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Citation:

Witty, KR and White, A (2010) The Tackling Men's Health Evaluation Study. UNSPECIFIED. Centre for Men's Health. Leeds Metropolitan University, Leeds, UK.

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Document Version:

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The Tackling Men's Health Evaluation Study

Final Report April 2010

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Acknowledgements

We would like to thank all those for their continued contribution to the research, including:

- All our study participants.
- Andrew Harrison and Pete Westwood from the Men's Health Plus team.
- Jane Riley and Victoria Smith from the Department of Health.
- Rob Oates from Leeds Rugby.
- Staff at Headingley Carnegie stadium.
- All of the student volunteers who helped with the recruitment of study participants.
- Sue Rooke and Vicki Crossley for their administrative support throughout the course of the study.
- Steve Robertson, Anne-Marie Bagnall, Peter Branney and Mark Robinson for their expert contributions to the study and report.

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Introduction

Tackling Men's Health is an intervention developed out of a partnership between the Department of Health, Leeds Rhinos Rugby League Club and Leeds Metropolitan University. The intervention was designed to target men attending Headingley Carnegie Stadium, with the aim of promoting engagement with health services and therefore promoting improved health and wellbeing.

The primary aim of the of the Tackling Men's Health study is to assess engagement in an intervention targeting men attending rugby matches.

Secondary aims of the research study are to:

- To assess the barriers and facilitators associated with implementing a health promotion intervention targeting men attending rugby league games
- To examine the effect of a multi-component targeted intervention on men's self reported engagement with health services
- To examine the effect of a multi-component targeted intervention on men's awareness of key health issues
- To examine the effect of multi-component targeted intervention on men's perceived health status

The research study monitored the evolution of the Tackling Men's Health intervention, which was delivered in sports settings over the course of the 2009 Engage Super league Rugby league season. Seven stakeholders and 20 men who attended Rugby league matches were interviewed to achieve a broad understanding of appropriateness of the processes used in the planning and delivery of the Tackling Men's Health intervention.

Background

Settings-based health promotion is based on the premise that it is easier to facilitate change in people's health and health behaviour if promoters focus on settings rather than individuals¹. The aim of a settings approach is to create supportive environments from which target groups can implement change.

The settings-based approach has three essential dimensions²:

- (i) Creating supportive and healthy working and living environments
- (ii) Integrating health promotion into daily activities of the setting
- (iii) Recognising the fact that people do not operate in just one setting, and that any one setting impacts outside of itself

In recent years there has been a large body of work looking at health promotion in settings such as schools³, and in the case of men's health, within the workplace^{4,5}

¹ Whitelaw s, Baxendale A, Bryce C, MacHardy L, Young I & Witney E. 2001. 'Settings' based health promotion: a review. Health Promotion International. 16(4) , 339-353.

² Kokko S, Kannas L, Villberg J, 2009. Health promotion profile of youth sports clubs in Finland: club officials' and coaches' perceptions. 24(1) 26-35

³ Peters LW, Kok G, Ten Dam GT, Buijs GJ & Paulussen TG. 2009. Effective elements of school health promotion across behavioural domains: a systematic review of reviews. BMC Public Health 9(8),182-196

However, there have been much fewer examples of the use of leisure settings for health promotion interventions.

“Health promoting schools and health promoting workplaces act effectively on health behaviours and their determinants, and the reach of settings-based health promotion should be greatly expanded”⁶

The North West Healthy Stadia programme provides an example of an intervention employing a whole systems approach to improving the health of those who visit, play or work at or live in the neighbourhood of professional sports clubs⁷. The aim of the Healthy Stadia initiative was to:

“[E]nsure that those people who visit, play at, work at, or live in the neighbourhood of professional sports clubs have the opportunity to be supported by the Healthy Stadia Programme to live healthier lives.”⁷

Findings from the Healthy Stadia initiative emphasised the importance of partnership working and community engagement to the success of sustaining the initiative. In doing so it is important to establish a business case outlining the potential gains of participation in the initiative for the club and other partner organisations.

Building on the North West Healthy Stadia programme, in 2009 Liverpool hosted the European Healthy Stadia Conference in which examples of best practice across Europe were presented. Supported by both UEFA and the London 2012 Olympic committee the Healthy stadia movement evidences the growing belief that sports stadia can promote healthier lifestyles.

Recent UK policy has presented a prime opportunity for funders and commissioners to develop work health interventions within sports venues. Most notably the recent policy document ‘Be Active, Be Healthy: A Plan for Getting the Nation Moving’ together with the Change 4 Life movement, a society-wide movement that aiming to prevent people from becoming overweight by encouraging them to eat better and exercise more⁸ and the approaching 2012 Olympic and Paralympic games have placed activity and the benefits of sport at the forefront of the health agenda. What’s more, the ‘Be Active, Be Healthy’ plan provides support for health services to work with sporting partners in tackling health inequalities. Further policy support can be seen in the ‘Choosing Health: Making healthy choices easier’ document. The White Paper promotes the idea that in order to confront health inequalities support must be tailored to individuals, and services must be more sensitively personalised to target groups. Further to this the White Paper promotes the idea of effective partnership working, and coordinated action, an important element in any community based health intervention.

Rugby League football is traditionally a working class game, most popular with men from the North of England a group who also experience some of the worst rates of obesity in England⁹. Leeds Rhinos is a rugby club which has positioned itself at the heart of the

⁴ Robertson, LM, Douglas F, Ludbrook A, Reid, G & van Teijlingen E. 2008. *What works with men? A systematic review of health promoting interventions targeting men*. BMC Health Service Research 8(141)

⁵ Harrison A. Weight management in the workplace. In Conrad D & White A. (eds.) 2007. *Men’s Health How to Do It*. Radcliffe Publishing Ltd. Oxon.

⁶ International Union for Health Promotion and Education, 2007. *Shaping the future of health promotion: priorities for action*. Health Education Research. 22(6):931-935

⁷ Crabb & Ratinckx, 2005. *The Healthy Stadia Initiative: A Report for North West Public Health Team*. Department of Health.

⁸ Department of Health, 2010. *Change4Life – Eat Well, Move More, Live Longer*. Available from: <http://www.dh.gov.uk/en/MediaCentre/Currentcampaigns/Change4Life/index.htm>. Accessed January 2010.

⁹ Government Office for Science. 2007. *Foresight Tackling Obesities: Future Choices Project*. Available from: <http://www.foresight.gov.uk/Obesity/17.pdf>. Accessed January 2010.

local community and, through the Leeds Rugby foundation, has established a range of community development activities within the area. However, national and international success in the game has ensured that the club's activities can reach a much larger audience.

Intervention Design

Aims: The primary aim of the Tackling Men's Health intervention was to promote health service engagement to men attending rugby league matches. Secondary aims of the initiative included:

- To improve awareness and knowledge of key health issues affecting men
- To empower men to be more active in self management
- To identify health problems with male attenders of Leeds Rhinos games

Setting: Leeds Carnegie Stadium

Duration: 7 months

Overview: The Tackling Men's Health program was a pilot, multi-component targeted health promotion intervention designed to be delivered alongside league fixtures within the Engage Super League. The original intervention design consisted of 12 themed match days. Themes included; mental health, diet and nutrition, exercise and sexual health. It was originally envisaged that community partners and key organisations working in relevant fields would be represented at each match day. Match day themes were chosen to link in with a common theme spanning the length of the Rugby league season, the theme for the pilot season was obesity.

