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## **Active 10 – a New Approach to Increase Physical Activity in Inactive People in England**

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## **Abstract**

Public health physical activity (PA) guidelines are failing to increase levels of population PA, requiring a new approach. A national integrated marketing campaign was developed based on published literature and ethnographic research to get inactive lower socioeconomic 40-60 year olds to walk briskly for bouts of 10 or more minutes per day and move towards recommended levels of PA. National and local communications campaigns and partnerships promoted key messages and directed people to a free mobile phone app that provided the user with time, intensity and periodicity of walking, and included goal setting and encouragement to support behaviour change. Campaigns in the summers of 2017 and 2018 achieved around 500,000 downloads of the mobile phone app, with evaluation suggesting increases in brand and app awareness, and those taking action. Active 10 is a promising example of a physical activity promotion campaign based on evidence-based messages tailored for a target audience to change social norms rather than guidelines, an approach recognised as an effective population intervention for increasing walking.

**Alphabetical list of abbreviations:** PA, physical activity; metabolic equivalents, METS; COM-B, Capability Opportunity Motivation – Behaviour

As early as 400 BC, physical activity (PA) has been recommended for good health, with Hippocrates suggesting that *“Eating alone will not keep a man well, he must also take exercise”*. Recommendations on PA for good health began to appear in the 1990s<sup>2,3</sup> and national public health guidelines published a decade later<sup>4</sup>. However a recent analysis of national datasets suggests PA levels did not change between 2001 and 2016<sup>5</sup>.

With a new wave of guidelines being published across the world<sup>6,7,8,9</sup>, there is interest on how to engage the public to increase their levels of PA. This paper summarises the development, implementation and impact of an integrated marketing campaign based on evidence-based messages developed through insight research with the target population group to increase PA.

### **PA Guidelines and PA Levels in England**

In common with most high income countries, England has seen declining levels of PA since the 1960s as a consequence of economic, social and cultural changes<sup>10</sup>. Lack of physical activity is estimated to cost the UK at least £7.6 billion each year (including £0.9 billion to the National Health System in England) and contributes to 1 in 6 deaths<sup>11</sup>. National PA for health guidelines were published by the UK Chief Medical Officers in 2011, including a recommendation for 150 minutes of moderate intensity PA per week for adults<sup>12</sup>. Yet national levels of PA remain static with 38% of the population failing to achieve the recommended level of PA<sup>13</sup>.

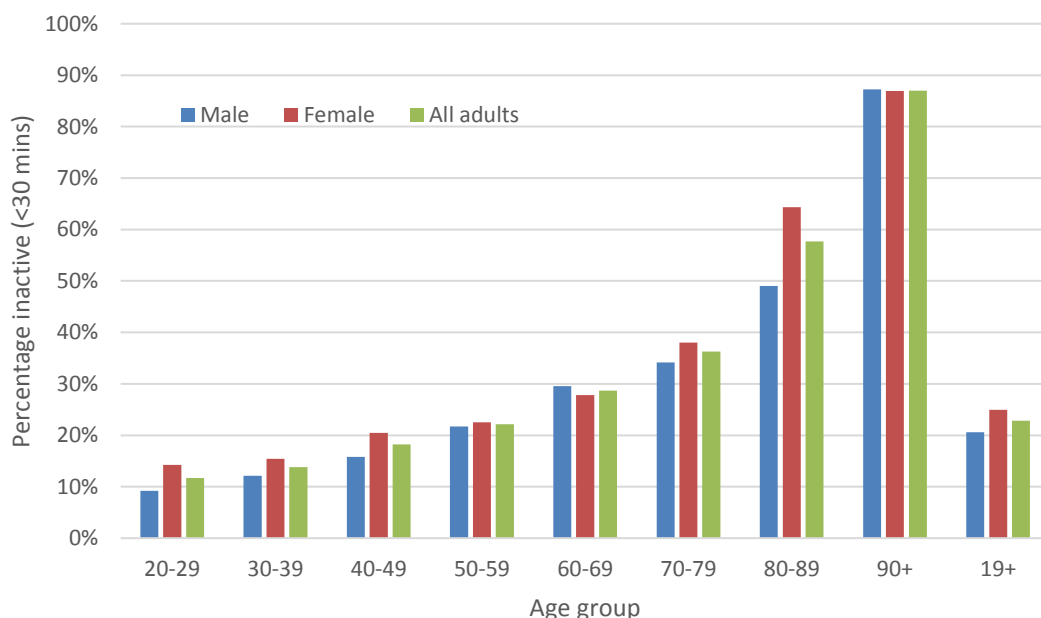
Studies have demonstrated low levels of knowledge of PA guidelines across the population, including in working age adults<sup>14</sup> and healthcare professionals who have a role in encouraging people to become more active<sup>15,16</sup>. It may be more influential to target social norms instead of knowledge of guidelines rather than raising awareness of personal moderate or vigorous intensity PA behaviour<sup>17</sup>. Lower awareness of PA guidelines has been

