

Applying behavioural insights to exercise referral programmes in Greater Manchester

Scoping report

July 2018

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A. Executive Summary

A.1 Background

GM Active, the Greater Manchester Combined Authority and the Greater Manchester Health and Social Care Partnership commissioned the Behavioural Insights Team to explore **how behavioural insights could help more people to begin and complete exercise referral programmes (ERPs).**

Physical activity is an important part of a healthy lifestyle and is particularly important for people managing long term health conditions.¹ Activity levels in Greater Manchester (GM) are lower than the England average.² This is a key priority for public bodies in the region, and programmes like GM Moving have been set up to promote more active lifestyles.³

Across GM there is already a significant investment in ERPs. These programmes are used by thousands of people across the region each year and are commissioned by both clinical commissioning groups (CCGs) and local authorities. ERPs aim to support people who are currently physically inactive, and have a long-term health condition, to become active by providing a structured programme of exercise and physical activity. The aim is that the person maintains this activity after the programme has finished. ERPs therefore have a crucial role to play in improving physical activity levels in the region.

Over 7,000 people last year completed an ERP in Greater Manchester. But over 6,000 people were referred on to a programme and did not complete it; half dropping out before the initial assessment and half dropping during the programme itself. Therefore, there is the potential to significantly increase the number of people benefitting from ERPs across GM.

This findings of this report are based on a desk-based review of ERPs across GM, fieldwork visits to two programmes, and an academic literature review.

A.2 Embedding behavioural insights into exercise referral programmes

We have identified a range of ideas for embedding behavioural insights into ERPs. These ideas are summarised using BIT's EAST framework for applying behavioural insights to public policy and public services.⁴ The EAST framework outlines four ways to use behavioural insights to encourage behaviour change; making things Easy, Attractive, Social and Timely. In addition to EAST, we have added a section focused on programme management and data collection (collect more data).

Make it easy

Making activities easy is a key tenet of behavioural science. The more effort we have to put in to something, the less likely we are to do it. Leveraging defaults, reducing hassle and simplifying messages are all good strategies for making signing up and attending an ERP easier.

Ideas for making it easier for people to start and finish ERPs are:

- Offer **default appointment** times for initial consultations by providing an appointment time straight away (i.e. do not wait for people to call to book an appointment)
- **Reduce the number of steps** required to book an initial appointment (e.g. by allowing GPs to schedule initial consultations directly at referral)
- Ensure participants leave their initial appointment with **recommended next steps** (i.e. what specific classes to attend)
- **Simplify** initial letters and text messages by using plain English, highlighting key actions and avoiding caveats

Make it attractive

Personalising messages, promoting benefits, and providing rewards are all ways to make services more attractive to potential participants.

Ideas for making ERPs more attractive are:

- **Personalise communications** by including **names**, specific **leisure centres** or even specific **referral reasons** in texts or letters
- Offer a **pro-social reward for programme completion**, like a free month of membership for a friend of the participant.
- Consider how to **apply temptation bundling** to ERPs. For example, this could be done by providing free audiobooks for participants to listen to while working out or by providing a free hot drink after a session.

Make it social

Social networks are important to us and have a big influence on our behaviour. For ERPs, it is particularly important to make sure participants feel comfortable on their visit to a class or gym. There is also the opportunity to create a community around participants, which may help them stick with the programme.

Ideas for making ERPs more social are:

- Advertise that participants can **bring a carer or personal assistant** for free.
- Offer a friends and family discount to **incentivise friends or relatives** to join
- **Test** whether an **invitation** or reminder **from a peer** (i.e. someone who is currently on the programme) increases attendance
- **Create a buddy system** between existing programme participants and new participants so they know there is a **friendly face** at their **first session**
- **Create** opportunities for **informal social contact** (e.g a hot drink after class)
- **Organise peer run group sessions** in the gym for specific conditions to encourage informal participant communities

Make it timely

It is hard for us to do something difficult now which benefits us in the future (like exercising). Good plans and commitment devices can help us stay on track. Prompts and feedback can also help us alter our behaviour for the better.

Ideas for making programme support in ERPs more timely are:

- Help people **make effective plans** by splitting a long-term goal into smaller sub-goals and introducing **implementation intention** (e.g. *if my car breaks down, then I will take the bus to the gym*)
- Introduce **signed commitment contracts** into initial assessments. Consider giving participants the option to make a **monetary deposit** which they will lose if they fail to meet their commitment
- Send **prompts reminding people to attend** assessments and classes
- **Make reminders more effective** by experimenting with different wording, timings and communication methods
- Give people interim feedback by making **mid-point check-ins** a more formal measure of progress
- Use **technology to provide more regular and detailed feedback**.

Collect more data

If we want more of the people who are referred to an ERP to complete the programme, we need to know more about why they are dropping out. During this project, we found that this data is not currently collected systematically.

Ideas for collecting more data on ERPs in GM are:

- Set up a system to **collect feedback from those who do not attend initial consultation**
- Set up a system to **record information on when people drop out** after initial consultation (i.e. after beginning but not completing an ERP)

A.3 Recommendations

If leisure organisations wish to act on the findings of this report, we have two recommendations for what they should do first (see Table 1 for more details)

Recommendations for applying behavioural insights to ERPs in GM are:

1. **Test changes to increase attendance at the initial assessment** by:
 - a. Making invitations and reminders easy and attractive, or
 - b. Changing the order, timing and messengers used in initial invitations.
2. **Test changes to improve persistence on programmes** by:
 - a. Getting over the hurdle of attending the first session, or
 - b. Helping participants to stick with, and complete, their ERP.

A.4 Evaluation

More rigorous forms of experimental or quasi-experimental evaluation (like randomised controlled trials) are the best way of measuring the impact of service changes. This is because they allow you to be much more confident that your change actually *caused* any improvement (or decline) you observe. However, these methods rely on large sample sizes, frequent measurements and comparable data. All of these will currently be difficult to achieve in GM.

We therefore recommend using a less rigorous evaluation method, such as a 'before and after' comparison, to evaluate the impact of our recommendations. However we suggest supplementing this with a qualitative evaluation of recommendation 2. We also urge caution in interpreting the findings of these evaluations, which would be indicative and which should be reviewed over time.

Table 1: Report recommendations

Recommendation	Options	Detailed ideas	Notes
1. Test one set of changes to increase attendance at the initial assessment.	1a. Making invitations and reminders easy and attractive.	<ul style="list-style-type: none"> Improving the clarity of initial communications, adding clear calls to action and simplifying the process Personalising initial messages using names, local centres and/or the reason someone has been referred 	<i>ERPs should choose this option if they feel they could improve the content of their existing communications.</i>
	1b. Changing the order, timing and messengers used in initial invitations.	<ul style="list-style-type: none"> Sending initial communications, or reminders, from a peer messenger rather than an ERO Testing different forms of communication (letter, SMS, call) and in different combination Testing different timings of initial communication (e.g. reminders a day or three days before the initial assessment) 	<i>ERPs should choose this option if they feel their existing invitations and reminders already incorporate the principles in 1a.</i>
2. Test one set of changes to improve persistence on the programme.	2a. Getting over the hurdle of attending the first session.	<ul style="list-style-type: none"> Getting the participant to plan and commit, during their initial consultation, to the specific sessions they will attend (e.g. I will attend chair yoga on Wednesday at noon) Providing a reminder SMS before the first session they planned to attend 	<i>ERPs should choose this option if they think attendance at a first class/session is more of a problem in their area.</i>
	2b. Helping participants to stick with, and complete, their ERP.	<ul style="list-style-type: none"> Getting participants to set effective plans by chunking their long-term goal into weekly sub-goals and to set implementation intentions (i.e. <i>if-then</i> plans) during the initial assessment Sending timely prompts (e.g. SMS messages) to remind people of their weekly sub-goals. Introducing signed commitment contracts to initial assessments. Asking the participant to write a letter to themselves and sending this to them later in the programme reminding them of their commitment. 	<i>ERPs should choose this option if they think they have a broader problem with persistence on their programme.</i>

B. Background

B.1 Background to this report

Behavioural insights have been used in a range of settings (including health and education) to improve uptake of programmes and courses without making substantial changes to programme design. In many settings, the small details about the way participants are invited, how information is phrased and whether people receive regular reminders can have a big impact on behaviour.

Given this background, GM Active, the Greater Manchester Combined Authority and the Greater Manchester Health and Social Care Partnership commissioned the Behavioural Insights Team to look at exercise referral programmes (ERPs) in Greater Manchester (GM). We were asked to explore **how behavioural insights can help more people to begin and complete ERPs.**ⁱ

This report sets out our findings, provides suggestions for how ERPs could incorporate behavioural insights, and makes recommendations for approaches that GM Active should consider testing in their ERPs.

B.2 Research approach

The findings from this report are based on three main stages of research:

1. **Desk-based review of programmes across GM.** The first step of this project was to collect as much information as possible about the structure of ERPs in GM. A summary of the findings from this desk research is included in the section on Impact & effectiveness of exercise referral programmes. The desk research confirmed that the structure of ERPs in GM is broadly consistent across boroughs. Given the large areas of similarity, we concluded that visiting

ⁱ This scope of this project included all elements of an ERP within the control of GM Active members (i.e. everything after a health professional has made a referral). It does not consider how to increase the quantity or quality of referrals made.

two leisure organisations would still allow us to present ideas and recommendations that would be applicable across GM.