The intended design of the intervention consisted of the following components:

1. Gender sensitive health information and information on local services appropriate to the match day theme provided on strategically placed poster stands within the ground. Stands were to be manned by student volunteers. Leaflets were to be distributed on five occasions in the Super League season. Further information was proposed to be supplied by partner organisations present at each match day
2. Male health clinics set up within strategically located areas of the stadium. Clinics were to offer information linked to the theme of the clinic, gender sensitive health promotion and service literature on key issues relating to men's health, screening for a range of conditions affecting men and brief or full health checks conducted by trained health care practitioners
3. Pre-match male weight loss and smoking cessation groups were to be delivered by healthcare practitioners and student volunteers to men requiring assistance with losing weight. Each group was to have a structured six part programme allowing men to receive advice and support on how to achieve set goals. Men were to be referred to the groups after attending the male health care clinic, and achievement of goals was to be promoted by provision of an appropriate and sustainable incentive. Initial pre-match meetings were to last for one hour in order to incorporate introductions, subsequent meetings were planned to last 30-45 minutes
4. Key facts and promotional material associated with each of the match day theme and the intervention as a whole were to be provided in match day programs. Promotional resources including Tackling Men's Health branded pitchside hoardings, ticker-tape messages and player sponsorship were also proposed

Delivery: The core components of the intervention were intended to be delivered by the Men's Health Plus team with the support of the project management team and Leeds Rhinos.

Evaluation Methods

The main aim of the study was to assess the extent to which the Tackling Men's Health intervention was able to promote engagement with services, either within the stadium or through existing health services over the course of the Super League season. Secondary aims of the study were to monitor changes in perceived health literacy and perceived health status over the duration of the intervention. The research study consisted of four interlinked streams of data collection designed to gain a broad insight into the process of delivering the intervention and the health related outcomes experienced by men taking part in the intervention:

- (i) Quantitative research with participants
- (ii) Qualitative research with participants
- (iii) Qualitative research with key stakeholders
- (iv) Monitoring data collected by the delivery team

Study Design: The study employed a non-experimental design. Data was collected throughout the super league season and fed back to the research team at the end of the season. Quantitative data was collected through the use of a brief 'pop questionnaire' at the start of the season (see Appendix 1) which acted both as a recruitment device and a baseline measurement tool. The 'pop questionnaire' was delivered by student volunteers before the match and at half-time during the first two home matches of the super league season. The 'pop questionnaires' were followed-up using a postal questionnaire sent out to all participants at the end of the season (see Appendix 2).

Qualitative data from participants was gained through semi-structured interviews with men who had consented to be contacted for an interview at baseline (see Appendix 3). Attempts were made to interview men who broadly reflected the demographics of the overall sample. Men who had engaged within the intervention were prioritised in order to achieve representation of men who had and had not used the various components of the intervention.

Qualitative data was collected using semi-structured interviews with key stakeholders including representatives of each of the partner organisations (see Appendix 4).

Monitoring data relating to numbers of men engaging with the intervention, services delivered, referrals and test results were collected in order to examine demand for the services and map the service needs of men at the stadium.

Recruitment and Sample Size

An accidental sample was sought; no formal sample size calculations were conducted. The aim of the two phases of recruitment was therefore to recruit as many participants as possible within the time frame.

A total of 202 participants were recruited to the research study at the start of the Super League Season. Of those recruited at baseline, 89 participants returned follow-up postal questionnaires. Eight key stakeholders representing each of the partner organisations and the delivery team took part in semi-structured interviews at the end of the Super League season.

Engagement with the intervention was defined by self-reported use of any of the components of the Tackling Men's Health intervention in the follow-up questionnaire.

Twenty-seven of those returning questionnaires had engaged with a component of the intervention, of these nine reported that they had had a brief health or full health check delivered to them.

Recruitment took place during the first two matches of the super league season. Student volunteers from the subject groups of nursing and health promotion were enlisted to assist with recruitment of men to the Tackling Men's Health evaluation study. Students were sent information on the intervention, and the research study, as well as information on what they would be required to do when recruiting men to the research study. This included: copies of the participant information sheet, the baseline questionnaire and instructions on how to deliver the questionnaire. Recruitment involved the delivery of a 'pop questionnaire' to men attending Leeds Rhinos matches at Headingley stadium. Prior to delivering the questionnaire men were asked if they were willing to be followed up at the end of the season with a further questionnaire and also take part in an interview.

At the end of the first recruitment session 145 'pop questionnaires' had been completed. After inputting, 139 were deemed to sufficient quality to be used in the study. A further 79 men completed the 'pop questionnaire' at the second recruitment session, 63 questionnaires were of sufficient quality to be used in the study, giving a total of 202 to be followed up at the end of the season. Questionnaires rejected at this stage were because; no contact details were recorded or the questionnaires were spoilt. Of the 202 recruited, 108 agreed to be contacted for an interview.

Men attending the pre-match weight loss group were recruited as a sub-group of the research at the initial meeting of the weight loss group, participating men were required to complete a questionnaire and provide full written consent to provide monitoring data collected throughout the duration of the group.

Outcome measures

Engagement with the intervention was measured through questionnaire data from the weight loss group, monitoring data collected from health checks and health MOTs and monitoring data from men accessing the web portal <http://www.therhinos.co.uk/fanzone/menshealth.php>. Further information on how successfully the intervention was able to promote engagement with different groups of men was gained from interviews with the delivery team and student volunteers.

Changes in perceived health literacy and changes in perceived health status were measured through comparison of baseline and follow-up questionnaires and also through participant interviews at the end of the super League season.

Analyses

Analyses on quantitative data were performed using the data analysis software SPSS V.16. Sample characteristic data were analysed using descriptive statistics. Analysis of changes in health literacy and service use between baseline and follow up was conducted using paired samples t-tests. Further analysis was conducted to unearth differences between those engaged in the intervention and those not engaged through a calculation of health literacy change scores and use of independent samples t-tests and chi-squared tests.

Stakeholder and participant interviews were fully transcribed and imported into the qualitative data analysis tool NVivo V.8. Thematic analysis of the transcripts was conducted.

Ethics

Information sheets were provided to all participants at the recruitment stage and verbal consent was taken. Each participant and stakeholder was required to provide informed written consent before being interviewed; those who were interviewed over the phone were asked to give recorded verbal consent.

Full ethical approval was provided by Leeds Metropolitan Faculty of Health.

The Participants

202 participants were recruited to the study at baseline, findings within this section relate to analysis of data from the 89 participants who provided both baseline and follow-up data.

There was a good spread of ages within the followed-up sample of men, the distribution was however slightly skewed towards the over 35 year olds. Just one non-White participant was included in the research. Whilst there was a good range of job roles reported, the majority of participants returning follow-up questionnaires stated that they had either professional or managerial/technical job roles (57%, n=47). The characteristics of those who were interviewed at follow-up were broadly similar to those within the wider sample. A full breakdown of participant characteristics can be found in Appendix 5.

Interviews with participants revealed high levels of support and loyalty to the club, the majority of those interviewed were season ticket holders. Interviewees reported a range of informal routines performed when attending the stadium, many of the interviewees stated that they arrived early at the stadium in order to watch games involving junior Leeds Rhinos teams, to gain a good position on the terraces or to find a parking space. Which stand a supporter attended commonly impacted on their pre-match routine, with those in a seated stand being able to wait until the start of the match before they had to get to their seat, therefore giving more time to go to get food or a drink.