shown to be associated with characteristics, such as low levels of education, living in more deprived areas, low income and low levels of PA, with understanding of such characteristics having implications for the design and delivery of targeted, effective health promotion<sup>18</sup>.

### Understanding the Inactive Population with the Greatest Potential of Getting Active

National guidelines in England prioritise “targeting those adults who are significantly inactive (i.e. engaging in less than 30 minutes of PA per week) [to] produce the greatest reduction in chronic disease”<sup>12</sup>. The Health Survey for England reports that 62% of the adult population achieve the national guidelines on moderate intensity physical activity<sup>13</sup>, but almost one in four (23%) of the population are within the category of doing less than 30 minutes moderate intensity PA per week<sup>19</sup>; Figure 1 demonstrates how this level of inactivity is disproportionately distributed across age groups.

**Figure 1** Adults in England undertaking less than 30 minutes moderate intensity physical activity per week by age<sup>19</sup>



One in five (20%) of 40-59 year old (‘mid-life’) adults in England complete less than 30 mins of moderate intensity PA a week<sup>19</sup>. Benefits of targeting this group include: development of

positive habits as PA starts to decline; helping prevent and manage health conditions at a period of high risk (i.e. more than 1 in 4 (27%) people aged 30-39 report having a longlasting health condition compared to over 1 in 2 (59%) by age 60-69<sup>19</sup>); and, for those who are parents, influencing the PA of children through parental role modelling, particularly in infancy and early childhood<sup>20,21</sup>.

Inequalities in PA also exist within the 40-60 year old age group. Low income is associated with levels of inactivity, with 32% of adults aged 40-59 in the lowest income quintile doing less than 30 minutes per week compared to 20% in the highest income quintile<sup>19</sup>. A number of other factors associated with lower levels of PA are also more common in low income 40-60 year olds: likelihood of having a disability; and likelihood of having a long-term condition.

### **Walking as a Health-Enhancing PA Intervention**

Brisk walking at 3 mph is estimated to be 3.3 metabolic equivalents (METS)<sup>22</sup> and therefore a 'moderate intensity' PA. Walking is recommended in the UK guidelines as one of "*the easiest and most acceptable forms of physical activity....that can be incorporated into everyday life*"<sup>12</sup>. For adults not achieving recommended levels of activity, the relative contribution of walking is similar across genders and has limited age-related decline compared to exercise, cycling or swimming<sup>23</sup>.

In addition to being accessible and acceptable, walking offers the potential to increase PA in adults compared to other forms of activity given its prevalence and enduring popularity with age. Adults aged 40-59 years in England spend more time walking per week than any other PA and 94% reported doing at least one continuous walk lasting at least 10 minutes in the previous month<sup>19</sup>. However, nearly six in 10 (59%) adults aged 40-59 years in England report not having walked at a brisk or fast pace for 10 minutes or more in the previous month<sup>19</sup>. In 2002, a third of adults said that walking for more than 10 minutes was their only form of exercise in a typical month<sup>24</sup>. Notably, walking – including walking for everyday

transport – has declined over recent decades overall. The average distance (miles per person per year) walked declined by 15 miles between 1995/97 and 2015<sup>25</sup>. Walking trips as a percentage of overall trips in England declined from 27% to 22% between 1995/97 and 2015<sup>25</sup>.

### **Health Benefits of 10 minutes of Brisk Walking per Day**

Although the evidence for 10 minute bouts of walking is limited, it is clear that 70-90 minutes per week of brisk walking can improve fitness with a significant weighted mean treatment effect of  $3.04 \text{ ml.kg}^{-1} \cdot \text{min}^{-1}$  of oxygen uptake<sup>26</sup>. The benefits of such an improvement in aerobic capacity include greater ease of performance of everyday PA and improved quality of life<sup>27</sup>. From a population perspective, an improvement of this magnitude (approximately 10%) is likely to result in a 15% reduction in mortality<sup>28</sup>, irrespective of the baseline fitness level<sup>29</sup>.

