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**Assessing the impact of football-based health improvement programmes: Stay
onside, avoid own goals and score with the evaluation!**

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Abstract:

Health improvement is an important strand of the Premier League's 'Creating Chances' strategy. Through community programmes, professional football clubs offer health enhancing interventions for a number of different priority groups at risk from a range of lifestyle-related health conditions. However, while national guidance recommends evaluating health improvement interventions, concerns remain about how to do this most effectively. This study aims to investigate the popularity of football-based health improvement schemes and assess the challenges associated with their evaluation. Adapted from existing methodologies, a semi-structured questionnaire was administered to an 'expert' sample (n=3) of football-led health evaluators. The sample was selected because of their experience and knowledge of performing evaluations of football-led health improvement programmes. Our 'experts' offered reasons for the popularity of football settings as channels for health improvement (*including the reach of the club badge and the popularity of football*); the justification for evaluating such schemes (*including confirming effectiveness and efficiency*) and the challenges of implementing evaluations (*capacity, commitment and capability*). Finally, a selection of key considerations for the evaluating the impact of football-led health improvement programmes (*obtaining expert guidance, building capacity and planning for evaluations*) are discussed.

Key Words Evaluation, Football, Health Improvement Interventions,

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Introduction

The Chief Medical Officer's report confirms that participation in regular physical activity in line with the recommended guidelines can provide an array of substantial health benefits.¹ Yet fewer than 39% of men and 29% of women met the current recommendations for an active lifestyle.² Given these low levels of physical activity participation, concerns prevail over the health and well-being of the UK population, along with thoughts as to how best to intervene. Professional football clubs are being deployed as channels for connecting with communities over their health and physical activity³ including those hard-to-engage groups, with health improvement schemes.⁴ This extends to those individuals who encounter substantial barriers for engaging in health behaviour change and in doing so, do not/would not make use of traditional health care services.⁵ Given the importance of deploying robust evaluation and monitoring approaches for identifying programme impact, anxieties remain over the extent to which football-based health improvement schemes are being evaluated.⁶ Failing to evaluate the effect of such interventions raises the possibility that their impact on public health will be lost.

Between 2010 and 2022, it is estimated that the number of people presenting with a 20% risk of developing cardio-vascular disease (CVD) in the UK is set to rise from 3.5 to 4.5 million people.⁷ CVD and other inactivity-related conditions pose not only great personal costs to individual sufferers and their families through loss of functionality, livelihood and pain,⁸ but also significant annual financial expense to UK health-care services.⁹ Indeed, the cost of inactivity-related conditions was estimated to be in the region of £1b pa.¹⁰ Moreover, the financial impact of inactivity-related conditions is set to continue rising; by £2b annually up to 2030.¹¹ Understanding that the NHS is already under extreme pressure to meet health needs, amidst sustained reductions in government funding,¹² efforts to facilitate positive changes in health behaviours¹³ are an important component of effective and cost effective healthcare strategies. The drive for better health at lower cost is clearly on.

Recognizing that a common suite of problematic health behaviours is at the heart of non-communicable diseases (NCDs),¹⁴ Public Health is increasingly faced with the further problem of how best to intervene. Typically, large-scale health improvement schemes have had a limited effect on changes in health behaviours and physical activity is no different with the majority of the population failing to meet guidelines.¹⁵ This is because, there are few universal drivers of behaviour change, meaning that each community is likely to be distinctive for what prompts and sustains behaviour change.¹⁶ One such distinctive community is made up of those who follow, attend, and spectate on sporting and leisure events. Indeed, people interested in sport may be assumed to be uniquely responsive to attempts to promote lifestyle change, especially around physical activity. Either way, from a social perspective, sporting clubs represent important anchors and focal points of communities while their potential for promoting health deserves close consideration.¹⁷

From a Public Health perspective, sporting clubs can offer important channels for connecting with people regarding their health,¹⁸ typically, although not exclusively, through sport and physical activity.¹⁹ More specifically, professional football clubs have been identified as holding latent potential for making connections with individuals whose health issues remain unaffected by conventional provision.²⁰ This is especially important, as new ways of commissioning and providing health services will offer greater roles and responsibilities for non-NHS providers, including for-profit, not-profit and voluntary organisations; some of these providers may have little experience as healthcare providers in any, let alone unconventional, settings.

In the UK, a number of community health improvement services already operate within professional football clubs. Through their football-in-the-community (FitC) schemes, clubs have a track record of delivering interventions aimed at improving the health profiles of individuals and the groups they serve. From a strategic perspective, there is a strong resonance between the concerns of Public Health and the five strands of the Premier League's 'Creating Chances' programme especially in the specific 'Health' theme. Creating Chances uses positive associations with the football 'brand' to support

the health improvement of individuals and communities.²¹ Resources made available through the combined efforts of Creating Chances, local partners, and the participating clubs, have all helped to deliver health improvement interventions for a number of different health priority groups and conditions. Football-led health interventions have targeted children, adults and older adults.²² Interventions have also been used tackle behaviours linked to NCDs, such substance use, obesity, CVD, and mental health.²³

In doing so, deliverers aspire to appeal to the interests of possible participants through the trappings of a popular, highly visible sport; football. For potential recruits entering into health improvements, this interest may not have been converted into actual playing of the game, or indeed, participation in any physical activity, but other health related activities. Importantly, football's powerful appeal helps to include groups that might otherwise be regarded as 'hard-to-engage'²⁴ and who are unlikely to attend conventional health promotion activities.²⁵ Indeed, football has also been used as a strategy for social inclusion by intentionally attempting to connect with 'hard-to-engage' and unreached groups including those not using health services.²⁶ These communities and groups are defined in this way, because they are impacted by factors which determine whether or not a connection can be made, as well as the intensity of those connections.²⁷

Research suggests that these factors act *within* the expectations that programme planners typically consider in relation to age, gender, location, income, ethnicity and/or language.²⁸ Within each of these powerful factors are further elements that can overwhelm planners' expectations about how well their interventions will 'work'. Without careful consideration of what makes these groups hard-to-engage or what leaves them unreached, and by offering suitable programme modifications, physical activity provision is only likely to maintain the status quo.²⁹

It is also important to appreciate that the designation of 'hard-to-engage' extends into many areas of daily life. Perhaps because of their restricted access to information that they trust, hard-to-engage individuals are often slow to hear about and take up new programmes, even when they are tailored to specific needs.³⁰ This converts into hard-to-

engage groups being under-represented in figures for the uptake and use of services such as physical activity.³¹ For instance, it has been suggested that one of the largest English physical activity interventions was the Walking the Way to Health and specifically targeted those who took little regular activity and/or lived in areas of poor health and who faced barriers to engagement in regular exercise.³² Yet, some walking interventions largely recruited relatively educated and affluent recruits.³³ Similar difficulties also exist with regard to particular groups securing access to healthcare provision.³⁴

Whilst difficulties exist with the recruitment of such populations into interventions, once there, a different set of challenges emerge, especially around how to engage them in the evaluations of the programmes they populate.³⁵ More positively, a number of ‘hard-to-engage’ groups have been at the centre for football-based health improvement schemes with associated evaluations of their effectiveness.³⁶ This responsiveness is encouraging and indicates more that these groups are better described as ‘unreached’ rather than ‘hard-to-reach’.³⁷

Beyond establishing acceptable interventions, current thinking holds that it is not only important to identify which interventions work best, but also how these activities are implemented.³⁸ National guidance recommends that behavioural change interventions are effectively evaluated.³⁹ In spite of these directives, concerns remain over the extent to which rigorous, valid and acceptable evaluation is undertaken let alone to good effect.⁴⁰ With this understanding, it is easy to see why, on occasions, assessing the effect of health improvement programmes is not given greater priority.