"We normally try and watch the academy game so we normally tend to be in our position an hour and a half before kick off."

45-54 years

"[W]e are usually there anything from an hour and a half to an hour before hand to get parked at all and then walk through, 15 minutes walk through to the ground, 10 or 15 it depends on the crowds, so when we go in that's usually what we will do, go and buy a programme and then go and sit down in the Carnegie bar and have a read of that and then go through sort of 20 minutes ahead [of the match]."

55-64 years

Planning and development

The Tackling Men's Health intervention was initially piloted at three Leeds Carnegie Rugby Union matches during the 2007/2008 Guinness Premiership season and three Leeds Rhinos matches. Whilst this pilot was not formally evaluated, feedback from the men's health nurses delivering the intervention, stakeholders and service users helped inform the design and development of the current Tackling Men's Health programme.

"I remember coming to work on the Monday morning, the day after and the phone was red hot and my e-mail box was filling up and people popped in and went 'hey we have seen you on the University website what a great idea.'"
Leeds Metropolitan University

The core partnership which underpinned the intervention was established organically through a combination of existing commercial links and shared goals.

"I happened to find myself sitting next to Alan White and we started talking about men's health and I realised there were a lot of issues around it that tied in with things that I was working on."
Department of Health

"One of the ever evolving partnerships led us down the path of the Faculty of Health met Chris Hudson, met Jane Riley, met Alan and then, it's just evolved into this fantastic project."
Leeds Rhinos

The Tackling Men's Health intervention was designed by the Centre for Men's Health in collaboration with the associate dean of the Faculty of Health, the faculty's marketing and events team, the Department of Health and the Men's Health Plus team. A completed plan was submitted for consultation with partner organisations in December 2008 in preparation for the commencement of the season in February 2009. The relative lack of time to further develop the initial plan was perceived by stakeholders as a barrier throughout the planning and development phase of the intervention.

"I think some of it is about more forward planning, I think we just found that we kept having ideas that we could do but we just didn't have the time."
Leeds Metropolitan University Nursing

"I don't think it happened that way you know, Alan came to me and said 'have you got any ideas' 'yeah I have got an idea, why don't we try this' so we tried it and it worked, so I wasn't in that planning process anyway to start with, so not too worried about that really just the way it happened that we were involved at a latter stage really"
Leeds Rhinos

Throughout the planning and development phase, contact was made with community partners with a view to involve them in the programmes delivery. Responses to invitations were poor with just two organisations wishing to be involved in the programme's delivery. Attempts were also made to engage with Leeds PCT with a view to implement a Chlamydia screening programme on matchdays, and to develop a more sustainable intervention.

"I had hoped that at the end of the year Leeds PCT had done something, but they haven't and I guess ... it is going to take longer than we thought, I think we probably need to look at the pathways and whether we are providing enough"
Department of Health

The timeliness of the launch of the Tackling Men's Health intervention and the shared objectives of the two initiatives contributed to the Tackling Men's Health being placed under the Change 4 Life banner. The decision to brand Tackling Men's Health a Change 4 Life programme enabled the project team to obtain access to numerous information and promotional resources with relatively low expenditure.

It was also hoped that the link-up with Change 4 Life campaign would give the Tackling Men's Health intervention immediate brand awareness for male attenders of the stadium.

Reflection

The piloting of the Tackling Men's Health intervention at Leeds Carnegie games, provided the intervention team with a good understanding of delivering a health intervention within a sports stadium setting. The pilot also helped strengthen partnerships between Leeds Metropolitan University, Leeds Rugby and the Department of Health. However, a lack of formalised evaluation of the pilot limited the extent to which the pilot was able to assist with the development of the current intervention.

A lack of time to formally design and develop the Tackling Men's Health programme meant that no needs assessment of the target audience could be conducted and members of the target population were absent from the planning phase. The lack of a detailed and formalised theoretically based plan meant that the intervention was heavily reliant on the skills of the Men's Health Plus nurses and their ability to tailor their services to different groups of men.

The limited amount of planning time also impacted on engagement with community partners and therefore the resources available to the project team. While the delivery team maintained contact with Leeds PCT in regard to the provision of Chlamydia testing on match days no formal agreements were put in place and the PCT did not contribute to the delivery of the intervention. The lack of time available to design and plan the intervention is likely to have impacted on attempts to promote community partners participation in the intervention.

NICE guidance on effective community engagement¹⁰ places emphasis on the planning, design and coordination of interventions and the incorporation of community involvement throughout. Partner organisations in the intervention were strongly motivated to successfully implement the intervention, however time constraints provided a strong challenge to achieving a considered and coordinated implementation of the promotion and recruitment phase of the intervention.

¹⁰ National Institute for Health and Clinical Excellence, 2008. PH9 Community engagement: guidance. Available from: <http://guidance.nice.org.uk/PH9/Guidance/pdf/English>. Accessed February, 2009.

Implementation and Delivery

Summary of Delivered Services

The core components of the intervention were implemented:

- The two nurses from Men's Health Plus were able to set up mobile clinics within various settings during the matches prior to the match and at half time. Health checks were offered to ground staff during the game
- A weight loss group was run at the Kirkstall Road training ground
- Information relating to the intervention was included in each match programme and on a dedicated men's health page accessed via the Leeds Rugby Website; Tannoy messages and ticker tape messages ran across the bottom of the score board prior to each match; a large banner relating to the intervention was on display at the main entrance to the ground; two pitch side hoardings were in place throughout the season; two players were sponsored through the Tackling Men's Health campaign, the name of which was noted next to their names within the programme and on the score board if they scored
- The Change 4 Life logo was incorporated on all the material for the match, including the hoodies worn by the nurses and volunteers, the banners and all promotional materials given to the supporters
- Stakeholder events were organised enabling interested third parties to see the initiative in action
- Student nurses and nutritionists were allocated to work with the delivery team and this counted towards their volunteer hours on their course

However there were deviations from the initial plan:

- The smoking cessation group did not run due to failure to recruit. The weight loss group was relocated to the Kirkstall Training Ground, with a movement in the time on match days to allow the men to get to the match on time
- The plan for themed evenings proved problematic. A smoking cessation bus was present at one match, however due to the rescheduling of another a further planned evening had to be called off. A lack of time prevented further events happening
- Leaflet distribution only occurred on one occasion rather than the five proposed, distributed leaflets linked in with the Change 4 Life campaign

Promotion and Recruitment

The first two home matches of the super league season were used by the Men's Health Plus team to introduce supporters to the intervention, and recruit men to the pre-match groups. The second home match of the Super League season also hosted the official launch of the intervention. The event was intended not only to showcase the Tackling Men's Health intervention but also to expose potential collaborators to related projects such as the Yorkshire Man Mini-Manual. The project team were able to use the facilities of the Club to host the event and the players to provide endorsement of the initiative.

The intervention introduced a range of promotional resources into the stadium, these included:

- A large Change 4 Life branded Tackling Men's Health banner at the main entrance to the stadium.
- Tackling Men's Health hoardings, ticker tape postings on the scoreboard prior to each match and Tannoy announcements were made intermittently.
- Two Tackling Men's Health branded pitch side hoardings within the camera arc were in place throughout the Super League season; there were advertisements and information in the match day programme.
- A web page was set up on the Leeds Rhinos website.
- Two Leeds Rhinos players were sponsored by the intervention.

