting and other gamification elements already part of the app
- We can group people socially on the app.
- We can use surveys with a maximum of four questions during the sign-up process.

### Cons:

- In-built features that could add noise like providing daily feedback to participants
- Requires users to download the app, and either connect their wearable device (fitbit, apple watch...) or give access to the google fit / apple health feature already built on the vast majority of phones. If this is not activated, we would not have access to their PA levels
- Price could be a problem if we were to escalate this solution. £1,500 for 200 participants for access for 3 months. (685 dollars per month). However, this provides the opportunity to potentially develop a proof of concept would support future funding applications'
- GDPR compliance; however, they have worked with other customers and are GDPR compliant.
- People who are data-poor cannot use it

## 100 participants using subjective measures

Use a combination of different platforms (Mailchimp), integrating SMS functionality (<https://www.notifications.service.gov.uk>) and other tools to deliver.

Pros:

- Price - the cost of administering an SMS campaign we estimate at £100 in cost for SMS
- Full control over what is produced / delivered
- Resource is in place

Cons:

- Time of setting up and running costs (staff time and resource)
- No objective data on PA
- Running and maintaining online resources (leaderboards, progress +)
- Costs on staff time, administering and running emails
- When taken to scale this will increase
- Maintenance costs (e.g. managing and maintaining messaging).
- A website hosted at <https://www.wolverhampton.gov.uk>

**Overall: We would favour using the app as it allows us to measure physical activity objectively, and its costs would be taken care of by ABC . There is no randomisation in this step. Success in this step would be measured by the number of people who sign-up for the challenge**

# Project Partners Roles

## The City of Wolverhampton Council

- Recruitment facilitation and compliance – disseminating materials and engaging partner organisations and recruitment channels
- Prepare resources and materials for the intervention
- Co-Design and deliver the program
- Design signposting strategies for participants once they finish the programme

## ABC

- Recruitment facilitation and compliance – disseminating materials and engaging partner organisations and recruitment channels
- Prepare resources and materials for the intervention
- Co-Design and deliver the program
- Design signposting strategies for participants once they finish the programme
- Share the learnings from the programme across the network in the Black Country'

# Project Partners Roles

## The Behaviouralist

- Develop recruitment materials to be used during outreach.
- Prepare resources and materials for the intervention
- Ensure data gathering tools are in place and that they are GDPR compliant and reduce attrition
- Co-Design and deliver the program based on behavioural science principles
- Design signposting strategies for participants once they finish the programme
- Robust evaluation of the results

## Recruitment Partners

- Commitment to sharing and distributing materials through existing networks and channels
- Co-Design and deliver the program

## Contacts

[lan@thebehaviouralist.com](mailto:lan@thebehaviouralist.com)

[Shanara.Abdin@Wolverhampton.gov.uk](mailto:Shanara.Abdin@Wolverhampton.gov.uk)

[Michael\\_Salmon@blackcountryconsortium.co.uk](mailto:Michael_Salmon@blackcountryconsortium.co.uk)