More specifically, the challenges typically faced by those tasked with implementing evaluations will include personal and collective *commitment, capacity and capabilities* to undertake and complete this work.⁴¹ These issues affect health improvement interventions delivered within community settings, including professional football clubs.⁴² Given their backgrounds, education, training and organisational priorities, it will be no surprise that only a few deliverers are equipped to deploy the necessary resources, skills and expertise to undertake an evaluation on top of the pressure needed to deliver

high quality, responsive interventions.⁴³ In supporting evaluation, guidance is available from a number of sources.⁴⁴ At the same time, it is important to learn how to successfully undertake community-based evaluation, where these can be found.

Methodology and Background

Purpose of the study

Given the rise of football-based health improvement programmes and the need to evaluate their impact, this paper explores three important objectives which we pose as questions. (I) Based on the increased need to assess their effectiveness, what are the challenges in monitoring and evaluating football-based health improvement interventions? (II) Assuming evaluation is integral to the implementation of football-based health improvement schemes, what are the key activities that deliverers should consider when evaluating their schemes? (III) What are the reasons for the apparent popularity of football-based health improvement interventions?

Study sampling

To investigate these key questions, methods and sampling have been adapted from an earlier published study with similar aspirations around identifying delivery factors, evaluating community health interventions and/or evaluating physical activity interventions.⁴⁵ In selecting our approach, we consider principles set out by Palys who suggests that ‘there is no single ‘best’ sampling strategy because the ‘best’ strategy will depend on the context of the research and the research objectives’.⁴⁶ We then administered a semi-structured questionnaire with an ‘expert sample’ who were firmly linked to the purpose of the research. In our recruits, ‘expertise’ was linked to an advanced understanding of the evaluation of football-led health improvement schemes for a number of priority groups. Furthermore, Stake has suggested that ‘where qualitative research requires cases to be chosen, nothing is more important than making a proper selection of those cases’.⁴⁷ With this in mind, we identified our sample against two further criteria: (I) Impact: They demonstrate a commitment to informing policy and practice through their work. (II) Credibility: They share the results of their work both at

the meetings of relevant professional bodies and agencies, both nationally and/or internationally.

Methods of investigation

Instrumentation and data management

We used a semi-structured questionnaire adapted from previous research⁴⁸ and deployed this method to investigate the three study objectives previously reported. Identified ‘experts’ were invited to participate by e-mail; this message also contained the questionnaire and instructions for completion. Participants were permitted 10 working days to complete and return their responses. Previous research has indicated that this would allow sufficient time for our volunteers to carefully consider and then offer a reflective response for each question, in around 200 words or less.⁴⁹ In this way, the questionnaires yielded qualitative data. Once questionnaires were returned, two researchers read and familiarised themselves with the responses and generated initial codes. Individually, each researcher then collated codes, with examples, into potential themes. To triangulate their codes, the researchers reviewed and refined the coding to confirm the dominant themes and how they were best defined. Given the importance of the context of the research we performed, we have elected to report participant responses verbatim.⁵⁰ This aspires to preserve the integrity, focus and context of their responses. In presenting the findings, we remained ‘close’ to the data. In doing so, have used our research objectives as an organising framework to present, and manage the data.⁵¹ In the Discussion, we offer interpretation/synthesis of the emergent themes according to (i) our research objectives, (ii) key literature and guidance on delivering football-led health improvement schemes and (iii) advice and recommendations for evaluating community health and physical activity programmes based on the literature.⁵² In doing so, we draw out the implications for the evaluating football-led health improvement schemes, as this is an important element of future programme delivery.

Findings

Participants

With the lead authors posing the questions, our respondents were asked to respond to four key questions in turn. Prior to the first question, we asked our ‘experts’ (EX) to introduce themselves along with the scope of their current work.

EX 01: is a practitioner involved in evaluating a number of football-led health improvement programmes delivered in Premier and Football League clubs. Most notably among these has been a national evaluation of men’s health in 16 English Premier League and Championship football clubs. Expert 01 has also been involved in evaluating football-led interventions with older adults, as well as other community health interventions.

EX 02: is a practitioner investigating the effect of commercial male-specific weight management interventions delivered on behalf of a local authority and in community venue in Northern England, United Kingdom. These interventions take place in football related venues and deploy football as one of a suite of physical activities within the programme.

EX 03: is a practitioner investigating the effects of football-led health improvement interventions aimed at (i) mental health promotion in adults and (ii) health improvement in older adults. Both programmes are delivered in and by a professional football club located in English Football League. Interventions involve both sport and physical activity as modes of exercise.

We start with our first question, in what ways have you seen football and football-related settings being used to promote better health? Why is this approach suddenly so popular?’

EX 01: *There are many examples of football settings being used to promote better health, programme including 'It's a Goal', 'Extra Time' and 'Fit Fans'. I think these schemes have become so popular due to the interest generated by the clubs hosting the interventions and the opportunities they provide to mix with professional players at prestigious venues. This is a huge draw for many people, and the ability of such interventions to reach out to large numbers of individuals who don't traditionally engage with health promotion cannot be underestimated. A lot of interventions have actively listened to the needs of the participants and don't necessarily have a blanket offer of football - that may be off-putting to some groups - but instead promote a range of activity opportunities. For example, one of the 'Premier League Men's Health' interventions at Newcastle United offered a midnight badminton league designed to engage shift workers from the south Asian community. This also highlights how flexible clubs can be providing a desirable avenue activity alongside social interaction. One of the key draws of these programmes are the informal and non-clinical approaches to health promotion which help appeal to certain groups. Interventions have tended to avoid instructional or directive approaches linked to more clinical settings and as a result seen fantastic engagement and minimal attrition rates.*

EX 03: *I have seen football being used to promote better health through both professional football clubs and community groups. For instance, I have been involved in projects provided by professional football to improve the health of older adults, where a variety of physical activities were provided. Football as an activity was not offered, but a range of social and physical activities were provided and these were based at the football club. This appeared to be an accessible and acceptable setting for the participants to attend and importantly, for older adults, an opportunity to socialise. Furthermore, this particular project attracted females as well as males in equal measure, which other football interventions do not always achieve or indeed intend to achieve. I have also witnessed football being used for community dwelling adults with mental health problems, such as anxiety and depression. I have been involved in projects where football is provided by the clubs for people with mental health concerns, and also where football is provided by mental health community groups in community locations such as council*

run sports centres. I see these football-led approaches as popular because the game is seen by many as a normal and acceptable activity to participate in. It is a normalising activity which encourages social interaction, which for both people with mental health problems and older adults can be limited by opportunities.