During the first two matches 42 men were approached for the weight loss group, two of whom signed up to the group. It was agreed, in consultation with the management team, that these numbers were not sufficient to justify the delivery of a pre-match weight loss group. It was subsequently agreed by the management team, in consultation with Men's Health Plus, that the pre-match weight loss group should be postponed till sufficient numbers of men could be recruited.

The Leeds Smoking Cessation Service were tasked with recruiting men to the smoking cessation group during the promotion and recruitment phase, no men were recruited to the group and no men approached the team requesting help with stopping smoking resulting in the pre-match smoking cessation group being removed from the intervention programme.

"It's becoming increasingly difficult to actually recruit for smoking groups... the numbers of smokers have gone down and there's a widespread feeling that we are down to the hardcore in a lot of cases... I know the smoking people from Leeds PCT were there at the ground at least a couple of matches and... I believe they had very little success at recruiting, but I'm not altogether surprised by that"
Men's Health Plus

Embedding the Intervention

The delivery team arrived at the stadium approximately two hours before the start of each match, giving an approximate delivery period for the intervention of 28 hours. Attempts were made to engage with men before the match, during the interval period and also after the match. The delivery team immediately found that men were unlikely to engage with them after the match had commenced, therefore restricting the potential delivery time available.

In order to maximise the reach of the intervention the team located the clinics in a number of different bars throughout the season. This strategy meant that the delivery team had to re-establish the intervention each time relocation occurred. Each bar was found to offer different challenges, therefore requiring a flexible approach to service delivery.

"You find once the game starts at eight o'clock, you very rarely get people coming from half time and nobody afterwards, because... people are heading off, so you don't have that flexibility."
Men's Health Plus

Barriers experienced during the embedding of the intervention included:

- A lack of space within some bars to set up a stand
- The strong drinking culture within some venues
- Men in some bars expressed disinterest in the intervention

The lack of a rigid design enabled the delivery team to adapt their delivery strategies to accommodate the needs of the men they engaged with and to overcome the barriers which they came up against. This flexibility was seen by the delivery team as a key facilitator to enabling the delivery of the intervention.

"If we'd stuck to a rigid plan, some things wouldn't have worked...I suppose that's down to Leeds Met. and the Department of Health, they very much left it up to how you wanted to work, you know, which is great"
Men's Health Plus

Monitoring data collected by the delivery team over the course of the intervention indicated that 82 men with either full health MOTs or brief health checks, a further 190 men engaged in the with the intervention through being provided with brief health advice, information resources (e.g. smoking cessation leaflets) or condom distribution. Seven men attended the pre-match weight loss group. For a full breakdown of monitoring data see Appendix 6 & 7.

Student Volunteers

Two student volunteers from the Adult Health Nursing Degree course at Leeds Metropolitan University were recruited for each home game. Nutrition students and Nursing students were also employed to distribute promotional materials branded with the Change 4 Life logo at one point during the season. Students who participated were able to claim volunteer time for their degree course as well as gaining experience of practice. The initial group of volunteers were provided with an induction delivered by the Men's Health Plus team.

During the induction students were introduced to the intervention and provided with brief training on how to effectively work with men in the field. Student volunteers were required to assist the delivery team with all aspects of the intervention delivery. Tasks included approaching men with health literature, assisting with delivery of health checks and recruitment to the weight loss groups.

Initial interest from the nursing students was high, however, conflict with existing work placements proved problematic for those wishing to assist with the intervention. After unsuccessfully filling spaces during the initial recruitment phase, further publicity was sent via e-mail to nursing students, resulting in remaining volunteer slots being filled. Volunteer attendance of matches was inconsistent, with a number failing to attend or report absence. The research team was unable to ascertain why specific students failed to be present at their chosen matches.

Reports of the students who did attend the matches were largely positive. The delivery team acknowledged the assistance which the students provided and the valuable experience which the students were gaining.

"[V]ery enthusiastic and you know, and it helps, it helps us and it helps them"
Men's Health Plus Nurse

Concerns were however raised about the ability of some of the less experienced volunteers to cope with the challenges involved in working within the stadium setting. The delivery team believed that some volunteers were uncomfortable delivering some aspects of the intervention, for example condom distribution in the bar areas.

"It's hard to go in there, you know and especially with guys who've had a few drinks... it can be quite intimidating for them"
Men's Health Plus Nurse

Students who took part in the intervention provided largely positive feedback of their experiences and were able to provide constructive feedback about the intervention as a whole. However, there was criticism over the organisation of the student placements after a number of communication breakdowns.

"I think having the hoodies worked as well, because then people around the ground knew who we were and what we were trying to do."

Student Volunteer

"I think personally the organisation of the intervention could have been better and more organised on the basis of students"

Student Volunteer

The Weight loss Group

Recruitment to the weight loss group within the stadium proved to be problematic hampered by a lack of formalised scheduling for the group and the sensitive nature of the issue. Furthermore, the rushed development of the group restricted communication channels between partner organisations was viewed as a barrier to the successful implementation of the group.

"Identifying fat people and then saying do you want to join a group it's tricky, you can sort of get away with it, with a bit of banter but it's hard"

Men's Health Plus Nurse

"[I]t seemed to be such a mad rush at the end to try and get them in for next week, that was my only worry, that we were rushing, and we didn't even ask the guys where they wanted to go, what time they wanted."

Men's Health Plus Nurse

After limited success in recruiting men to a weight loss group at the stadium, liaison with Leeds Rhinos Community Development team resulted in the venue of the weight loss group being relocated to Leeds Rhinos training ground in the Kirkstall area of Leeds. The location was suggested because of the perceived draw of location to Leeds Rhinos supporters.

"Facilities are brilliant... and the catch, you can see where the guys train"

Men's Health Plus

Seven men expressed interest in attending a weight loss group after engaging with the Men's Health Plus team in the bar areas of the stadium, a further four men enquired about the weight loss group after viewing information about the group on the Leeds Rhinos website. Of these nine men, seven took part in the first session of the group.

Reflection

Several barriers experienced by the project team resulted in key aspects of the intended intervention not being actioned. Despite this, the delivery team were able to successfully engage with substantial numbers of men at the rugby ground in a relatively short delivery period.

The implementation and delivery phase of the intervention posed several challenges. Movement between areas of the stadium introduced the delivery team to men with differing needs and requirements for engagement. As a result, the Men's Health Plus team were required to adapt their approach to promote engagement. When engagement was achieved the delivery team experienced men with a range of different health needs, therefore requiring a flexible approach to delivery.

The delivery team experienced difficulties in recruiting men to the pre-match weight loss group. This was in part due to the problem of identifying overweight men, approaching them and discussing the sensitive subject of weight loss with them. Linking into the stages of change model (Prochaska et al. 1993), it is emphasised that behaviour change is a process, rather than a single event and within a given population there are likely to be a range of different levels of motivation to change behaviour. It may be that the majority of men who were approached to take part in the weight loss groups were not ready to consider changing their behaviour and therefore attempts to initiate behaviour change are likely to be fruitless. Under the stages of change model it is suggested that a process of consciousness raising is initiated in order to encourage progression to a stage more conducive to behaviour change.

