



**How might the London 2012 Olympics influence health and the determinants of health? Local newspaper analysis of pre-games pathways and impacts.**

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**Title**

How might the London 2012 Olympics influence health and the determinants of health?  
Local newspaper analysis of pre-games pathways and impacts.

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**Keywords**

2012 Olympic Games, health, employment, physical activity, health inequalities, Newham.

**ABSTRACT**

**Objectives.** To conduct a content analysis of pre-Games local media coverage of the potential impact on health and the determinants of health in Newham, the site of the Olympic Park.

**Design.** Local newspaper content analysis.

**Setting.** Olympic park host site of the London Borough of Newham.

**Outcome measures.** Media coverage of employment, physical activity and overall wellbeing.

**Results.** Three hundred and fifty one articles meeting the inclusion criteria were included in the analysis. The overwhelming majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects. The frequency of articles reporting on both employment and overall wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively). A non-significant increasing trend was observed for physical activity ( $P=0.146$ ). New employment opportunities and the promotion of physical activity in young people were the pathways most frequently reported in the local media. However, much less attention is devoted to understanding the uncertainties about how much of these new opportunities will directly improve the determinants of health in the Newham population.

**Conclusions:** Pre-Games reporting on the impact on health and the determinants of health is increasing over time in the London Borough of Newham, and is overwhelmingly positive. Evaluating the true Olympic legacy regarding health and the determinants of health for the local population should include a detailed social impact assessment and include consultation with the public.

## ARTICLE SUMMARY

### Article focus

- This article aims to assess pre-Games local media coverage of the potential impact on health and the determinants of health in the London Borough of Newham.

### Key messages

- Local media coverage of the pre-Games pathways and impacts on health in the host borough of Newham is overwhelmingly positive.
- New employment opportunities and the promotion of physical activity in young people are the most frequently covered pathways for improving health.
- There are uncertainties around to what extent new jobs will be taken by local people and what meaningful change in exercise behaviour will be realised as a result of the promotion of physical activity.

### Strengths and limitations of this study

- Newham is one of the most deprived populations in England. This analysis is the first of its kind to assess pre-games pathways and impacts upon health and the determinants of health in the local community.
- Over 350 individual reports contributed to this manuscript. This media content analysis highlights the lack of attention given to uncertainties and potential adverse effects of the London Games upon Newham.
- We did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games.

## Introduction

On the 6<sup>th</sup> July 2005, the International Olympic Committee awarded the London bid the rights to host the 2012 Olympic and Paralympic Games. As a sporting “mega event” the games have been presented as a catalyst for regeneration, especially in the Olympic stadium site in Newham, East London. Newham is one of the most deprived populations in England with high rates of child poverty and childhood obesity, poor engagement in physical activity, low employment rates and low life expectancy.<sup>1</sup> Urban regeneration is often framed as a means of addressing inequalities and exclusion by improving the built environment and local economy, and thereby providing enhanced employment, social, health, educational and recreational opportunities.<sup>2</sup> One of the most consistent findings in health research is that people living in deprived areas experience poorer health than people living in non-deprived areas.<sup>3</sup>

Despite arguments that sporting mega-events are financially rewarding for host cities, questions remain about the potential of such events for facilitating socioeconomic development and providing health benefits.<sup>4</sup> Systematic reviews have reported a contrasting picture of improved investment in public services but delays in health and education provision.<sup>5</sup> Assumptions made about intuitive benefits from increased tourism have also failed to materialise in previous Games such as in Sydney or Seoul.<sup>6</sup> Satisfaction with the local area after the “mega events” often improves, along with concomitant rises in house prices. In fact, house prices in the London borough of Hackney have risen as a result of the anticipated London Games, which is a positive economic outcome but also serves to further fuel local gentrification and a loss of space for disadvantaged groups.<sup>7</sup>

The final cost of the 2012 games are estimated to be between £9-11 billion.<sup>8</sup> As such understanding how pathways of impact are described and understood, with an assessment of which are deemed to be the most important to local media/community, and what if any, translate to impacts on health and health inequalities is crucial.<sup>9</sup> Indeed, the media plays a

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3 part in setting and linking public and policy agendas.<sup>10</sup> It is an important source of knowledge  
4 and understanding for the local population<sup>11</sup> as well as potentially influencing behaviour  
5 change.<sup>12</sup> Accordingly, the aim of this study is to conduct a content analysis of pre-Games  
6 local media coverage of the potential impact on health and the determinants of health in  
7 Newham, the site of the Olympic Park. Local newspapers were chosen for analysis, as  
8 opposed to national newspapers, because they cover issues specific to the local community  
9 and as such are likely to more informatively describe anticipated pathways to impacting key  
10 determinants of health.  
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## 21 **Methods**

### 22 *Data collection*

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24 The London Borough of Newham has a population of around 240,000 people. The Borough  
25 is ethnically diverse with one of the lowest proportions of White British residents in the  
26 country. The two local newspapers circulated in Newham are “*The Docklands and East*  
27 *London Advertiser*” and “*The Newham Recorder*”. These are two weekly tabloid newspapers  
28 with circulations of 20597 and 16302, respectively. Both local papers are the only relevant  
29 Newham based media sources on the Nexis UK electronic database. In line with the health  
30 related legacy objectives highlighted by the Olympic Park Legacy Company<sup>13</sup> we searched  
31 for newspaper articles covering employment, physical activity and overall wellbeing of the  
32 Newham population. These outcomes were judged to be the most informative for  
33 construction of a conceptual framework for the pathways and mechanisms underlying the  
34 relationship between hosting the 2012 Olympics and health impacts.<sup>14</sup> Nexis UK database  
35 searches for electronic articles were run on the entire available date range (4<sup>th</sup> November  
36 2010 to the 31<sup>st</sup> of January 2012). The search terms were health\* OR wellbeing, or employ\*,  
37 or physical OR exercise, or Stratford OR Newham, and Olympic OR investment. Table 1  
38 summaries article inclusion and exclusion criteria. Following conventional systematic review  
39 methods,<sup>15</sup> all articles were screened initially for eligibility by title, then summary and finally  
40 full text.  
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### *Data Analysis*

Linear regression was used to assess trends over time in the frequency of articles reporting on employment, physical activity and health and wellbeing, using SPSS version 19 (SPSS inc. Chicago, USA) with the significance set at  $P < 0.05$ . A qualitative framework analysis adapted from the Ritchie and Spencer Thematic Framework Analysis<sup>16 17</sup> was used to identify the key themes that suggest potential pathways of impact related to the Olympics. The five steps used were: familiarisation, identifying thematic framework, indexing, charting and mapping. Thirty articles were selected at random and read repeatedly. A preliminary framework was constructed based on the primary outcomes of interest i.e. employment, physical activity and health and wellbeing. A further twenty-five articles were selected at random and read with the coding framework being applied. Working independently, a second reviewer (LB) read the same 55 articles to check the validity of the framework. Differences in interpretation were explored, and consensus was reached through discussion.<sup>17</sup>

A final coding framework with relevant example quotes mapped from the included newspaper articles, divided into the three broad thematic categories (employment, physical activity and health and wellbeing) were then divided into a total of 27 sub-categories. Newspaper articles were analysed for manifest content<sup>18</sup> i.e. what is explicitly stated and draws on the objective and replicable qualities of quantitative methods. All articles were then coded by MS resolving any doubts by discussion with LB. When coding the full data set of articles, any relevant minor alterations to the coding framework were made in parallel, as necessary. Frequency and proportions of articles covering potential determinants of health including employment, physical activity and health & wellbeing relevant to the 2012 Olympic Games were then calculated.

## Results

The number of articles meeting the inclusion criteria are displayed in Figure 1. The frequency of articles reporting on both employment and overall wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively) however, a non significant increasing trend was observed for physical activity ( $P=0.146$ ), seen in Figure 2.

A quantitative summary of the key themes of pathways to impact taken from the framework analysis can be seen in Table 2. Coverage of new employment opportunities and the promotion of physical activity in young people received the majority of the media attention (162 of 351 articles covered these pathways). The vast majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects.

### *Employment*

The most frequently reported pre-Games pathway for impacting health was via employment (mentioned 131 times out of 351 total articles) with the large majority of coverage around new job opportunities (See Table 2). The New Westfield Shopping complex has been regularly cited as being one of the largest drivers of new employment opportunities in the area:

*"Westfield Stratford City is to create 10,000 permanent jobs when it opens in September...without the games, this level of investment and job creation would not be happening..."* (Newham Recorder, April 13th 2011).

However, reporting of the specifics of how many of these opportunities are likely to be eventually filled by local people in Newham reveals that a smaller number opportunities might be available to the local population.



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3 "A bit of badly needed Christmas cheer - 40 new jobs have been created in Newham with a  
4 £750,000 investment to transform two McDonald's restaurants. (Newham Recorder, 8<sup>th</sup>  
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7 December 2010).

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11 "A new hotel opening next to the ExCeL centre in the Docklands will create 66 new jobs,  
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13 around 40 of them going to people who live in Newham... with east London seeing much  
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15 regeneration ahead of the 2012 Olympic Games, the hotel is perfectly situated within easy  
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17 reach of the Olympic Park, Westfield Stratford City and the 02." (Newham Recorder,  
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19 October 12<sup>th</sup> 2011).

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23 This discrepancy has not gone un-noticed in local media with a small number of articles  
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25 raising concerns about whether the new employment opportunities would primarily benefit  
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27 local residents and how sustainable this employment might in the post-Games environment:  
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31 "Young people in the East End face becoming the 'lost generation' as shocking new figures  
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33 show East London has the highest level of youth unemployment in London... the area  
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35 [Newham] faces a legacy of wasted talent and abandoned hopes among its youth.... Week  
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37 after week I [Rushanara Ali, MP for Bethnal Green and Bow ] hear stories from young people  
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39 who want to work and have the skills to be successful in employment, yet cannot find work.  
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41 (The Docklands and East London Advertiser, October 13th 2011).  
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#### 45 *Physical Activity*

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47 Promotion of sport and exercise in young people, was the most frequently cited pathway by  
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49 which improvements in physical activity might occur (see Table 2). These stories commonly  
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51 described short-term initiatives organised around "one off" sporting events or the promotion  
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53 of existing facilities.  
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3 *"... the recent six-day Inter-College Sports Festival... has been granted the badge of the*  
4 *London 2012 Inspire Programme, which recognises innovative and exceptional projects*  
5 *directly inspired by the 2012 Games."* (Newham Recorder, November 8th 2011)  
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11 *"...Gold challenge also sets out to raise £20m for charity. Those who raise the most, a*  
12 *number of schools and people selected by ballot will take part in 100m or 4X100m races...it*  
13 *would be a 'fitting way to say thank you to those who have been inspired by the Games to*  
14 *get active and raise money for charity.'* " (Newham Recorder, November 9th 2011)  
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21 Positive stories about the potential of the Olympics to improve physical activity were very  
22 common. However, concern about the efficacy of these initiatives to deliver meaningful  
23 behaviour change were much less frequently discussed. Reports from the results of a major  
24 national survey suggest pre-Olympic investment has had little impact on the proportion of  
25 Newham adults currently meeting physical activity guideline recommendations.<sup>19</sup>  
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33 *"Despite receiving extra cash to promote sport in the run-up to the Olympic Games, only*  
34 *12.6 per cent of people over 16 get 30 minutes of moderate exercise a week. The Active*  
35 *People survey, carried out every three months by Sport England, showed that there had*  
36 *been no change in sports participation in the area [Newham] since 2007. In recent months,*  
37 *sports charities such as Access Sport and Fight for Peace have received £80,000 and*  
38 *£150,000 respectively and £30,000 each was donated to Star Park, Star Lane, Canning*  
39 *Town and West Ham Park to build multi-use games areas. Across London, mayor Boris*  
40 *Johnson has invested a total of £5.4 million, allocated by the Olympic Sports Legacy*  
41 *Programme, to promote an active, healthy lifestyle. Sport England's chief executive, Jenny*  
42 *Price, said that "a number of major sports have yet to deliver, despite significant levels of*  
43 *investment."* (Newham Recorder, December 29 2010)  
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3 *Overall wellbeing*

4 Unlike employment and physical activity, pathways of impact regarding overall wellbeing  
5 were heterogeneous, covering issues ranging from safety and security, health resource  
6 infrastructure, to charity work and community spirit (see Table 2). However, only four articles  
7 out of the 351 linked the Olympic Games to issues relating to promotion of good nutrition.  
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15 *"The young leaders have to hold events in their local community that encourages young*  
16 *people to volunteer to be involved in 2012 Games activities.... We collected 96 books for the*  
17 *study corner and I thank everyone who donated. It was good to have Donna [2004 & 2008*  
18 *Olympian Donna Kellogg] there wearing her 2008 Beijing Olympics kit and playing*  
19 *badminton with the students and teachers." (Newham Recorder, May 18<sup>th</sup> 2011)*  
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27 *"Young people from the University of East London and Newham Further Education College*  
28 *officially launched an initiative in front of 20,000 people at the 02 Arena to stop people from*  
29 *committing violence of any kinds to bring peace to the community... they decided to create a*  
30 *brand concept based on the Olympic ideals of courage, equality, respect, friendship and*  
31 *determination to encourage others to reject all forms of violence." (Newham Recorder,*  
32 *October 19th 2011).*  
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41 *"The future of the Olympic Village has been decided...Work is underway on a polyclinic*  
42 *including multiple GP surgeries, outpatient activity and a children's clinic which will service*  
43 *the area, creating new medical jobs." (Newham Recorder, August 17th 2011)*  
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49 *"Schools throughout the borough are invited to create a British dish worthy of an Olympic*  
50 *athlete. The recipe will represent everything great about British food while providing enough*  
51 *nourishment to spur our sportsmen on to glory." (Newham Recorder, June 15<sup>th</sup> 2011)*  
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3 In parallel with employment and physical activity pathways, potential adverse effects of the  
4 Olympic Games received much less attention:  
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9 *"A seminar is being organised to look into evidence of sex trafficking in cities staging*  
10 *Olympic Games. Organisers say little is heard about women's safety and the threat of a rise*  
11 *in sexual exploitation and trafficking once the spectators return home."* (The Docklands and  
12 East London Advertiser, January 19 2012).  
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## 17 18 19 **Discussion**