EX 02: *I am currently involved in assessing the effect of football centred health improvement for a key health priority group. My work involves investigating men's experiences of weight problems before, during and after participating in a weight loss programme. The sessions in this programme include informative activities about healthy lifestyles and also exercise classes where football prevails as a team sport. My research differs somewhat, as interventions are not delivered by professional football clubs, but use football related settings to deliver health improvement activities. For a number of men, football as an activity is an ideal means to approach a captive audience and its success has been documented in the research. Yet, not all men like football. In some locations, football is not the dominant professional sport such as those towns where Rugby League or Union is king!*

Is it really that important to assess the impact of football-led health improvement interventions?

EX 03: *It is imperative that interventions are assessed so that we know if they are successful and if so, which parts of the intervention. Where feasible, objective measures of health status and/or behaviour should be used, alongside a qualitative exploration of the individual's voices. The objective measures are important to investigate what health outcomes did or did not improve, however, if this is not feasible subjective self-report measures could be implemented. Hearing an individual's voice is essential for the evaluation and to help us to understand not only what, but also how and why an intervention worked. This feedback is essential to the development of interventions. It is also important to evaluate health interventions for ethical purposes. If interventions are not evaluated they may be delivered with limited or no evidence-based practice to support their implementation. Therefore, if interventions are not evaluated there will be*

little evidence to implement new interventions. Consequently, interventions may be delivered which are poorly designed and may have no impact or a negative impact on the intended participants, which is an ethical consideration.

EX 01: *Absolutely, if you don't measure it, you can't manage it, and if you can't manage it there are limited avenues for assessing impact. Ultimately, evidence on programme effects, or a lack of it, is an influential factor when it comes to allocating funding for health intervention. Therefore, evaluation is essential for championing the role of football-led health interventions. Nonetheless, assessing the impact of interventions can be seen as time consuming and even problematic in some circles taking a lower priority over service delivery and day to day running. It is important here to remember some advice from the World Health Organisation; recommending that practitioners allow resources for evaluation, somewhere in the region of 10-20% of total intervention costs. By doing this, assessment of impact and evaluations can potentially be outsourced to organisations who have experience in this field. They can act as impartial external evaluators adding validity and rigour, helping to shoulder the perceived burden of evaluations. However, outsourcing evaluations is not always an option and the evaluation has to be led by the intervention staff and appropriate to programme needs.*

EX 02: *Evaluation is essential; the expedience with which football-led health improvement interventions are being implemented underpins the need for a comprehensive assessment of both the positive and negative impact of these programmes. This approach would enable practitioners to ascertain that harm does not outweigh benefits, and if it does, the issue has to be addressed as soon as possible, before rolling it [the intervention] out more widely.*

Given that our experts all agreed that evaluation was important, we asked them to identify the challenges of evaluating health improvement interventions delivered in the football-related settings they have worked in.

EX 01: *There are many challenges associated with the evaluation of football based interventions, and health interventions in general. Many of these challenges will be dependent on the methodology, the type of evaluation being undertaken and the data collection tools. A sound evaluation framework, such as RE-AIM that incorporates process and impact measures would be a good starting point. If this is followed, it will help to ensure that data collection generates practice based evidence. The obvious problem stemming from the choice of a robust evaluation framework will be how to make it workable within the intervention itself. To make the evaluation workable, it needs to be an integral component of the intervention itself, from the outset. Further, interventions that incorporate outcome measures will require follow up data, which is notoriously difficult to collect and requires separate considerations. Follow up periods, collection methods and means of contacting participants to collect the data should be clearly defined and relayed to participants at the outset to avoid surprises, and allow for contingency planning.*

EX 03: *One of the main challenges of evaluating interventions is cost. Implementing evaluations can be expensive, especially if the 'gold standard' health measures are implemented. One way this challenge can be surmounted is to use less expensive subjective measures of assessment. A second challenge is obtaining suitably qualified personnel to evaluate the intervention. For instance, obtaining useful and in-depth information from qualitative methods requires skill from the individual conducting the interviews or focus groups. Finally, the challenge of performing the evaluation will also vary depending upon the experience of the individual conducting the evaluation with the population who are participating in the intervention. For example, evaluating a football-led health intervention for young healthy men would vary to evaluating an intervention for older women, especially if qualitative interviews were implemented. Therefore, the evaluator needs to be trained and have experience in the population of people who are participating in the intervention.*

EX 02: *The loss of pre and post-intervention data (before and or after) is a major challenge of evaluating physical activity programmes delivered in community settings.*

Some of the factors contributing to non completion rates include the inability of participants to understand what is being asked, in particular where language is a barrier to engagement meaning self-reports can be returned incomplete. While participant attrition from programmes and evaluations also contributes to data loss. To manage the effect of these issue's evaluators need to apportion sufficient time to each participant to accurately complete the data sets and provide guidance where needed. Where possible those participants dropping out should be followed up either by phone or emails so that evaluators can explore why they dropped out and any other valuable information. Last but not least, evaluators should work in partnership with deliverers as they know how the group works and how evaluation activities may dovetail with intervention activities. In partnership designs it must be ensured that deliverers do not coerce participants to take part in the evaluation.

Finally in attempting to help those individuals charged with evaluating football-led health improvement scheme, we asked our 'experts' to identify their 'top three' issues that practitioners should consider when creating effective/workable evaluations football-led health improvement interventions

EX 01 *The first thing to consider when creating an effective evaluation would be staff training. This should be a key component of any good evaluation. It is important to ensure that all staff, including those involved with oversight, service delivery and monitoring and evaluation are all working towards the same goals and are on the same page from the outset. This should be a recurring theme throughout the intervention, undertaken at regular intervals allowing for the sharing of best practice. This leads me on to the second issue to consider, piloting. Ideally this would be incorporated in to the training process. Potential measurement tools can be tested with individuals responsible for administering them, and once they have been suitably refined and deemed workable, they need piloting with potential participants. It's all well and good having great evaluation tools, however if they are not fit for purpose, and won't work in the 'real world', then they won't be effective. This requires a certain level of 'buy in' and ownership from both parties. Finally, given the current financial issues faced by the*

'National Health Service', cost effectiveness should be part of any good evaluation. Comparative effectiveness research is a relatively new area of research and is designed to inform health-care decisions by providing evidence on the effectiveness, benefits, and harms of different treatment options. Evidence is generated from research studies that compare pharmacological treatments with community health evaluations for example. This provides an interesting avenue for football based interventions; can they be delivered in a package that is comparable to medicine?