The short term benefits of brisk walking may most likely be quickly noticed by low active / low fitness adults and can therefore be a motivator for continued or increase PA. It is likely that many of the health benefits associated with regular walking are derived from the 'last bout' or immediate effects from a single walk, including transitory changes in resting blood pressure<sup>30</sup>, increased insulin sensitivity<sup>31</sup> and improvements in the way in which the body handles dietary fat<sup>32</sup>.

Around 35% of people with a longlasting illness (limiting or non-limiting) do less than 30 minutes of moderate intensity activity compared to 14% of those with no limiting long-lasting illness<sup>19</sup>. Long-term conditions become more common in mid-life, with 41% of people aged 40-59 years having a longlasting illness condition compared to 27% of people aged 30-39<sup>19</sup>. Addressing physical inactivity could disproportionately benefit those with long-term conditions, as it can improve management of some conditions (e.g. type 2 diabetes<sup>33</sup>) and

people with long-term conditions are also more likely to develop many of the conditions that could be prevented by being active (including many cancers<sup>34</sup>).

The aim of achieving 70-90 minutes of walking per week, even in 10-minute blocks, may appear ambitious for people with low levels of habitual PA. For inactive people, walking interventions resulting in an additional 30 minutes of walking per week have been shown to bring health benefit<sup>35</sup>. This may seem a small shift and improvement against a recommendation of 150 minutes per week, but fits the best randomised controlled trial evidence on the potential scale of change possible for inactive adults who start walking and moves this group out of the 'inactive', high risk category.

### **Developing a Marketing Message**

The role of marketing is to make change easier, more desirable and more achievable.

Insight research was undertaken with the target audience to understand: i) how they engage with PA, particularly walking, in their day to day lives; and ii) how they respond to messages / propositions aimed to engage them and trigger behaviour change to undertake PA. Focus groups were undertaken in five geographic areas with 48 individuals between the ages of 40 and 60 years of age of a lower socioeconomic group (National Readership Survey grades C2DE) and with a mixture of past activity levels and unhealthy lifestyle behaviours<sup>36</sup>.

Key findings of this ethnographic research, along with further qualitative research groups carried out, included: 1) exercise is seen as a chore rather than stress-reliever / pleasurable; 2) people feel nervous about starting and are too embarrassed, and lacking in motivation and confidence to start; 3) time constraint is the primary barrier; 4) and people are seeking small ways to start.

Following a series of message development activities with focus groups comprising of people from the target audience, a set of seven messages were drafted and then tested with



further focus groups for acceptability (Figure 2). 'Walk a bit further and walk a bit faster' and 'Build an extra 10-30 minutes a day into your life' were the most popular messages. Key strengths were seen as: clear 'what to do' at a glance; allows immediate self-assessment; feels highly accessible; implies a goal to work towards; and measurement relatively straightforward.

**Figure 2** Acceptability of 'what counts' messages from insight research



### **Creating an Integrated Behaviour Change Approach**

Behaviour change models help understand the factors behind behavioural decisions and can shape interventions to influence those decisions and behaviours. The Behaviour Change Wheel is a popular approach that was developed from 19 frameworks of behaviour change and is based on the COM-B (Capability, Opportunity, Motivation and Behaviour) model whereby effective interventions impact on one of the three factors to change behaviour<sup>37</sup>. In 2016, Public Health England launched a national social marketing programme, One You, based on behaviour change science and insight research targeting lower socioeconomic (C2DE) 40-60 year old ('mid-life') adults to influence seven key health behaviours with potential to improve individual and population health outcomes (the seven health enhancing behaviours being eating well, sleeping well, being smoke free, only drinking alcohol in moderation, getting health checks, reducing stress and exercising).

Physical activity was one of the chosen behaviours and a campaign was developed to help people make a small behaviour change that would make a big health difference. Based on the evidence for accessibility and acceptability, walking was selected as the focus PA with an aim to increase the regularity, periodicity and intensity to a level sufficient to improve health. A campaign to target the most inactive lower socioeconomic 40-60 year olds was

developed under the 'Active 10' message to provide a motivating and simple message to be 'active' that also aligned with the guidance on 10 minute bouts.

