

1 **Intersectoral Action for Health in Urban Settings: Liverpool Active City 2005-2010**

2

3 **Abstract**

4 **Background:** Working together across sectors to improve health and influence its  
5 determinants is often referred to as intersectoral action (ISA) for health. The Liverpool  
6 Active City strategy and action plan was launched in 2005 to boost levels of physical activity  
7 amongst the city's residents by bringing together partners from diverse sectors such as  
8 education, transport and civil society. **Methods:** The research material was based on semi-  
9 structured interviews with key stakeholders and on review and analysis of grey literature  
10 and media reports. A case study method (Yin 1994) was used to analyse the experience.

11 **Results:** The results show that Liverpool Active City succeeded in boosting levels of physical  
12 activity among the city residents and demonstrate how intersectoral action benefited the  
13 goals of the programme and promoted common aims. **Conclusions:** Important lessons can  
14 be drawn from the experience of Liverpool Active City for public health professionals and  
15 policy-makers. Success factors include the involvement of a broad range of agencies from a  
16 variety of sectors, which reinforced a sense of partnership of the physical activity agenda  
17 and supported the implementation of activities. The experience also demonstrated how  
18 intersectoral action brought benefits to the physical activity goals of Liverpool Active City.

19 **Keywords:** Physical activity, health promotion, health policy

20

21 **Introduction**

22 This study focuses on a multisectoral intervention that aims to improve participation in  
23 physical activity at a population level in the city of Liverpool in the United Kingdom.  
24 Liverpool Active City is a coalition of physical activity projects and programmes that came  
25 together in 2005 to promote increased physical activity amongst the city's inhabitants, with  
26 an overall aim to improve their health by making "more people more active more often"  
27 (Liverpool Active City strategy 2005). This article examines how Liverpool developed and  
28 implemented its physical activity agenda, discusses how the programme grew from co-  
29 ordinating physical activity interventions to embrace a wider intersectoral approach,  
30 examines the evidence of impacts from perspectives of intersectoral action and physical  
31 activity, and concludes with an evaluation of results and lessons learned.

32 The basis of this study is the fact that noncommunicable diseases (NCD's) such as obesity,  
33 diabetes, cancers and cardiovascular diseases have become the leading causes of death  
34 globally (WHO 2011). At the same time, levels of physical inactivity have risen in many  
35 countries with major implications for the prevalence of NCD's and the general health of the  
36 population worldwide. World Health Organization (WHO) has identified physical inactivity as  
37 the fourth leading risk factor for global mortality (6% of deaths globally), the three

38 preceding risk factors being high blood pressure (13%), tobacco use (9%) and high blood  
39 glucose (6%). Furthermore, physical inactivity is the principal cause for approximately 30%  
40 of ischaemic heart disease burden, 27% of diabetes and 21-25% of breast and colon cancers.  
41 Increasing levels of physical activity can also contribute to a reduction in the rising levels of  
42 obesity. (WHO 2010a.) WHO's Global Recommendations on Physical Activity for Health  
43 (WHO 2010a) suggest that for adults, health improvements will occur when they have 30  
44 minutes of moderate activity on at least five days each week, whereas children and young  
45 people's health will benefit if they are moderately active for at least one hour on at least  
46 five days per week.

47 Liverpool, a city of 435,000 inhabitants in North West England, has amongst the highest  
48 mortality rates and one of the lowest levels of life expectancy in the country. Most people in  
49 the UK are not active enough to benefit their health, but in Liverpool, fewer people are  
50 active than the national average. In the UK, obesity shortens average life expectancy by nine  
51 years and is estimated to be responsible for approximately 30,000 deaths per year. In  
52 Liverpool, over 130,000 sick days per year are thought to be directly related to obesity.  
53 (Liverpool NHS Primary Care Trust, 2008). As a result, the social and financial costs of  
54 inactivity are considerable.