2. **Fieldwork visits to two programmes.** We supplemented our desk-based research with visits to two leisure organisations, Oldham and Wigan. They were selected because they had a mix of completion rates, had both commissioned and non-commissioned programmes and were proactive in supporting our desk-based research. Our visits to Oldham and Wigan included interviews with the following people:

- ERP managers
- Exercise referral officers (ERP staff conducting assessments and creating structured exercise programmes)
- ERP participants (current & former)

During our visits, we observed several rehabilitation classes and sat in on both initial and exit assessments. We were also able to conduct phone interviews with three participants who had dropped out of the ERP due to severe medical circumstances (e.g. hospitalisation).

Unfortunately, we were not able to speak to anyone who had been referred but not attended an initial assessment, nor anyone who dropped out for a non-medical reason. We had planned on conducting phone interviews with these groups, but we were unable to identify any participants who would speak to us. Given this lack of data, we have included collecting information on drop outs as one of our ideas for improving ERPs in GM (see C.6 Collect more data).

In addition to the field work, we asked all leisure organisations to share the letters and text messages they send to participants and potential participants.

3. **Academic literature review.** We have conducted a review of academic studies on ERPs together with a review of the relevant behavioural science literature. The ERP literature review ensures we are placing our findings from field work and desk research within the context of the latest findings on ERPs. Reviewing

the behavioural literature ensures we are identifying relevant behaviours to target. It also provides the foundation for generating interventions based on what has worked in other, behaviourally-similar contexts.

B.3 Exercise referral programmes

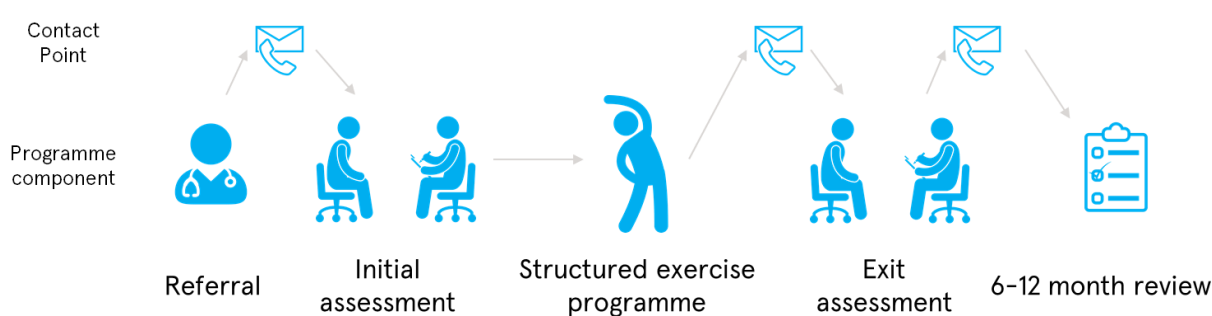
What are exercise referral programmes?

Exercise Referral Programmes (ERPs) are a way of supporting people who are physically inactive to begin taking part in regular physical activity. If they agree, people are referred by a health professional to an ERP (which is usually delivered by a leisure organisation). The aim is to support an inactive person to take part in a structured programme of exercise and physical activity and to help them continue exercising after the ERP has finished.

Most GM ERPs are commissioned by local councils and/or clinical commissioning groups (CCGs) and are delivered by Leisure and Community organisations (GM Active members).ⁱⁱ The members of GM Active manage the bulk of the publicly owned leisure and physical activity assets and services on behalf of the 10 local authorities, for the good of the whole population, across the of the City Region of Greater Manchester.⁵ All ERPs in GM target people with long-term health conditions or people at risk of developing long-term health conditions, as per NICE recommendations.

The details of different programmes vary across GM, in part because of differences in the services that councils and CCGs commission. However, all programmes have several core features in common:

Figure 1: Core features of ERPs in GM



ⁱⁱ Trafford's ERP is an exception as Trafford's leisure trust (Trafford Leisure) runs a non-commissioned, in-house scheme only; one of Oldham Community Leisure's programmes is also non-commissioned. The situation is also different in Bury, where leisure services remain directly provided by the council and where there is no external leisure trust.



1. **Referral.** People are referred onto the ERP by a health professional (often a GP or therapist) after a conversation about whether they would like to take part. Generally, people are referred either as the next stage on a specific rehabilitation pathway (e.g. following a stroke) or because they are physically inactive and have a long-term health condition.



2. **Initial contact to book an assessment.** The referral is passed on to the leisure organisation (either via fax or via an online system such as ReferAll). The leisure organisation then contacts the potential participant via phone, text message, email or letter to invite them to an initial assessment.



3. **Initial assessment.** The initial assessment lasts 30–60 minutes. During this time, an exercise referral officer (ERO) from the leisure organisation completes a comprehensive assessment with the participant. This tends to include exploring the participant's existing health conditions, medication, activity levels and attitudes toward their health (though the details vary a little between areas).



4. **Structured exercise programme.** After the assessment, the ERO will suggest possible activities for the participant to do (e.g. an exercise class or programme of swimming). Together, the referral officer and the participant create an exercise plan for the duration of the programme (between 8–26 weeks depending on the area of GM).
 - a. If this exercise plan includes going to the gym, the referral officer will usually book a separate gym induction session.
 - b. Participants begin their exercise plan following the initial assessment



5. **Follow up contacts.** The ERO who conducted the initial assessment tends to follow up at least once during the programme itself. This is done by telephone, text, email or in-person depending on the area. For those attending specific rehabilitation classes (usually those on the next step of a rehabilitation pathway),

the referral officer may also interact with them more regularly on an informal basis in and around the class.



6. **Exit assessment.** At the end of the 8–26 week programme, the referral officer invites the participant for another assessment to re-assess their health and activity levels. This “exit assessment” is held in person, by telephone or via online survey.



7. **6–12 month review.** Many programmes are also required to collect data on health status and activity levels at set points after completion of the programme. The most common data collection point is at 12 months after starting the programme. This is designed to measure the long-term impact of the ERP on participants’ health and activity levels

See F.1 Annex 1 for a detailed summary of ERP structures across GM.

Characteristics of participants in exercise referral programmes

Academic studies have found several patterns in the types of people who participant in ERPs. In this area, the quality of the evidence is quite strong compared to other areas of ERP research, due to the prevalence of randomised control trials and meta-analyses. Conditional on referral, the follow groups are more likely to participate in ERPs:

- ◆ Women⁶
- ◆ Older people⁷
- ◆ People with higher pre-existing levels of physical activity⁸
- ◆ People with access to private transport (e.g. a car)⁹
- ◆ People living in less deprived areas¹⁰
- ◆ People living in urban or sub-urban areas¹¹

Attendance does not vary by employment status, educational level, socioeconomic status, ethnicity, or relationship status.^{12 13} Interestingly, while women are more likely to participate in an ERP, they are also more likely than men to drop out.¹⁴

For ERPs in GM, we received data from several but not all of the ERPs on characteristics of participant populations. While we do not have a comprehensive picture, GM ERPs appear to have the following characteristics:ⁱⁱⁱ

- ◆ Across GM, the most common referral route is via General Practitioners (GPs). However, other health professionals (such as physiotherapists) contribute a significant portion of referrals as well.
- ◆ The majority of participants in ERPs in GM are above 50 years of age.
- ◆ The majority of participants are women, though there are individual programmes where this isn't the case.
- ◆ There is a relatively low number of participants from Black Asian and Minority Ethnic (BAME) backgrounds in ERPs compared to the general borough population.
- ◆ Participants from deprived areas are not less likely to participate in ERPs.

See F.2 Annex 2 for detailed data on participant characteristics by borough.

Impact & effectiveness of exercise referral programmes

ERPs can generally be separated into those which target three different groups of people:¹⁵

1. People who are inactive and have a chronic health condition (such as depression or COPD) or are undergoing rehabilitation following a serious health event (like a stroke or cardiac incident)

ⁱⁱⁱ Data on participant characteristics provided by leisure organisations in GM. Comparisons are not conditional on referral and thus likelihood of attending is compared to census data. Thus, differences in referral population may be driving the demographic differences.

2. People who are inactive and have a long-term health condition or are at risk of developing one (such as Type II Diabetes)
3. People who are inactive but otherwise healthy

The National Institute for Health and Care Excellence (NICE) has reviewed the clinical effectiveness of these different types of ERPs. NICE recommends ERPs for the first group of patients, namely people who are inactive and have a chronic health condition or are undergoing rehabilitation.¹⁶

NICE also found that there is evidence of a positive impact of ERPs for patients who are inactive and have, or are at risk of developing, long term health conditions. However, the impact of ERPs for this group of patients depends on whether programmes incorporate behavioural approaches like:¹⁷

- ◆ Setting goals and developing action plans
- ◆ Providing social support
- ◆ Tailoring interventions to individuals' needs e.g. considering the context in which individuals live and work and how motivated they are to change
- ◆ Monitoring progress and providing feedback

NICE did not find enough evidence to recommend exercise referral programmes targeting inactive but otherwise healthy people.^{18 19}

In light of the NICE recommendations, there is a strong case to be made for incorporating behavioural insights to improve the overall effectiveness of ERPs.