An integrated marketing campaign was structured around the COM-B model, with key 'tasks' that enable an individual to overcome barriers identified in the ethnographic research. Figure 3 illustrates how these tasks were addressed through campaign channels with an underpinning aim of directing people towards a mobile phone app.

**Figure 3 Active 10 integrated marketing approach**

|                   |   |   |   |
|-------------------|---|---|---|
| <b>Barrier</b>    | Walking not perceived as health-enhancing exercise  | Finding time to exercise difficult  | Don't know what 'Active Walking' is   |
| <b>Task</b>       | Reframe walking (Motivation)  | Activate 10 mins (Opportunity)  | Equip with app (Capability)   |
| <b>Principles</b> | <ul style="list-style-type: none"> <li>Reach as many people as possible</li> <li>Impact key to disrupt current perception of walking</li> <li>Clarity of message for ease of understanding</li> <li>Drive to the app</li> </ul> | <ul style="list-style-type: none"> <li>Targeted to times and moments that can encourage behaviour or upgrade existing walking</li> <li>Make it feel easy and doable within their daily routine</li> <li>Drive to the app</li> </ul> | <ul style="list-style-type: none"> <li>Make it simple to download the app from all comms</li> <li>Must be able to get them going and keep them going</li> </ul> |
| <b>Channels</b>   | Advertising, public relations, partnerships   | Partnerships, public relations  | Digital   |

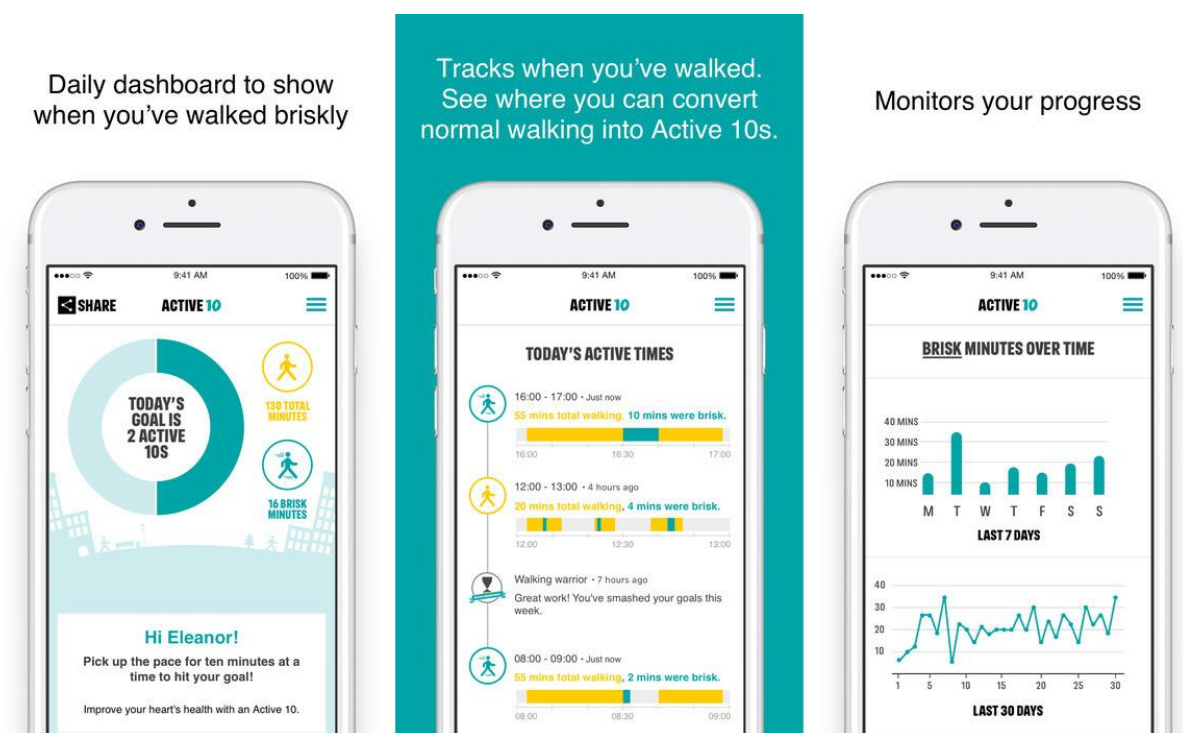
### Mobile Phone App

Brisk walking, like other PAs of moderate intensity, causes an individual to breathe faster, experience an increase in heart rate and feel warmer<sup>12</sup>; which is not the normal or sustained walking pace for most people, especially those who are inactive. Work was undertaken with the University of Sheffield and Sheffield Hallam University to develop a mobile phone app to measure time and intensity (i.e. the two dimensions that determine health-enhancing activity) and present the information in an understanding format that encourages increasing health-