20 Although the relationship is complex, the media has been previously described as "highly  
21 influential"<sup>10</sup> in shaping discourses around health. The primary finding of this content  
22 analysis is that pre-Games reporting of the impact on health and the determinants of health  
23 is increasing over time, and is overwhelmingly positive. Much less attention is devoted to  
24 understanding the uncertainties and potential adverse effects, despite some concerns being  
25 raised. This is particularly important finding of this research as the scientific evidence around  
26 socioeconomic impacts of Olympic regeneration is mixed, with both positive and negative  
27 outcomes reported. Inadequate planning, poor stadium design, the withdrawal of sponsors,  
28 political boycotts, heavy cost overruns on facilities, the forced eviction of residents living in  
29 areas wanted for development, and subsequent unwanted stadia can tarnish the Olympic  
30 legacy.<sup>20</sup>  
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46 This content analysis of pathways and impacts considered relevant media coverage taken  
47 from two local newspapers, however we did not examine other potentially relevant local  
48 sources of information e.g. magazines, websites, regional television news which may have  
49 included useful counter-perspectives on hosting the 2012 Games. Information taken from  
50 media sources should be judged in the context of relevant biases such as deliberately  
51 polarising or divisive news stories which might be published in order to stimulate interest and  
52 readership numbers. Furthermore, inferences about the scope of the Olympic legacy are  
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3 best considered in conjunction official government statistics; regional public health reports  
4 and dedicated research initiatives where applicable after the 2012 Games. One way of  
5 addressing the broader societal and political context of these news stories, and the issues of  
6 interest that may have shaped their content, would be to undertake a discourse analysis.  
7 This approach represents a more detailed qualitative analytic approach than the content  
8 analysis undertaken for this study. A discourse analysis has the broader aim of uncovering  
9 ideological assumptions, perspectives and social processes within texts. This necessitates  
10 looking at what is not mentioned as much as what is.<sup>21</sup> Such an approach would, therefore,  
11 examine why potential adverse effects, such as sex trafficking, have received less attention  
12 from the local press and how this may be linked to broader concerns of representation and  
13 power.  
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27 Despite a strong and consistent legacy theme of new employment opportunities for the local  
28 population, there is much less attention given to concerns over the number of new jobs  
29 generated for people in Newham. Local political leaders and young people's charities such  
30 as "Step Forward" have voiced concerns that employment opportunities for young people  
31 are not being realised despite over half a decade of pre-Olympic investment in the local  
32 area. Indeed, the process of Olympic regeneration typically lacks transparency and it  
33 characterised by top-down decision making and a lack of consultation with low income and  
34 disadvantaged groups.<sup>6</sup> Previous analyses have advocated a community-centred  
35 regeneration strategy,<sup>4 6 22</sup> one that takes a bottom-up approach based on local needs and  
36 participation. Therefore, as part of a robust evaluation of the 2012 London Games legacy, it  
37 will be important to critically analyse official government employment figures for Newham  
38 regarding new employment opportunities undertaken and the sustainability of these  
39 positions.  
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56 Increasing grass roots sporting participation and improving national levels of physical activity  
57 behaviour was a key commitment made by the UK coalition Government as part of hosting  
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3 the 2012 Olympics. Newham has high childhood obesity rates and poor engagement in  
4 physical activity. Sporting mega-events are typically framed as 'a unique opportunity to  
5 improve public health'.<sup>23</sup> Our results show that local media coverage of promotion of physical  
6 activity amongst young people was one of the major themes generated from this content  
7 analysis. However, despite sporting "mega events" often being framed as a catalyst for  
8 improving population physical activity levels, especially for children and young people, there  
9 is little evidence to indicate that individual participation and physical activity rates actually  
10 increase.<sup>24</sup> Rather, it is improvements in the physical activity related infrastructure  
11 (associated with the events) that are taken as indicative of greater participation.<sup>25</sup> In fact, the  
12 provision of new sports facilities were found to benefit elite athletes after events more than  
13 the host population.<sup>26</sup> In a systematic review of the impact of sporting mega-events upon  
14 physical activity and sports participation the authors found that there was mixed evidence for  
15 a 'demonstration' or 'trickle down' effect on participation.<sup>24</sup> No direct link was found between  
16 elite events and community participation in physical activity, which contradicts assumptions  
17 about the Games 'inspiring' local people to take part in sporting activities and exercise. This  
18 would seem to be reflected in the Sport England data which reports that just 12.6 % of  
19 people over 16 in Newham get 30 minutes of moderate exercise a week. Community and  
20 social capital are potentially important in empowering communities and improving individual  
21 and collective self-efficacy,<sup>5</sup> which may over time, contribute to behaviour change.<sup>27 28</sup> This  
22 finding lends further support to the argument for community-centred regeneration<sup>22</sup> to  
23 address the needs and support of local people.  
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48 Reporting of pathways to increasing the overall wellbeing were heterogeneous, although  
49 beneficial impacts on community spirit were particularly prominent. These impacts tended to  
50 be focused on individually driven initiatives which appear to occur more from a collective  
51 sense of (possibly transient) opportunistic altruism, rather than directly facilitated by Olympic  
52 investment brought to the area. Financial investment may have other direct benefits such as  
53 the Olympic polyclinic. It has been asserted by the chief medical officer for the London  
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3 Organising Committee of the Olympic and Paralympic Games, that the Olympic polyclinic  
4 will be the “most tangible health legacy from the 2012 games”.<sup>29</sup> However, the Chief  
5 Executive of North and East London NHS has recently indicated uncertainty over whether  
6 the cutting edge medical equipment that will be used for delivering world class medical care  
7 for the elite athletes will remain in the clinic after the games.<sup>30</sup> The true nature and potential  
8 for beneficial health impacts on the local population which can be gained through just one  
9 more (possibly downgraded) health clinic is an area of significant uncertainty.  
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### 20 **Conclusions**

21 Local media coverage of the pre-Games pathways and impact on health in the host borough  
22 of Newham is overwhelmingly positive. However, there are specific uncertainties around the  
23 true nature of its impact on local employment and physical activity. There have long been  
24 calls for the International Olympic Committee to require that candidate cities undertake  
25 detailed social impact assessments and widespread consultation with the public, although  
26 this has been rarely taken up.<sup>6</sup> Understanding the true nature of the Olympic legacy in terms  
27 of its specific impacts on health and the determinants of health for the population of Newham  
28 will need to include such assessment alongside appraisal of official government statistics,  
29 regional public health reports and dedicated research programmes.  
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### 41 **Conflict of interest statement**

42 The authors declare no conflicts of interest  
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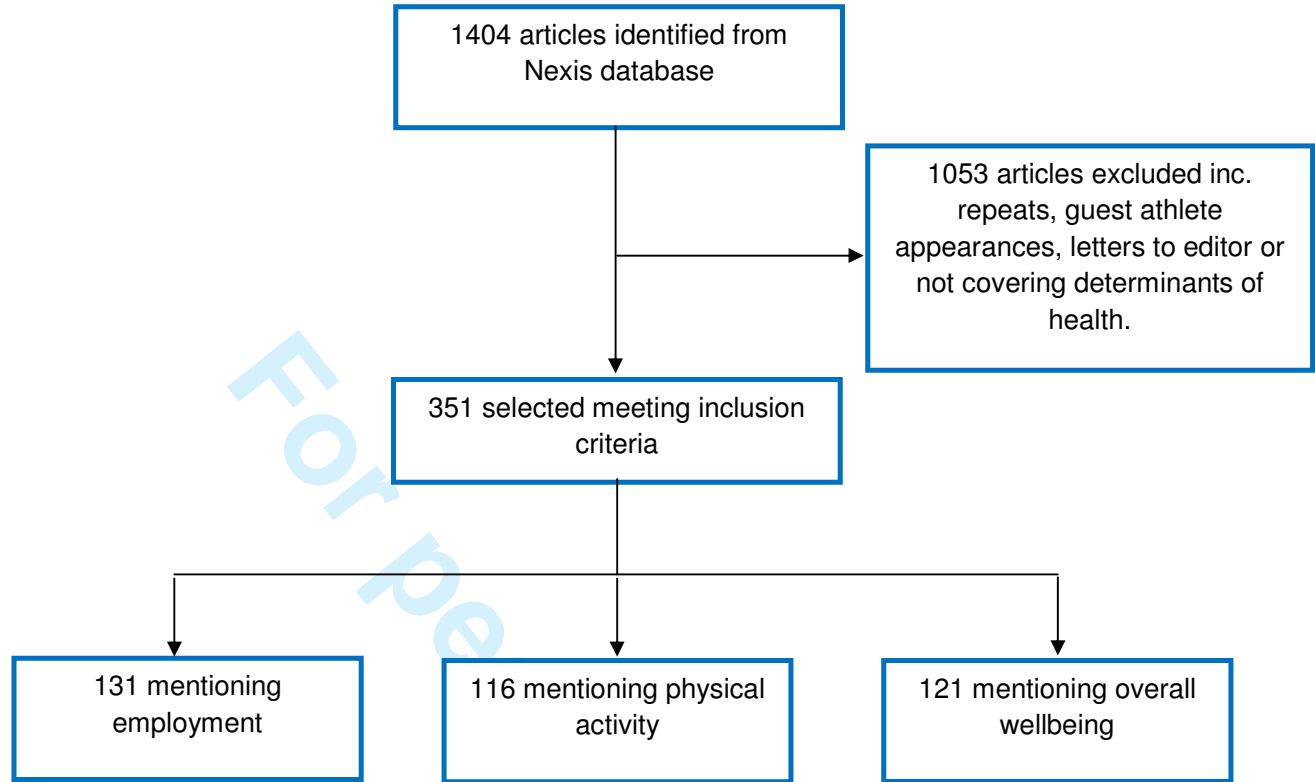
**Table 1.** Article inclusion and exclusion criteria

Inclusion	Exclusion
<ul style="list-style-type: none"><li>➤ Coverage on issues related to employment, physical activity or overall wellbeing of the Newham population as a result of the 2012 Olympics.</li></ul>	<ul style="list-style-type: none"><li>➤ Repeated articles</li><li>➤ Letters to the editor</li><li>➤ Guest appearances of Olympic athletes</li><li>➤ Coverage on employment, physical activity or overall wellbeing not related to the 2012 Olympics.</li></ul>

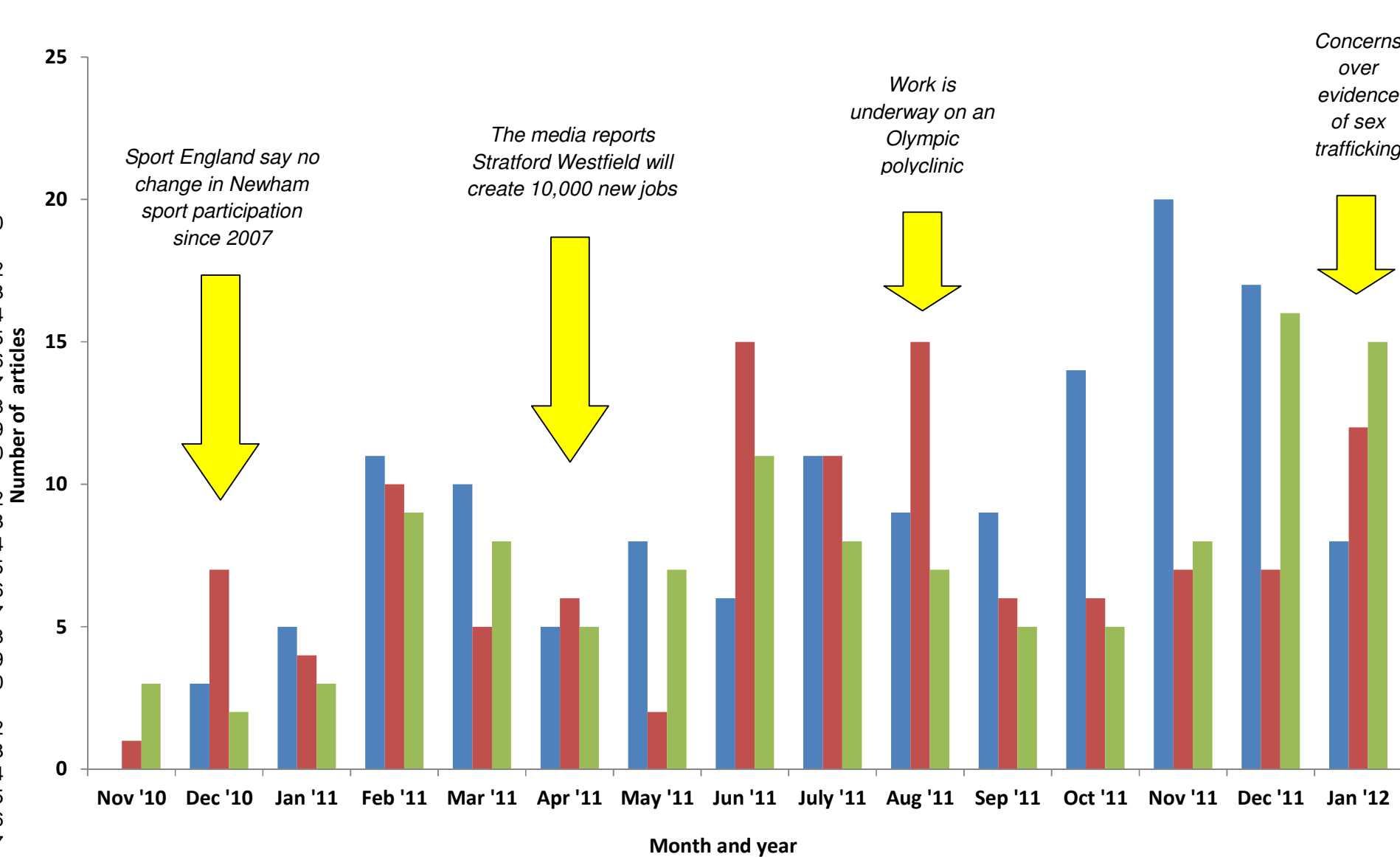
**Table 2.** Key themes related to pathways of impact on health brought about by the 2012 Olympic Games mentioned in local newspaper articles.

	Number of times mentioned (%)
<b>Employment (131 articles)</b>	
New jobs	81 (62)
Education to help find jobs	23 (18)
Employment created by construction of housing	19 (15)
Guiding youth with employment	12 (9)
Negative stories on employment	8 (6)
Providing jobs for the people of Newham as part of the Olympic legacy	8 (6)
Volunteering and work experience	7 (5)
Increase in profits and revenue	4 (3)
Grants given for business ventures	3 (2)
<b>Physical activity (116 articles)</b>	
Promotion of physical activity amongst young people	81 (70)
Promotion of physical activity amongst the rest of the population	54 (47)
Supporting sustainable physical activity projects as part of the Olympic legacy	16 (14)
Promotion of the Olympics as a sporting spectacle	12 (10)
Negative impacts on physical activity	9 (8)
Charities work around promoting physical activity	6 (5)
Volunteering events to promote physical activity	6 (5)
Promotion of physical activity for those with disabilities	4 (3)
<b>Overall wellbeing (121 articles)</b>	
Mental wellbeing and community spirit	27 (22)
The wellbeing of young people	25 (21)
Security and safety of the population	25 (21)
Supporting sustainable improvements in health and wellbeing as part of the Olympic legacy	17 (14)
Negative impacts on overall wellbeing	15 (12)
Medical health	15 (12)
Charities promoting health and wellbeing	13 (11)
Social housing	7 (6)
Volunteering for promotion of health and wellbeing	6 (5)
Promotion of good nutrition and healthy living	4 (3)

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**Figure 1:** Flow diagram of included articles split into major determinants of health.



**Figure 2:** The frequency of articles covering local issues on employment, physical activity and overall wellbeing relating to the Olympics over time.

■ = employment, ■ = physical activity, ■ = overall wellbeing. Pertinent media reports related to the determinants of health are aligned on the date line.



**How might the London 2012 Olympics influence health and the determinants of health? Local newspaper analysis of pre-games pathways and impacts.**

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**Title**

How might the London 2012 Olympics influence health and the determinants of health?  
Local newspaper analysis of pre-games pathways and impacts.

**Authors**

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**Keywords**

2012 Olympic Games, health, employment, physical activity, health inequalities, Newham.

**ABSTRACT**

**Objectives.** To conduct a content analysis of pre-Games local media coverage of the potential impact on health and the determinants of health in Newham, the site of the Olympic Park.

**Design.** Local newspaper content analysis.

**Setting.** Olympic park host site of the London Borough of Newham.

**Outcome measures.** Media coverage of employment, physical activity and wellbeing.

**Results.** Three hundred and fifty one articles meeting the inclusion criteria were included in the analysis. The overwhelming majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively). A non-significant increasing trend was observed for physical activity ( $P=0.146$ ). New employment opportunities and the promotion of physical activity in young people were the pathways most frequently reported in the local media. However, much less attention is devoted to understanding the uncertainties about how much of these new opportunities will directly improve the determinants of health in the Newham population.

**Conclusions:** Pre-Games reporting on the impact on health and the determinants of health is increasing over time in the London Borough of Newham, and is overwhelmingly positive. Evaluating the true Olympic legacy regarding health and the determinants of health for the local population should include a detailed social impact assessment and include consultation with the public.



## ARTICLE SUMMARY

### Article focus

- This article aims to assess pre-Games local media coverage of the potential impact on health and the determinants of health in the London Borough of Newham.

### Key messages

- Local media coverage of the pre-Games pathways and impacts on health in the host borough of Newham is overwhelmingly positive.
- New employment opportunities and the promotion of physical activity in young people are the most frequently covered pathways for improving health.
- There are uncertainties around to what extent new jobs will be taken by local people and what meaningful change in exercise behaviour will be realised as a result of the promotion of physical activity.

### Strengths and limitations of this study

- Newham is one of the most deprived populations in England. This analysis is the first of its kind to assess pre-games pathways and impacts upon health and the determinants of health in the local community.
- Over 350 individual reports contributed to this manuscript. This media content analysis highlights the lack of attention given to uncertainties and potential adverse effects of the London Games upon Newham.
- We did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games.