Exercise referral programme take-up and completion in GM

Take-up rates for ERPs can be seen as a funnel: of the total number referred, a proportion will attend an initial assessment. Of those who attend an initial assessment, a proportion will complete their structured exercise programme and exit assessments. For some ERPs, a final proportion will participate in a subsequent period of monitoring and/or subsidized fees.

ERPs in GM all have different take-up rates at different stages of the programme. Table 2 below describes the percentage of those referred who pass through each stage of the ERPs in GM.

Over 7000 people last year completed an ERP in GM. But over 6000 people were referred on to a programme and did not complete it, with half dropping out before the initial assessment, and the other half dropping out before the end of the exercise programme. Therefore, even before considering changes to increase referrals, there is the potential to significantly increase the number of people benefitting from ERPs across GM.

Table 2: Uptake and completion of ERPs based on total referrals

Programme	UPTAKE AND ADHERENCE RATES				Total number of referrals per year	Share of total referrals in GM
	% of those referred who attend an initial assessment	% of those referred who complete supervised programme	% of those referred who do post-programme follow up 1	% of those referred who do post-programme follow up 2		
Bolton (Middlebrook)*	no data	63%	65%	N/A	179	1%
Bury*	93%	87%	78%	56%	1498	11%
Oldham - REACH	89%	78%	50%	44%	298	2%
Oldham - in house	46%	21%	no data	no data	998	7%
Rochdale	75%	29%	no data	no data	1234	9%
Salford	77%	55%	no data	no data	1242	9%
Stockport	74%	47%	no data	no data	1583	12%
Tameside	80%	56%	no data	N/A	1500	11%
Trafford	67%	no data	no data	no data	1200	9%
Wigan	75%	53%	34%	no data	4074	30%

See F.2 Annex 3 for detailed information about ERP statistics including starred (*) data points.

C. Key Findings and Suggestions

C.1 Summary of key findings and suggestions

The key findings of this report summarise how we believe ERPs across GM could apply behavioural insights to increase uptake of programmes and/or support more people to complete them. The findings are summarised using BIT's EAST framework for applying behavioural insights to public policy and public services.²⁰ The EAST framework outlines four ways to use behavioural insights to encourage behaviour change, by making things Easy, Attractive, Social and Timely. In addition to EAST, we have added a section focused on programme management and data collection (C.6 Collect more data).

C.2 Make it easy

Summary: Making it easy

- Offer **default appointment** times for initial consultations by providing an appointment time straight away (i.e. do not wait for people to call to book an appointment)
- **Reduce the number of steps** required to book an initial appointment (for example by working with GPs to schedule initial consultations directly at referral)
- Ensure participants leave their initial appointment with **recommended next steps** (i.e. what specific classes to attend)
- **Simplify** initial letters and text messages by using plain English, highlighting key actions and avoiding caveats

Leverage defaults

When faced with a choice, people have a strong tendency to go with the default or pre-set option.²¹ This means that setting beneficial defaults can be a powerful way of encouraging a behaviour. For example, auto-enrolment into workplace pensions has dramatically increased retirement savings.²² Defaults can be particularly useful when there is uncertainty in decision-making or a resistance to change.²³

In the exercise referral process, defaults could be used by giving participants a pre-booked slot for their initial appointment. Sending letters with fixed appointment times increased the number of people attending cancer screenings, compared to those who received letters inviting them to make an appointment.²⁴ Participants should of course have an easy option to change or cancel the appointment, but programmes can leverage the default appointment time to get the process started.

Reduce the hassle of getting started

Inertia is a big driver of our behaviour and we can be put off completing a task by surprisingly small details. This means that reducing seemingly small hassles or frictions in a process can have disproportionately large effects on the take up of services. For example, in one project BIT found that the number of people completing an online tax form increased by 4 percentage points (from 19 to 23%) when we removed a single mouse click from the process.²⁵

In the process of signing up for an ERP, a participant has to take several proactive decisions and actions, including booking an initial appointment and attending it, deciding which classes they want to take part in and attending their first session.

These steps may not appear to be complicated. However, in combination they present lots of opportunities for people to drop out through forgetting to act, procrastinating or succumbing to indecision. ERPs should consider how to simplify as many of these processes as possible, removing the 'gaps' where people have the opportunity to drop out.

Box 1: Reducing the hassle factor by holding initial assessments at the GP's

Inspiring healthy lifestyles (Ihl) in Wigan has an arrangement with a GP practice to host the initial assessment for the ERP at the GP practice itself. An ERO from Ihl has set office hours at the GP practice for holding these assessments. The GP schedules assessments directly within those office hours. This eliminates an entire step of the recruitment process: booking an initial assessment.

Ihl reported that this GP practice had a higher referral rate and lower dropout rate than average for the programme. These strong results could also be due to the dedication of this particular GP. Even so, getting the initial assessment booked directly at referral reduces the risk of someone dropping out or getting lost between referral and booking an assessment.

Help people to decide what to do

People often say they value choice and qualitative research also noted that potential ERP participants said having a wide variety of different exercises available at flexible times was important to them.²⁶

However, behavioural science suggests that too much choice can backfire in ways we don't always predict: overwhelmed by information, we may fail to choose anything at all. Too much choice can lead us to avoid making a decision because we struggle to deal with the amount of information we are being given. This can be particularly problematic in situations where the person making the choice is not familiar with the options they are choosing from.²⁷ This seems likely for many participants on ERPs, who may never have taken part in structured exercise before.

One way to make this choice easier is for the ERO to recommend a specific activity for the participant to try. This already happens for many specialist rehabilitation schemes (i.e. stroke or cardiac rehabilitation schemes), where participants are clearly directed to attend the specialist classes. During the non-rehab consultations, the ERO does not always recommend one activity. Instead, they will recommend a group of activities, such as classes, outdoor activities or the gym.

We suggest that referral officers should ensure that every participant leaves the initial consultation with a clear next step (e.g. attend walking football on Wednesday at 17.00) and ideally with a defined weekly programme of activities and times. These choices can still reflect participants' preferences and motivations. However, identifying a clear set of next steps would reduce the risk that potential participants end up being put off by the range of options available.

Simplify messages

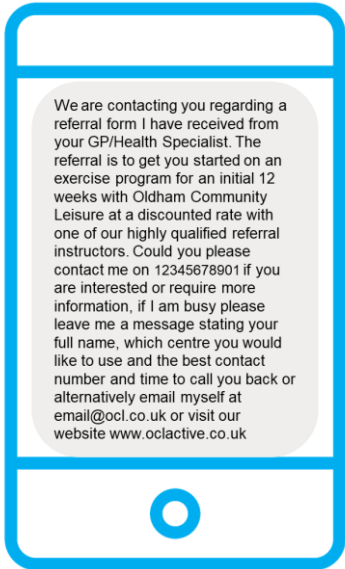
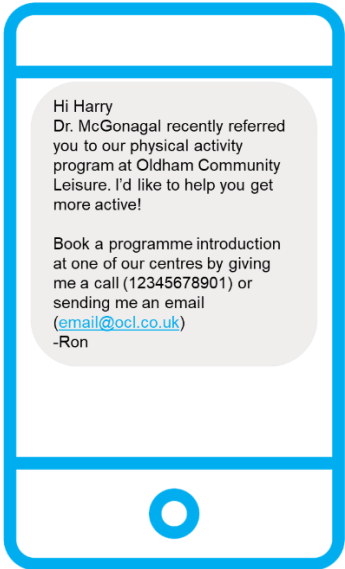
There is an opportunity to simplify the letters, emails and text messages that ERPs send to those referred onto an ERP. The clarity of written communications matters a lot. Complicated or unclear instructions will often be ignored or put off and forgotten. A BIT project with the Irish Tax & Revenue Commission that used a simplified version of a letter to get those who had not yet filed their income tax to do so led to a 5-6 percentage point increase in subsequent filing compared to the standard letter.²⁸

When simplifying messages, we suggest applying a few key principles:

- ◆ **Use plain English.** For example, “Physical activity” may not mean much to someone outside the sports sector.
- ◆ **Highlight key actions.** Make sure the reader is told, right at the top of the letter or text, what they need to do (e.g. ‘Book an appointment today’). Where more complex processes are unavoidable, break these down into smaller, clearer steps.
- ◆ **Avoid adding in lots of caveats or details.** These usually only apply to a small number of people. They can detract from your core message and are usually better discussed with the relevant groups later in the process.
- ◆ **Keep the language simple.** Nearly 15% of adults in England have a reading age lower than that expected of an 11-year-old.²⁹ Try to use short sentences and avoid complicated words or grammatical structures.