Student placements provide the opportunity for mutual benefit between partnership organisations. Participating students are able to gain valuable experience of working within non-clinical settings and those delivering the intervention were able to gain support from individuals with a working knowledge of patient care. However, ineffective communication links between the project team and the student volunteers and a failure of some students to attend matches they had committed to attend brings into question the methods used to engage students in the intervention. There was a suggestion from key stakeholders that a more formal process of recruitment and training process, involving the Men's Health Plus team was required to encourage students to attend games and make them accountable should they sign up and fail to attend. Given the probable unfamiliarity of the setting and the target group to student volunteers it is unsurprising that some student volunteers did not feel comfortable with the tasks that they were given. It may be more appropriate that students with more experience of patient interaction be recruited for future matches.

National Institute for Health and Clinical Excellence Public health guidance⁸ on community engagement emphasises the involvement of community members and supporting organisations in the design and delivery of the intervention. Time constraints appeared to act as a barrier to providing a considered approach to delivering the weight loss group. A lack of effective communication between the project team and the delivery team resulted in uncertainty over delivery schedules.

Stakeholder Perspective

Stakeholder interviews suggested that all partner organisations believed the intervention to be a success, with each partner reporting benefits of being involved in the implementation of the intervention. The collaboration between each of the partner organisations and the delivery team was perceived to be a key factor in ensuring the success of the intervention. Each partner was seen as playing a distinct but pivotal role within the implementation intervention.

"[T]he club provides the magnetism, the Department of Health provide the resources, the Centre for Men's Health at the University provides the expertise"
Leeds Metropolitan University

One of the primary success stories from the stakeholder perspective was the high degree of media attention which the intervention received. This publicity was seen as beneficial for all partner organisations in raising the profile not only of the Tackling Men's Health intervention, but also raising the community and commercial profile of each partner. The use of high profile stakeholder events allowed the partner organisations to engage with local and national interest groups and showcase the work within the Headingley Stadium and related projects such as the Yorkshire Man mini manual.

"I think in terms of our major objectives which is about getting the publicity and getting senior stakeholders on board... it enabled us to bring in people like Natural England and the Yorkshire Agricultural Society, some of the leading people in health"
Department of Health

The link up with the national Change 4 Life campaign was also reported as a key success of the Tackling Men's Health intervention. Stakeholders suggested that the strong media profile of the Change 4 Life campaign and the resulting brand awareness provided the Tackling Men's Health intervention with a label which men attending the stadium recognised. The link up also provided the project team to access heavily subsidised branded intervention materials such as Change 4 Life stress balls, Change 4 Life hand warmers and Change 4 Life information resources. These materials were seen by stakeholders as important tools in promoting the intervention within the stadium.

"Change 4 Life was launched part of the way through it and it fitted well with that, as an opportunity to give people lot's of key messages that fitted in with it, because at the time, we are investing 75 million pounds in Change 4 Life in the communication side of it over three years and there were adverts going out on the television there were posters all over the place, therefore it made it quite easy for us in some ways to spend a small amount of money making that link with people"
Department of Health

Stakeholders did however acknowledge that there were a number of barriers which prevented the intervention from being implemented as was intended. All stakeholders and members of the delivery team felt that the primary barrier to successfully implementing the intervention was the lack of time and resources available. There was a strong belief amongst stakeholders that more time was needed to successfully engage community partners. Collaboration with Leeds PCT and leading organisations in the field of health and health promotion was seen as an important factor in enabling the successful and sustainable intervention. Further to this the lack of planning time was seen to have a large impact on the implementation of the pre-match groups. The

delivery team were unable to recruit men to the groups at the stadium within the time period allocated; this resulted in the smoking cessation group being cancelled and a rescheduling of the weight loss group.

"[I]t has at times felt like a bit of a hand to mouth existence because we have got lot's of other things going on as well, not that this isn't important at all, sop when it's kind of, when we come to do something, it's kind of manned the lifeboats all hands on deck it's 2 weeks before the next match, who's writing the programme for the copy, who's getting the student volunteers together"
Leeds Metropolitan University

Linked in with this there was a strong perception that the intervention was under-resourced both in terms of delivery staff and administration staff. The delivery team reported that increased numbers of delivery staff would have facilitated greater continuity in delivery and improved the reach of the intervention.

"[I]t would be good to see the one year extended another two years or so and maybe increase the number of staff that are actively engaging with men to make a real impact."
Men's Health Plus

There was a consensus across all stakeholders that the intervention required a central coordinator who could act as the primary contact for each partner and potential collaborators. There was also a suggestion that the intervention needed an individual who could take ownership of the programme, ensuring that all components were delivered as intended.

"I think we should have... employed someone to say 'this is what you are working on' it's not a full time job but we need to put someone at the locus of that I think"
Leeds Metropolitan University

Reflection

Partnerships are now a normative part of projects which aim to improve the health of communities¹¹. Despite this, there are clear problems associated with defining and measuring success of community partnerships¹². Whilst the current study was able to document the perceived successes of the intervention from the perspective of the partner organisations it was not possible to attribute specific outcomes to the partnership itself. Having said this, it is evident that the given the primary outcome measure was engagement with the intervention this could not have been achieved without the core collaboration.

In terms of performing the partnership, partner organisations felt that the Tackling Men's Health initiative was a success. The strength of the partnership proved to be key in ensuring the delivery of the intervention with each organisation playing a distinct and pivotal role. As a result the more immediate benefits of the partnership became apparent in the implementation opportunities raised through the collaboration, for example the use of player resources, the link-up with the Change 4 Life campaign and the use of student volunteers.

¹¹ El Ansari W & Weiss E. 2006. Quality of Research on Community Partnerships: Developing the Evidence Base. 21(2), 175-180.

¹² Dowling B, Powell M & Glendinning C. 2004. Conceptualising Successful Partnerships. Health and Social Care in the Community. 12(4), 309-317.

As noted in the report from Heart of Mersey healthy stadia programme¹³ it is important to ensure there is a clear business case and that tangible gains can be made by the club in order to ensure successful collaboration. The fact that each partner organisation was able to link the intervention into its corporate objectives is a key factor in promoting sustainability. Each of the partner organisations reported a number of other benefits of taking part in the intervention. The key reported benefit for each partner was based around the increased media attention which the Tackling Men's Health intervention provided. Whilst this is undoubtedly a substantial benefit of the intervention, as this was not one of the stated aims of the intervention success cannot be measured solely in terms of such reported benefits.

Reflecting findings from the report of the Heart of Mersey healthy stadia programme, one of the key findings from the stakeholder interviews was the apparent need for substantial amounts time and resources to effectively plan and implement the intervention within the stadium setting. The complex logistical task of ensuring successful delivery of an intervention in an unconventional health setting such as a sports stadium demands coordinated action. Stakeholder interviews revealed the need for a central contact across the partner organisations. The need for such central figure was demonstrated in the failure of the intervention to engage with Leeds PCT and other community partners.

¹³ Haig M, Crabb J, Parker M & Ireland R. 2007 Report on Healthy Stadia in Greater Merseyside. Available from: <http://www.stadiumcommunities.org/Libraries/Local/918/Docs/pdfs/Heart%20of%20Mersey%20Healthy%20Stadia%20final%20report.pdf>. Accessed. February 2009.