## Introduction

On the 6<sup>th</sup> July 2005, the International Olympic Committee awarded the London bid the rights to host the 2012 Olympic and Paralympic Games. As a sporting “mega event” the games have been presented as an opportunity for ‘legacy’, primarily through the development and regeneration of the Olympic Park site in Newham, East London. Newham is seen as a good candidate for regeneration as it is one of the most deprived populations in England with high rates of child poverty and childhood obesity, poor engagement in physical activity, low employment rates and low life expectancy.<sup>1</sup> Urban regeneration is often framed as a means of addressing inequality and exclusion by improving the built environment and local economy, and thereby providing enhanced employment, social, health, educational and recreational opportunities.<sup>2</sup> One of the most consistent findings in public health research is that people living in deprived areas experience poorer health than people living in non-deprived areas.<sup>3</sup>

Despite arguments that sporting mega-events are financially rewarding for host cities, questions remain about the potential of such events for facilitating socioeconomic change and providing health benefits.<sup>4</sup> Systematic reviews have reported a contrasting picture of improved investment in public services, but delays in health and education provision.<sup>5</sup> Assumptions made about intuitive benefits from increased tourism have also failed to materialise in previous Games such as in Sydney or Seoul.<sup>6</sup> Satisfaction with the local area after the “mega events” often improves, along with concomitant rises in house prices. In fact, housing costs in the London borough of Hackney may have risen as a result of the anticipated London Games, which is a positive economic outcome but also serves to further fuel local gentrification and a loss of space for disadvantaged groups.<sup>7</sup>

The final cost of the 2012 games are estimated to be between £9-11 billion.<sup>8</sup> As such understanding how pathways of impact are described and understood, with an assessment of which are deemed to be the most important to local media/community, and what if any,

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3 translate to impacts on health and health inequalities is crucial.<sup>9</sup> Indeed, the media plays a  
4 part in setting and linking public and policy agendas.<sup>10</sup> It is an important source of knowledge  
5 and understanding for the local population<sup>11</sup> as well as potentially influencing behaviour  
6 change.<sup>12</sup> Accordingly, the aim of this study is to conduct a content analysis of pre-Games  
7 local media coverage of the potential impact on health and the determinants of health in  
8 Newham, the site of the Olympic Park. Local newspapers were chosen for analysis, as  
9 opposed to national newspapers, because they cover issues specific to the local community  
10 and as such are likely to more informatively describe anticipated pathways to impacting key  
11 determinants of health.  
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## 23 **Methods**

### 24 *Data collection*

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26 The London Borough of Newham has a population of around 240,000 people. The Borough  
27 is ethnically diverse with one of the lowest proportions of White British residents in the  
28 country. The two local newspapers circulated in Newham are “*The Docklands and East*  
29 *London Advertiser*” and “*The Newham Recorder*”. These are two weekly tabloid newspapers  
30 with circulations of 20597 and 16302, respectively. Both local papers are the only relevant  
31 Newham based media sources on the Nexis UK electronic database. We focused on three  
32 legacy outcomes. First, physical activity which, through the motto ‘inspire a generation’,  
33 has been proposed as a key legacy of London 2012.<sup>13 14</sup> Second, employment has been  
34 identified as the main legacy associated with the Olympics by local authority stakeholders.  
35 Third, improvements in wellbeing a current national policy goal promoted by the current  
36 government.<sup>15</sup> These outcomes are also consistent with the health-related legacy objectives  
37 highlighted by the Olympic Park Legacy Company<sup>16</sup> and have a well-established evidence  
38 base as key social and behavioural determinants of physical and psychological health.<sup>2 5 17-20</sup>  
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40 As such, these outcomes were judged to be the most informative for construction of a  
41 conceptual framework for the pathways and mechanisms underlying the relationship  
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3 between hosting the London 2012 Olympics and health.<sup>21</sup> We defined these legacy  
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5 outcomes as:

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- Employment : coverage of how the Games could impact the generation of new paid employment, assistance to find employment, the provision of work experience opportunities or commercial success that could lead directly to the provision of new employment positions.
  - Physical activity: stories related to how the Games might impact sporting or exercise behaviour in members of the local community.
  - Wellbeing: coverage of how the Games impacts members of the community in terms of being healthy, happy, or prosperous and not related to physical activity or employment.

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The Nexis UK database was searched for electronic articles on the entire available date range at the time of the study (4<sup>th</sup> November 2010 to the 31<sup>st</sup> of January 2012). The search terms were health\* OR wellbeing, or employ\*, or physical OR exercise, or Stratford OR Newham, and Olympic OR investment. Table 1 summaries article inclusion and exclusion criteria. Following conventional systematic review methods,<sup>22</sup> all articles were screened initially for eligibility by title, then summary and finally full text.

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*Data Analysis*

Outcomes related to employment, physical activity or wellbeing reported in the included newspaper articles were measured in frequency counts. Frequencies were generated by assessing when an article reported on issues relating to employment, physical activity or wellbeing and was linked to the 2012 Olympics e.g. investment and new jobs brought to Newham directly as a result of the Games (employment), community sports events directly inspired by the Games (physical activity) or investment in health infrastructure as a result of

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3 the Games (wellbeing). These frequencies were then reported per calendar month. Linear  
4 regression analysis was conducted to assess trends over time <sup>23</sup> using SPSS version 19  
5 (SPSS inc. Chicago, USA) with the significance set at  $P < 0.05$ .  
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11 A qualitative framework analysis adapted from the Ritchie and Spencer Thematic  
12 Framework Analysis <sup>24 25</sup> was used to identify the key themes that suggest potential  
13 pathways of impact related to the Olympics. The five steps used were: familiarisation,  
14 identifying thematic framework, indexing, charting and mapping. Thirty articles were selected  
15 at random and read repeatedly. A preliminary framework was constructed based on the  
16 primary outcomes of interest i.e. employment, physical activity and health and wellbeing. A  
17 further twenty-five articles were selected at random and read with the coding framework  
18 being applied. Working independently, a second reviewer (LB) read the same 55 articles to  
19 check the validity of the framework. Differences in interpretation were explored, and  
20 consensus was reached through discussion.<sup>25</sup>  
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33 A final coding framework with relevant example quotes mapped from the included  
34 newspaper articles, divided into the three broad thematic categories (employment, physical  
35 activity and wellbeing) were then divided into a total of 27 sub-categories. Newspaper  
36 articles were analysed for manifest content <sup>26</sup> i.e. what is explicitly stated and draws on the  
37 objective and replicable qualities of quantitative methods. All articles were then coded by MS  
38 resolving any doubts by discussion with LB. When coding the full data set of articles, any  
39 relevant minor alterations to the coding framework were made in parallel, as necessary.  
40 Frequency and proportions of articles covering potential determinants of health including  
41 employment, physical activity and health & wellbeing relevant to the 2012 Olympic Games  
42 were then calculated.  
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## Results

Three hundred and fifty one articles met the inclusion criteria for this study (see Figure 1). The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively) however, a non-significant increase was observed for physical activity ( $P=0.146$ ), seen in Figure 2.

A quantitative summary of the key themes of pathways to impact taken from the framework analysis can be seen in Table 2. Coverage of new employment opportunities and the promotion of physical activity in young people received the majority of the media attention (162 of 351 articles covered these pathways). The vast majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects.

### *Employment*

The most frequently reported pre-Games pathway for health impact was via employment (mentioned 131 times out of 351 total articles) with the large majority of coverage around new job opportunities (See Table 2). The New Westfield Shopping complex has been regularly cited as being one of the largest drivers of new employment opportunities in the area:

*"Westfield Stratford City is to create 10,000 permanent jobs when it opens in September...without the games, this level of investment and job creation would not be happening..."* (Newham Recorder, April 13th 2011).

However, reporting of the specifics of how many of these opportunities are likely to be eventually filled by local people in Newham reveals that a smaller number opportunities might be available to the local population.

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3 "A bit of badly needed Christmas cheer - 40 new jobs have been created in Newham with a  
4 £750,000 investment to transform two McDonald's restaurants. (Newham Recorder, 8<sup>th</sup>  
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7 December 2010).  
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11 "A new hotel opening next to the ExCeL centre in the Docklands will create 66 new jobs,  
12 around 40 of them going to people who live in Newham... with east London seeing much  
13 regeneration ahead of the 2012 Olympic Games, the hotel is perfectly situated within easy  
14 reach of the Olympic Park, Westfield Stratford City and the 02." (Newham Recorder,  
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17 October 12<sup>th</sup> 2011).  
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23 This discrepancy has not gone un-noticed in local media with a small number of articles  
24 raising concerns about whether the new employment opportunities would primarily benefit  
25 local residents and how sustainable this employment might in the post-Games environment:  
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31 "Young people in the East End face becoming the 'lost generation' as shocking new figures  
32 show East London has the highest level of youth unemployment in London... the area  
33 [Newham] faces a legacy of wasted talent and abandoned hopes among its youth.... Week  
34 after week I [Rushanara Ali, MP for Bethnal Green and Bow] hear stories from young people  
35 who want to work and have the skills to be successful in employment, yet cannot find work.  
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38 (The Docklands and East London Advertiser, October 13th 2011).  
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#### 45 *Physical Activity*

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47 Promotion of sport and exercise in young people, was the most frequently cited pathway by  
48 which improvements in physical activity might occur (see Table 2). These stories commonly  
49 described short-term initiatives organised around "one off" sporting events or the promotion  
50 of existing facilities.  
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3 "... the recent six-day Inter-College Sports Festival... has been granted the badge of the  
4 London 2012 Inspire Programme, which recognises innovative and exceptional projects  
5 directly inspired by the 2012 Games." (Newham Recorder, November 8th 2011)  
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11 "...Gold challenge also sets out to raise £20m for charity. Those who raise the most, a  
12 number of schools and people selected by ballot will take part in 100m or 4X100m races...it  
13 would be a 'fitting way to say thank you to those who have been inspired by the Games to  
14 get active and raise money for charity.' " (Newham Recorder, November 9th 2011)  
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21 Positive stories about the potential of the Olympics to improve physical activity were very  
22 common. However, concern about the efficacy of these initiatives to deliver meaningful  
23 behaviour change were much less frequently discussed. Reports from the results of a major  
24 national survey suggest pre-Olympic investment has had little impact on the proportion of  
25 Newham adults currently meeting physical activity guideline recommendations.<sup>20</sup>  
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33 "Despite receiving extra cash to promote sport in the run-up to the Olympic Games, only  
34 12.6 per cent of people over 16 get 30 minutes of moderate exercise a week. The Active  
35 People survey, carried out every three months by Sport England, showed that there had  
36 been no change in sports participation in the area [Newham] since 2007. In recent months,  
37 sports charities such as Access Sport and Fight for Peace have received £80,000 and  
38 £150,000 respectively and £30,000 each was donated to Star Park, Star Lane, Canning  
39 Town and West Ham Park to build multi-use games areas. Across London, mayor Boris  
40 Johnson has invested a total of £5.4 million, allocated by the Olympic Sports Legacy  
41 Programme, to promote an active, healthy lifestyle. Sport England's chief executive, Jenny  
42 Price, said that "a number of major sports have yet to deliver, despite significant levels of  
43 investment." (Newham Recorder, December 29 2010)  
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### *Wellbeing*

Unlike employment and physical activity, pathways of impact regarding wellbeing were heterogeneous, covering issues ranging from safety and security, health resource infrastructure, to charity work and community spirit (see Table 2). However, only four articles out of the 351 linked the Olympic Games to issues relating to promotion of good nutrition.

*"Young people from the University of East London and Newham Further Education College officially launched an initiative in front of 20,000 people at the O2 Arena to stop people from committing violence of any kinds to bring peace to the community... they decided to create a brand concept based on the Olympic ideals of courage, equality, respect, friendship and determination to encourage others to reject all forms of violence."* (Newham Recorder, October 19th 2011).

*"The future of the Olympic Village has been decided...Work is underway on a polyclinic including multiple GP surgeries, outpatient activity and a children's clinic which will service the area, creating new medical jobs."* (Newham Recorder, August 17th 2011)

*"Schools throughout the borough are invited to create a British dish worthy of an Olympic athlete. The recipe will represent everything great about British food while providing enough nourishment to spur our sportsmen on to glory."* (Newham Recorder, June 15<sup>th</sup> 2011)

In parallel with employment and physical activity pathways, potential adverse effects of the Olympic Games received much less attention:

*"A seminar is being organised to look into evidence of sex trafficking in cities staging Olympic Games. Organisers say little is heard about women's safety and the threat of a rise in sexual exploitation and trafficking once the spectators return home."* (The Docklands and East London Advertiser, January 19 2012).

## Discussion

Although the relationship is complex, the media has been previously described as "highly influential"<sup>10</sup> in shaping discourses around health. The primary finding of this content analysis is that pre-Games reporting of the impact on health and the determinants of health is increasing over time, and is overwhelmingly positive. Much less attention is devoted to understanding the uncertainties and potential adverse effects, despite some concerns being raised. This is particularly important finding of this research as the scientific evidence around socioeconomic impacts of Olympic regeneration is mixed, with both positive and negative outcomes reported. Inadequate planning, poor stadium design, the withdrawal of sponsors, political boycotts, heavy cost overruns on facilities, the forced eviction of residents living in areas wanted for development, and subsequent unwanted stadia can tarnish the Olympic legacy.<sup>27</sup>

This content analysis of pathways and impacts considered relevant media coverage taken from two local newspapers, however we did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games. Information taken from media sources should be judged in the context of relevant biases such as deliberately polarising or divisive news stories which might be published in order to stimulate interest and readership numbers. Furthermore, inferences about the scope of the Olympic legacy are best considered in conjunction official government statistics, regional public health reports and dedicated research initiatives where applicable after the 2012 Games. A framework analysis has been used here because of its suitability for exploring issues of policy and also because the prime concern of this approach is to describe and interpret what is happening in a particular setting.<sup>24</sup> However, an avenue for future enquiry aiming to investigate the broader societal and political context of these news stories, and the issues of interest that may have shaped their content, would be to undertake an explicitly discourse analytical

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3 approach. However to due to limitations of time and resource such an approach was beyond  
4 the scope of the current study.  
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9 Despite a significant trend in increasing numbers of articles reporting on employment issues  
10 related to the Games, and a strong and consistent legacy theme of new employment  
11 opportunities for the local population, there is much less attention given to concerns over the  
12 number of new jobs generated for people in Newham. Local political leaders and young  
13 people's charities such as "Step Forward" have voiced concerns that employment  
14 opportunities for young people are not being realised despite over half a decade of pre-  
15 Olympic investment in the local area. Indeed, the process of Olympic regeneration typically  
16 lacks transparency and it characterised by top-down decision making and a lack of  
17 consultation in conjunction with low income and disadvantaged groups.<sup>6</sup> Previous analyses  
18 have advocated a community-centred regeneration strategy,<sup>4 6 28</sup> one that takes a bottom-up  
19 approach based on local needs and participation. Therefore, as part of a robust evaluation of  
20 the 2012 London Games legacy, it will be important to critically analyse official government  
21 employment figures for Newham regarding new employment opportunities undertaken and  
22 the sustainability of these positions.  
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39 Increasing grass roots sporting participation and improving national levels of physical activity  
40 behaviour was a key commitment made by the UK coalition Government as part of hosting  
41 the 2012 Olympics. Newham has high childhood obesity rates and poor engagement in  
42 physical activity. Sporting mega-events are typically framed as 'a unique opportunity to  
43 improve public health'.<sup>29</sup> Our results show that although local newspaper coverage on  
44 promotion of physical activity did not significantly increase over time, there were a large  
45 proportion of articles related to promoting physical activity in young people. However,  
46 despite sporting "mega events" often being framed as a catalyst for improving population  
47 physical activity levels, especially for children and young people, there is little evidence to  
48 indicate that individual participation and physical activity rates actually increase.<sup>30</sup> Rather, it  
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3 is improvements in the physical activity related infrastructure (associated with the events)  
4 that are taken as indicative of greater participation.<sup>31</sup> In fact, the provision of new sports  
5 facilities were found to benefit elite athletes after events more than the host population.<sup>32</sup> In  
6  
7 a systematic review of the impact of sporting mega-events upon physical activity and sports  
8 participation the authors found that there was mixed evidence for a 'demonstration' or 'trickle  
9 down' effect on participation.<sup>30</sup> No direct link was found between elite events and community  
10 participation in physical activity, which contradicts assumptions about the Games 'inspiring'  
11 local people to take part in sporting activities and exercise. This would seem to be reflected  
12 in the Sport England data which reports that just 12.6 % of people over 16 in Newham get 30  
13 minutes of moderate exercise a week. Community and social capital are potentially  
14 important in empowering communities and improving individual and collective self-efficacy,<sup>5</sup>  
15 which may over time, contribute to behaviour change.<sup>33 34</sup> This finding lends further support  
16 to the argument for community-centred regeneration<sup>28</sup> to address the needs and support of  
17 local people.  
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33 Reporting of pathways to increasing wellbeing significantly increased over time although  
34 (because of the multifaceted nature of "wellbeing") they were intuitively heterogeneous.  
35 However, beneficial impacts on community spirit were particularly prominent. These impacts  
36 tended to be focused on individually driven initiatives which appear to occur more from a  
37 collective sense of (possibly transient) opportunistic altruism, rather than directly facilitated  
38 by Olympic investment brought to the area. Financial investment may have other direct  
39 benefits such as the Olympic polyclinic. It has been asserted by the chief medical officer for  
40 the London Organising Committee of the Olympic and Paralympic Games, that the Olympic  
41 polyclinic will be the "most tangible health legacy from the 2012 games".<sup>35</sup> However, the  
42 Chief Executive of North and East London NHS has recently indicated uncertainty over  
43 whether the cutting edge medical equipment that will be used for delivering world class  
44 medical care for the elite athletes will remain in the clinic after the games.<sup>36</sup> The true nature  
45 and potential for beneficial health impacts on the local population which can be gained  
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3 through just one more (possibly downgraded) health clinic is an area of significant  
4  
5 uncertainty.  
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## 8 9 **Conclusions**

10 Local media coverage of the pre-Games pathways and impact on health in the host borough  
11 of Newham is overwhelmingly positive. However, specific uncertainties around the true  
12 nature of its impact on local employment and physical activity were articulated. Evaluation of  
13 the tangible impacts on population health, and the determinants of health and health  
14 inequalities, of the London 2012 Olympics is required in order to unpack whether there is  
15 truly a lasting legacy for East London.  
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## 25 **Conflict of interest statement**

26 The authors declare no conflicts of interest  
27

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30 or not-for-profit sectors.  
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37 drafting and Dr Miland Joshi for statistical assistance.  
38  
39

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41 Fellowship.  
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**Title**

How might the London 2012 Olympics influence health and the determinants of health?  
Local newspaper analysis of pre-games pathways and impacts.