As part of this project, we asked all GM Active members to provide us with samples of the messages they send to people who have been referred on to their schemes. These messages, delivered by letter or text message, aim to encourage a potential participant to book and attend an initial consultation. We believe many of these messages could be improved by applying the principles above. Example 1 and Example 2 below provide an illustration of how this could be done.

Example 1: Simplifying the initial outreach message

Original	Simplified + Personalised
 <p>We are contacting you regarding a referral form I have received from your GP/Health Specialist. The referral is to get you started on an exercise program for an initial 12 weeks with Oldham Community Leisure at a discounted rate with one of our highly qualified referral instructors. Could you please contact me on 12345678901 if you are interested or require more information, if I am busy please leave me a message stating your full name, which centre you would like to use and the best contact number and time to call you back or alternatively email myself at email@ocl.co.uk or visit our website www.oclactive.co.uk</p>	 <p>Hi Harry Dr. McGonagal recently referred you to our physical activity program at Oldham Community Leisure. I'd like to help you get more active!</p> <p>Book a programme introduction at one of our centres by giving me a call (12345678901) or sending me an email (email@ocl.co.uk) -Ron</p>

Example 2: Clarifying the action required

Original	Clearer call to action
<p>Dear Harry,</p> <p>I am writing to let you know that unfortunately, you have missed your PARiS consultation.</p> <p>We understand that you may have forgotten about your appointment or a change in circumstances has meant that you were not able to attend on the day. If however you still wish to access the PARiS service, could you please call us on 0123 456 7890 (option 7) or email email@lifeleisure.net to rearrange your consultation or inform us if you no longer wish to continue.</p> <p>We will keep your referral open until >DATE<. If we had not heard from you before that date, we will assume that you no longer wish to access the PARiS service and your referral will be closed.</p> <p>We look forward to hearing from you soon.</p> <p>Yours Sincerely</p> <p>PARiS Scheme Life Leisure</p>	<p>Dear Harry,</p> <p>Please contact us to reschedule your PARiS consultation:</p> <p>Phone: 0123 456 7890 (option 7) Email: email@lifeleisure.net</p> <p>If we had not heard from you by >DATE<, we will assume that you no longer interested and your referral will be closed.</p> <p>We look forward to hearing from you soon.</p> <p>Yours Sincerely</p> <p>PARiS Scheme Life Leisure</p> <p><i>Physical Activity Referral in Stockport (PARiS) is the Exercise Referral scheme delivered by Life Leisure, designed to help inactive people with chronic mild to moderate medical conditions become and stay more physically active, whilst benefiting and improving their health</i></p>

C.3 Make it attractive

Summary: Making it attractive

- **Personalise communications** by including **names**, specific **leisure centres** or even specific **referral reasons** in texts or letters
- Offer a **pro-social reward for programme completion**, like a free month of membership for a friend of the participant.
- Consider how to **apply temptation bundling** to ERPs. For example, this could be done by providing free audiobooks that participants can listen to while working out or by providing a free hot drink after a session.

Personalise messages to attract attention

People are drawn to information that is personal and relevant to them. A good example of this is that we can pick out our own name being mentioned in a conversation across the room.³⁰ Personalising communication has increased response rates in a range of situations, including:

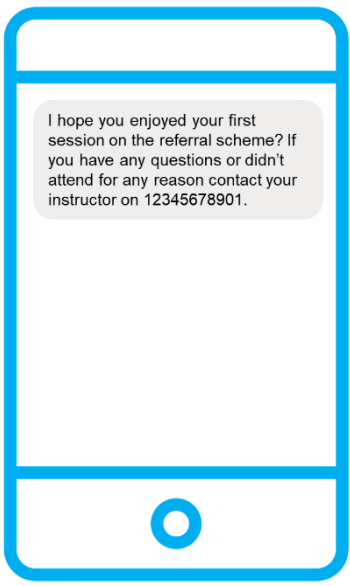
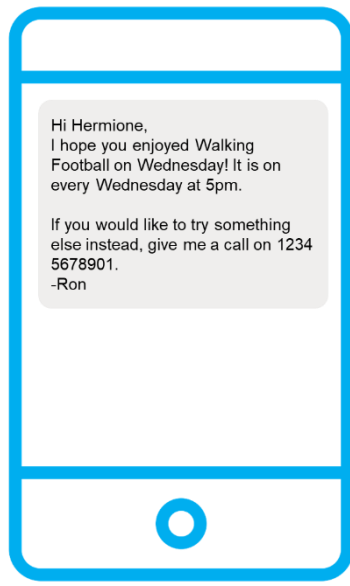
- ◆ Adding a handwritten note (increased survey response rates³¹ and sewer bill payments);³²
- ◆ Using a person's name in text messages (increased the payment of court fines);³³
- ◆ Including a customised message (increased doctors' repayment of outstanding tax debts).³⁴

There are several ways to personalise communications in ERPs. For example, initial letters or texts encouraging someone to book an assessment could include the person's name, the name of their referrer, or the reason they have been referred (see

Example 1).

Messages which are sent to check in on participants during the programme could also be personalised by referring to the specific activities they are doing.

Example 3: Personalising programme check-ins

Original	Personalised
 <p>I hope you enjoyed your first session on the referral scheme? If you have any questions or didn't attend for any reason contact your instructor on 12345678901.</p>	 <p>Hi Hermione, I hope you enjoyed Walking Football on Wednesday! It is on every Wednesday at 5pm. If you would like to try something else instead, give me a call on 1234 5678901. -Ron</p>

Many EROs are already personalising the messages they write to participants. For instance, one referral officer noted that they made sure to add the participant's name to text messages and to sign their own name at the end so the participant knew it came directly from them. However, this currently relies on individual officers taking the time to do this (often manually). ERPs should consider how this could be automated and made more systematic (for example through using ReferAll where it is available).

Highlight the potential benefits of taking part

The way information is framed can influence how we behave.³⁵ For example, people are more likely to opt for a product which is 90% fat-free than one which is 10% fat.³⁶

This difference between so-called ‘loss-framing’ and ‘gain-framing’ has been well studied in health. Should you focus on positive health effects (gain-framing) or on the negative impact (loss-framing) to convince someone to change their behaviour? In health messaging, loss-framing has been found to be effective when the behaviour you want to encourage involves early detection, such as encouraging people to go for cancer or HIV screenings.³⁷ By contrast, gain-framing has been found to be more effective in increasing preventive behaviours, such as physical activity.³⁸ Thus, this suggests that focusing on the positive effects, or gain-framing, is more likely to be effective to encourage people to exercise.

Use behavioural science to design effective rewards and sanctions

Another way to make activities attractive is to give people an incentive to do them. Traditionally, incentives are used to motivate people to act in a certain way. One way to incorporate incentives into ERPs would be to offer a reward to those who complete the programme. We suggest using ‘pro-social’ rewards, meaning rewards that benefit someone other than the participant themselves. There is evidence that when we help others, we feel happier.³⁹ A pro-social reward, such as offering a free month’s membership for a friend upon programme completion, builds on this finding and uses it as an incentive. Using pro-social rewards also incorporates social support in ERPs (see section: Involve friends and family).

Temptation bundling is another strategy to incentivise behaviour. This is a strategy which involves bundling together something we do not want to do (such as exercising) with something we want to do (such as having a catch-up with a friend). One study used this approach to encourage gym attendance. The researchers split participants into three groups:

- ◆ Group 1: Participants were given addictive audio books to listen to, but could only listen while at the gym;
- ◆ Group 2: Participants could access the audio books at any time but were encouraged to listen only at the gym;
- ◆ Group 3: Control condition where participants did not get audio books.

The first group, who could only listen to the audio books at the gym, were 29% more likely than the control group to go to the gym at least once a week. After the study, most participants (61%) even opted to pay to have gym-only access to iPods containing tempting audio books. Essentially, people were happy to pay to restrict their access so they could only listen to the books at the gym. The effect declined quite strongly after a holiday break, so temptation bundling may need to be re-promoted to maintain its effects.⁴⁰

Temptation bundling could be incorporated as part of ERPs. While the audiobook example may be too difficult or expensive to introduce, lighter touch versions of the approach could be possible. For example, organisations could offer a voucher for a free hot drink at the centre cafe after attending a class. This would also allow participants to socialise after the session.

C.4 Make it social

Summary: Making it social

- Advertise that participants can **bring a carer or personal assistant** for free.
- Offer a friends and family discount to **incentivise friends or relatives** to join
- **Test** whether an **invitation** or reminder **from a peer** (i.e. someone who is currently on the programme) increases attendance
- **Create a buddy system** between existing programme participants and new participants so they know there is **a friendly face** at their **first session**
- **Create** opportunities for **informal social contact** (e.g a hot drink after class)
- **Organise peer run group sessions** in the gym for specific conditions to encourage informal participant communities

Make people feel welcome

People referred on to ERPs are different from most leisure organisation visitors because they are not regular gym goers. In both our interviews and the academic literature, feeling nervous and intimidated by a gym came up as a strong barrier to

attending the first session.^{41 42} In addition, many of those referred on to ERPs have a medical condition that has had an impact on their mobility (for example a stroke). It is not difficult to imagine that this would make going into a gym environment all the more intimidating. Indeed, research has found that poor body image is a reason people do not participate in exercise referral schemes.⁴³ Participants we interviewed during our fieldwork said that the EROs have a big impact in making participants feel comfortable. This is also reflected in the literature.^{44 45}

In general, the programmes we observed already did this well. However, leisure organisations should consider how they can make the first ERP session as un-intimidating as possible. Small details (like needing to walk through the main gym in order to reach the rehabilitation class) were brought up by participants we interviewed and could have a disproportionately big impact on their experience of their first class.