EX 03: *For me, the three issues to consider are as follows. Firstly the choice of assessment methods: What are the best evaluation measures and methods available within the budget of the intervention and are these appropriate for the population undertaking the intervention? Secondly, the experience of the evaluator: does the individual assessing the intervention understand the needs of the population and do they have the necessary skills to conduct all aspects of the evaluation? Thirdly, the knowledge of the participants: Are the participants informed about the evaluation and do they who the evaluators are? A consideration would be that the participants are familiar with the evaluators, especially if qualitative methods are being used. This may enable more in depth information to be obtained. Equally, the evaluators should not be over familiar with the population, as social desirable responding on self-report measures could be more likely.*

EX 02: *The top three issues that practitioners should consider when evaluating effective football-led health improvement interventions are: Firstly, the use of an evaluation framework to address both the behavioural outcomes of health interventions and the process(es) by which such outcomes were achieved is crucial to optimize the development of these football-led programmes. For instance, RE-AIM provides an effective approach to explore the key characteristics of public health interventions. Secondly, the external validity of the evaluation needs to be ensured by addressing representative samples of participants and settings. It is important that the views of a diverse range of constituents are captured, including those participants who shy away from health improvement programmes and associated evaluations. Thirdly, it is important to explore the views of*

both service deliverers and participants through qualitative approaches. Those who deliver the service have their own insights of what works and what does not work, however participants may perceive things differently. In particular, it is important to explore the views of those participants who elected to drop out of programmes.

Discussion

The appeal of locating health improvement schemes within football settings

Sports clubs and specifically, professional football has been highlighted as offering powerful levers and mechanisms for improving social and Public Health. In their own ways, our three ‘experts’ each acknowledge the inherent popularity of football and professional football clubs for reaching diverse priority groups identified in UK health policy.⁵³ Football as a sport has been referred to as a ‘world game’ reflecting its global popularity with individuals and communities. It is unsurprising that health promoters are capitalizing on this appeal by locating their programmes in football contexts. Contributing to the appeal of professional football is the reach of the ‘club badge’ where the complex interplay of factors impacts on recruitment. The ‘badge’ represents the *place* (football ground or training venue), *people* (the players and deliverers) and the *process of delivery* (programme, promotions and packaging); each of these factors has been shown to contribute to participant recruitment and acceptability.⁵⁴ To this end, all our experts provided examples of efforts undertaken by deliverers to meet and shape programme delivery around the needs of participants, including hard-to-engage populations using football. Efforts such as these remain an important ingredient in providing health improvement which is accessible, affordable and acceptable to participants. Despite the apparent popularity of delivering programmes through football channels, such physical activity and health programmes require appropriate evaluation.

The case for evaluating football-led health improvement programmes.

All our experts endorsed the importance of evaluation and collectively they make a strong case for investing in the evaluation of football-led health improvement programmes and this fits with recommended public health guidance.⁵⁵ The argument for evaluation made by our evaluators is constructed on four of cornerstones. First, from an

ethical position, implementing interventions without evidence of effectiveness potentially jeopardises efforts to meet the needs of the key stakeholder- programme participants. If these programmes are to optimise Public Health, selection – including comparative assessment should be guided by the ‘best’ available evidence. Second, inventive and engaging types of formative evaluation offer deliverers an opportunity to gauge how well programmes are helping recruits to change and improve their health behaviours. Third, where programmes rarely work as anticipated, evaluation can take on a remedial role in helping to identify which parts of the intervention work less well and that require further attention and subsequent rectification. Fourth, is sustainability; in a climate of reduced public funding and increased competition for resources, evaluations can help to secure evidence in which to make the case for sustainability once initial start up investment has ceased.

Difficulties of and strategies for evaluating football-led health improvement schemes

While our experts make a powerful and contemporary case for investing in the evaluation of interventions, each highlights the difficulties they experienced during their implementation. Individually and collectively they have overcome a diverse range of challenges within their own research and evaluation activities. Their experiences are not unique and mirror many of the problems encountered in evaluating physical activity interventions including those in footballing settings.⁵⁶ In helping to handle these challenges, we asked our ‘experts’ to provide their guidance on factors that should be considered when evaluating football-led health improvement programmes. At this point, it is important to bear in mind that football-based research and evaluations range widely. There are randomised controlled trials, e.g., *Football Fans in Training*, running in the Scottish Premier League.⁵⁷ Others have deployed partnership evaluation designs⁵⁸ with a combination of specialist evaluators working alongside programme staff.⁵⁹ For in-house evaluations, football clubs provide their own bespoke evaluations. Our expert’s experience was typically formed from their involvement of working in a partnership arrangement. They all endorsed the importance of clubs and/or deliverers working with individuals who have expertise in evaluation, a recommendation which also endorsed by Public Health guidance⁶⁰ and physical activity promotion more generally.⁶¹

Linked to this was cost. Evaluation funding is often a barrier. Only occasionally are resources sufficiently plentiful to commission bespoke evaluations and/or involving specialist evaluators who perform all the evaluation duties. While commissioned approaches may be desirable, there are examples where football clubs and deliverers work in collaboration with evaluation specialists.⁶² These specialists may come from commercial research companies, universities and/or individuals who work for local partners and who support health improvement programme.⁶³ Guidance recommends appointing external evaluators prior to commencing the programme, meaning experts are in place to advise on a host of evaluation considerations.⁶⁴ This recommendation, along with nine others, is included in a checklist of activities based on our experts experience (Table 1). While not exhaustive, these activities are in-line with guidance on general physical activity-led health improvement and delivered in at times, complex community settings.⁶⁵ More detailed guidance is available from a number of other sources although once again, this is not an exhaustive list and further guidance on evaluating public health interventions can be found elsewhere.⁶⁶

Insert Table 1

Research shows that deliverers often express concerns about balancing the challenge of programme delivery against evaluation.⁶⁷ Their concerns are that evaluation diverts their attention away from what they see as their main business. This highlights one of the obvious benefits of working with external evaluators; they build capacity for evaluation while allowing delivery specialists to concentrate on programme implementation. In partnership designs, delivery staff can also perform evaluation duties such as data collection so in these instances it is important they receive appropriate training and education so they feel confident in such roles. From a validity perspective, ⁶⁸ these deliverers-cum-evaluators risk having a biased stance; irrespective of their methods, they stand to be accused of ‘having their own dog in the race’.