**Authors**

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**Keywords**

2012 Olympic Games, health, employment, physical activity, health inequalities, Newham.



**ABSTRACT**

**Objectives.** To conduct a content analysis of pre-Games local media coverage of the potential impact on health and the determinants of health in Newham, the site of the Olympic Park.

**Design.** Local newspaper content analysis.

**Setting.** Olympic park host site of the London Borough of Newham.

**Outcome measures.** Media coverage of employment, physical activity and wellbeing.

**Results.** Three hundred and fifty one articles meeting the inclusion criteria were included in the analysis. The overwhelming majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively). A non-significant increasing trend was observed for physical activity ( $P=0.146$ ). New employment opportunities and the promotion of physical activity in young people were the pathways most frequently reported in the local media. However, much less attention is devoted to understanding the uncertainties about how much of these new opportunities will directly improve the determinants of health in the Newham population.

**Conclusions:** Pre-Games reporting on the impact on health and the determinants of health is increasing over time in the London Borough of Newham, and is overwhelmingly positive. Evaluating the true Olympic legacy regarding health and the determinants of health for the local population should include a detailed social impact assessment and include consultation with the public.

## ARTICLE SUMMARY

### Article focus

- This article aims to assess pre-Games local media coverage of the potential impact on health and the determinants of health in the London Borough of Newham.

### Key messages

- Local media coverage of the pre-Games pathways and impacts on health in the host borough of Newham is overwhelmingly positive.
- New employment opportunities and the promotion of physical activity in young people are the most frequently covered pathways for improving health.
- There are uncertainties around to what extent new jobs will be taken by local people and what meaningful change in exercise behaviour will be realised as a result of the promotion of physical activity.

### Strengths and limitations of this study

- Newham is one of the most deprived populations in England. This analysis is the first of its kind to assess pre-games pathways and impacts upon health and the determinants of health in the local community.
- Over 350 individual reports contributed to this manuscript. This media content analysis highlights the lack of attention given to uncertainties and potential adverse effects of the London Games upon Newham.
- We did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games.

## Introduction

On the 6<sup>th</sup> July 2005, the International Olympic Committee awarded the London bid the rights to host the 2012 Olympic and Paralympic Games. As a sporting “mega event” the games have been presented as an opportunity for ‘legacy’, primarily through the development and regeneration of the Olympic Park site in Newham, East London. Newham is seen as a good candidate for regeneration as it is one of the most deprived populations in England with high rates of child poverty and childhood obesity, poor engagement in physical activity, low employment rates and low life expectancy.<sup>1</sup> Urban regeneration is often framed as a means of addressing inequality and exclusion by improving the built environment and local economy, and thereby providing enhanced employment, social, health, educational and recreational opportunities.<sup>2</sup> One of the most consistent findings in public health research is that people living in deprived areas experience poorer health than people living in non-deprived areas.<sup>3</sup>

Despite arguments that sporting mega-events are financially rewarding for host cities, questions remain about the potential of such events for facilitating socioeconomic change and providing health benefits.<sup>4</sup> Systematic reviews have reported a contrasting picture of improved investment in public services, but delays in health and education provision.<sup>5</sup> Assumptions made about intuitive benefits from increased tourism have also failed to materialise in previous Games such as in Sydney or Seoul.<sup>6</sup> Satisfaction with the local area after the “mega events” often improves, along with concomitant rises in house prices. In fact, housing costs in the London borough of Hackney may have risen as a result of the anticipated London Games, which is a positive economic outcome but also serves to further fuel local gentrification and a loss of space for disadvantaged groups.<sup>7</sup>

The final cost of the 2012 games are estimated to be between £9-11 billion.<sup>8</sup> As such understanding how pathways of impact are described and understood, with an assessment of which are deemed to be the most important to local media/community, and what if any,

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2  
3 translate to impacts on health and health inequalities is crucial.<sup>9</sup> Indeed, the media plays a  
4 part in setting and linking public and policy agendas.<sup>10</sup> It is an important source of knowledge  
5 and understanding for the local population <sup>11</sup> as well as potentially influencing behaviour  
6 change.<sup>12</sup> Accordingly, the aim of this study is to conduct a content analysis of pre-Games  
7 local media coverage of the potential impact on health and the determinants of health in  
8 Newham, the site of the Olympic Park. Local newspapers were chosen for analysis, as  
9 opposed to national newspapers, because they cover issues specific to the local community  
10 and as such are likely to more informatively describe anticipated pathways to impacting key  
11 determinants of health.  
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## 23 **Methods**

### 24 *Data collection*

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26 The London Borough of Newham has a population of around 240,000 people. The Borough  
27 is ethnically diverse with one of the lowest proportions of White British residents in the  
28 country. The two local newspapers circulated in Newham are “*The Docklands and East*  
29 *London Advertiser*” and “*The Newham Recorder*”. These are two weekly tabloid newspapers  
30 with circulations of 20597 and 16302, respectively. Both local papers are the only relevant  
31 Newham based media sources on the Nexis UK electronic database. We focused on three  
32 legacy outcomes. First, physical activity which, through the motto ‘inspire a generation’,  
33 has been proposed as a key legacy of London 2012.<sup>13 14</sup> Second, employment has been  
34 identified as the main legacy associated with the Olympics by local authority stakeholders.  
35 Third, improvements in wellbeing a current national policy goal promoted by the current  
36 government.<sup>15</sup> These outcomes are also consistent with the health-related legacy objectives  
37 highlighted by the Olympic Park Legacy Company<sup>16</sup> and have a well-established evidence  
38 base as key social and behavioural determinants of physical and psychological health.<sup>2 5 17-20</sup>  
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54 As such, these outcomes were judged to be the most informative for construction of a  
55 conceptual framework for the pathways and mechanisms underlying the relationship  
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3 between hosting the London 2012 Olympics and health.<sup>21</sup> We defined these legacy  
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5 outcomes as:

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9 ➤ Employment : coverage of how the Games could impact the generation of new paid  
10 employment, assistance to find employment, the provision of work experience  
11 opportunities or commercial success that could lead directly to the provision of new  
12 employment positions.  
13  
14 ➤ Physical activity: stories related to how the Games might impact sporting or exercise  
15 behaviour in members of the local community.  
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17 ➤ Wellbeing: coverage of how the Games impacts members of the community in terms  
18 of being healthy, happy, or prosperous and not related to physical activity or  
19 employment.  
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30 The Nexis UK database was searched for electronic articles on the entire available date  
31 range at the time of the study (4<sup>th</sup> November 2010 to the 31<sup>st</sup> of January 2012). The search  
32 terms were health\* OR wellbeing, or employ\*, or physical OR exercise, or Stratford OR  
33 Newham, and Olympic OR investment. Table 1 summaries article inclusion and exclusion  
34 criteria. Following conventional systematic review methods,<sup>22</sup> all articles were screened  
35 initially for eligibility by title, then summary and finally full text.  
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#### 45 *Data Analysis*

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47 Outcomes related to employment, physical activity or wellbeing reported in the included  
48 newspaper articles were measured in frequency counts. Frequencies were generated by  
49 assessing when an article reported on issues relating to employment, physical activity or  
50 wellbeing and was linked to the 2012 Olympics e.g. investment and new jobs brought to  
51 Newham directly as a result of the Games (employment), community sports events directly  
52 inspired by the Games (physical activity) or investment in health infrastructure as a result of  
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3 the Games (wellbeing). These frequencies were then reported per calendar month. Linear  
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5 regression analysis was conducted to assess trends over time<sup>23</sup> using SPSS version 19  
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7 (SPSS inc. Chicago, USA) with the significance set at P<0.05.  
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11 A qualitative framework analysis adapted from the Ritchie and Spencer Thematic  
12 Framework Analysis<sup>24 25</sup> was used to identify the key themes that suggest potential  
13 pathways of impact related to the Olympics. The five steps used were: familiarisation,  
14 identifying thematic framework, indexing, charting and mapping. Thirty articles were selected  
15 at random and read repeatedly. A preliminary framework was constructed based on the  
16 primary outcomes of interest i.e. employment, physical activity and health and wellbeing. A  
17 further twenty-five articles were selected at random and read with the coding framework  
18 being applied. Working independently, a second reviewer (LB) read the same 55 articles to  
19 check the validity of the framework. Differences in interpretation were explored, and  
20 consensus was reached through discussion.<sup>25</sup>  
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33 A final coding framework with relevant example quotes mapped from the included  
34 newspaper articles, divided into the three broad thematic categories (employment, physical  
35 activity and wellbeing) were then divided into a total of 27 sub-categories. Newspaper  
36 articles were analysed for manifest content<sup>26</sup> i.e. what is explicitly stated and draws on the  
37 objective and replicable qualities of quantitative methods. All articles were then coded by MS  
38 resolving any doubts by discussion with LB. When coding the full data set of articles, any  
39 relevant minor alterations to the coding framework were made in parallel, as necessary.  
40 Frequency and proportions of articles covering potential determinants of health including  
41 employment, physical activity and health & wellbeing relevant to the 2012 Olympic Games  
42 were then calculated.  
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## Results

Three hundred and fifty one articles met the inclusion criteria for this study (see Figure 1). The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively) however, a non-significant increase was observed for physical activity ( $P=0.146$ ), seen in Figure 2.

A quantitative summary of the key themes of pathways to impact taken from the framework analysis can be seen in Table 2. Coverage of new employment opportunities and the promotion of physical activity in young people received the majority of the media attention (162 of 351 articles covered these pathways). The vast majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects.

### *Employment*

The most frequently reported pre-Games pathway for health impact was via employment (mentioned 131 times out of 351 total articles) with the large majority of coverage around new job opportunities (See Table 2). The New Westfield Shopping complex has been regularly cited as being one of the largest drivers of new employment opportunities in the area:

*"Westfield Stratford City is to create 10,000 permanent jobs when it opens in September...without the games, this level of investment and job creation would not be happening..."* (Newham Recorder, April 13th 2011).

However, reporting of the specifics of how many of these opportunities are likely to be eventually filled by local people in Newham reveals that a smaller number opportunities might be available to the local population.

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3 "A bit of badly needed Christmas cheer - 40 new jobs have been created in Newham with a  
4 £750,000 investment to transform two McDonald's restaurants. (Newham Recorder, 8<sup>th</sup>  
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7 December 2010).

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11 "A new hotel opening next to the ExCeL centre in the Docklands will create 66 new jobs,  
12  
13 around 40 of them going to people who live in Newham... with east London seeing much  
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15 regeneration ahead of the 2012 Olympic Games, the hotel is perfectly situated within easy  
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17 reach of the Olympic Park, Westfield Stratford City and the 02." (Newham Recorder,  
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19 October 12<sup>th</sup> 2011).

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23 This discrepancy has not gone un-noticed in local media with a small number of articles  
24  
25 raising concerns about whether the new employment opportunities would primarily benefit  
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27 local residents and how sustainable this employment might in the post-Games environment:  
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31 "Young people in the East End face becoming the 'lost generation' as shocking new figures  
32  
33 show East London has the highest level of youth unemployment in London... the area  
34  
35 [Newham] faces a legacy of wasted talent and abandoned hopes among its youth.... Week  
36  
37 after week I [Rushanara Ali, MP for Bethnal Green and Bow] hear stories from young people  
38  
39 who want to work and have the skills to be successful in employment, yet cannot find work.  
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41 (The Docklands and East London Advertiser, October 13th 2011).  
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#### 45 *Physical Activity*

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47 Promotion of sport and exercise in young people, was the most frequently cited pathway by  
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49 which improvements in physical activity might occur (see Table 2). These stories commonly  
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51 described short-term initiatives organised around "one off" sporting events or the promotion  
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53 of existing facilities.  
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3 "... the recent six-day Inter-College Sports Festival... has been granted the badge of the  
4 London 2012 Inspire Programme, which recognises innovative and exceptional projects  
5 directly inspired by the 2012 Games." (Newham Recorder, November 8th 2011)  
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11 "...Gold challenge also sets out to raise £20m for charity. Those who raise the most, a  
12 number of schools and people selected by ballot will take part in 100m or 4X100m races...it  
13 would be a 'fitting way to say thank you to those who have been inspired by the Games to  
14 get active and raise money for charity.' " (Newham Recorder, November 9th 2011)  
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21 Positive stories about the potential of the Olympics to improve physical activity were very  
22 common. However, concern about the efficacy of these initiatives to deliver meaningful  
23 behaviour change were much less frequently discussed. Reports from the results of a major  
24 national survey suggest pre-Olympic investment has had little impact on the proportion of  
25 Newham adults currently meeting physical activity guideline recommendations.<sup>20</sup>  
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33 "Despite receiving extra cash to promote sport in the run-up to the Olympic Games, only  
34 12.6 per cent of people over 16 get 30 minutes of moderate exercise a week. The Active  
35 People survey, carried out every three months by Sport England, showed that there had  
36 been no change in sports participation in the area [Newham] since 2007. In recent months,  
37 sports charities such as Access Sport and Fight for Peace have received £80,000 and  
38 £150,000 respectively and £30,000 each was donated to Star Park, Star Lane, Canning  
39 Town and West Ham Park to build multi-use games areas. Across London, mayor Boris  
40 Johnson has invested a total of £5.4 million, allocated by the Olympic Sports Legacy  
41 Programme, to promote an active, healthy lifestyle. Sport England's chief executive, Jenny  
42 Price, said that "a number of major sports have yet to deliver, despite significant levels of  
43 investment." (Newham Recorder, December 29 2010)  
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### *Wellbeing*

Unlike employment and physical activity, pathways of impact regarding wellbeing were heterogeneous, covering issues ranging from safety and security, health resource infrastructure, to charity work and community spirit (see Table 2). However, only four articles out of the 351 linked the Olympic Games to issues relating to promotion of good nutrition.

*"Young people from the University of East London and Newham Further Education College officially launched an initiative in front of 20,000 people at the 02 Arena to stop people from committing violence of any kinds to bring peace to the community... they decided to create a brand concept based on the Olympic ideals of courage, equality, respect, friendship and determination to encourage others to reject all forms of violence."* (Newham Recorder, October 19th 2011).

*"The future of the Olympic Village has been decided...Work is underway on a polyclinic including multiple GP surgeries, outpatient activity and a children's clinic which will service the area, creating new medical jobs."* (Newham Recorder, August 17th 2011)

*"Schools throughout the borough are invited to create a British dish worthy of an Olympic athlete. The recipe will represent everything great about British food while providing enough nourishment to spur our sportsmen on to glory."* (Newham Recorder, June 15<sup>th</sup> 2011)

In parallel with employment and physical activity pathways, potential adverse effects of the Olympic Games received much less attention:

*"A seminar is being organised to look into evidence of sex trafficking in cities staging Olympic Games. Organisers say little is heard about women's safety and the threat of a rise in sexual exploitation and trafficking once the spectators return home."* (The Docklands and East London Advertiser, January 19 2012).