55 Public policies aiming to improve health have to consider the complex net of interrelated  
56 factors. Given that the determinants of noncommunicable conditions are interrelated,  
57 covering a wide range of sectors and impacting at the same time on multiple diseases and  
58 conditions, they provide a fruitful entry point for identifying mechanisms of intersectoral  
59 action for health (WHO 2010b). The concept was introduced at the WHO International  
60 Conference on Primary Health Care in Alma-Ata in 1978, and is defined as "a recognized  
61 relationship between part or parts of the health sector with part or parts of another sector  
62 which has been formed to take action on an issue to achieve health outcomes (or  
63 intermediate health outcomes) in a way that is more effective, efficient or sustainable than  
64 could be achieved by the health sector acting alone" (WHO 1997). Furthermore, the overall  
65 objective of intersectoral action for health is "a greater awareness of health and health  
66 equity consequences of policy decisions and organizational practice in different sectors and  
67 thereby move in the direction of healthy public policy and practice across sectors" (WHO  
68 2011b). After the Alma-Ata conference, the discussion on the importance of intersectoral  
69 action for health has continued in the framework of several United Nations (UN) and WHO  
70 meetings. For example the Adelaide Conference and Statement on Health in All Policies in  
71 2010 emphasizes that government objectives are best achieved when all sectors include  
72 health and well-being as a key component of policy development. More importantly, the  
73 2011 High-Level Meeting of the UN General Assembly on the Prevention and Control of  
74 Noncommunicable Diseases and the related political declaration recognizes the strong  
75 linkages of physical inactivity to the prevalence of NCD's, and urges member states to take  
76 action to reduce risk factors for NCD's through multisectoral measures (UN 2011). The  
77 concentration of population and the forced interaction of varied sectors of society in a

78 relatively small political arena make cities an ideal setting for untangling the impact of  
79 intersectoral action on health outcomes. (WHO 2010b.)

80 Despite being a widely recognized approach, evidence-based strategies of intersectoral  
81 action for health remain a challenge. This study answers to that need by documenting a case  
82 where intersectoral measures were used to impact on health in an urban setting. This study  
83 is one out of several case studies documented by WHO Kobe Centre under the theme of  
84 urban health and intersectoral action for health.

## 85 **Methods**

86 The research was carried out during spring 2011 following Robert Yin's (1994) case study  
87 research method. The research material is based on semi-structured interviews with key  
88 stakeholders, a review and analysis of grey literature including local and national  
89 government records, and media reports. Documents collated and examined included  
90 strategy and action plans, evaluation studies and survey reports.

91 The interview process ensured that the evidence generated accurately informed the case  
92 study story. Interviews were held with 13 key informants whose experience and roles  
93 reflected the intersectoral nature of Liverpool Active City . Interviewees included  
94 representatives from the health, education, sports and physical activity and transport  
95 sectors that comprise the leading actors who played key strategic, development,  
96 implementation and evaluation roles in the Liverpool Active City initiative. Interviews were  
97 structured to generate information and evidence about the key research questions including  
98 i. a. understanding how Liverpool Active City's agenda emerged and was developed,  
99 clarifying the structures and organisational arrangements that underpinned the programme  
100 and how they supported intersectoral actions, identifying the specific actions that  
101 contributed to Liverpool Active City's programme, understanding the roles and actions of  
102 key stakeholders and the way in which they contributed to intersectoral action, and  
103 generating evidence about what worked well, what worked less well, and why this was. The  
104 focus of the different interviews varied, reflecting the specific roles played by and the  
105 knowledge of key individuals and the organisations that they represented. Follow-up  
106 questions enabled comments and opinions to be probed further. Interviews took between  
107 one and two hours, and were recorded and factual information and key messages relating  
108 to the research themes were extracted. If there were discrepancies of fact or opinion  
109 between different interviewees, further clarification was sought.

110 Evidence from interviews was triangulated with further evidence derived from written  
111 reports and databases. Cross-referencing between interviews and other evidence was  
112 carried out to confirm accuracy. A range of documentation and data was collated and  
113 reviewed to inform the study. In particular, these sources were examined to shed further  
114 light on the development, implementation, progress and effectiveness of Liverpool Active  
115 City and to identify examples of intersectoral activity.