Involve friends and family

Academic research on adherence to exercise programmes has found that involving another person (such as a peer or spouse) in lifestyle changes can help people to stick to their plans to exercise. The other person can remind them to keep going, act as a public commitment to change, make exercise more enjoyable and increase intrinsic motivation.⁴⁶ One study investigated the effect of spouse involvement on weight loss programmes by randomly assigning couples to attend weight management sessions either alone or with their spouse. They also signed attendance ‘contracts’ either individually or jointly. People who attended weight management sessions with their partners lost significantly more weight than those attending individually.⁴⁷

The leisure organisations we visited both have policies allowing carers or personal assistants to use centre facilities free of charge as long as they are accompanying the participant. During our field work, we also observed several carers helping participants during specialised classes. We suggest that ERPs make sure that participants are told about this opportunity early on in the process. Where this opportunity is not available, we suggest leisure organisations consider introducing the policy.

Another way of involving friends and significant others would be to offer a 'friends and family discount' to anyone referred to the ERP. This would allow one friend or family member to sign up together with the participant and receive some discount (e.g. the same subsidised fees as the ERP participant). This would cover those who do not need a carer or personal assistant but want someone to exercise with.

Help people get to the first session

During our fieldwork, almost all participants reported that they felt quite nervous before they had attended their first class or session. Once they attended, the nervousness often faded. This was because the instructors were friendly, the other participants were nice, and the activity itself was physically demanding but not excessively so. Some participants who had come from a rehabilitation pathway at a hospital or clinic also said that knowing someone from the previous rehab programme was attending the same class helped: it meant there was a "familiar face" on the first day.

We suggest taking steps to reduce the uncertainty around the initial consultation and the first class or session. This could be done in a number of ways:

1. **Having an initial, post-referral message (i.e. letter or text) from someone who has recently been on the programme instead of (or in addition to) an ERO.** Hearing from someone who was in your situation might reduce some of the anxiety associated with starting such a programme. Using a peer as a trusted messenger has worked in other settings: a BIT project with the Department for Education found that lower income students were more than 30% more likely to apply to and accept offers from selective universities after receiving letters of encouragement from peers (other lower income students attending selective universities).⁴⁸
2. **Appointing a buddy before the first class or session.** This buddy would be attending the same sessions and be further along in the programme and therefore able to offer advice and support. A BIT project for the National Citizen Service found that getting randomly allocated a buddy before the

programme made participants more likely to participate (85% of those without a buddy participated while 92% of those with a buddy participated).⁴⁹

Create a community

Being part of a community, and socialising with other participants, came up as a key benefit of ERPs in our fieldwork interviews. The academic literature also finds that sharing the experience with other participants is valuable. While group exercises may not suit everyone, being in a group helps create a less intimidating and more supportive environment.⁵⁰ Participants also noted that having contact with others who were at a later stage in the programme provided positive role models.⁵¹

We suggest leisure organisations consider how to strengthen belonging and companionship among ERP participants to help them to stick with the programme. This could be done in a few ways:

1. **Create opportunities for informal social contact.** For example, this could be as straightforward as setting out some tea bags, hot water and mugs after class. This gives participants the chance (and an excuse) to sit in the lobby and have a hot tea and chat after class.
2. **Create more condition-specific sessions.** During our field work, we found that participants really valued classes that were specialised for their condition. They reported feeling more comfortable because “everyone was in the same boat” and had gone through a similar experience. Many participants who had finished their formal ERP would still attend the specialised classes if there were empty slots. We suggest coordinating ‘peer sessions’. These would be dedicated times for people with a certain condition to work out together. To add some structure, a volunteer who had completed the programme could agree to act as informal hosts of the session (for example welcoming people). This would also provide a space to continue physical activity for participants who have completed their ERP and so are no longer able to participate in the supervised rehabilitation classes.

Provide social feedback

Providing social feedback (i.e. telling people how they compare to their peers) is a well-researched area of social psychology.⁵² Because we often take cues from how our peers behave, but can be mistaken about how our behaviour compares to those around us, providing specific feedback of this kind can encourage behaviour change. We have used this principle in a number of BIT projects:

- ◆ A BIT project with HMRC found that including information on social norms in letters ('Nine out of ten people in the UK pay their tax on time. You are currently in the very small minority of people who have not paid us yet') significantly increased debt payment compared to the standard letter.⁵³
- ◆ A BIT project with Public Health England sent letters to GPs informing them if they were prescribing antibiotics at a high rate compared to other GPs in their local area. The behaviourally-informed letter reduced the amount of antibiotics that GPs were prescribing by 3.3 percentage points – a reduction in over 70,000 instances of antibiotic prescription.⁵⁴

Note that social norms can backfire if only a minority engages in the desired behaviour,⁵⁵ if the individual is over performing compared to the average, or if people do not feel they are part of the community to which they are being compared.⁵⁶

An innovative example of a leisure organisation leveraging this type of social feedback is Ihl in Wigan influencing the behaviour of GPs referring into the ERP (see Box 2). While referral behaviour is out of scope for this report, the approach explained in Box 2 is an interesting example of how to incorporate social feedback in ERPs.

Box 2: ERP newsletter compares referral rates across GP clusters

Wigan sends out a newsletter to each GP cluster in the area with updates on their ERP, the Activity Referral Scheme (ARS). There is a section of this newsletter that compares referrals, attendance and completion rates by GP practice.

Qtr. 1: April 2017 – June 2017

Practice	Number of patients who attended ARS appointment	Adherence after 12 weeks (%)	Number of patients who did not attend
Practice A	13	100%	5
Practice B	13	100%	4
Practice C	11	90%	2
Practice D	11	67%	0
Practice E	11	43%	2
Practice F	7	43%	4
Practice G	7	40%	9
Practice H	4	100%	3
Practice I	4	50%	2
Practice J	3	100%	1
Practice K	1	100%	0

A way to make this newsletter even more effective would be to personalise the statistics by GP practice. This would allow you to inform poor performers that they are underperforming compared to the cluster norm. But it would also allow you to tailor the message to strong performers and avoid giving them license to relax.

C.5 Make it timely

Summary: Making it timely

- Help people **make effective plans** by splitting a long-term goal into smaller sub-goals and introducing **implementation intention** (e.g. *if my car breaks down, then I will take the bus to the gym*)
- Introduce **signed commitment contracts** into initial assessments. Consider giving participants the option to make a **monetary deposit** which they will lose if they fail to meet their commitment
- Send prompts **reminding people to attend** assessments and classes
- **Make reminders more effective** by experimenting with different wording, timings and communication methods
- Give people interim feedback by making **mid-point check-ins** a more formal measure of progress
- Use **technology to provide more regular and detailed feedback**.

Help people to make effective plans

There was an assumption among many participants we interviewed that people who didn't complete the ERP were not motivated enough. But behavioural research has shown that there is often a gap between our intentions and our actions: even motivated people might not follow through on their intentions because they forget or procrastinate.^{57 58}

Helping people to set concrete goals can support them to better manage their own health.⁵⁹ Goal-setting and planning are well-studied in the behavioural science literature, and there are several techniques that can make plans much more effective.

- ◆ **Chunking.** Achieving goals can also be made much easier, and less intimidating, by breaking big, longer-term goals down into small 'chunks' or sub-goals.⁶⁰ This helps people to see how the long-term goal can be reached through smaller steps, and also gives people a small reward and feeling of accomplishment as they reach each sub-goal. In ERPs, this could be done by

clearly breaking the programme down into smaller sub-goals for the first week, first month and subsequent months. These could be as simple as attending a class twice during the first week, or being able to complete a particular exercise for a full two minutes by the end of the first month.