enhancing PA. Development of the app included a user study with 111 inactive lower socioeconomic 40-60 year olds that achieved a 50% reduction in the proportion achieving no 10 minute walks per week (from 12% to 6%).<sup>36</sup>

The Active 10 app is the first free-to-use app that provides the user with information on time, intensity and periodicity: amount of time spent walking; amount of time spent walking briskly; and number of chunks of 10 minutes brisk walking achieved. It provides the 'capability' to undertake brisk walking through real-time feedback and encouragement on the pace and time required to achieve 10 minutes of brisk walking. The user is able to monitor their walking and how much is 'brisk', and set daily goals of one, two or three 'Active 10s' to encourage progress towards 30 minutes brisk walking each day to meet the recommended 150 minutes a week. The interactive nature of the app supports sustained behavior change by creating a habit, 'gamification' through challenges that stimulate intrinsic motivation and regular reviews (Figure 4).

**Figure 4 Active 10 mobile phone app**



## **Communications Campaign**

A communications strategy was developed for the inaugural 2017 campaign, consisting of media activities (advertising and public relations) and partnerships with national and local organisations to raise awareness, change perceptions and encourage people to take up brisk walking. All activities directed people to download the mobile phone app.

The media campaign focussed on media known to be popular with the target lower socioeconomic, 40-60 year old demographic. Advertising included TV and online, plus outdoor advertising in locations where people may make activity decisions (such as bus stops and train stations). Supporting public relations activities included celebrities and Facebook Live to endorse the app.

Partnerships were developed with key stakeholders to adopt and promote campaign messages, including with employers, transport providers, local PA providers (including 'taster' sessions), local government (including local activation events) and promotion by healthcare professionals. Tailored resources were developed to support each of these groups, such as workplace packages of posters, challenges, etc. for employers and in-store display materials for pharmacies.

## **Campaign Outcomes**

The campaign was launched in the summer of 2017, with over 300 pieces of positive coverage in the popular media and #Active10 trending in the top five on Twitter. There were over 379,000 downloads of the app over five weeks in August-September 2017, which was rated four stars on the app store and was the number one health and fitness download, and number seven overall download. Online pre and post tracking research were undertaken

with 1,800 adults aged 18+ with a boost of the key target audience (800 people aged 40-60 from lower socioeconomic groups). Among the key target audience, there was 49% overall campaign awareness, 77% of users taking the message that 10 minutes of brisk walking counts as exercise and 14% reporting taking an action as a result of Active 10.

A second, partner-led campaign was run in Summer 2018, with a further 104,000 downloads of the app achieved. Pre and post campaign surveys were undertaken with a cohort of 2,092 adults aged 18 years or more, demonstrating increased brand and app awareness, with recognition of the 'Active 10' logo and app increasing from 11% (in 2017) to 16% (in 2018) and 9% (in 2017) to 13% (in 2018) respectively. 74% of people who remembered the campaign recalled the message that 10 minutes of brisk walking counts as health-enhancing exercise and 18% reported having taken action.

## **Conclusions**

Walking is prevalent, has no skill, facility or equipment requirement and is more accessible and acceptable to an inactive audience than other forms of PA. An integrated marketing campaign was developed based on behaviour change principles to encourage inactive people to become more active. Ethnographic insight research was undertaken with the target lower socioeconomic, 40 to 60 year old demographic to develop the underpinning evidence-based messages. The programme consisted of a media campaign and partnerships focussed on directing people to a mobile phone app to support people to undertake and sustain daily brisk walking.

Active 10 is an example of a physical activity promotion campaign based on evidence-based messages tailored for a target audience to change social norms, rather than a traditional health education approach to increase awareness of public health guidelines. The approach

was recently highlighted as an effective population intervention by a recent systematic review of the promotion of walking<sup>38</sup>.

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