116

## 117 **Development of the Liverpool Active City programme**

118 Liverpool Active City was one of the first strategies in the country to bring together physical  
119 activity associated partners including the fields of sport, leisure services, health related  
120 activity, active transport, community-based activities and settings such as parks, schools and  
121 workplaces (Liverpool NHS Primary Care Trust, 2008). In June 2003, Liverpool First - the  
122 city's strategic partnership of public, private and civil society organisations - launched  
123 Liverpool First for Health and set the ambition to increase levels of physical activity amongst  
124 the city's residents. In 2004, the Liverpool Active City Strategy 2005-2010 and its associated  
125 action plan was developed. Launched in May 2005, they set out an intersectoral agenda "to  
126 make more people, more active more often". The intention of Liverpool Active City is to  
127 improve participation in physical activity at a population level, particularly amongst the  
128 many defined as sedentary, as that would generate the most significant health gains. Within  
129 this approach, several specific groups were identified during the initial consultation process  
130 where there were marked concerns about low levels of physical activity: school-age children  
131 and young people (especially females), young mothers, ethnic groups, older people, people  
132 with disabilities and middle-aged men. After defining the target groups, four key elements  
133 of the Liverpool Active City strategy and action plan were set: to increase the profile of  
134 active living in Liverpool; to improve the co-ordination of existing services; to ensure access  
135 to appropriate activities for all; and to ensure structural support for physical activity and  
136 integrate them with wider urban agendas. (Liverpool First, 2005)

137 Already in 2005, there was an array of good practices within Liverpool for specific  
138 interventions that aimed to increase levels of physical activity amongst the city's residents.  
139 Central to Liverpool Active City's strategy was a recognition that co-ordinating existing  
140 facilities, activities and resources related to physical activity, alongside new interventions,  
141 could secure added value and maximise benefits. At the outset, Liverpool Active City  
142 focused on branding the existing activities as part of its programme. The Active City Co-  
143 ordinator encouraged existing activities to become part of the Liverpool Active City brand.  
144 New projects had to be consistent with the strategy and complement existing activity.  
145 Funding for Liverpool Active City and its programmes mainly came from Central  
146 Government's Area Based Grant and the preceding Neighbourhood Renewal Fund, together  
147 with Sport England, the Primary Care Trust and City Council. Following the launch of the  
148 strategy and action plan, Liverpool Active City evolved in its scope and scale between 2005  
149 and 2010.

150 Following the initial emphasis on branding and coordinating existing activity, a more  
151 comprehensive programme developed. This expansion was supported by the Liverpool  
152 Sports and Physical Activity Alliance (SPAA), set up in 2006, that put in place a wider  
153 partnership including civil society partners, responsible for developing and delivering  
154 Liverpool Active City's agenda. The SPAA is an intersectoral coordination mechanism (see

155 table 1) that comprises a range of stakeholders and managers involved in Liverpool Active  
156 City and in delivering physical activity interventions. Under the SPAA, Liverpool Active City  
157 focused on generating behavioural change amongst those who live a sedentary lifestyle.  
158 Within this overall approach, it placed emphasis on communicating a clear and consistent  
159 message to all sectors of the community about the opportunities to participate in physical  
160 activity and the benefits of adopting an active lifestyle, focusing increased resources to  
161 support the voluntary and community sectors to boost their capacity to engage new  
162 participants and making better use of parks, open spaces and the natural environment to  
163 increase participation in sport and physical activity. The SPAA also established an extensive  
164 research and evaluation programme through Liverpool John Moores University to assess  
165 and inform the progress and processes of Liverpool Active City and to measure its impact. A  
166 priority of the SPAA was to ensure that residents in all parts of the city had opportunities to  
167 benefit from Liverpool Active City. In 2008, to facilitate this goal, locally-based Active City  
168 Co-ordinators were appointed to both coordinate and work to increase participation in  
169 physical activity in each of the city's five *Neighbourhood Management Areas* (NMA's) that  
170 were set up to improve the delivery of services across Liverpool. As of 2013, the SPAA  
171 continues to oversee Liverpool Active City, approve funding for projects and support the  
172 implementation of the City's physical activity strategy.