- ◆ **Setting implementation intentions.** Another effective way to help people achieve their goals is to get them to set so-called ‘implementation intentions’.⁶¹ A meta-analysis of 94 independent tests⁶² found that setting implementation intentions had a medium-to-large effect on people’s likelihood to achieve a goal for many health-related behaviours, including physical activity.⁶³ Setting an implementation intention involves thinking about a goal and the obstacles to achieving the goal. The next step is to create “if-then” plans to take advantage of opportunities or overcome barriers when they arise. For example, one obstacle to physical activity is transport. Therefore, the plan could be “*if my car is in for repair, then I will ask my son to give me a ride to the leisure centre.*”

Use commitment devices

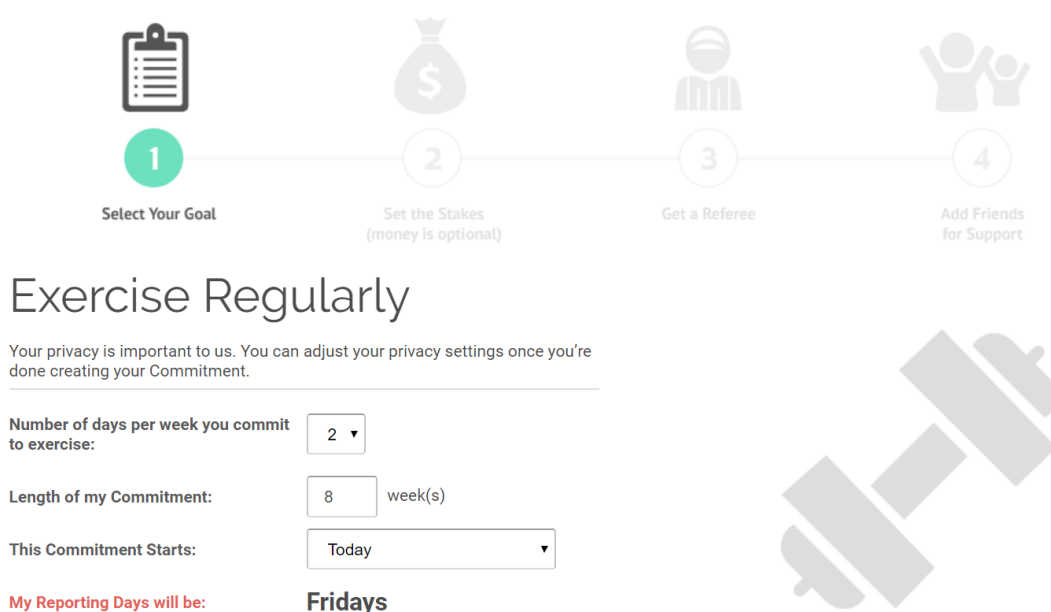
Another way to bridge the gap between what people intend to do and what they actually do is to use commitment devices.⁶⁴ These involve people committing to a future action and taking active steps to ‘lock themselves’ into this plan. A common form of commitment device is a behavioural contract, where people sign an agreement binding themselves to future activities, and often include defined rewards (or penalties) for achieving or failing to achieve their commitment.⁶⁵ Commitment devices could be used in ERPs in two ways:

- ◆ **Making a clear, signed commitment to EROs.** ERPs could incorporate commitment devices during the initial consultation; asking participants to make a signed commitment with their ERO about what they will do during the first week or month of the programme (e.g. I will attend at least two rehabilitation classes each week). This has been tried in other health contexts. For example, a small study found that postmenopausal women were more likely to reach their activity goals after six weeks if they signed a

behavioural contract in the presence of their counsellor.⁶⁶ ERPs could incorporate this approach using free online tools such as [Stickk](#), which allow anyone to set goals and monitor them (see Figure 2).

- ◆ **Putting money on the line.** Providing a monetary pre-commitment can also be effective. In a study looking at smoking cessation, asking people to make a deposit of their own money (which would be lost if they did not achieve their goal) led to a significant increase in the number of people stopping smoking, with quitting rates as high as 52%.⁶⁷ Stickk (introduced above) gives participants the opportunity to do this when setting goals.

Figure 2: [Stickk](#), the free online commitment contract



The screenshot shows the Stickk website interface. At the top, there are four numbered steps in a horizontal line: 1. Select Your Goal (with a clipboard icon), 2. Set the Stakes (money is optional) (with a money bag icon), 3. Get a Referee (with a person icon), and 4. Add Friends for Support (with a group of people icon). Below this, the main heading is 'Exercise Regularly'. A privacy notice states: 'Your privacy is important to us. You can adjust your privacy settings once you're done creating your Commitment.' The form includes three input fields: 'Number of days per week you commit to exercise:' with a dropdown menu showing '2', 'Length of my Commitment:' with a text input '8' and 'week(s)', and 'This Commitment Starts:' with a dropdown menu showing 'Today'. Below these fields, it says 'My Reporting Days will be: Fridays'. On the right side of the form, there is a large, faint illustration of a dumbbell.

Send timely prompts

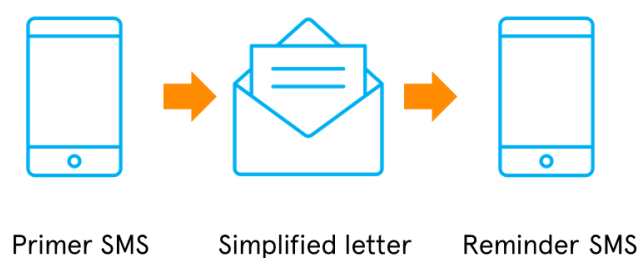
Forgetfulness and procrastination are crucial reasons for non-attendance at appointments and services.⁶⁸ Reminders can help to overcome these reasons for non-attendance and a lot of research demonstrates the positive effect of SMS reminders,^{69 70 71} postal communications,⁷² and phone calls.⁷³ For example, a trial in

the UK increased uptake of breast cancer screening by approximately 5 percentage points by texting women two days before their appointment.⁷⁴

There are a range of ways ERPs could introduce timely prompts:

- ◆ **Introduce reminders if they don't already exist.** Many leisure organisations already send reminders the day before or day of the initial consultation. We would encourage those who do not already do this to consider introducing routine reminders.
- ◆ **Test different forms of communication and orders.** There is some evidence from other health contexts that the form of communication (e.g. SMS, letter, phone) and order in which reminders are sent can have an impact. A BIT project with the Department of Health found that the combination of a primer SMS, followed by a letter with a clear call to action and a reminder text message increased attendance at NHS health checks by 12 percentage points (from 18% to 30%) compared to the original letter (see Figure 3).⁷⁵
- ◆ **Test variations in the wording of reminders.** Beyond the effect of simply sending reminders, the behavioural literature also suggests that it is possible to make reminders even more effective by using different phrasing, frequency or sequencing of the messaging.⁷⁶ For instance, messages received on the day of the appointment, providing information about the location or offering rewards for attendance perform better than standard reminders.⁷⁷ A BIT project found that sending people a reminder which highlighted the cost to the NHS of a missed appointment reduced non-attendance at the hospital by 23% compared to a standard message.⁷⁸
- ◆ **Introduce reminders beyond the initial assessment.** ERPs could also consider incorporating text message reminders before the first class or session that the participant has committed to attending. Participants could even be given the option to opt in to weekly session reminders.

Figure 3: Outreach combination for increasing NHS Health Checks attendance



Give people feedback on their performance

Feedback is central to how we learn. Getting feedback on our behaviour gives us information about how we're performing (which is not always obvious to us) and presents an opportunity to adjust our behaviour.⁷⁹ Personalised feedback is important for habit formation as well. Habit formation involves gradually learning an association between the context and a response, meaning once individuals have developed a habit, the context automatically triggers the behaviour.⁸⁰

We believe there are significant opportunities to improve the way that ERPs provide feedback to participants:

- ◆ **Introduce more systematic mid-point check-ins.** Given the importance of feedback to habit formation and behaviour change, we think leisure organisations should consider ensuring that there is a mid-point check in for all participants to check on their status and re-visit goals and intentions. While almost all exercise referral schemes have a mid-point check-in, few seem to measure any participant progress at this point and the check-in is often viewed (formally or informally) as optional. Adding this as a more formal measurement point could give participants feedback on their progress and also help programme staff to work out who has stuck with the programme.
- ◆ **Give people more regular personal feedback.** Building on creating more systematic mid-point check-ins, leisure organisations could explore how to give people more regular (i.e. weekly) feedback on their behaviour. This could be as straightforward as letting them know how often they have attended, or asking them to log this themselves (e.g. using Stickk). Alternatively, apps and wearable technologies (like Fitbits) can also provide much more regular and detailed feedback. BIT has run a number of trials on the impact of wearable technologies. For example in one trial with a health insurance company, men who received personalised messages relating to their step count goals each week significantly increased their daily step count. For women, there was no change.⁸¹
- ◆ **Put people into teams and provide team feedback.** Performance feedback does not need to be individual. BIT has also run several trials exploring the impact of putting people into teams and providing feedback, and targets, on team rather than individual improvement. For example, in one trial BIT compared generic versus personalised team performance feedback on a step count challenge. The personalised feedback included the team's current rank, the most active individuals and how far they were from the lead team. This personalised feedback significantly outperformed the generic feedback. Interestingly, the intervention had the biggest impact on women and the least

active prior to the trial.⁸² In the context of ERPs, measurement should focus on improvement rather than absolute figures to allow for different starting points.

These trials demonstrate how personalised feedback and competition can impact physical activity. Some leisure organisations are already leveraging technology as part of their programmes (Box 3).

Box 3: Activity Referral Scheme+ introducing activity trackers in ERPs

Ihl in Wigan is piloting the Activity Referral Scheme+ (ARS+) which offers participants eligible for the Ihl ERP to access a free Garmin Vivoki activity tracker



to get feedback their physical activity.