## Discussion

Although the relationship is complex, the media has been previously described as "highly influential"<sup>10</sup> in shaping discourses around health. The primary finding of this content analysis is that pre-Games reporting of the impact on health and the determinants of health is increasing over time, and is overwhelmingly positive. Much less attention is devoted to understanding the uncertainties and potential adverse effects, despite some concerns being raised. This is particularly important finding of this research as the scientific evidence around socioeconomic impacts of Olympic regeneration is mixed, with both positive and negative outcomes reported. Inadequate planning, poor stadium design, the withdrawal of sponsors, political boycotts, heavy cost overruns on facilities, the forced eviction of residents living in areas wanted for development, and subsequent unwanted stadia can tarnish the Olympic legacy.<sup>27</sup>

This content analysis of pathways and impacts considered relevant media coverage taken from two local newspapers, however we did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games. Information taken from media sources should be judged in the context of relevant biases such as deliberately polarising or divisive news stories which might be published in order to stimulate interest and readership numbers. Furthermore, inferences about the scope of the Olympic legacy are best considered in conjunction official government statistics, regional public health reports and dedicated research initiatives where applicable after the 2012 Games. A framework analysis has been used here because of its suitability for exploring issues of policy and also because the prime concern of this approach is to describe and interpret what is happening in a particular setting.<sup>24</sup> However, an avenue for future enquiry aiming to investigate the broader societal and political context of these news stories, and the issues of interest that may have shaped their content, would be to undertake an explicitly discourse analytical

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3 approach. However due to limitations of time and resource such an approach was beyond  
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5 the scope of the current study.  
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9 Despite a significant trend in increasing numbers of articles reporting on employment issues  
10 related to the Games, and a strong and consistent legacy theme of new employment  
11 opportunities for the local population, there is much less attention given to concerns over the  
12 number of new jobs generated for people in Newham. Local political leaders and young  
13 people's charities such as "Step Forward" have voiced concerns that employment  
14 opportunities for young people are not being realised despite over half a decade of pre-  
15 Olympic investment in the local area. Indeed, the process of Olympic regeneration typically  
16 lacks transparency and it characterised by top-down decision making and a lack of  
17 consultation in conjunction with low income and disadvantaged groups.<sup>6</sup> Previous analyses  
18 have advocated a community-centred regeneration strategy,<sup>4 6 28</sup> one that takes a bottom-up  
19 approach based on local needs and participation. Therefore, as part of a robust evaluation of  
20 the 2012 London Games legacy, it will be important to critically analyse official government  
21 employment figures for Newham regarding new employment opportunities undertaken and  
22 the sustainability of these positions.  
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39 Increasing grass roots sporting participation and improving national levels of physical activity  
40 behaviour was a key commitment made by the UK coalition Government as part of hosting  
41 the 2012 Olympics. Newham has high childhood obesity rates and poor engagement in  
42 physical activity. Sporting mega-events are typically framed as 'a unique opportunity to  
43 improve public health'.<sup>29</sup> Our results show that although local newspaper coverage on  
44 promotion of physical activity did not significantly increase over time, there were a large  
45 proportion of articles related to promoting physical activity in young people. However,  
46 despite sporting "mega events" often being framed as a catalyst for improving population  
47 physical activity levels, especially for children and young people, there is little evidence to  
48 indicate that individual participation and physical activity rates actually increase.<sup>30</sup> Rather, it  
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3 is improvements in the physical activity related infrastructure (associated with the events)  
4 that are taken as indicative of greater participation.<sup>31</sup> In fact, the provision of new sports  
5 facilities were found to benefit elite athletes after events more than the host population.<sup>32</sup> In  
6  
7 a systematic review of the impact of sporting mega-events upon physical activity and sports  
8 participation the authors found that there was mixed evidence for a 'demonstration' or 'trickle  
9 down' effect on participation.<sup>30</sup> No direct link was found between elite events and community  
10 participation in physical activity, which contradicts assumptions about the Games 'inspiring'  
11 local people to take part in sporting activities and exercise. This would seem to be reflected  
12 in the Sport England data which reports that just 12.6 % of people over 16 in Newham get 30  
13 minutes of moderate exercise a week. Community and social capital are potentially  
14 important in empowering communities and improving individual and collective self-efficacy,<sup>5</sup>  
15 which may over time, contribute to behaviour change.<sup>33 34</sup> This finding lends further support  
16 to the argument for community-centred regeneration<sup>28</sup> to address the needs and support of  
17 local people.  
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33 Reporting of pathways to increasing wellbeing significantly increased over time although  
34 (because of the multifaceted nature of "wellbeing") they were intuitively heterogeneous.  
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37 However, beneficial impacts on community spirit were particularly prominent. These impacts  
38 tended to be focused on individually driven initiatives which appear to occur more from a  
39 collective sense of (possibly transient) opportunistic altruism, rather than directly facilitated  
40 by Olympic investment brought to the area. Financial investment may have other direct  
41 benefits such as the Olympic polyclinic. It has been asserted by the chief medical officer for  
42 the London Organising Committee of the Olympic and Paralympic Games, that the Olympic  
43 polyclinic will be the "most tangible health legacy from the 2012 games".<sup>35</sup> However, the  
44 Chief Executive of North and East London NHS has recently indicated uncertainty over  
45 whether the cutting edge medical equipment that will be used for delivering world class  
46 medical care for the elite athletes will remain in the clinic after the games.<sup>36</sup> The true nature  
47 and potential for beneficial health impacts on the local population which can be gained  
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3 through just one more (possibly downgraded) health clinic is an area of significant  
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5 uncertainty.  
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## 8 9 **Conclusions**

10 Local media coverage of the pre-Games pathways and impact on health in the host borough  
11 of Newham is overwhelmingly positive. However, specific uncertainties around the true  
12 nature of its impact on local employment and physical activity were articulated. Evaluation of  
13 the tangible impacts on population health, and the determinants of health and health  
14 inequalities, of the London 2012 Olympics is required in order to unpack whether there is  
15 truly a lasting legacy for East London.  
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## 25 **Conflict of interest statement**

26 The authors declare no conflicts of interest  
27

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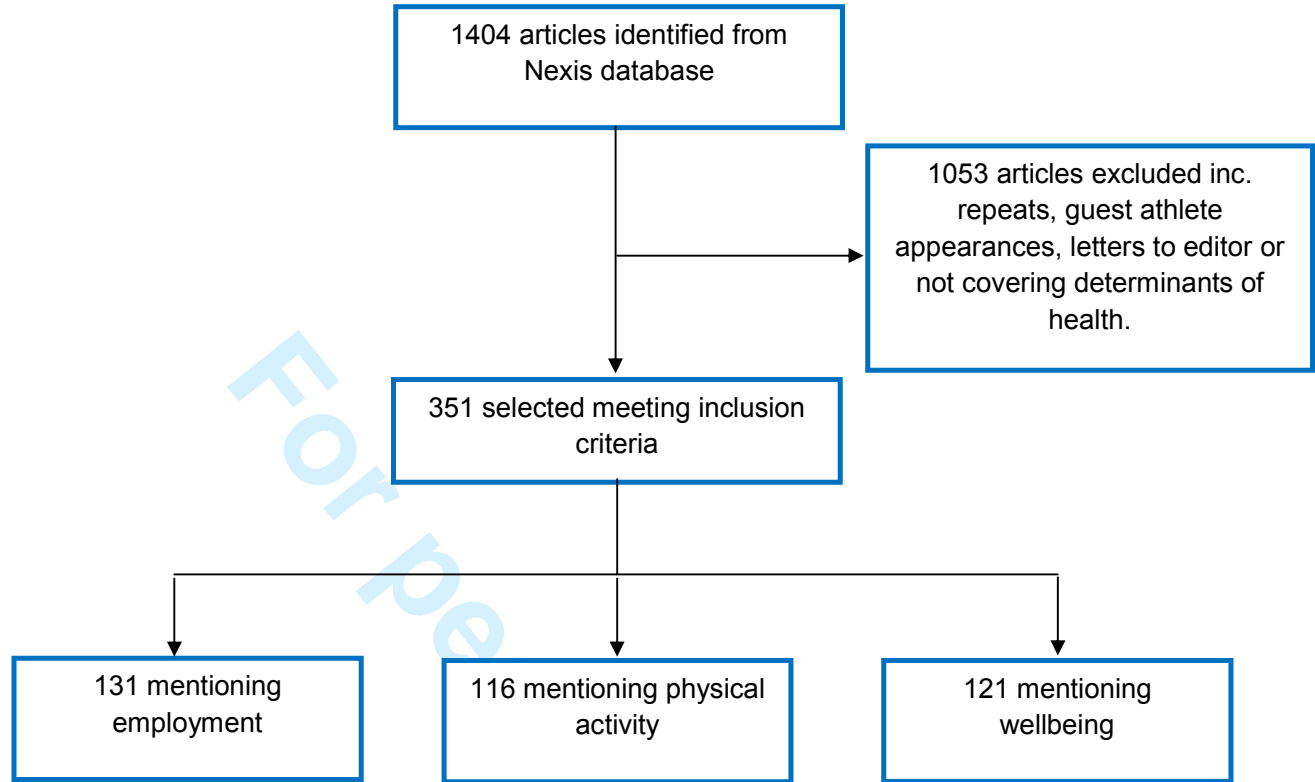
**Table 1.** Article inclusion and exclusion criteria

Inclusion	Exclusion
<ul style="list-style-type: none"><li>➤ Coverage on issues related to employment, physical activity or wellbeing of the Newham population as a result of the 2012 Olympics.</li></ul>	<ul style="list-style-type: none"><li>➤ Repeated articles</li><li>➤ Letters to the editor</li><li>➤ Guest appearances of Olympic athletes</li><li>➤ Coverage on employment, physical activity or overall wellbeing not related to the 2012 Olympics.</li></ul>

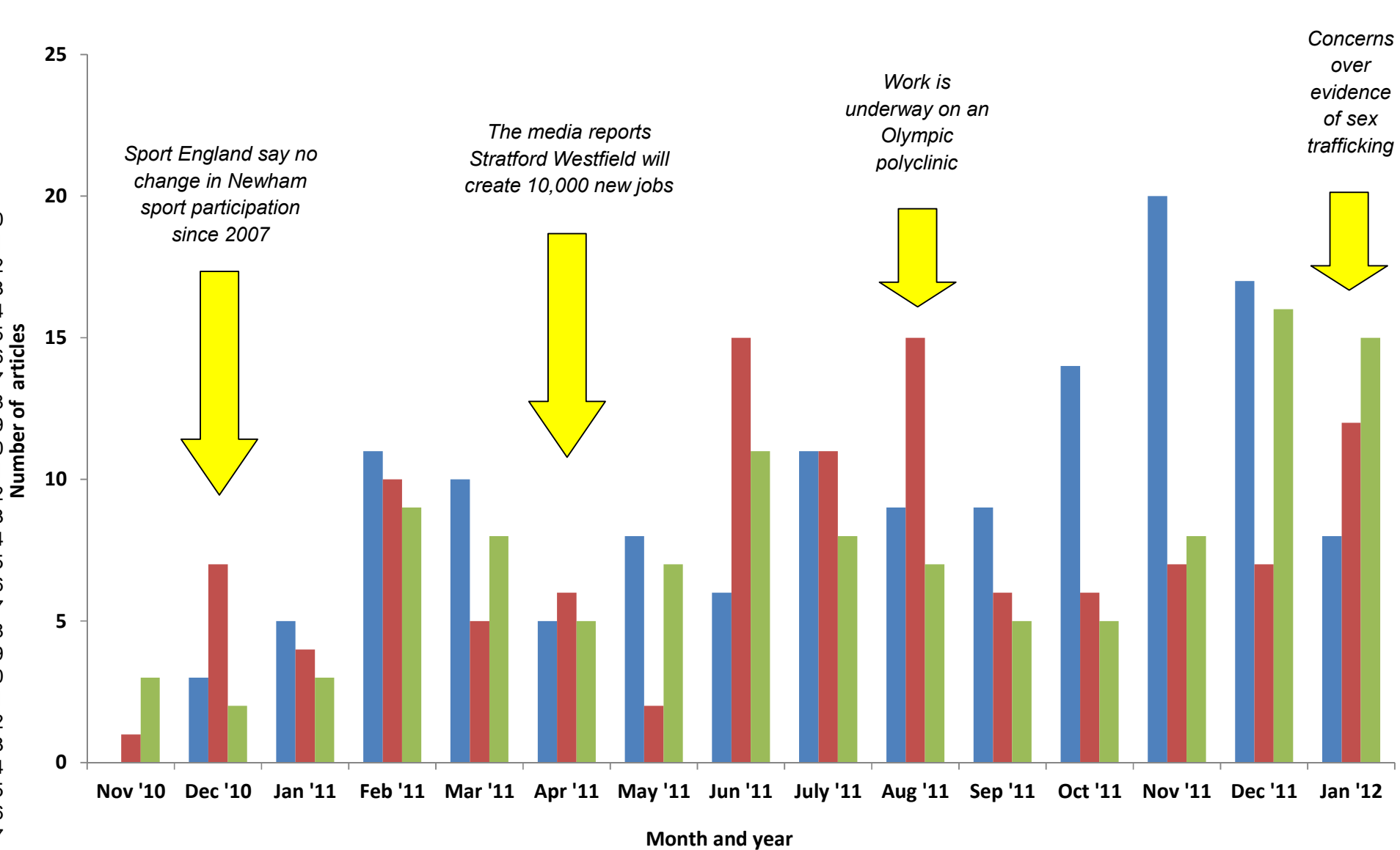
**Table 2.** Key themes related to pathways of impact on health brought about by the 2012 Olympic Games mentioned in local newspaper articles.

	Number of times mentioned (%)
<b>Employment (131 articles)</b>	
The creation of new opportunities for paid work in the local area	81 (62)
Education initiatives in the local population to help find employment	23 (18)
Employment created by activities related to building new homes in Newham	19 (15)
Initiatives targeted specifically at assisting young people into paid work	12 (9)
Stories covering issues related to difficulties in finding employment	8 (6)
New paid employment created as a result of converting the Olympic infrastructure after the games	8 (6)
Non-paid volunteering and work experience opportunities	7 (5)
Commercial success in Newham that is expected to lead to the generation of future employment opportunities	4 (3)
Grants awarded to local business ventures to expand their operations and employ more people	3 (2)
<b>Physical activity (116 articles)</b>	
Initiatives with the aim of promoting physical activity in young people	81 (70)
Initiatives with the aim of promoting physical activity all other age groups	54 (47)
Stories related to how the built Olympic infrastructure and facilities could be used to promote physical activity after the Games	16 (14)
Promotion of the Olympics as a sporting spectacle and how such "mega events" can relate to exercise behaviour	12 (10)
Stories covering issues related to how the Games might be related to negative outcomes in physical activity opportunities in the future	9 (8)
Work by charitable organisations to promote physical activity in Newham	6 (5)
Initiatives or events to promote physical activity which are facilitated by non-paid local volunteers	6 (5)
Initiatives or events to promote physical activity targeted at people with disabilities	4 (3)
<b>Overall wellbeing (121 articles)</b>	
Stories covering issues concerning the mental wellbeing in the people of Newham and community spirit	27 (22)
Stories covering issues concerning the mental wellbeing of young people specifically	25 (21)
Local issues related to crime, security and safety in Newham	25 (21)
Stories related to how the built Olympic infrastructure and facilities could be used to promote overall wellbeing after the Games	17 (14)
Stories covering issues related to how the Games might be related to negative outcomes in wellbeing	15 (12)
Issues related to the provision of clinical care and health services for the local population	15 (12)
Work by charitable organisations to promote health and wellbeing	13 (11)
Projects dedicated to the provision of social housing for Newham	7 (6)
Initiatives or events to promote overall wellbeing which are facilitated by non-paid local volunteers	6 (5)
Stories related to the promotion of good nutrition and healthy living	4 (3)

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**Figure 1:** Flow diagram of included articles split into major determinants of health.



**Figure 2:** The frequency of articles covering local issues on employment, physical activity and overall wellbeing relating to the Olympics over time.

■ = employment, ■ = physical activity, ■ = overall wellbeing. Pertinent media reports related to the determinants of health are aligned on the date line.



**How might the London 2012 Olympics influence health and the determinants of health? Local newspaper analysis of pre-games pathways and impacts.**

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Secondary Subject Heading:	Qualitative research, Sports and exercise medicine, Health policy
Keywords:	PUBLIC HEALTH, QUALITATIVE RESEARCH, SOCIAL MEDICINE

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**Title**

How might the London 2012 Olympics influence health and the determinants of health?  
Local newspaper analysis of pre-games pathways and impacts.

**Authors**

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**Keywords**

2012 Olympic Games, health, employment, physical activity, health inequalities, Newham.

**ABSTRACT**

**Objectives.** To conduct a content analysis of pre-Games local media coverage of the potential impact on health and the determinants of health in Newham, the site of the Olympic Park.

**Design.** Local newspaper content analysis.

**Setting.** Olympic park host site of the London Borough of Newham.

**Outcome measures.** Media coverage of employment, physical activity and wellbeing.

**Results.** Three hundred and fifty one articles meeting the inclusion criteria were included in the analysis. The overwhelming majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively). A non-significant increasing trend was observed for physical activity ( $P=0.146$ ). New employment opportunities and the promotion of physical activity in young people were the pathways most frequently reported in the local media. However, much less attention is devoted to understanding the uncertainties about how much of these new opportunities will directly improve the determinants of health in the Newham population.