173 Liverpool Active City's six strategic objectives underline the intersectoral nature of its  
174 programme. They were to: 1) increase the profile of physical activity so that it is a cross  
175 cutting theme in all aspects of city-wide initiatives; 2) provide a coordinated approach to the  
176 delivery of physical activity opportunities with health, leisure, educational and community  
177 organisations working together; 3) maintain and develop access to a wide range of  
178 enjoyable activity opportunities and services that encourage participation and enable  
179 people to choose an active lifestyle; 4) ensure that the physical and social environment  
180 supports physical activity through housing and transport facilities and services; 5) provide  
181 educational and training opportunities for local staff and people to maximise activity  
182 delivery, leadership and job aspirations and 6) ensure that the work undertaken is fully  
183 researched, monitored and evaluated in order to enhance the physical activity evidence  
184 base.

185 To secure these objectives, four key targets relating to the increase of physical activity were  
186 set. They encompass evidence-based requirements for health improvement and targets set  
187 by the government. The targets for Liverpool Active City were to achieve by 2010: 1) a 5%  
188 increase in the proportion of people who are moderately active for 30 minutes or more  
189 three times per week; 2) a 5% increase in the proportion of people who are moderately  
190 active for 30 minutes five times per week; 3) a 5% increase in the proportion of children  
191 who are moderately active for 60 minutes five times per week and 4) the provision of a  
192 minimum of two hours per week high quality physical education for children in all local  
193 schools.

194 **Impacts of the Liverpool Active City**

195

196 In its initial phase, Liverpool Active City's main priority was to co-ordinate the delivery of  
197 continuing and new physical activity related services and interventions in Liverpool. As it  
198 developed, the strategy, its steering group and its delivery team oversaw the development  
199 and implementation of a comprehensive physical activity agenda engaging a wide range of  
200 partners (listed in table 2). Although there was a longstanding tradition of intersectoral  
201 action in Liverpool notably with the education sector, the physical activity agenda became  
202 integrated strategically with several other policy agendas in the city and further developed  
203 intersectoral measures to achieve common goals.

204

205 For example in 2008, Liverpool Active City became a key and integral strand of the city's  
206 obesity agenda that aimed to halt the rise in obesity in both children and adults in Liverpool  
207 by 2010, and to reduce the levels of obesity from 2010 onwards. Along with the city's food  
208 and nutrition strategy Taste for Health and the Liverpool Healthy Schools Programme, the  
209 Liverpool Active City programme was incorporated within the Healthy Weight Strategy for  
210 Liverpool 2008-2011, and the SPAA was incorporated into its organisational structure. As a  
211 result, physical activity has become central to Liverpool's decade of health and well-being  
212 that aims to put health and well-being at the heart of the city's culture, planning and  
213 actions. "Be active" is a key strand of the New Economics Foundation's – an independent  
214 organisation that works to promote economic well-being – five ways to health and well-  
215 being adopted by the city and promoted by the agenda. The agenda explicitly recognises the  
216 link between physical activity and mental well-being. Liverpool Active City also enhanced  
217 facilities for physical activity in schools.

218

219 Environmental benefits of intersectoral action were seen, for instance, through the  
220 increased use of city parks. The physical activity agenda has ensured that a health dimension  
221 has become an important part of the City Council's Parks and Recreation approach to  
222 maintaining and improving the city's various parks and green spaces. In practice, this has led  
223 to joint working between Active City representatives, exercise specialists, health  
224 professionals, council officers responsible for parks and green spaces, and local volunteers.  
225 Examples of initiatives include Green Gyms (provision of exercise equipment and guidance  
226 for use in public parks), cycle routes, walking opportunities and the development of  
227 allotments where local residents are able to work a small area of land to grow vegetables  
228 and fruit.