In contrast, external expertise can be neutral, while also helping with a host of other activities that may be beyond the capability of some deliverers. For instance, some deliverers do not hold a view that can formally integrate the purpose, focus and the scope of the evaluation. To this end, all our experts outlined the value of adopting an evidence-based framework for shaping the parameters of evaluations in football-led health improvement programmes. One of these frameworks is RE-AIM.⁶⁹ While extensively used in the Public Health improvement literature, and is valued for providing useful forms of ‘practice-based evidence’, RE-AIM has recently been adopted into football-led health programme evaluations. Pringle, Zwolinsky, McKenna et al., claim “*REAIM not only provides a comprehensive structure for assessing the impact of interventions across the behavioural change continuum (Reach, Adooption and Maintenance), but also the process (Implementation) by which interventions are (Effective) when impacting on the behaviour of participants” (p 717).⁷⁰*

Such frameworks can be helpful when organising the scope of the evaluation and, subsequently, the choice of evaluation outcomes and methods for their assessment. The decision to use self-report versus objective methods and quantitative versus qualitative measures or a combination of these approaches/techniques (multi-methods) is one best taken by those with expertise and experience in their application. These decisions are likely to be optimised following dialogue with important stakeholders on how such methods will be received by participants and how their application can be worked into programme delivery.⁷¹ Crucially, from an ethical perspective it is important that the evaluation does nothing to deter likely participants from engaging an intervention; little can be as harmful to identifying intervention outcomes as beneficiaries who avoid completing follow-up measures, because of embarrassment about their low levels of literacy or through fear that their responses – or even their engagement with the intervention - will produce harmful consequences. Discussions about the ‘participant burden’ of evaluation are important in the planning phase.

Our experts also highlighted the importance of not only identifying what, but how and why football-led health programme effects are achieved and this is a fundamental facet of

RE-AIM.⁷² With process evaluation in mind, interviews and focus groups can be used to investigate the way in which participants experience behaviour change opportunities, such as those found in football-led interventions. These issues are important in gauging the impacts – intended and unintended - of health improvement programmes. Moreover, interview-led approaches are especially valuable when including those participants who express fears and anxieties around the completion of self-report evaluation owing to literacy, language and concerns over surveillance. These and other factors can impact on loss of data, a common occurrence in the evaluation of community physical activity⁷³ and football-led health improvement programmes.⁷⁴ With evaluations being assessed using intention-to-treat analysis, where the baseline scores are used also as follow-up outcomes or vice-versa, this increases the likelihood of showing that interventions had no positive effects of behaviour. When an intervention is not powerful, this is fine, but it risks presenting powerful interventions as being ‘weak’. Finally, the implementation of ethical processes is also an important consideration. This will include securing participant consent/assent, data protection, storage and transfer of data along with ethics release, where this is required. In our experience, these concerns are frequently reported within in-house evaluations, and this only limits the capacity to publish the outcomes of such interventions and share learning with a diverse audience.

Limitations and strengths of this research

Our research includes both limitations and strengths. Limitations relate to an ‘expert’ sample who had typically worked in partnership evaluation designs. Including constituents who had worked in other research and evaluation designs would provide a different perspective. Our ‘expert’s’ practice was typically centred on adults, whereas including those participants who had worked with children and young people on football-led interventions would also provide different viewpoint. Strengths included an ‘expert’ sample with experience of evaluating football-led health improvement interventions who shared in detail, their rich experiences and informative accounts, along with a desire to improve evaluation practice. Moreover, these views were captured through the administration of research methods that had been used in public health and activity contexts previously.

Conclusion

To assess the Public Health value of football-led health improvement interventions, there is a need for appropriate evaluation. If football genuinely delivers the potential that many see in it, it is imperative that the effectiveness of these interventions is clarified, and indeed, compared. Our paper highlights the importance and challenges of performing evaluations, as reported by experts with direct recent experience in football clubs/football settings. Through their commentaries, we provide some key considerations for evaluating the impact of football-led health improvement programmes.

Notes:

¹ Department of Health. *Start Active, Stay Active*.

² The Information Centre for Health and Social Care. *Statistics on Obesity*.

³ Parnell et al., 'Football in the Community Schemes'.

⁴ Dunn et al., 'Kicking the Habit'.

⁵ Pringle et al., 'A Even More Beautiful Game'

⁶ Pringle et al., 'Health Improvement for Men and Hard-to-Engage-Men Delivered in English Premier League Football Clubs' and Pringle et al., 'Health Improvement and Professional Football: Players on the Same Side?'

⁷ Hippisley-Cox et al., 'Predicting Cardiovascular Risk in England and Wales'.

⁸ Kahn et al., 'The Impact of Prevention on Reducing the Burden of Cardiovascular Disease'.

⁹ Scarborough et al., 'The Economic Burden of ill Health due to Diet, Physical Inactivity, Smoking, Alcohol and Obesity in the UK'.

¹⁰ BHF, *Evidence Briefing. The Economic Costs of Physical Inactivity*.

¹¹ Wang et al., 'Health and Economic Burden of the Projected Obesity Trends in the USA and the UK'.

¹² Black, 'Can England's NHS Survive?'

¹³ Clark et al., 'Effectiveness of a Lifestyle Intervention in Promoting the Well-being of independently Living Older People' and Pringle et al., 'Cost Effectiveness of Interventions to Improve Moderate Physical-Activity'.

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- ¹⁴ Khaw et al., 'Combined Impact of Health Behaviours and Mortality in Men and Women'.
- ¹⁵ The Information Centre for Health and Social Care, *Statistics on Obesity*.
- ¹⁶ Pringle et al., 'Effect of a National Programme of Men's Health Delivered in English Premier League Football Clubs' and Pringle et al., 'Cost Effectiveness of Interventions to Improve Moderate Physical-Activity'.
- ¹⁷ Johnman et al., 'The Beautiful Game'.
- ¹⁸ Witty et al., 'Tackling Men's Health'.
- ¹⁹ Triveldy. 'Oral Health Through Sport'.
- ²⁰ Gray et al., 'Can the Draw of Professional Football Clubs help promote Weight Loss in Overweight and Obese Men?'
- ²¹ Premier League, *Creating Chances*.
- ²² Parnell et al., 'Football in the Community Schemes', Hunt et al., 'You've Got to Run Before You Can Walk', and Football Foundation, *Extra Time*.
- ²³ Parnell et al., 'Football in the Community Schemes', Brady Sustained Benefits of a Health Project for Middle Aged Football Supporters at Glasgow Celtic and Rangers Football Clubs', Pringle and Sayers., 'It's a Goal' and Mason and Holt, 'A Role for Football in Mental Health'.
- ²⁴ Gray et al., 'Football Fans in Training'.
- ²⁵ Sinclair and Alexander, 'Using Outreach to involve the Hard-to-Reach in a Health Check'.
- ²⁶ Zwolinsky et al., Optimizing Lifestyles for Men Regarded as "Hard-to-Reach" Through Top-Flight Football/Soccer Clubs'.
- ²⁷ Faugier, 'Sampling Hard-to-Reach Populations'.
- ²⁸ Curran, *Understanding the Barriers to, and Impact of Men's Engagement in Physical Activity and Health Related Behaviours* and Moffett, *Community engagement and Visible Manifestations of Conflict Programme*.
- ²⁹ Whittall et al., 'Why Some Do But Most Don't'.
- ³⁰ Pringle et al., 'Cost Effectiveness of Interventions to Improve Moderate Physical-Activity'.