**Conclusions:** Pre-Games reporting on the impact on health and the determinants of health increased over time in the London Borough of Newham, and is overwhelmingly positive. However, specific uncertainties around the true nature of its impact on local employment and physical activity were articulated. Further evaluation of the tangible impacts on population health, and the determinants of health and health inequalities from the London 2012 Olympics is required.

## ARTICLE SUMMARY

### Article focus

- This article aims to assess pre-Games local media coverage of the potential impact on health and the determinants of health in the London Borough of Newham.

### Key messages

- Local media coverage of the pre-Games pathways and impacts on health in the host borough of Newham was overwhelmingly positive.
- New employment opportunities and the promotion of physical activity in young people are the most frequently covered pathways for improving health.
- There are uncertainties around to what extent new jobs will be taken by local people and what meaningful change in exercise behaviour will be realised as a result of the promotion of physical activity.

### Strengths and limitations of this study

- Newham is one of the most deprived populations in England. This analysis is the first of its kind to assess pre-games pathways and impacts upon health and the determinants of health in the local community.
- Over 350 individual reports contributed to this manuscript. This media content analysis highlights the lack of attention given to uncertainties and potential adverse effects of the London Games upon Newham.
- We did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games.



## Introduction

On the 6<sup>th</sup> July 2005, the International Olympic Committee awarded the London bid the rights to host the 2012 Olympic and Paralympic Games. As a sporting “mega event” the games have been presented as an opportunity for ‘legacy’, primarily through the development and regeneration of the Olympic Park site in Newham, East London. Newham is seen as a good candidate for regeneration as it is one of the most deprived populations in England with high rates of child poverty and childhood obesity, poor engagement in physical activity, low employment rates and low life expectancy.<sup>1</sup> Urban regeneration is often framed as a means of addressing inequality and exclusion by improving the built environment and local economy, and thereby providing enhanced employment, social, health, educational and recreational opportunities.<sup>2</sup> One of the most consistent findings in public health research is that people living in deprived areas experience poorer health than people living in non-deprived areas.<sup>3</sup>

Despite arguments that sporting mega-events are financially rewarding for host cities, questions remain about the potential of such events for facilitating socioeconomic change and providing health benefits.<sup>4</sup> Systematic reviews have reported a contrasting picture of improved investment in public services, but delays in health and education provision.<sup>5</sup> Assumptions made about intuitive benefits from increased tourism have also failed to materialise in previous Games such as in Sydney or Seoul.<sup>6</sup> Satisfaction with the local area after the “mega events” often improves, along with concomitant rises in house prices. In fact, housing costs in the London borough of Hackney may have risen as a result of the anticipated London Games, which is a positive economic outcome but also serves to further fuel local gentrification and a loss of space for disadvantaged groups.<sup>7</sup>

The final cost of the 2012 games are estimated to be between £9-11 billion.<sup>8</sup> As such understanding how pathways of impact are described and understood, with an assessment of which are deemed to be the most important to local media/community, and what if any,

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3 translate to impacts on health and health inequalities is crucial.<sup>9</sup> Indeed, the media plays a  
4 part in setting and linking public and policy agendas.<sup>10</sup> It is an important source of knowledge  
5 and understanding for the local population<sup>11</sup> as well as potentially influencing behaviour  
6 change.<sup>12</sup> Accordingly, the aim of this study is to conduct a content analysis of pre-Games  
7 local media coverage of the potential impact on health and the determinants of health in  
8 Newham, the site of the Olympic Park. Local newspapers were chosen for analysis, as  
9 opposed to national newspapers, because they cover issues specific to the local community  
10 and as such are likely to more informatively describe anticipated pathways to impacting key  
11 determinants of health.  
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## 23 **Methods**

### 24 *Data collection*

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26 The London Borough of Newham has a population of around 240,000 people. The Borough  
27 is ethnically diverse with one of the lowest proportions of White British residents in the  
28 country. The two local newspapers circulated in Newham are “*The Docklands and East*  
29 *London Advertiser*” and “*The Newham Recorder*”. These are two weekly tabloid newspapers  
30 with circulations of 20597 and 16302, respectively. Both local papers are the only relevant  
31 Newham based media sources on the Nexis UK electronic database. We focused on three  
32 legacy outcomes. First, physical activity which, through the motto ‘inspire a generation’,  
33 has been proposed as a key legacy of London 2012.<sup>13 14</sup> Second, employment has been  
34 identified as the main legacy associated with the Olympics by local authority stakeholders.  
35 Third, improvements in wellbeing a current national policy goal promoted by the current  
36 government.<sup>15</sup> These outcomes are also consistent with the health-related legacy objectives  
37 highlighted by the Olympic Park Legacy Company<sup>16</sup> and have a well-established evidence  
38 base as key social and behavioural determinants of physical and psychological health.<sup>2 5 17-20</sup>  
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40 As such, these outcomes were judged to be the most informative for construction of a  
41 conceptual framework for the pathways and mechanisms underlying the relationship  
42 between hosting the London 2012 Olympics and health.<sup>21</sup> We defined these legacy  
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3 outcomes as described below. Our interest lay in the extent of coverage and article content  
4 relevant to these three areas in local newspapers.  
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9 ➤ Employment : coverage of how the Games could impact the generation of new paid  
10 employment, assistance to find employment, the provision of work experience  
11 opportunities or commercial success that could lead directly to the provision of new  
12 employment positions.  
13
- 14 ➤ Physical activity: stories related to how the Games might impact sporting or exercise  
15 behaviour in members of the local community.  
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- 17 ➤ Wellbeing: coverage of how the Games impacts members of the community in terms  
18 of being healthy, happy, or prosperous and not related to physical activity or  
19 employment.  
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28 The Nexis UK database was searched for electronic articles on the entire available date  
29 range at the time of the study (4<sup>th</sup> November 2010 to the 31<sup>st</sup> of January 2012). The search  
30 terms were health\* OR wellbeing, or employ\*, or physical OR exercise, or Stratford OR  
31 Newham, and Olympic OR investment. Table 1 summaries article inclusion and exclusion  
32 criteria. Following conventional systematic review methods,<sup>22</sup> all articles were screened  
33 initially for eligibility by title, then summary and finally full text.  
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#### 43 *Data Analysis*

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45 Outcomes related to employment, physical activity or wellbeing reported in the included  
46 newspaper articles were measured in frequency counts. Frequencies were generated by  
47 assessing when an article reported on issues relating to employment, physical activity or  
48 wellbeing and was linked to the 2012 Olympics e.g. investment and new jobs brought to  
49 Newham directly as a result of the Games (employment), community sports events directly  
50 inspired by the Games (physical activity) or investment in health infrastructure as a result of  
51 the Games (wellbeing). These frequencies were then reported per calendar month. Linear  
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3 regression analysis was conducted to assess trends over time <sup>23</sup> using SPSS version 19  
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5 (SPSS inc. Chicago, USA) with the significance set at P<0.05.  
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9 A qualitative framework analysis adapted from the Ritchie and Spencer Thematic  
10 Framework Analysis<sup>24 25</sup> was used to identify the key themes that suggest potential pathways  
11 of impact related to the Olympics. The five steps used were: familiarisation, identifying  
12 thematic framework, indexing, charting and mapping. Thirty articles were selected at random  
13 and read repeatedly. A preliminary framework was constructed based on the primary  
14 outcomes of interest i.e. employment, physical activity and health and wellbeing. A further  
15 twenty-five articles were selected at random and read with the coding framework being  
16 applied. Working independently, a second reviewer (LB) read the same 55 articles to check  
17 the validity of the framework. Differences in interpretation were explored, and consensus  
18 was reached through discussion.<sup>25</sup>  
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31 A final coding framework with relevant example quotes mapped from the included  
32 newspaper articles, divided into the three broad thematic categories (employment, physical  
33 activity and wellbeing) were then divided into a total of 27 sub-categories. Newspaper  
34 articles were analysed for manifest content <sup>26</sup> i.e. what is explicitly stated and draws on the  
35 objective and replicable qualities of quantitative methods. All articles were then coded by MS  
36 resolving any doubts by discussion with LB. When coding the full data set of articles, any  
37 relevant minor alterations to the coding framework were made in parallel, as necessary.  
38 Frequency and proportions of articles covering potential determinants of health including  
39 employment, physical activity and health & wellbeing relevant to the 2012 Olympic Games  
40 were then calculated.  
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## Results

Three hundred and fifty one articles met the inclusion criteria for this study. Figure 1 illustrates how these articles were split into coverage on the key determinants of health (some articles included content on more than one determinant and hence contribute to more than one pathway). In these included articles, there were 131 references to employment, 116 references to physical activity and 121 references to overall wellbeing. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively) however, a non-significant increase was observed for physical activity ( $P=0.146$ ), seen in Figure 2.

A quantitative summary of the key themes of pathways to impact taken from the framework analysis can be seen in Table 2. Coverage of new employment opportunities and the promotion of physical activity in young people received the majority of the media attention (162 of 351 articles covered these pathways). The vast majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects.

### *Employment*

The most frequently reported pre-Games pathway for health impact was via employment with the large majority of coverage around new job opportunities (See Table 2). The New Westfield Shopping complex has been regularly cited as being one of the largest drivers of new employment opportunities in the area:

*"Westfield Stratford City is to create 10,000 permanent jobs when it opens in September...without the games, this level of investment and job creation would not be happening..."* (Newham Recorder, April 13th 2011).

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3 However, reporting of the specifics of how many of these opportunities are likely to be  
4 eventually filled by local people in Newham reveals that a smaller number opportunities  
5 might be available to the local population.  
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11 *"A bit of badly needed Christmas cheer - 40 new jobs have been created in Newham with a*  
12 *£750,000 investment to transform two McDonald's restaurants. (Newham Recorder, 8<sup>th</sup>*  
13 *December 2010).*  
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18 *"A new hotel opening next to the ExCeL centre in the Docklands will create 66 new jobs,*  
19 *around 40 of them going to people who live in Newham... with east London seeing much*  
20 *regeneration ahead of the 2012 Olympic Games, the hotel is perfectly situated within easy*  
21 *reach of the Olympic Park, Westfield Stratford City and the 02." (Newham Recorder,*  
22 *October 12<sup>th</sup> 2011).*  
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28 This discrepancy has not gone un-noticed in local media with a small number of articles  
29 raising concerns about whether the new employment opportunities would primarily benefit  
30 local residents and how sustainable this employment might in the post-Games environment:  
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36 *"Young people in the East End face becoming the 'lost generation' as shocking new figures*  
37 *show East London has the highest level of youth unemployment in London... the area*  
38 *[Newham] faces a legacy of wasted talent and abandoned hopes among its youth.... Week*  
39 *after week I [Rushanara Ali, MP for Bethnal Green and Bow ] hear stories from young people*  
40 *who want to work and have the skills to be successful in employment, yet cannot find work.*  
41 *(The Docklands and East London Advertiser, October 13th 2011).*  
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#### 51 52 53 *Physical Activity*

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56 Promotion of sport and exercise in young people, was the most frequently cited pathway by  
57 which improvements in physical activity might occur (see Table 2). These stories commonly  
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3 described short-term initiatives organised around “one off” sporting events or the promotion  
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5 of existing facilities.  
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9 *“... the recent six-day Inter-College Sports Festival... has been granted the badge of the*  
10 *London 2012 Inspire Programme, which recognises innovative and exceptional projects*  
11 *directly inspired by the 2012 Games.”* (Newham Recorder, November 8th 2011)  
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17 *“...Gold challenge also sets out to raise £20m for charity. Those who raise the most, a*  
18 *number of schools and people selected by ballot will take part in 100m or 4X100m races...it*  
19 *would be a fitting way to say thank you to those who have been inspired by the Games to*  
20 *get active and raise money for charity.”* (Newham Recorder, November 9th 2011)  
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27 Positive stories about the potential of the Olympics to improve physical activity were very  
28  
29 common. However, concerns about the ability of these initiatives to deliver meaningful  
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31 behaviour change were much less frequently discussed. Reports from the results of a major  
32  
33 national survey suggest pre-Olympic investment has had little impact on the proportion of  
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35 Newham adults currently meeting physical activity guideline recommendations.<sup>20</sup>  
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39 *“Despite receiving extra cash to promote sport in the run-up to the Olympic Games, only*  
40 *12.6 per cent of people over 16 get 30 minutes of moderate exercise a week. The Active*  
41 *People survey, carried out every three months by Sport England, showed that there had*  
42 *been no change in sports participation in the area [Newham] since 2007. In recent months,*  
43 *sports charities such as Access Sport and Fight for Peace have received £80,000 and*  
44 *£150,000 respectively and £30,000 each was donated to Star Park, Star Lane, Canning*  
45 *Town and West Ham Park to build multi-use games areas. Across London, mayor Boris*  
46 *Johnson has invested a total of £5.4 million, allocated by the Olympic Sports Legacy*  
47 *Programme, to promote an active, healthy lifestyle. Sport England's chief executive, Jenny*  
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3 *Price, said that "a number of major sports have yet to deliver, despite significant levels of*  
4 *investment."* (Newham Recorder, December 29 2010)  
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### 8 *Wellbeing*

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10 Unlike employment and physical activity, pathways of impact regarding wellbeing were  
11 heterogeneous, covering issues ranging from safety and security, health resource  
12 infrastructure, to charity work and community spirit (see Table 2). However, only four articles  
13 out of the 351 linked the Olympic Games to issues relating to promotion of good nutrition.  
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21 *"Young people from the University of East London and Newham Further Education College*  
22 *officially launched an initiative in front of 20,000 people at the 02 Arena to stop people from*  
23 *committing violence of any kinds to bring peace to the community... they decided to create a*  
24 *brand concept based on the Olympic ideals of courage, equality, respect, friendship and*  
25 *determination to encourage others to reject all forms of violence."* (Newham Recorder,  
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October 19th 2011).

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36 *"The future of the Olympic Village has been decided...Work is underway on a polyclinic*  
37 *including multiple GP surgeries, outpatient activity and a children's clinic which will service*  
38 *the area, creating new medical jobs."* (Newham Recorder, August 17th 2011)  
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44 *"Schools throughout the borough are invited to create a British dish worthy of an Olympic*  
45 *athlete. The recipe will represent everything great about British food while providing enough*  
46 *nourishment to spur our sportsmen on to glory."* (Newham Recorder, June 15<sup>th</sup> 2011)  
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52 In parallel with employment and physical activity pathways, potential adverse effects of the  
53 Olympic Games received much less attention:  
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3 “A seminar is being organised to look into evidence of sex trafficking in cities staging  
4 Olympic Games. Organisers say little is heard about women's safety and the threat of a rise  
5 in sexual exploitation and trafficking once the spectators return home.” (The Docklands and  
6 East London Advertiser, January 19 2012).  
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## 10 11 12 13 **Discussion**