For participants who do not have their own smartphone, Wi-Fi hubs are set up in the Wigan and Leigh Healthy Routes shops for participants to download their activity information directly to the Ihl database without the need for a smartphone application. Liverpool John Moore's University are in the process of collating data from this pilot and will be reporting results in September 2018.

C.6 Collect more data

Summary: Collecting more data

- Set up a system to **collect feedback from those who do not attend initial consultation**
- Set up a system to **record information on when people drop out** after initial consultation (i.e. after beginning but not completing an ERP)

Feedback is important not only in individual behaviour change, but also for helping organisations to improve what they do. During this project, we found that there was often a lack of data on two groups of ERP participants in particular:

- ◆ People who do not attend an initial consultation
- ◆ People who have attended an initial consultation but who do not complete the exercise programme

We imagine that these two groups contain a mix of people: some whose condition worsened, others who were anxious about an exercise class, and some who are uninterested in getting active. Without more systematic data, it is difficult to know if this is true, and impossible to know which reasons are more important.

For the group that attended an initial consultation but dropped out along the way, it would also be interesting to know when they dropped out. At present, there is no data about when participants are dropping out of ERPs in GM. Knowing when people dropped out could help us spot patterns: do most people drop out after the first week? Do people who start prior to the Christmas holidays have a hard time picking up afterwards? There is evidence in education that adult learners are more likely to drop off during the first third of the course.⁸³ If there was a systematic measurement of when people dropped off, it would be easier to understand why it is happening and easier to design interventions to tackle the problem.

As an example, a previous BIT project with adult learners found that many people were dropping out after missing two lessons in a row. They would drop out fearing that they would not be able to catch up. With this insight, the programme targeted this group with a buddy system. The students knew they could go to their buddy for information on what missed and get help to join back in.⁸⁴

Both groups (non-attenders and drop-outs) are difficult to reach. In particular those who do not respond to initial outreach may be unlikely to respond to a request for information about why they didn't want to take part. But leisure organisations are already reaching out to this group to ask them to schedule or reschedule an assessment. There is an opportunity to ask for feedback simultaneously. As for those who drop out after starting the programme, even if we cannot find out why they dropped out, recording when they dropped out would be valuable extra information.

D. Recommendations and evaluation

D.1. Recommended changes

This report includes many ideas for how to use behavioural science to increase the number of participants attending an initial consultation and completing an 8-26 week exercise programme. In forming our recommendations, we have focussed on three key stages of the ERP: the initial assessment, attendance at a first class/session, and subsequent attendance. We have also considered the potential impact, feasibility and measurability of different changes, as well as how and where multiple ideas might complement each other.

If leisure organisations wish to act on the findings of this report, Table 3 (below) sets out our recommendations for what they should do first.

Table 3: Recommendations

Recommendation	Options	Notes
1. Test one set of changes to increase attendance at the initial assessment.	1a. Making invitations and reminders easy and attractive.	<i>ERPs should choose this option if they feel they could improve the content of their existing invitations and reminders.</i>
	1b. Changing the order, timing and messengers used in initial invitations.	<i>ERPs should choose this option if they feel their existing invitations and reminders already incorporate the principles in 1a.</i>
2. Test one set of changes to improve persistence on the programme.	2a. Getting over the hurdle of attending the first session.	<i>ERPs should choose this option if they think attendance at a first class/session is more of a problem in their area.</i>
	2b. Helping participants to stick with, and complete, their ERP.	<i>ERPs should choose this option if they think they have a broader problem with persistence on the programme.</i>

D.2 Recommendation 1: Test changes to increase attendance at the initial assessment

Target

This recommendation targets the roughly 25% of people who are referred and who do not end up attending their initial assessment appointment (and thus do not complete the programme).

Suggested approach

There are two groups of changes in this recommendation. The first group focuses on improving the written content of invitation and reminder messages. The second concentrates on improving the timing, delivery approach and messenger used in messages.

1a. Making invitations and reminders easy and attractive.

Where ERPs feel they could improve the existing content of their letters, emails or SMS messages they should concentrate on this by:

- ◆ Improving the clarity of initial communications, adding clear calls to action and simplifying the process
- ◆ Personalising initial messages using names, local centres and/or the reason someone has been referred

1b. Changing the order, timing and messengers used in initial invitations

Where ERPs feel that they have already incorporated the insights from 1a, we suggest they move beyond written content to look at different messengers, outreach methods and timings of communications by testing a combination of the following options:

- ◆ Sending initial communications, or reminders, from a peer messenger rather than an ERO

- ◆ Testing different forms of communication (letter, SMS, call) and in different combinations
- ◆ Testing different timings of initial communication (e.g. reminders a day or three days before the initial assessment).

D.3 Recommendation 2: Test changes to improve persistence on the programme

Target

This recommendation targets the roughly 25% of people who are referred, attend their initial assessment but then drop out before the end of the programme.

Suggested approach

There is very little data about ongoing attendance in ERPs on a week-by-week basis. It is therefore difficult to know at what stage participants drop out. As such, Recommendation 2a concentrates on supporting people to attend their first session or class (after their initial assessment). Recommendation 2b concentrates on supporting people to persist to the end of the programme. We leave it up to individual ERPs to determine what they believe is a larger problem in their area, but recommend only testing one of the two approaches initially.

2a. Getting over the hurdle of attending the first session

The participants and EROs we interviewed identified the first session, whether a class or gym session, as a particularly difficult moment. Participants reported being intimidated by the gym environment and not knowing anybody other than the instructor. Further, for those who are not attending specific rehabilitation classes, they may have a significant number of choices about what to do. This combination of many choices, and an aversion to acting, is a lethal combination which we think could be leading many participants to procrastinate or put off beginning their ERP.

We recommend making changes to both the initial assessment, and the period between it and the first class, to help people make it to their first activity. In particular, we suggest testing the following changes:

- ◆ Getting the participant to plan and commit, during their initial assessment, to the specific sessions they will attend (e.g. “I will attend chair yoga on Wednesday at noon”)
- ◆ Providing a reminder text message before the first session they planned to attend

These changes would be moderately difficult to implement, but we believe they could be put in place in any area which uses ReferAll (which enables staff to schedule automatic text messages).

2a. Helping participants to stick with, and complete, their ERP

We recommend introducing timely, light touch communication during the programme to encourage participants to keep going. Because we do not know at what point during the programme people drop out, this recommendation is focused on providing timely support throughout. In particular, we suggest testing a combination of the following approaches:

- ◆ Getting participants to set effective plans by chunking their long-term goal into weekly sub-goals and to set implementation intentions during the initial assessment
- ◆ Sending timely prompts (e.g. text messages) to remind people of their weekly sub-goals
- ◆ Introducing signed commitment contracts to initial assessments
- ◆ Asking the participant to write a letter to themselves and sending this to them later in the programme reminding them of their commitment.

This recommendation could leverage free platforms such as Stickk to help structure the discussion during the initial assessment. Even so, this recommendation would

require substantially restructuring the initial assessment as well as introducing new communications touchpoints throughout the programme. For these reasons, we assume this recommendation will be the most difficult to implement.

D.4 Challenges for rigorous evaluation

BIT generally recommends and favours reasonably rigorous forms of quantitative evaluation. For example, we often seek to measure the impact of our work using randomised controlled trials (RCTs).^{iv}

We recommend these approaches over more straightforward ‘before and after’ comparisons because these more straightforward evaluations do not establish causality. While you may see an improvement in your outcome, you cannot be sure that it is due to the change you have made. Many programmes and services experience variations in their performance (e.g. seasonal peaks in recycling or increases in health referrals over winter). More rigorous evaluations give you more confidence that the improvement you observe happened because of the changes you introduced, rather than happening irrespective of any changes.

However, there are a range of factors that will make evaluating our recommendations using a rigorous, quantitative approach difficult for leisure organisations in GM:

- ◆ **Small sample sizes.** To run RCTs, you need a large enough pool of potential participants. The more participants you have, the smaller the size of change you can confidently measure. We would need more information to provide a specific figure for the number of participants we would suggest to test our recommendations. However, we expect an RCT to test any of our recommendations would need to involve at least 2–3,000 participants. Even if we were trying to increase uptake of initial assessments (the part of the journey with the largest number of participants) this would require a

^{iv} RCTs involve randomly allocating some people to receive one version of a letter/process and other people to receive a different version. You then measure the outcome you are interested in for each group (e.g. attendance at an assessment appointment). For more information on conducting RCTs, see Test, Learn, Adapt, BIT, 2013: <https://www.behaviouralinsights.co.uk/publications/test-learn-adapt-developing-public-policy-with-randomised-controlled-trials/>

trial to involve several leisure organisations and last several months. This would be logistically difficult to do (as this would mean staff randomly allocating participants to different initial communications for this whole period).