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- ³¹ Yancey et al., 'Dissemination of Physical Activity Promotion Interventions in Underserved Populations'.
- ³² Whittall et al., 'Why Some Do But Most Don't'.
- ³³ Dawson et al., 'Perceived Barriers to Walking in the Neighbourhood Environment and Change in Physical Activity Levels Over 12 months'.
- ³⁴ Sinclair and Alexander, 'Using Outreach to Involve the Hard-to-Reach in a Health Check'.
- ³⁵ CRI, *National Evaluation of LEAP*.
- ³⁶ Dunn et al., 'Kicking the Habit', Parnell et al., 'Football in the Community Schemes' Pringle and Sayers 'It's a Goal' and Pringle et al., 'Effect of a National Programme of Men's Health Delivered in English Premier League Football Clubs'.
- ³⁷ Robertson et al., 'It's Fun, Fitness, Football Really'.
- ³⁸ Morgan et al., '12-Month Outcomes and Process Evaluation of the SHED-IT RCT'.
- ³⁹ NICE, Behaviour Change.
- ⁴⁰ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*.
- ⁴¹ Pringle et al., 'Qualitative Perspectives on Evaluability of Community Physical Activity Interventions'.
- ⁴² Curran, *Understanding the Barriers to, and Impact of Men's Engagement in Physical Activity and Health Related Behaviours* and Pringle et al., 'Health Improvement for Men and Hard-to-Engage-Men Delivered in English Premier League Football Clubs'.
- ⁴³ McKenna et al., 'Scientists Within Community Research'.
- ⁴⁴ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*, Glasgow et al., 'Evaluating the Impact of Public Health interventions: The REAIM framework', MRC *Developing and Evaluating Complex Interventions*, NOO, *Standard Evaluation Framework for Physical Activity Interventions* and Sport England *Learning from LEAP*.
- ⁴⁵ McKenna et al., 'Scientists Within Community Research'.
- ⁴⁶ Palys, *Purposive Sampling*.
- ⁴⁷ Curtis et al., 'Approaches to Sampling and Case Selection in Qualitative Research: Examples in Geography of Health'.
- ⁴⁸ McKenna et al., 'Scientists Within Community Research.'
- ⁴⁹ McKenna et al., 'Scientists Within Community Research.'

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- ⁵⁰ McKenna et al., ‘Scientists Within Community Research.’
- ⁵¹ Janesick V. ‘The Choreography of Qualitative Research Design.’
- ⁵² Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*, Glasgow et al., ‘Evaluating the Impact of Public Health Interventions: The REAIM Framework’, MRC *Developing and Evaluating Complex Interventions*, NOO, *Standard Evaluation Framework for Physical Activity Interventions* and Sport England *Learning from LEAP*.
- ⁵³ Department of Health. *Start Active, Stay Active*.
- ⁵⁴ Pringle et al., ‘Effect of a National Programme of Men’s Health Delivered in English Premier League Football Clubs’.
- ⁵⁵ NICE *Behaviour Change*.
- ⁵⁶ Curran, *Understanding the Barriers to, and Impact of Men’s Engagement in Physical Activity and Health Related Behaviours* and Parnell et al., ‘Football in the Community Schemes’.
- ⁵⁷ Hunt et al., ‘A Gender-Sensitised Weight Loss and Healthy Living Programme for Overweight and Obese Men Delivered by Scottish Premier League football clubs (FFIT)’.
- ⁵⁸ South and Tilford, ‘Perceptions of Research and Evaluation in Health Promotion Practice and influences on Activity’.
- ⁵⁹ Burton Albion Community Trust. *Golden Goal*.
- ⁶⁰ NICE *Behaviour Change*.
- ⁶¹ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*.
- ⁶² Burton Albion Community Trust. *Golden Goal*, Curran, *Understanding the Barriers to, and Impact of Men’s Engagement in Physical Activity and Health Related Behaviours* and Parnell et al., ‘Football in the Community Schemes’.
- ⁶³ McKenna et al., ‘Scientists within Community Research’.
- ⁶⁴ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*.
- ⁶⁵ McKenna et al., ‘Scientists within Community Research’ and CRI, *National Evaluation of LEAP*.
- ⁶⁶ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*, Glasgow et al., ‘Evaluating the Impact of Public Health Interventions: The REAIM Framework’,

MRC *Developing and Evaluating Complex Interventions*, NOO, *Standard Evaluation Framework for Physical Activity Interventions* and Sport England *Learning from LEAP*.

⁶⁷ CRI, *National Evaluation of LEAP*.

⁶⁸ Dugdill and Stratton, *Evaluating Sport and Physical Activity Interventions*

⁶⁹ Glasgow et al., 'Evaluating the Impact of Public Health Interventions: The REAIM Framework'.

⁷⁰ Pringle et al., 'Delivering Men's Health Interventions in English Premier League Football Clubs: Key Design characteristics'.

⁷¹ CRI, *National Evaluation of LEAP*.

⁷² Glasgow et al., 'Evaluating the Impact of Public Health Interventions: The REAIM Framework'.

⁷³ Wood et al., 'Comparison of Imputation and Modelling Methods in the Analysis of a Physical Activity Trial with missing Outcomes'.

⁷⁴ Pringle et al., 'Effect of a National Programme of Men's Health Delivered in English Premier League Football Clubs'.

References

Black, N. 'Can England's NHS Survive?' *New England Journal of Medicine* 369 (2013): 1-3. <http://www.nejm.org/doi/full/10.1056/NEJMp1305771>. (accessed September 9, 2013).

Brady A, C. Perry, D. Murdoch, and G. McKay. 'Sustained Benefits of a Health Project for Middle Aged Football Supporters at Glasgow Celtic and Rangers Football Clubs'. *European Heart Journal* 24 (2010): 2696-98.

British Heart Foundation National Centre Physical Activity and Health: *Evidence briefing. The Economic Costs of Physical Inactivity*. 2013; <http://www.bhfactive.org.uk/userfiles/Documents/economiccosts.pdf> (accessed October 07, 2013).