Participant Perspectives

Questionnaire Data

Attitudes and Intentions

At Baseline participants were asked to provide a response to the question 'How useful do you think it would be to have a male health service located within the stadium? Men were required to choose from a 5 point scale ranging from 'not useful' to 'very useful'. Men provided largely positive responses about the service with 42% percent (n=37) of men stating that the service would be either useful or very useful. 43% (n=38) of participants stated that the intervention would possibly be useful. Just six percent of men (n=5) felt that the service would not be useful and ten percent (n=20) reported that the service would possibly be not useful.

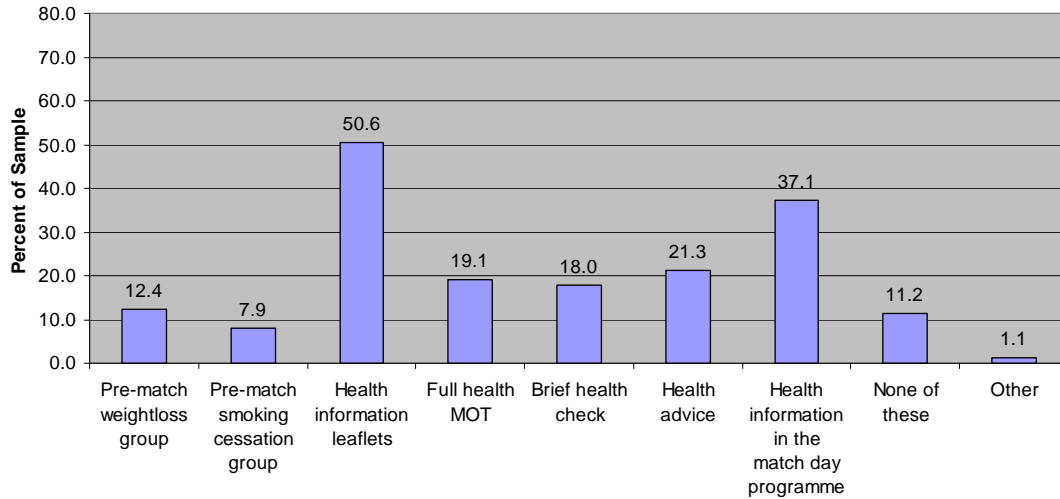
Respondents were asked if they would be willing to access male health services within the stadium should they have a health concern. The majority of respondents (66%, n=59) stated that they would be willing to access help within the stadium, and a further 14% (n=12) stated they didn't know whether they would use a male health service located within the stadium. For a full breakdown of data see appendix 8.

Awareness of the Intervention

Participants were asked at follow up to state how they had become aware of the Tackling Men's Health Intervention Programme. The most frequent response was 'Contact with the Men's health team' which was selected by 61% (n=54) of participants who returned follow up questionnaires, a further 24% (n=21) stated that they had become aware of the intervention after seeing banners at the stadium, 7% stated that they had been made aware of the intervention after reading the matchday programme; 3% (n=3) were made aware of the intervention after hearing announcements at the stadium and 2% were made aware of the intervention via press publicity and 2% through other routes. For a full breakdown of data see Appendix 9.

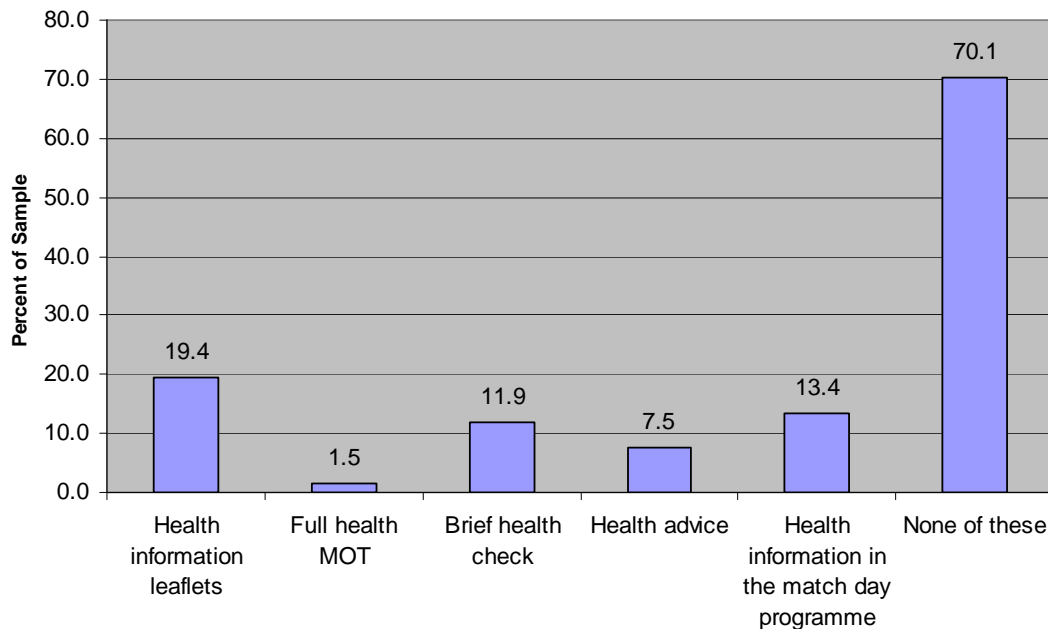
Visibility of the Intervention

At follow-up participants were asked to select the components of the intervention which they had either seen or seen advertised around the stadium. Of the 89 participants recruited to the intervention just over half (51%, n=45) reported that they had seen health information leaflets. Thirty-seven percent of men responding stated that that they had seen information in the matchday programme. Eleven percent stated that they had not seen any of the components of the intervention. Data from the Tackling Men's Health web page revealed moderate reach, with 1185 visits over the course of the intervention. None of the participants stated that they had been made aware of the intervention by accessing the website.



Engagement with the Intervention

Twenty-seven (30%) of those recruited to the study reported that they had used at least one component of the Tackling Men's Health intervention. Of those reporting engagement with the service, 13 reported that they had used health information leaflets provided by the intervention, eight reported receiving a brief health check and one reported receiving a full health MOT. A further nine reported using health information in the match day programme and five reported receiving health advice.



Health Outcomes

Perceived Health Status

At baseline participants were asked to rate their health over the last 12 months using a 5 point scale ranging from 'very good' to 'very poor'. Of those answering the question at baseline 21 percent (n=18) of participants stated that their health was 'very good', 52 percent (n=46) stated that their health was 'good' 17 per cent (n=15) stated that their health was average, nine percent (n=8) stated that their health was poor and one percent (n=2) stated that their health was 'very poor'.

At follow-up participants were asked to rate their health over the last six months (to avoid for overlap between measures). 24% (n=21) stated that their health was 'very good' 52% stated that their health was good 18% (n=16) stated that their health was average and six percent (n=5) stated that their health was poor. Changes in perceived health status between baseline and follow-up were not significantly different. There were also no significant differences in changes experienced between those who were engaged in the intervention and those who were not. For a full breakdown of the data see appendix 10.

Health Literacy

Participants were asked to rate their knowledge on a series of health issues at baseline and follow-up. At follow up, participants reported significantly lower levels of knowledge of 'Smoking Cessation', 'Health Diets', 'Prostate Issues', 'Effective use of Health Services', 'Stress Management', 'Risk Taking', 'Healthy Heart' and 'Appropriate levels of Exercise'. There were no changes in Perceived knowledge of 'General Health Issues' or 'Obesity'.