14 Although the relationship is complex, the media has been previously described as “highly  
15 influential”<sup>10</sup> in shaping discourses around health. The primary finding of this content  
16 analysis is that pre-Games reporting of the impact on health and the determinants of health  
17 increased over time, and is overwhelmingly positive. Much less attention is devoted to  
18 understanding the uncertainties and potential adverse effects, despite some concerns being  
19 raised. This is particularly important finding of this research as the scientific evidence around  
20 socioeconomic impacts of Olympic regeneration is mixed, with both positive and negative  
21 outcomes reported. Inadequate planning, poor stadium design, the withdrawal of sponsors,  
22 political boycotts, heavy cost overruns on facilities, the forced eviction of residents living in  
23 areas wanted for development, and subsequent unwanted stadia can tarnish the Olympic  
24 legacy.<sup>27</sup>  
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40 This content analysis of pathways and impacts considered relevant media coverage taken  
41 from two local newspapers, however we did not examine other potentially relevant local  
42 sources of information e.g. magazines, websites, regional television news which may have  
43 included useful counter-perspectives on hosting the 2012 Games. Information taken from  
44 media sources should be judged in the context of relevant biases such as deliberately  
45 polarising or divisive news stories which might be published in order to stimulate interest and  
46 readership numbers. Furthermore, inferences about the scope of the Olympic legacy are  
47 best considered in conjunction official government statistics, regional public health reports  
48 and dedicated research initiatives where applicable after the 2012 Games. A framework  
49 analysis has been used here because of its suitability for exploring issues of policy and also  
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3 because the prime concern of this approach is to describe and interpret what is happening in  
4 a particular setting.<sup>24</sup> However, an avenue for future enquiry aiming to investigate the  
5 broader societal and political context of these news stories, and the issues of interest that  
6 may have shaped their content, would be to undertake an explicitly discourse analytical  
7 approach. However to due to limitations of time and resource such an approach was beyond  
8 the scope of the current study.  
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17 Despite a significant trend in increasing numbers of articles reporting on employment issues  
18 related to the Games, and a strong and consistent legacy theme of new employment  
19 opportunities for the local population, there is much less attention given to concerns over the  
20 number of new jobs generated for people in Newham. Local political leaders and young  
21 people's charities such as "Step Forward" have voiced concerns that employment  
22 opportunities for young people are not being realised despite over half a decade of pre-  
23 Olympic investment in the local area. Indeed, the process of Olympic regeneration typically  
24 lacks transparency and it characterised by top-down decision making and a lack of  
25 consultation in conjunction with low income and disadvantaged groups.<sup>6</sup> Previous analyses  
26 have advocated a community-centred regeneration strategy,<sup>4 6 28</sup> one that takes a bottom-up  
27 approach based on local needs and participation. Therefore, as part of a robust evaluation of  
28 the 2012 London Games legacy, it will be important to critically analyse official government  
29 employment figures for Newham regarding new employment opportunities undertaken and  
30 the sustainability of these positions.  
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48 Increasing grass roots sporting participation and improving national levels of physical activity  
49 behaviour was a key commitment made by the UK coalition Government as part of hosting  
50 the 2012 Olympics. Newham has high childhood obesity rates and poor engagement in  
51 physical activity. Sporting mega-events are typically framed as 'a unique opportunity to  
52 improve public health'.<sup>29</sup> Our results show that although local newspaper coverage on  
53 promotion of physical activity did not significantly increase over time, there were a large  
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3 proportion of articles related to promoting physical activity in young people. However,  
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5 despite sporting “mega events” often being framed as a catalyst for improving population  
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7 physical activity levels, especially for children and young people, there is little evidence to  
8  
9 indicate that individual participation and physical activity rates actually increase.<sup>30</sup> Rather, it  
10  
11 is improvements in the physical activity related infrastructure (associated with the events)  
12  
13 that are taken as indicative of greater participation.<sup>31</sup> In fact, the provision of new sports  
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15 facilities were found to benefit elite athletes after events more than the host population.<sup>32</sup> In  
16  
17 a systematic review of the impact of sporting mega-events upon physical activity and sports  
18  
19 participation the authors found that there was mixed evidence for a ‘demonstration’ or ‘trickle  
20  
21 down’ effect on participation.<sup>30</sup> No direct link was found between elite events and community  
22  
23 participation in physical activity, which contradicts assumptions about the Games ‘inspiring’  
24  
25 local people to take part in sporting activities and exercise. This would seem to be reflected  
26  
27 in the Sport England data which reports that just 12.6 % of people over 16 in Newham get 30  
28  
29 minutes of moderate exercise a week. Community and social capital are potentially  
30  
31 important in empowering communities and improving individual and collective self-efficacy,<sup>5</sup>  
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33 which may over time, contribute to behaviour change.<sup>33 34</sup> This finding lends further support  
34  
35 to the argument for community-centred regeneration<sup>28</sup> to address the needs and support of  
36  
37 local people.  
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41 Reporting of pathways to increasing wellbeing significantly increased over time although  
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43 (because of the multifaceted nature of “wellbeing”) they were intuitively heterogeneous.  
44  
45 However, beneficial impacts on community spirit were particularly prominent. These impacts  
46  
47 tended to be focused on individually driven initiatives which appear to occur more from a  
48  
49 collective sense of (possibly transient) opportunistic altruism, rather than directly facilitated  
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51 by Olympic investment brought to the area. Financial investment may have other direct  
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53 benefits such as the Olympic polyclinic. It has been asserted by the chief medical officer for  
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55 the London Organising Committee of the Olympic and Paralympic Games, that the Olympic  
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57 polyclinic will be the “most tangible health legacy from the 2012 games”.<sup>35</sup> However, the  
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3 Chief Executive of North and East London NHS has indicated uncertainty over whether the  
4 cutting edge medical equipment that will be used for delivering world class medical care for  
5 the elite athletes will remain in the clinic after the Games.<sup>36</sup> The true nature and potential for  
6 beneficial health impacts on the local population which can be gained through just one more  
7 (possibly downgraded) health clinic is an area of significant uncertainty.  
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### 13 14 15 **Conclusions**

16  
17 Local media coverage of the pre-Games pathways and impact on health in the host borough  
18 of Newham is overwhelmingly positive. However, specific uncertainties around the true  
19 nature of its impact on local employment and physical activity were articulated. Evaluation of  
20 the tangible impacts on population health, and the determinants of health and health  
21 inequalities, of the London 2012 Olympics is required in order to unpack whether there is  
22 truly a lasting legacy for East London.  
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### 30 31 **Conflict of interest statement**

32 The authors declare no conflicts of interest  
33

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38  
39

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44

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47  
48

### 49 50 **Contributorship**

51 MS, LB, ST and SC contributed to the study design. MS conducted data collection. MS and LB  
52 conducted the thematic analysis and LB conducted the linear regression. All authors contributed to  
53 interpretation of results and manuscript drafting.  
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Inclusion	Exclusion
<ul style="list-style-type: none"> <li>➤ Coverage on issues related to employment, physical activity or wellbeing of the Newham population as a result of the 2012 Olympics.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Repeated articles.</li> <li>➤ Letters to the editor.</li> <li>➤ Guest appearances of Olympic athletes.</li> <li>➤ Coverage on employment, physical activity or overall wellbeing not related to the 2012 Olympics.</li> </ul>

**Table 1.** Article inclusion and exclusion criteria

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For peer review only



**Table 2.** Key themes related to pathways of impact on health brought about by the 2012 Olympic Games mentioned in local newspaper articles.

	Number of times mentioned (%)
<b>Employment (131 articles)</b>	
The creation of new opportunities for paid work in the local area	81 (62)
Education initiatives in the local population to help find employment	23 (18)
Employment created by activities related to building new homes in Newham	19 (15)
Initiatives targeted specifically at assisting young people into paid work	12 (9)
Stories covering issues related to difficulties in finding employment	8 (6)
New paid employment created as a result of converting the Olympic infrastructure after the games	8 (6)
Non-paid volunteering and work experience opportunities	7 (5)
Commercial success in Newham that is expected to lead to the generation of future employment opportunities	4 (3)
Grants awarded to local business ventures to expand their operations and employ more people	3 (2)
<b>Physical activity (116 articles)</b>	
Initiatives with the aim of promoting physical activity in young people	81 (70)
Initiatives with the aim of promoting physical activity all other age groups	54 (47)
Stories related to how the built Olympic infrastructure and facilities could be used to promote physical activity after the Games	16 (14)
Promotion of the Olympics as a sporting spectacle and how such "mega events" can relate to exercise behaviour	12 (10)
Stories covering issues related to how the Games might be related to negative outcomes in physical activity opportunities in the future	9 (8)
Work by charitable organisations to promote physical activity in Newham	6 (5)
Initiatives or events to promote physical activity which are facilitated by non-paid local volunteers	6 (5)
Initiatives or events to promote physical activity targeted at people with disabilities	4 (3)
<b>Overall wellbeing (121 articles)</b>	
Stories covering issues concerning the mental wellbeing in the people of Newham and community spirit	27 (22)
Stories covering issues concerning the mental wellbeing of young people specifically	25 (21)
Local issues related to crime, security and safety in Newham	25 (21)
Stories related to how the built Olympic infrastructure and facilities could be used to promote overall wellbeing after the Games	17 (14)
Stories covering issues related to how the Games might be related to negative outcomes in wellbeing	15 (12)
Issues related to the provision of clinical care and health services for the local population	15 (12)
Work by charitable organisations to promote health and wellbeing	13 (11)
Projects dedicated to the provision of social housing for Newham	7 (6)
Initiatives or events to promote overall wellbeing which are facilitated by non-paid local volunteers	6 (5)
Stories related to the promotion of good nutrition and healthy living	4 (3)

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For peer review only

**Title**

How might the London 2012 Olympics influence health and the determinants of health?  
Local newspaper analysis of pre-games pathways and impacts.

**Authors**

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**Keywords**

2012 Olympic Games, health, employment, physical activity, health inequalities, Newham.

**ABSTRACT**

**Objectives.** To conduct a content analysis of pre-Games local media coverage of the potential impact on health and the determinants of health in Newham, the site of the Olympic Park.

**Design.** Local newspaper content analysis.

**Setting.** Olympic park host site of the London Borough of Newham.

**Outcome measures.** Media coverage of employment, physical activity and wellbeing.

**Results.** Three hundred and fifty one articles meeting the inclusion criteria were included in the analysis. The overwhelming majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively). A non-significant increasing trend was observed for physical activity ( $P=0.146$ ). New employment opportunities and the promotion of physical activity in young people were the pathways most frequently reported in the local media. However, much less attention is devoted to understanding the uncertainties about how much of these new opportunities will directly improve the determinants of health in the Newham population.

**Conclusions:** Pre-Games reporting on the impact on health and the determinants of health increased over time in the London Borough of Newham, and is overwhelmingly positive. However, specific uncertainties around the true nature of its impact on local employment and physical activity were articulated. Further evaluation of the tangible impacts on population health, and the determinants of health and health inequalities from the London 2012 Olympics is required.

## ARTICLE SUMMARY

### Article focus

- This article aims to assess pre-Games local media coverage of the potential impact on health and the determinants of health in the London Borough of Newham.

### Key messages

- Local media coverage of the pre-Games pathways and impacts on health in the host borough of Newham was overwhelmingly positive.
- New employment opportunities and the promotion of physical activity in young people are the most frequently covered pathways for improving health.
- There are uncertainties around to what extent new jobs will be taken by local people and what meaningful change in exercise behaviour will be realised as a result of the promotion of physical activity.

### Strengths and limitations of this study

- Newham is one of the most deprived populations in England. This analysis is the first of its kind to assess pre-games pathways and impacts upon health and the determinants of health in the local community.
- Over 350 individual reports contributed to this manuscript. This media content analysis highlights the lack of attention given to uncertainties and potential adverse effects of the London Games upon Newham.
- We did not examine other potentially relevant local sources of information e.g. magazines, websites, regional television news which may have included useful counter-perspectives on hosting the 2012 Games.

## Introduction

On the 6<sup>th</sup> July 2005, the International Olympic Committee awarded the London bid the rights to host the 2012 Olympic and Paralympic Games. As a sporting “mega event” the games have been presented as an opportunity for ‘legacy’, primarily through the development and regeneration of the Olympic Park site in Newham, East London. Newham is seen as a good candidate for regeneration as it is one of the most deprived populations in England with high rates of child poverty and childhood obesity, poor engagement in physical activity, low employment rates and low life expectancy.<sup>1</sup> Urban regeneration is often framed as a means of addressing inequality and exclusion by improving the built environment and local economy, and thereby providing enhanced employment, social, health, educational and recreational opportunities.<sup>2</sup> One of the most consistent findings in public health research is that people living in deprived areas experience poorer health than people living in non-deprived areas.<sup>3</sup>

Despite arguments that sporting mega-events are financially rewarding for host cities, questions remain about the potential of such events for facilitating socioeconomic change and providing health benefits.<sup>4</sup> Systematic reviews have reported a contrasting picture of improved investment in public services, but delays in health and education provision.<sup>5</sup> Assumptions made about intuitive benefits from increased tourism have also failed to materialise in previous Games such as in Sydney or Seoul.<sup>6</sup> Satisfaction with the local area after the “mega events” often improves, along with concomitant rises in house prices. In fact, housing costs in the London borough of Hackney may have risen as a result of the anticipated London Games, which is a positive economic outcome but also serves to further fuel local gentrification and a loss of space for disadvantaged groups.<sup>7</sup>

The final cost of the 2012 games are estimated to be between £9-11 billion.<sup>8</sup> As such understanding how pathways of impact are described and understood, with an assessment of which are deemed to be the most important to local media/community, and what if any,

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3 translate to impacts on health and health inequalities is crucial.<sup>9</sup> Indeed, the media plays a  
4 part in setting and linking public and policy agendas.<sup>10</sup> It is an important source of knowledge  
5 and understanding for the local population<sup>11</sup> as well as potentially influencing behaviour  
6 change.<sup>12</sup> Accordingly, the aim of this study is to conduct a content analysis of pre-Games  
7 local media coverage of the potential impact on health and the determinants of health in  
8 Newham, the site of the Olympic Park. Local newspapers were chosen for analysis, as  
9 opposed to national newspapers, because they cover issues specific to the local community  
10 and as such are likely to more informatively describe anticipated pathways to impacting key  
11 determinants of health.  
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## 23 **Methods**

### 24 *Data collection*

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26 The London Borough of Newham has a population of around 240,000 people. The Borough  
27 is ethnically diverse with one of the lowest proportions of White British residents in the  
28 country. The two local newspapers circulated in Newham are “*The Docklands and East*  
29 *London Advertiser*” and “*The Newham Recorder*”. These are two weekly tabloid newspapers  
30 with circulations of 20597 and 16302, respectively. Both local papers are the only relevant  
31 Newham based media sources on the Nexis UK electronic database. We focused on three  
32 legacy outcomes. First, physical activity which, through the motto ‘inspire a generation’,  
33 has been proposed as a key legacy of London 2012.<sup>13 14</sup> Second, employment has been  
34 identified as the main legacy associated with the Olympics by local authority stakeholders.  
35 Third, improvements in wellbeing a current national policy goal promoted by the current  
36 government.<sup>15</sup> These outcomes are also consistent with the health-related legacy objectives  
37 highlighted by the Olympic Park Legacy Company<sup>16</sup> and have a well-established evidence  
38 base as key social and behavioural determinants of physical and psychological health.<sup>2 5 17-20</sup>  
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40 As such, these outcomes were judged to be the most informative for construction of a  
41 conceptual framework for the pathways and mechanisms underlying the relationship  
42 between hosting the London 2012 Olympics and health.<sup>21</sup> We defined these legacy  
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3 outcomes as described below. Our interest lay in the extent of coverage and article content  
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5 relevant to these three areas in local newspapers.  
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- Employment : coverage of how the Games could impact the generation of new paid employment, assistance to find employment, the provision of work experience opportunities or commercial success that could lead directly to the provision of new employment positions.
  - Physical activity: stories related to how the Games might impact sporting or exercise behaviour in members of the local community.
  - Wellbeing: coverage of how the Games impacts members of the community in terms of being healthy, happy, or prosperous and not related to physical activity or employment.

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The Nexis UK database was searched for electronic articles on the entire available date range at the time of the study (4<sup>th</sup> November 2010 to the 31<sup>st</sup> of January 2012). The search terms were health\* OR wellbeing, or employ\*, or physical OR exercise, or Stratford OR Newham, and Olympic OR investment. Table 1 summaries article inclusion and exclusion criteria. Following conventional systematic review methods,<sup>22</sup> all articles were screened initially for eligibility by title, then summary and finally full text.

#### 43 *Data Analysis*

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Outcomes related to employment, physical activity or wellbeing reported in the included newspaper articles were measured in frequency counts. Frequencies were generated by assessing when an article reported on issues relating to employment, physical activity or wellbeing and was linked to the 2012 Olympics e.g. investment and new jobs brought to Newham directly as a result of the Games (employment), community sports events directly inspired by the Games (physical activity) or investment in health infrastructure as a result of the Games (wellbeing). These frequencies were then reported per calendar month. Linear



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3 regression analysis was conducted to assess trends over time <sup>23</sup> using SPSS version 19  
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5 (SPSS inc. Chicago, USA) with the significance set at P<0.05.  
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9 A qualitative framework analysis adapted from the Ritchie and Spencer Thematic  
10 Framework Analysis<sup>24 25</sup> was used to identify the key themes that suggest potential pathways  
11 of impact related to the Olympics. The five steps used were: familiarisation, identifying  
12 thematic framework, indexing, charting and mapping. Thirty articles were selected at random  
13 and read repeatedly. A preliminary framework was constructed based on the primary  
14 outcomes of interest i.e. employment, physical activity and health and wellbeing. A further  
15 twenty-five articles were selected at random and read with the coding framework being  
16 applied. Working independently, a second reviewer (LB) read the same 55 articles to check  
17 the validity of the framework. Differences in interpretation were explored, and consensus  
18 was reached through discussion.<sup>25</sup>  
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31 A final coding framework with relevant example quotes mapped from the included  
32 newspaper articles, divided into the three broad thematic categories (employment, physical  
33 activity and wellbeing) were then divided into a total of 27 sub-categories. Newspaper  
34 articles were analysed for manifest content <sup>26</sup> i.e. what is explicitly stated and draws on the  
35 objective and replicable qualities of quantitative methods. All articles were then coded by MS  
36 resolving any doubts by discussion with LB. When coding the full data set of articles, any  
37 relevant minor alterations to the coding framework were made in parallel, as necessary.  
38 Frequency and proportions of articles covering potential determinants of health including  
39 employment, physical activity and health & wellbeing relevant to the 2012 Olympic Games  
40 were then calculated.  
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## Results

Three hundred and fifty one articles met the inclusion criteria for this study. Figure 1 illustrates how these articles were split into coverage on the key determinants of health (some articles included content on more than one determinant and hence contribute to more than one pathway). In these included articles, there were 131 references to employment, 116 references to physical activity and 121 references to overall wellbeing. The frequency of articles reporting on both employment and wellbeing increased significantly over time ( $P=0.002$  and  $P=0.006$ , respectively) however, a non-significant increase was observed for physical activity ( $P=0.146$ ), seen in Figure 2.