Burton Albion Community Trust. 'Golden Goal', 2013 <http://burtonalbioncommunitytrust.co.uk/courses/golden-goal-over-50s-activity-programme/> (accessed August 1, 2013).

Carnegie Research Institute (Leeds Metropolitan University) with Matrix RCL and Ipsos MORI. *National evaluation of LEAP: A Final Report on the Local Exercise Action Pilots*, 2007. London: Department of Health. Available at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073600; 2007 (accessed September 24, 2013).

Clark, F., J. Jackson, M. Carlson, CP. Chou, B. Cherry, M. Jorgan-Marsh, et al. 'Effectiveness of a Lifestyle Intervention in promoting the Well-being of Independently Living Older People: Results of the Well Elderly 2 Randomised Controlled Trial'. *Journal of Epidemiology and Community Health* 66 (2012): 782-90.

Curran, K. *Understanding the Barriers to, and Impact of Men's Engagement in Physical Activity and Health Related Behaviours: An Examination of an English*

Premier League Football in the Community Men's Health Programme. PhD Thesis. Liverpool John Moores University, 2013.

Curtis, S., W. Gesler, G. Smith and S. Washburn. 'Approaches to Sampling and Case Selection in Qualitative Research: Examples in Geography of Health'. *Social Science and Medicine* 50 (2000): 1001-14.

Dawson, J., M. Hillsdon, I. Boller, and C. Foster. 'Perceived Barriers to Walking in the Neighbourhood Environment and Change in Physical Activity Levels Over 12 months'. *British Journal of Sports Medicine* 41 (2007): 562-68.

Department of Health. *Start Active, Stay Active: A Report on Physical Activity for Health from the Four Home Countries Chief Medical Officers*. London: Crown, 2011. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_128210.pdf. (accessed 24 September 24, 2013).

Dunn, K., B. Drust, D. Flower, and D. Richardson. 'Kicking the Habit: A Biopsychosocial Account of Engaging Men Recovering from Drug Misuse in Recreational Football'. *Journal of Men's Health* 8: (2011): 233.

Dugdill, L., and G. Stratton. *Evaluating Sport and Physical Activity Interventions: A Guide for Practitioners*, University of Salford, 2013. http://usir.salford.ac.uk/3148/1/Dugdill_and_Stratton_2007.pdf (accessed September 24, 2013).

Faugier J., and M. Sergeant. 'Sampling Hard-to-Reach Populations'. *Journal of Advanced Nursing* 26 (1997): 790-97.

Football Foundation. *Extra-Time: Evaluation Summary Report*, 2011. Available at: <http://www.footballfoundation.org.uk/our-schemes/extra-time/extra-time-summary-report/?assetdet240618=29315>. (accessed August 1, 2013).

Glasgow, R., T. Vogt, and S. Boles. 'Evaluating the Impact of Public Health Interventions: The REAIM Framework'. *American Journal of Public Health* 89 (1999): 1323-27.

Gray C, K. Hunt, N. Mutrie, A. Anderson, S. Treweek, and S. Wyke. 'Can the Draw of Professional Football Clubs Help Promote Weight Loss in Overweight and Obese Men? A Feasibility study of the Football Fans in Training Programme Delivered through the Scottish Premier League'. *Journal of Epidemiology and Community Health* 65 (2011): A37-A38 doi:10.1136/jech.2011.143586.84.

Gray, C., K. Hunt, N. Mutrie, A. Anderson, J. Leishman, L. Dalgarno, and S. Wyke. 'Football Fans in Training: The Development and Optimization of an Intervention Delivered Through Professional Sports Clubs to Help Men Lose Weight, Become More Active and Adopt Healthier Eating Habits'. *BMC Public Health* 13: (2013) 232.

Hippisley-Cox, J., C. Coupland, Y. Vinogradova, J Robson, R. Minhas, A. Sheikh, and P. Brindle. 'Predicting Cardiovascular Risk in England and Wales: Prospective Derivation and Validation of QRISK2'. *British Medical Journal* 336 (2008):1475.

Hunt, K., C. McCann, C. Gray, N. Mutrie, and S. Wyke. ' "You've Got to Walk Before You Run": Positive Evaluations of a Walking Program as Part of a Gender-Sensitized, Weight-Management Program Delivered to Men Through Professional Football Clubs'. *Health Psychology* 32 (2013): 57-65.

Hunt, K., S. Wyke, C. Gray, A. Anderson, A. Brady, C. Bunn et al., 'A Gender-Sensitised Weight Loss and Healthy Living programme for Overweight and Obese Men Delivered by Scottish Premier League Football Clubs (FFIT): A Pragmatic Randomised Controlled Trial'. *The Lancet* 383 (2014): 1211-24

Janesick V. 'The Choreography of Qualitative Research Design: Minuets, Improvisations and Crystallisation'. In N. Denzin and Y Lincoln. ed. *Strategies of Qualitative Enquiry*, 2003, California, Sage, 46-79.
http://books.google.co.uk/books?hl=en&lr=&id=2Bvxli1d2a0C&oi=fnd&pg=PA46&dq=staying+close+to+the+data+janesick&ots=EG8porKmFT&sig=dmM4QZtMdTX-hgS_nZOHJZho-30#v=onepage&q&f=false (accessed February 19, 2014).

Johnman, C., F. Sim, and P. Mackie. 'The Beautiful Game.' *Public Health* 127 (2013): 697-98.

<http://www.publichealthjrnal.com/article/PIIS0033350613002448/fulltext> (accessed September 10, 2013).

Kahn, R., R.M. Robertson, R. Smith, and D. Eddy. 'The Impact of Prevention on Reducing the Burden of Cardiovascular disease'. *Circulation* 118 (2008): 576-85. <http://circ.ahajournals.org/cgi/content/full/118/5/576>. (accessed September 9, 2013).

Khaw, K., N. Wareham, S. Bingham, A. Welch, R. Luben and N. Day. 'Combined Impact of Health Behaviours and Mortality in Men and Women: The EPIC-Norfolk Prospective Population Study'. *PLOS Med* 5 (2008): 39-47.

Mason O, and R. Holt. 'A Role for Football in Mental Health: The Coping Through Football Project'. *The Psychiatrist Online* 36 (2012) 290-93.

McKenna, J., M. Davis, and A. Pringle. 'Scientists Within Community Research'. *The Sport and Exercise Scientist* 4 (2005): 6-7.

Medical Research Council. *Developing and Evaluating Complex Interventions: New Guidance*. London, Medical Research Council, 2008. <http://www.mrc.ac.uk/Utilities/Documentrecord/index.htm?d=MRC004871>. (accessed October 7, 2013).