There were no significant differences between those engaged in the intervention and those not engaged, with the exception of knowledge of stress management which showed significantly greater decreases in the engaged group than amongst those who had not engaged in the intervention. Further analysis comparing the nine participants who took part in brief health checks or full health MOTs with the remaining sample revealed that this group showed significantly greater improvements in knowledge of healthy diets. There were no other significant differences on measures of health literacy scores between these groups. For a full breakdown of health literacy data see Appendix 11.

Help Seeking

Participants were asked to state which services they had used in the last 12 months. Pharmacy and GP use was relatively high, with 75% (n=67) and 80% (n=71) respectively reporting having used the services in the past 12 months. The majority of respondents also stated that they had utilised self care practices (56%, n=50) and had turned to friends, family or partners for help with a health concern (54%, n=48).

At follow up participants were asked to state which services they had made use of in the last six months (to avoid overlap between measures). Follow-up data showed that the GP and pharmacy were once again the most commonly used services with 64% (n=57) and 44% (n=39) of participants using the service respectively. For a full breakdown of help seeking data see Appendix 12.

Chi Square tests were used to test for differences in service use between those engaged in the intervention and those who did not engage at baseline and follow-up. There were

no significant differences in service use measures for the engaged group and the group not engaged in the intervention, with the exception of leaflet use at follow-up which was greater at follow-up.

Weight loss group

Data from the weight loss group revealed strong rates of weight reduction amongst participants. Of the seven men who took part in the group all but one achieved a positive outcome.

Participant	12 th June	19 th June	26 th June	3 rd July	10 th July	17 th July	Weight loss over course
1	365.0	361.2	359.6	355.0	353.6	345.0	20.0
2	246.2	246.0	245.2	242.4	242.4	242.8	3.4
3	183.4	180.0	182.6	179.6	178.4	177.4	6.0
4	229.8	227.4	228.0	229.4	226.6	229.2	0.6
5	185.2	186.5	186.5	186.0	189.6	187.2	-2.0
6	199.2	199.8	201.2	199.8	198.6	197.4	1.8
7	219.2	215.6	218.4	218.4	216.6	216.8	2.4

Participant Interviews

One-off, semi-structured participant interviews were conducted with 20 men who had volunteered to be interviewed at recruitment. Some of the men interviewed had engaged in the intervention, however the majority had not. Interview characteristics were broadly similar to those of the full sample (see Appendix 13 for a full breakdown of interview characteristics).

Interviewees reported high levels of approval of the Tackling Men's Health intervention and a number of men reported intention to use the intervention should they require help. Men praised the convenience of having a service located in an easily accessible setting, highlighting the potential of the service for opportunistic help seeking. There was also a suggestion from one man that the service would be appropriate for men who required help but did not want to 'waste' the time of their GP.

"I think it is entirely appropriate and I think it's a good initiative"

55-64 years

"I think it is something that I would recommend to a friend because I think it feels, um... what's the word, I think it feels more comfortable than a traditional health service, I think that even in this day and age, I think that the average member of the public still experience some significant degree of anxiety or apprehension about consulting a health professional in a building that is very clearly a health oriented building so I think that the opportunity to be able to access some form of health service in an environment that I would imagine feels far less threatening"

35-44 years

"There is always going to be a group of men that worry about their health 'oh that'll be alright, I don't want to trouble my GP, it's not that urgent' but when they see a service like this I envisage being in there for 5 minutes have a quick look at me and tell me if there is anything that I need to worry about before I go to the GP, so almost in that screening service people, some men would see it like that."

35-44 years

A number of men talked about feeling comfortable in the setting, this was particularly apparent with men who attended the weight loss group.

"[Y]ou'd have two things in common you know the rugby and the worry about your weight"

25-34 years

"Well it all sounds very good, I think certainly from the point of view of weight loss, we are all aware of obesity and the general not being fit, but also if you have got a particular health issue, and maybe you don't want to go to your GP but having this associated with the rugby club I support."

45-54 years

For a number of interviewees' endorsement from the club was a key facilitator in promoting engagement and acceptance of the intervention in the stadium. One interviewee suggested that using the players as role models would improve the intervention.

"I know Jamie Jones Buchanan he is very into health in terms of his outside interests sort of thing... clearly he takes all the advice and follows all the regimes to do with health... so I think the players and the officials could be sort of used as an example."

55-64 years

There was however a small number of men who felt that the intervention was inappropriate. This perception was largely based upon a conflict with the primary reasons for attending the stadium, to watch a rugby match and to enjoy oneself.

"I think it is bloody mental doing it there I just don't think you are going to get people interested because most people if they go in to the bar want to have a drink and don't want to be sat talking about their health, if I want to talk about my health I go and see my doctor."

55-64 years

"I suppose it would be one of the reasons why I wouldn't use it, when I am at the game I am just with my friends and that."

45-54 years

Interviewees also reported a number of concerns and potential barriers to the success of the intervention. There was a strong theme regarding men's lack of awareness of the intervention. Whilst a number of interviewees recalled seeing promotion for the intervention around the stadium, there were also questions raised over the reach of some of the promotion strategies, with one interviewee stating that the programme was too expensive to buy.

"[I]t's quite expensive working out petrol and food, and we always look at the teams on the internet before we set off so we don't buy the programme."

65+ years

Few interviewees were aware of the specific components of the intervention. There was some evidence that interviewees had gained knowledge about the intervention as a result of recruitment to the study.

"Well I am not fully up to speed with the things that you provide, the young man at Headingley sort of gave me an outline of the things you were looking to do but I wouldn't say I am 100% clued up to everything you provide."

45-54 years

"I was aware at the beginning of the season people handing out leaflets and people coming up, I think that's how it started, someone approached me and my son and a quick questionnaire, so I wasn't aware there was this initiative going on but I wasn't, and I've seen people around the grounds handing out leaflets, I wasn't aware that there were actually 2 nurses in there."

35-44 years

A concern was also expressed about the reach of the intervention, and particularly the health clinics situated in the bar areas. There was also a suggestion from some interviewees that their place of residence negatively impacted on their access to the intervention with a number of men stating they would not be able to use the service because they did not live in the Leeds area.

"[I]f you take the south stand bar I don't know how many 1000 people it holds in the south stand but it holds quite a few 1000 doesn't it, well all them people aren't going to get in the bar are they, the bar only holds so many people, so I mean the amount of people in the bar are probably only a small percentage of the total capacity of the south stand."

65+ years

"I mean I live about 15 miles away from Leeds and to actually have to trog in there to do that, for me, but that is because of where I live and personally because I have worked in health since I was 17, on and off, but personally because of that I would prefer a GP or a clinic, or hospital."

45-54 years

Further to this there was a suggestion that some men believed that the intervention was targeting younger men.

"I think if anything could link it to the older supporter it would be helpful."

55-64 years

"I think the majority of my friends were saying they were in the second half of their age and I think the were saying it was for younger people, I don't think they felt it was something that was too important in their lives, I don't know but that wasn't my view I think it's worth while no matter what age you are to look after your health."

55-64 years

There was a strong theme highlighting men themselves as a barrier to engagement. A number of interviewees perceived men to be less inclined to seek help and there to be a greater stigma around men seeking help.