- ◆ **Infrequent measurement.** Most leisure organisations do not have much data about programme persistence beyond uptake of initial assessments and completion of a closing review after the main bulk of the programme is complete (8–26 weeks). This allows for only a broad measurement of persistence, namely if someone drops out or completes the programme. Measuring persistence in more detail is very difficult due to software limitations (i.e. would have to be measured manually). The only potential opportunity here is to partner with Wigan (or another leisure organisation with a similar programme), who have introduced a Fitbit trial. Information from wearables and Fitbits would provide much richer data on people's involvement and participation in the ERP and may open up additional evaluation options.
- ◆ **Incomparable measurement.** While ERPs have a similar structure, they do vary in length and check-ins are carried out at different periods. This means running a trial across multiple leisure organisations (and even comparing performance in one leisure organisation to another) is difficult because it may not be a fair comparison.

D.5 Suggested evaluation approach

Due to the data challenges mentioned above, we suggest that GM Active members who want to implement our recommendations should evaluate them using a simple 'before and after' comparison of uptake or persistence rates.

- ◆ **For Recommendation 1**, this 'before and after' comparison would be straightforward to set up and could be implemented by any area. There is already significant evidence in other contexts about the effect of simplifying and personalising communications. In addition, the cost to ERPs of implementing this recommendation would be low. In this context, we believe

a simpler, but less conclusive evaluation is justified. To provide some additional confidence, we recommend continuing to review the impact of changes over time to see if they persist. We also urge caution in over interpreting small differences, which could be due to random fluctuation or some other confounding factor.

- ◆ **For Recommendation 2**, we would suggest supplementing the ‘before and after’ comparison with a qualitative evaluation. This qualitative evaluation would involve interviewing participants and EROs to understand how they have experienced the changes. We believe this would provide some additional confidence that any improvement seen after the recommendations have been implemented is not just a chance fluctuation.

We also recommend that GM Active members consider how to improve automated data collection (See C.6 Collect more data). This will help ERPs to identify where in the programme participants are most likely to drop out. If there were better quality data, it would also be easier to more accurately measure the impact of any changes in future.

E. Annex

F.1 Annex 1: ERP structures by borough

Table 4 Summary of ERP structures across GM

Programme	REFERRAL		INITIAL ASSESSMENT			SUPERVISED EXERCISE PROGRAMME				POST SUPERVISED PROGRAMME	
	Number of contact attempts made	How contact is made	Assessment reminder sent	Duration of assessment	Add'l gym induction needed	Duration of programme	Number of (non-class) ERO contacts during programme	How ERO makes contact	How is exit assessment conducted	ERO contacts points	How ERO makes contact
Bolton (Middlebrook)	3	Email, Text, Call	Yes	45 min	No	9 weeks	3	?	Meeting	12 months	Phone, Email (survey)
Bury	3+	SMS, Phone, Letter	Yes	60 min	Yes	12 weeks*	3	Meet, SMS, Email, letter	meeting	12 months*	Letter, refer into other health services
Oldham - REACH	2	SMS/Letter	Yes	45 min	No	16 Weeks	2	Meet	Meeting	12 Months	Meeting/Phone/Survey
Oldham - in house	3+	SMS, Phone, Letter	Yes	45 min	Yes	12 weeks	1*	Phone	Meeting	12 months	SMS, Meeting
Rochdale	3	SMS, Phone, Letter	Yes	60 min	Yes	12 weeks	4	SMS, Phone, Meet	Meeting	-	-
Salford	3	Phone, Phone, Letter	No	30 min	No	12 weeks	None*	Phone	Survey	6 months 12 months	Letter
Stockport	3+	SMS, Phone, Letter	Yes	45 min	Yes	26 weeks	5*	SMS, Meet, phone	Meeting/survey online/post	12 months	SMS, Meeting, survey online or post
Tameside	1	?	?	?	No	24 weeks	?	?	Meeting	12 months	Meeting
Trafford	3+	Email, Phone	Yes	60 min	Yes	8 weeks	3	Email, SMS	Meeting	3 months 6 months 9 months 12 months	Email (survey)
Wigan	3+	SMS*	Yes	60 min	Yes	12 weeks	3-5	auto SMS, Phone	Meeting or email (survey)	12 months	Email (survey)

Table 4 summarises ERP structures across GM. The starred (*) data points require additional explanation:

Bury	Bury Council's ERP, 'BEATS', begins with close supervision during the first 12 weeks. After 12 weeks, 'BEATS' offers proactive support to participants for the remaining 40 weeks of a year.
Oldham	Oldham Leisure Centre's in-house ERP only officially includes one check-in during weeks 10/11, however there is often an informal check-in at week 4 to see how the participant is doing.
Salford	For Salford Community Leisure, there is a follow-up if the participant fails to show up for a class. However there is no regularly scheduled check-in during the programme.
Stockport	Stockport's PARiS scheme follows up with participants every 6 weeks for 12 months.
Wigan	Inspiring health lifestyles has tested sending letters instead of SMS messages and found that they did not increase uptake enough to justify the time and cost of sending a letter.

F.2 Annex 2: Participant characteristics by borough

Table 5 below summarises participant characteristics by borough. The information is aggregated from the data on individual programmes that each ERP provided as part of this project.

Table 5: Participant characteristics by borough

Programme	More women than men	Low number of BAME ¹	Majority over 50 years old	GPs are biggest referrers	Deprived less likely to take up program
Bolton (Middlebrook)	-	-	-	-	-
Bury	Yes	Yes	Yes	-	No
Oldham - REACH	No	Yes	Yes	Yes	-
Oldham - in house	Yes	-	Yes	Yes	-
Rochdale	-	-	-	-	-
Salford	No ²	-	Yes	No ³	-
Stockport	Yes	No	Yes	-	Yes
Tameside	Yes	Yes	Yes	Yes	No
Trafford	-	-	-	-	-
Wigan	Yes	Yes	Yes	Yes	No

Notes: None of these characteristics are conditional on referral, meaning they could be reflecting referral rates rather than participation rates. 1) BAME percentage in programme compared to BAME percentage in borough according to 2011 Census; 2) Different programmes have different gender ratios; 3) Care on call is biggest referrer

F.3 Annex 3: Uptake and completion of ERPs based on total referrals

Table 2 showed the uptake and completion rates for ERPs across GM. The data is taken from materials received from the ERPs themselves. We have included a more detailed explanation of the source data and the starred (*) data:

Bolton – Middlebrook	Bolton Middlebrook Leisure Trust’s ERP data is from 2014/2015, which is the most recent year for which data is available. The 179 listed as the number of referrals is not the total number of people referred, but the number of people that met with programme staff. The statistics from Bolton are not based on the same denominator as the statistics from other boroughs (total number of referrals) and thus are not comparable to other boroughs.
Bury	Bury Exercise and Therapy Scheme (BEATS) data is based on figures from September 2017–May 2018, meaning that numbers do not represent a full year of operations.
Oldham – REACH	Oldham Leisure Centre’s REACH data based on figures from the programme’s Annual Report 2016–17
Oldham – in house	Oldham Leisure Centre’s in house ERP data based on figures from the programme’s Annual Report 2016–17
Rochdale	Rochdale’s Link4Life Exercise Referral Scheme is in its first year
Salford	Salford Community Leisure’s Active Lifestyle ERP data is from 2017–2018
Stockport	Stockport’s PARiS scheme data is from Oct 2016–September 2017
Tameside	Data for total referrals is from the 2016–17 Annual Report while the statistics are based on data from July 2015 – December 2017
Trafford	Trafford Community Leisure’s ERP are in their first year of a new reporting system. The statistics on uptake are based on the number of people who have joined as members from referrals
Wigan	Wigan Inspiring health lifestyles data is based on 2017–2018

F4. Annex 4: Tips for writing behaviourally informed communications

- ◆ **Use plain English.** For example, “Physical activity” may not mean much to someone outside the sports sector.
- ◆ **Highlight key actions.** Make sure the reader is told, right at the top of the letter or text, what they need to do (e.g. ‘Book an appointment today’). Where more complex processes are unavoidable, break these down into smaller, clearer steps.
- ◆ **Avoid adding in lots of caveats or details.** These usually only apply to a small number of people. They can detract from your core message and are usually better discussed with the relevant groups at the next stage of the process.
- ◆ **Keep the language simple.** Nearly 15% of adults in England have a reading age lower than that expected of an 11-year-old.⁸⁵ Try to use short sentences and avoid complicated words or grammatical structures.
- ◆ **Personalise messages.** Use the person’s name, the name of their referrer or reason for their referral in initial outreach. Mention the activities they have been doing during check-ins. Sign off messages with your name.
- ◆ **Test sending the initial, post-referral message from a peer.** Hearing from someone like them, who has recently completed the programme, could encourage people to give the ERP a try.
- ◆ **Leverage social feedback.** We are influenced by the behaviour of those around us. Even GPs can be encouraged to change their behaviour if they know they are underperforming relative to other GPs. Note however that this mechanism can work in the opposite direction, giving license to those who are above average to wane.
- ◆ **Test variations in the wording of reminders.** Beyond the effect of simply sending reminders, the behavioural literature also suggests that it is possible to make reminders even more effective by using different phrasing, frequency or sequencing of the messaging.

- ◆ **Test different forms of communication and orders.** There is some evidence in other health contexts that the form of communication (e.g. SMS, letter, phone) and order in which reminders are sent can have an impact.

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