Moffett, L. *Community Engagement and Visible Manifestations of Conflict Programme: Extending Reach* (2010). <https://www.google.co.uk/search?q=Moffestt+community+engagement+and+visible+man&oq=Moffestt+community+engagement+and+visible+man&aqs=chrome..69i57j12899j0&sourceid=chrome&ie=UTF-8#q=Moffestt+community+engagement+and+visible+manifestations> (accessed August 1, 2013).

Morgan, P., D. Lubans, C. Collins, J. Warren, and R. Callister. '12-month Outcomes and Process Evaluation of the SHED-IT RCT: An Internet-Based Weight Loss Program Targeting Men'. *Obesity* 19 (2010): 142–51. doi:10.1038/oby.2010.119.

National Institute of Health and Clinical Excellence. *The Most Appropriate Means of Generic and Specific Interventions to Support Attitude Behavioural Change at Population and Community Levels*. London: National Institute of Health and Clinical Excellence, 2007. <http://www.nice.org.uk/PH6> (accessed September 24, 2013).

National Obesity Observatory. *Standard Evaluation Framework for Physical Activity Interventions*. London, National Obesity Observatory, 2012. http://www.noo.org.uk/uploads/doc/vid_16722_SEF_PA.pdf. (accessed February 20, 2014).

Palys, T. *Purposive Sampling* (undated) <http://www.sfu.ca/~palys/Purposive%20sampling.pdf> (accessed January 30, 2014).

Parnell, D., G. Stratton, B. Drust., and D. Richardson. 'Football in the Community schemes: Exploring the effectiveness of an Intervention in Promoting Positive Healthful Behaviour Change'. *Soccer and Society* 14 (2013): 35-51.

Premier League. *Creating Chances, 2011*. London: Premier League. <http://addison.ceros.com/premier-league/creating-chances-2011/page/1> (accessed January 25, 2013)..

Pringle A., and P. Sayers. 'It's a Goal: Basing Community Psychiatric Services in a Local Football Stadium'. *Journal of the Royal Society of Health Promotion* 124 (2004): 234-38.

Pringle, A., J. McKenna, E. Whatley, and N. Gilson. 'Qualitative Perspectives on Evaluability of Community Physical Activity Interventions'. *From Education to Application: Sport, Exercise and Health Proceedings of the British Association of Sport & Exercise Science meeting*, Wolverhampton University, UK. Leeds, British Association of Sport & Exercise Science, September 11-13, 2006.

Pringle, A., K. Marsh, N. Gilson, J. McKenna, and C. Cooke. 'Cost Effectiveness of Interventions to Improve Moderate Physical-Activity: A Study in Nine UK sites'. *Health Education Journal* 69 (2010): 211-24.

Pringle, A., J. McKenna, J. and, S. Zwolinsky. 'An Even More Beautiful Game'. *Public Health* 127 (2013): 1143-44.

Pringle, A., J. McKenna, J. and, S. Zwolinsky. 'Health Improvement and Professional Football: Players on the Same Side?' *Journal of Policy Research in Tourism Leisure and Events* 5 (2013): 207-12.

Pringle, A., S. Zwolinsky, J. McKenna, A. Daly-Smith, S. Robertson, and A. White. 'Effect of a National Programme of Men's Health Delivered in English Premier League Football Clubs.' *Public Health* 127 (2013): 18-26.

Pringle, A., S. Zwolinsky, J. McKenna, A. Daly-Smith, S. Robertson, and A. White. 'Delivering men's health interventions in English Premier League football clubs: Key Design Characteristics'. *Public Health* 127 (2013): 717-26.

Pringle, A., S. Zwolinsky, J. McKenna, A. Daly-Smith, S. Robertson and A. White. 'Health Improvement for Men and Hard-to-Engage-Men Delivered in English Premier League Football Clubs'. *Health Education Research* (2014): doi:10.1093/her/cyu009.

Robertson, S., S. Zwolinsky, A. Pringle, J. McKenna, A. Daly-Smith, and A. White. 'It is Fun, Fitness and Football Really: A Process Evaluation of a Football-Based Health Intervention for Men'. *Qualitative Research in Sport Exercise and Health* 5 (2013): 419-39.

Scarborough, P., Bhatnagar, K. Wickramasinghe, S. Allender, C. Foster, and M. Rayner. 'The Economic Burden of Ill Health Due to Diet, Physical Inactivity, Smoking, Alcohol and Obesity in the UK: An Update to 2006-2007 NHS Costs'. *Journal of Public Health* 33 (2011): 527-35.

Sinclair, A., and H., Alexander. 'Using Outreach to Involve the Hard-to-Reach in a Health Check: What Difference Does it Make?' *Public Health* 126: (2012):87-95

South J., and S. Tilford. Perceptions of Research and Evaluation in Health Promotion Practice and Influences on Activity. *Health Education Research* 15 (2000): 729-41.

Sport England. *Learning from LEAP*, London, Sport England, 2006.

The Information Centre for Health and Social Care. *Statistics on Obesity, Physical Activity and Diet in England 2010*. London: The Information Centre for Health and Social Care.

http://www.ic.nhs.uk/webfiles/publications/opad10/Statistics_on_Obesity_Physical_Activity_and_Diet_England_2010.pdf; 2010. (accessed February 20, 2013).

Trivedy, L. 'Oral Health Through Sport'. *British Dental Journal* 210 (2011):150
Available at: <http://www.nature.com/bdj/journal/v210/n4/full/sj.bdj.2011.98.html>
(accessed 24 January, 2012).

Wang, Y., K. McPherson, T. Marsh, S. Gortmaker, and M. Brown. 'Health and Economic Burden of the Projected Obesity Trends in the USA and the UK.' *Lancet* 378 (2011): 815-25.

Withall, J., R. Jago, and K. Fox. 'Why Some Do But Most Don't. Barriers and Enablers to Engaging Low-income Groups in Physical Activity Programmes: A Mixed Methods Study'. *BMC Public Health* 11 (2011): 507.
<http://www.biomedcentral.com/1471-2458/11/507>.(accessed September 24, 2013).

Witty, K. and A. White. 'Tackling Men's Health: Implementation of a Male Health Service in a Rugby Stadium'. *Community Practitioner* 84 (2011): 29-32.

Wood, I., I White, M. Hillsdon, and J. Carpenter. 'Comparison of Imputation and Modelling Methods in the Analysis of a Physical Activity Trial with Missing Outcomes'. *International Journal of Epidemiology* 34 (2005): 89-99.

Yancey, A., M. Ory, and S. Davis. 'Dissemination of physical Activity Promotion Interventions in Underserved Populations'. *American Journal of Preventive Medicine* 31 (2006): S82-S91.

Zwolinsky, S., J., McKenna, A. Pringle, A. Smith, S. Robertson, and A. White. 'Optimizing Lifestyles for Men Regarded as "Hard-to-Reach" Through Top-Flight Football/Soccer clubs'. *Health Education Research* 28 (2013): 405-13.