"[M]en particularly are reluctant to up take the many health care provisions that there are in our society, this kind of self image thing and the sense of mortality is a huge barrier to some people."

45-54 years

"[A] lot of men have a lot of stigma in being seen at the doctors or being seen at the local clinics, or being seen in hospital, especially if we are talking about men's illnesses and problems, it tends to be the problems that aren't spoken about, men will quite happily speak about it with other men but won't do anything about it."
45-54 years

Interviewees highlighted a potential barrier to engagement with the service as the lack of privacy within the stadium setting. Some men felt some men may be put off from seeking help due to the exposed nature of the clinic.

"Maybe if they had a tent of some sort where you know 'call in if you want any health advice on a particular subject' and then that could be a little bit more private and not quite stood among everybody talking about your health sort of thing, it wasn't especially for me but I can see that it could be."
55-64 years

"[I]t is still an area like I said before is an area which isn't talked about, so a guy going in to have to admit to a problem might still get ridiculed from other males, but obviously if that was done in private then it is easier."
45-54 years

Interviewees suggested a number of ways in which the intervention could be improved and more closely meet their needs. These included continuity of service, particularly apparent with reference to the weight loss group; the provision of 'healthy' alternatives to the burger van food; a greater focus on key health issues affecting men rather than the provision of a holistic service and provision of a sexual health screening service.

"[I]t seemed to finish abruptly without anything like any follow on, it was finished."
65+ years

Reflection

Questionnaire data and participant interviews re-emphasise the complex nature of delivering an intervention within a stadium setting. Whilst situating health clinics in the bar areas of the stadium provides access to a stationary audience, it may also reduce the reach and visibility of the service. Despite a large proportion of the budget being spent on promotion of the intervention, questions were raised about the effectiveness of the strategies used to promote awareness of the intervention. Most participants were made aware of the intervention by face to face engagement with the men's health team, highlighting the importance of a human presence to embed the intervention within the stadium setting.

Participant interviews highlighted the power of club and player endorsement in promoting engagement with a health intervention, this finding was particularly clear in the context of men attending the weight loss group where men were given the opportunity to use a facility attended by Leeds Rhinos players. The Tackling Men's Health intervention adopted a number of strategies to draw upon the fan loyalty to the club such as publicity in the matchday programmes and Leeds Rhinos website, there was however limited use of the of the players themselves.

Conclusion

Findings from The Tackling Men's Health Evaluation Study have shown that delivery of a targeted health intervention to men attending Rugby stadia is feasible. The study findings suggest that such an intervention can provide substantial benefits for the Rugby club in improving links with supporters and the wider community. Findings have shown that delivery of a male health intervention within a stadium setting can achieve good levels of engagement with target groups and receive positive responses from attendees of the stadium.

Monitoring data showing that men were willing to engage with the service and good approval ratings of the service from male supporters provides evidence that men are willing to use a health service within the stadium setting. Many men using the service presented the delivery team with health concerns which warranted further intervention by a health care practitioner, including high measures of blood pressure and cholesterol. Such findings illustrate the potential of health interventions located in stadia for accessing hard to reach men.

Furthermore, the study has shown that a link up between a Rugby club, their players and supporters and health organisations can be useful in helping to promote use and raise awareness of available services located at the stadium, as well as providing increased media attention for related health campaigns. From the perspective of Leeds Rhinos, the intervention provided an opportunity to reinforce and develop links with community partners and supporters and linked in well with the existing work within the Leeds Rugby Foundation. From the Department of Health perspective, the intervention gave greater insight into this form of outreach work and created a number of "spin offs" – such as more partnerships with a greater scope to help DH reach its objectives, such as the creation of a Touch Rugby league, the launch of the Yorkshire Man health guide, the opportunity to reach a number of businesses both by bringing them to events at matches and through the sponsors of the club who were also able to see all the publicity and some of whom were recruited to work with the partners on the dissemination and evaluation of the Yorkshire Man guide.

Involvement in the intervention also showed benefits for Leeds Metropolitan University providing students within the Faculty of Health the opportunity to gain valuable experience of delivering a health intervention in a non-clinical setting. The programme also provided constructive opportunities for each of the partners to engage with other key stakeholders for instance in the NHS, local authorities, Natural England, businesses and business bodies, Food Standards Agency and safety organisations

It is evident that the link up between the partner organisations was a positive factor for many men within the research study. The endorsement of the service by the club was shown to be an important factor in promoting engagement with the target audience. Furthermore communication between partner organisations helped enable the intervention to be delivered in a flexible manner, this proved to be essential in ensuring that the core components of the intervention were provided.

The study findings illustrate the importance of allocating adequate time and resources to plan and implement a health intervention. This has been shown to be particularly important within the setting of a rugby stadium. Not only was the rugby stadium found to produce numerous logistical challenges to delivery and engagement with the service, rugby league supporters were shown to display a range of different behaviours and routines when attending rugby matches. The specific location of a service within a stadium can therefore impact greatly on who is aware and is able to access that service. The challenge is to use the resources effectively to improve and create a more consistent

service provision, accessible to all men in the stadium. Credit should be given to the expertise and enthusiasm of the delivery team in ensuring the core components of the intervention were delivered, emphasising the importance of employing a skilled and experienced delivery team.

Findings from the questionnaires did not reveal any clear positive effects of engagement with the intervention. There were few significant differences in health outcomes between those reporting engagement with the intervention and those who did not. Any positive statistical differences reported should be interpreted with caution. For example, measures of health awareness suggested that the people who were stating that they 'knew a great deal' or 'knew nothing' had moved to a less definite position (regression to the mean). However, due to the similarities in outcome measures between the engaged and non-engaged group, there was a strong suggestion that taking part in the research study had the largest effect on the outcomes (Hawthorne effect). It is therefore difficult to make any statements around the potential role of the intervention in improving perceived health outcomes. It is recommended that future health intervention programmes delivered within stadium settings adopt a more refined research component employing a longitudinal approach which can account for the time needed for a service to become embedded.

Lessons Learnt

- Link-up with local and national health campaigns, where possible can aid the visibility, development and sustainability of stadium based interventions
- The evaluation highlighted the raised marketing potential in using a stadium setting for delivery of a health intervention. By drawing on the profile of club and the facilities available at the stadium, a stadium based intervention can attract attention from local and national interest groups and facilitate networking and partnership building within the field
- A stadium based health intervention can achieve tangible gains for clubs and partner organisations
- There is a strong need for a considered and formalised planning and design process. Planning should involve each member of the project and deliver team and also representatives of men attending the stadium. Working closer with supporters during the planning and delivery to ensure the needs of the target group are met and maximum engagement is achieved
- A named coordinator is an important resource to have in post throughout the course of a stadium based intervention. The coordinator should act as the central contact for each partner organisation within the project team, and take responsibility for ensuring delivery of services
- Services need to be made available at different points of the ground to ensure supporters are aware of the services available and can gain access to them. There is a need for effective strategies to ensure awareness of the intervention is gained throughout the stadium
- There is value for PCTs in working with local sports stadia because of the opportunity it affords to reach key priority and hard to reach groups of men. Engagement with the PCT is an important factor in achieving a sustainable intervention
- Monitoring and continued evaluation of services is important for ensuring the needs of the target audience and partner organisations are met