A quantitative summary of the key themes of pathways to impact taken from the framework analysis can be seen in Table 2. Coverage of new employment opportunities and the promotion of physical activity in young people received the majority of the media attention (162 of 351 articles covered these pathways). The vast majority of the articles took a positive perspective on the Olympic Games being hosted in Newham with less than 10% (32/351) addressing potential adverse effects.

### *Employment*

The most frequently reported pre-Games pathway for health impact was via employment with the large majority of coverage around new job opportunities (See Table 2). The New Westfield Shopping complex has been regularly cited as being one of the largest drivers of new employment opportunities in the area:

*"Westfield Stratford City is to create 10,000 permanent jobs when it opens in September...without the games, this level of investment and job creation would not be happening..."* (Newham Recorder, April 13th 2011).

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3 However, reporting of the specifics of how many of these opportunities are likely to be  
4 eventually filled by local people in Newham reveals that a smaller number opportunities  
5 might be available to the local population.  
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11 *"A bit of badly needed Christmas cheer - 40 new jobs have been created in Newham with a*  
12 *£750,000 investment to transform two McDonald's restaurants. (Newham Recorder, 8<sup>th</sup>*  
13 *December 2010).*  
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19 *"A new hotel opening next to the ExCeL centre in the Docklands will create 66 new jobs,*  
20 *around 40 of them going to people who live in Newham... with east London seeing much*  
21 *regeneration ahead of the 2012 Olympic Games, the hotel is perfectly situated within easy*  
22 *reach of the Olympic Park, Westfield Stratford City and the 02." (Newham Recorder,*  
23 *October 12<sup>th</sup> 2011).*  
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31 This discrepancy has not gone un-noticed in local media with a small number of articles  
32 raising concerns about whether the new employment opportunities would primarily benefit  
33 local residents and how sustainable this employment might in the post-Games environment:  
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39 *"Young people in the East End face becoming the 'lost generation' as shocking new figures*  
40 *show East London has the highest level of youth unemployment in London... the area*  
41 *[Newham] faces a legacy of wasted talent and abandoned hopes among its youth.... Week*  
42 *after week I [Rushanara Ali, MP for Bethnal Green and Bow ] hear stories from young people*  
43 *who want to work and have the skills to be successful in employment, yet cannot find work.*  
44 *(The Docklands and East London Advertiser, October 13th 2011).*  
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#### 52 53 *Physical Activity*

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55 Promotion of sport and exercise in young people, was the most frequently cited pathway by  
56 which improvements in physical activity might occur (see Table 2). These stories commonly  
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3 described short-term initiatives organised around "one off" sporting events or the promotion  
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5 of existing facilities.  
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9 *"... the recent six-day Inter-College Sports Festival... has been granted the badge of the*  
10 *London 2012 Inspire Programme, which recognises innovative and exceptional projects*  
11 *directly inspired by the 2012 Games."* (Newham Recorder, November 8th 2011)  
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17 *"...Gold challenge also sets out to raise £20m for charity. Those who raise the most, a*  
18 *number of schools and people selected by ballot will take part in 100m or 4X100m races...it*  
19 *would be a 'fitting way to say thank you to those who have been inspired by the Games to*  
20 *get active and raise money for charity."* (Newham Recorder, November 9th 2011)  
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27 Positive stories about the potential of the Olympics to improve physical activity were very  
28 common. However, concerns about the ability of these initiatives to deliver meaningful  
29 behaviour change were much less frequently discussed. Reports from the results of a major  
30 national survey suggest pre-Olympic investment has had little impact on the proportion of  
31 Newham adults currently meeting physical activity guideline recommendations.<sup>20</sup>  
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40 *"Despite receiving extra cash to promote sport in the run-up to the Olympic Games, only*  
41 *12.6 per cent of people over 16 get 30 minutes of moderate exercise a week. The Active*  
42 *People survey, carried out every three months by Sport England, showed that there had*  
43 *been no change in sports participation in the area [Newham] since 2007. In recent months,*  
44 *sports charities such as Access Sport and Fight for Peace have received £80,000 and*  
45 *£150,000 respectively and £30,000 each was donated to Star Park, Star Lane, Canning*  
46 *Town and West Ham Park to build multi-use games areas. Across London, mayor Boris*  
47 *Johnson has invested a total of £5.4 million, allocated by the Olympic Sports Legacy*  
48 *Programme, to promote an active, healthy lifestyle. Sport England's chief executive, Jenny*  
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3 *Price, said that "a number of major sports have yet to deliver, despite significant levels of*  
4 *investment."* (Newham Recorder, December 29 2010)  
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### 8 *Wellbeing*

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10 Unlike employment and physical activity, pathways of impact regarding wellbeing were  
11 heterogeneous, covering issues ranging from safety and security, health resource  
12 infrastructure, to charity work and community spirit (see Table 2). However, only four articles  
13 out of the 351 linked the Olympic Games to issues relating to promotion of good nutrition.  
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21 *"Young people from the University of East London and Newham Further Education College*  
22 *officially launched an initiative in front of 20,000 people at the 02 Arena to stop people from*  
23 *committing violence of any kinds to bring peace to the community... they decided to create a*  
24 *brand concept based on the Olympic ideals of courage, equality, respect, friendship and*  
25 *determination to encourage others to reject all forms of violence."* (Newham Recorder,  
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October 19th 2011).

36 *"The future of the Olympic Village has been decided...Work is underway on a polyclinic*  
37 *including multiple GP surgeries, outpatient activity and a children's clinic which will service*  
38 *the area, creating new medical jobs."* (Newham Recorder, August 17th 2011)  
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44 *"Schools throughout the borough are invited to create a British dish worthy of an Olympic*  
45 *athlete. The recipe will represent everything great about British food while providing enough*  
46 *nourishment to spur our sportsmen on to glory."* (Newham Recorder, June 15<sup>th</sup> 2011)  
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52 In parallel with employment and physical activity pathways, potential adverse effects of the  
53 Olympic Games received much less attention:  
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3 "A seminar is being organised to look into evidence of sex trafficking in cities staging  
4 Olympic Games. Organisers say little is heard about women's safety and the threat of a rise  
5 in sexual exploitation and trafficking once the spectators return home." (The Docklands and  
6 East London Advertiser, January 19 2012).  
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## 10 11 12 13 **Discussion**

14 Although the relationship is complex, the media has been previously described as "highly  
15 influential"<sup>10</sup> in shaping discourses around health. The primary finding of this content  
16 analysis is that pre-Games reporting of the impact on health and the determinants of health  
17 increased over time, and is overwhelmingly positive. Much less attention is devoted to  
18 understanding the uncertainties and potential adverse effects, despite some concerns being  
19 raised. This is particularly important finding of this research as the scientific evidence around  
20 socioeconomic impacts of Olympic regeneration is mixed, with both positive and negative  
21 outcomes reported. Inadequate planning, poor stadium design, the withdrawal of sponsors,  
22 political boycotts, heavy cost overruns on facilities, the forced eviction of residents living in  
23 areas wanted for development, and subsequent unwanted stadia can tarnish the Olympic  
24 legacy.<sup>27</sup>  
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40 This content analysis of pathways and impacts considered relevant media coverage taken  
41 from two local newspapers, however we did not examine other potentially relevant local  
42 sources of information e.g. magazines, websites, regional television news which may have  
43 included useful counter-perspectives on hosting the 2012 Games. Information taken from  
44 media sources should be judged in the context of relevant biases such as deliberately  
45 polarising or divisive news stories which might be published in order to stimulate interest and  
46 readership numbers. Furthermore, inferences about the scope of the Olympic legacy are  
47 best considered in conjunction official government statistics, regional public health reports  
48 and dedicated research initiatives where applicable after the 2012 Games. A framework  
49 analysis has been used here because of its suitability for exploring issues of policy and also  
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3 because the prime concern of this approach is to describe and interpret what is happening in  
4 a particular setting.<sup>24</sup> However, an avenue for future enquiry aiming to investigate the  
5 broader societal and political context of these news stories, and the issues of interest that  
6 may have shaped their content, would be to undertake an explicitly discourse analytical  
7 approach. However to due to limitations of time and resource such an approach was beyond  
8 the scope of the current study.  
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17 Despite a significant trend in increasing numbers of articles reporting on employment issues  
18 related to the Games, and a strong and consistent legacy theme of new employment  
19 opportunities for the local population, there is much less attention given to concerns over the  
20 number of new jobs generated for people in Newham. Local political leaders and young  
21 people's charities such as "Step Forward" have voiced concerns that employment  
22 opportunities for young people are not being realised despite over half a decade of pre-  
23 Olympic investment in the local area. Indeed, the process of Olympic regeneration typically  
24 lacks transparency and it characterised by top-down decision making and a lack of  
25 consultation in conjunction with low income and disadvantaged groups.<sup>6</sup> Previous analyses  
26 have advocated a community-centred regeneration strategy,<sup>4 6 28</sup> one that takes a bottom-up  
27 approach based on local needs and participation. Therefore, as part of a robust evaluation of  
28 the 2012 London Games legacy, it will be important to critically analyse official government  
29 employment figures for Newham regarding new employment opportunities undertaken and  
30 the sustainability of these positions.  
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48 Increasing grass roots sporting participation and improving national levels of physical activity  
49 behaviour was a key commitment made by the UK coalition Government as part of hosting  
50 the 2012 Olympics. Newham has high childhood obesity rates and poor engagement in  
51 physical activity. Sporting mega-events are typically framed as 'a unique opportunity to  
52 improve public health'.<sup>29</sup> Our results show that although local newspaper coverage on  
53 promotion of physical activity did not significantly increase over time, there were a large  
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3 proportion of articles related to promoting physical activity in young people. However,  
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5 despite sporting “mega events” often being framed as a catalyst for improving population  
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7 physical activity levels, especially for children and young people, there is little evidence to  
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9 indicate that individual participation and physical activity rates actually increase.<sup>30</sup> Rather, it  
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11 is improvements in the physical activity related infrastructure (associated with the events)  
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13 that are taken as indicative of greater participation.<sup>31</sup> In fact, the provision of new sports  
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15 facilities were found to benefit elite athletes after events more than the host population.<sup>32</sup> In  
16  
17 a systematic review of the impact of sporting mega-events upon physical activity and sports  
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19 participation the authors found that there was mixed evidence for a ‘demonstration’ or ‘trickle  
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21 down’ effect on participation.<sup>30</sup> No direct link was found between elite events and community  
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23 participation in physical activity, which contradicts assumptions about the Games ‘inspiring’  
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25 local people to take part in sporting activities and exercise. This would seem to be reflected  
26  
27 in the Sport England data which reports that just 12.6 % of people over 16 in Newham get 30  
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29 minutes of moderate exercise a week. Community and social capital are potentially  
30  
31 important in empowering communities and improving individual and collective self-efficacy,<sup>5</sup>  
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33 which may over time, contribute to behaviour change.<sup>33 34</sup> This finding lends further support  
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35 to the argument for community-centred regeneration<sup>28</sup> to address the needs and support of  
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37 local people.

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41 Reporting of pathways to increasing wellbeing significantly increased over time although  
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43 (because of the multifaceted nature of “wellbeing”) they were intuitively heterogeneous.  
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45 However, beneficial impacts on community spirit were particularly prominent. These impacts  
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47 tended to be focused on individually driven initiatives which appear to occur more from a  
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49 collective sense of (possibly transient) opportunistic altruism, rather than directly facilitated  
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51 by Olympic investment brought to the area. Financial investment may have other direct  
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53 benefits such as the Olympic polyclinic. It has been asserted by the chief medical officer for  
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55 the London Organising Committee of the Olympic and Paralympic Games, that the Olympic  
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57 polyclinic will be the “most tangible health legacy from the 2012 games”.<sup>35</sup> However, the  
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3 Chief Executive of North and East London NHS has indicated uncertainty over whether the  
4 cutting edge medical equipment that will be used for delivering world class medical care for  
5 the elite athletes will remain in the clinic after the Games.<sup>36</sup> The true nature and potential for  
6 beneficial health impacts on the local population which can be gained through just one more  
7 (possibly downgraded) health clinic is an area of significant uncertainty.  
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### 13 14 15 **Conclusions**

16  
17 Local media coverage of the pre-Games pathways and impact on health in the host borough  
18 of Newham is overwhelmingly positive. However, specific uncertainties around the true  
19 nature of its impact on local employment and physical activity were articulated. Evaluation of  
20 the tangible impacts on population health, and the determinants of health and health  
21 inequalities, of the London 2012 Olympics is required in order to unpack whether there is  
22 truly a lasting legacy for East London.  
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### 30 31 **Conflict of interest statement**

32 The authors declare no conflicts of interest  
33

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37 or not-for-profit sectors.  
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45

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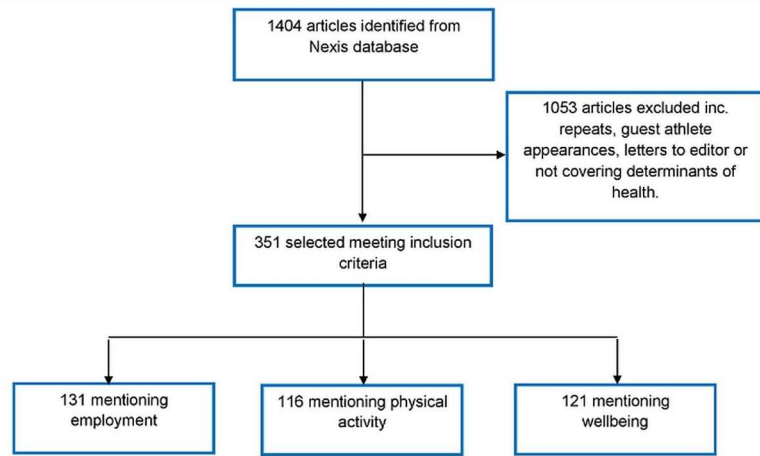


Figure 1: Flow diagram of included articles split into major determinants of health (some articles included relevant content on more than one pathway).

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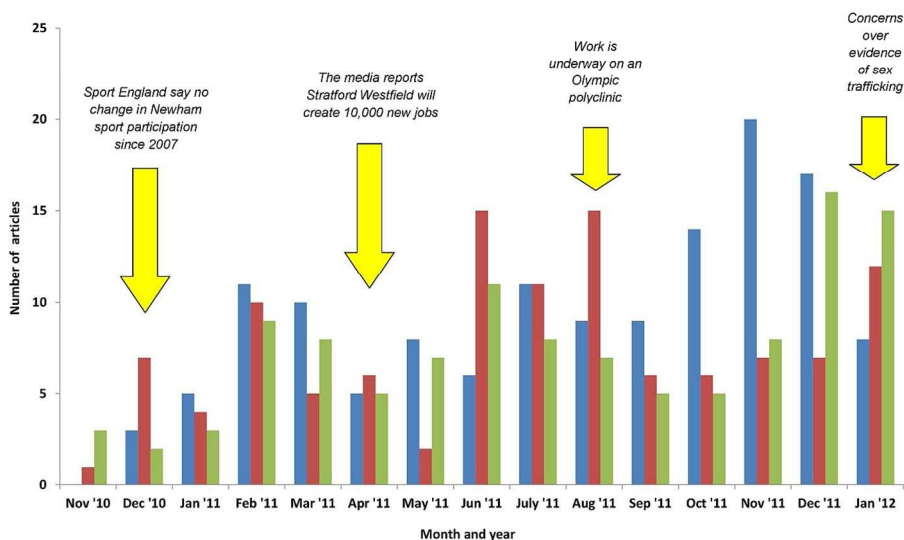


Figure 2: The frequency of articles covering local issues on employment, physical activity and overall wellbeing relating to the Olympics over time. ■ = employment, ■ = physical activity, ■ = overall wellbeing. Pertinent media reports related to the determinants of health are aligned on the date line.

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