229 Intersectoral action also brought about enhanced transport and mobility plans within the  
230 city. Significant progress was made in ensuring that transport policy takes account of health  
231 and environmental priorities. Liverpool Primary Care Trust has worked closely with

232 Travelwise, the Merseyside<sup>1</sup> Transport Partnership's campaign that brings together partners  
233 from the transport and health sectors. A health and environmental impact assessment was  
234 conducted on the latest transport plan for Merseyside, including Liverpool, and cycling and  
235 walking has been built into the recently launched 3<sup>rd</sup> Local Transport Plan for Merseyside.  
236 The strategy explicitly emphasises the aim to create a mobility culture that will reduce  
237 carbon emissions and promote health and well-being. The plan is badged with the city's  
238 Decade of Health and Well-Being logo. It was the first time that health and well-being had  
239 been given such a focus within the local transport plan.

240 Economic benefits of ISA were seen in the form of healthier workforces. Intersectoral  
241 actions to promote physical activity within the city are a hallmark of the tactic to engage  
242 employers and employees from the public, private and voluntary sectors to improve health-  
243 related behaviour for a wide range of lifestyle issues, including levels of physical activity.  
244 Health@Work, a charity based in Liverpool, was commissioned by Liverpool Primary Care  
245 Trust and has worked closely with Liverpool Active City to conduct a range of workplace  
246 based actions. Key activity has involved ensuring that employers have written workplace  
247 policies to provide exercise opportunities for staff and promoting healthy travel planning for  
248 workplaces and workforces - including commuting to and from work.

249  
250 The Liverpool Active City programme also benefited from communications expertise.  
251 Advertising campaigns, informed by social market research, have included dissemination of  
252 local publications, banners and radio to raise the profile of physical activity in the city. The  
253 creation and launch of the Liverpool Active City website also served to demonstrate the  
254 programme to the public and to professionals. Importantly, to maximise the cost-  
255 effectiveness of the available communications budget, organisers of major events in the city  
256 utilised the Liverpool Active City brand in their own promotional and marketing activities.  
257 Together these actions raised awareness of Liverpool Active City and the physical activity  
258 agenda amongst the public and professionals. It also demonstrated to decision-makers that  
259 the programme had a high profile.

260 Liverpool John Moores University led a comprehensive research and evaluation agenda. It  
261 has adopted the RE-AIM framework (2009) and PRECEDE PROCEED (1999) models to  
262 provide a structure and framework for the evaluation of Liverpool Active City programme.  
263 The RE-AIM framework sets five success criteria that can be applied to projects, programmes  
264 or initiatives. They relate to reach, effect, adoption, implementation and maintenance  
265 (Glasgow et al, 2006). Together with the Precede Proceed approach (Welk, 1999) this  
266 model serves to bring evidence and practice together in a planning and evaluation cycle. The  
267 rationale behind this approach is "evidence-based practice and practice-based evidence".  
268 The research and evaluation programme encompassed evaluations of specific interventions

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<sup>1</sup> Merseyside is a metropolitan county comprising five metropolises including Liverpool.

269 utilising an audit tool to address the RE-AIM framework questions, for instance, to answer  
270 who the project reaches and how it reaches them, research to better understand the  
271 determinants of physical activity, assessing population impacts, reviewing progress and  
272 providing evidence to inform programme development.

273 The overall objective of the Liverpool Active City was to secure change in physical activity at  
274 the population level. To assess the impacts of the programme, Liverpool utilized the Sport  
275 England Active People survey - Sport England is a quango under the UK government's  
276 Department for Culture, Media and Sport. This randomised survey, the largest sport and  
277 recreation survey in England, measures the proportion of the adult population who  
278 participate in sport and active recreation and is designed to establish benchmarks and to  
279 detect changes over time. Reflecting the targets set by the national government, the survey  
280 identifies the proportion of people who participate to moderate intensity sport and active  
281 recreation for at least 30 minutes at least three days each week. The survey was first carried  
282 out in 2005-2006 and enabled a benchmark for Liverpool to be identified. The sample was  
283 boosted in 2007-2008 and 2008-2009 to provide more accurate figures for the city, and to  
284 enable data to be disaggregated to the neighbourhood management area (NMA) level (for  
285 the 5 NMAs in Liverpool).

286

287 According to the surveys, approximately 1 of 5 Liverpool adults are active for 30 minutes  
288 three times per week with the proportion of those responding to the surveys in Liverpool  
289 who were active increasing by 2.5% between 2005-2006 and 2009-2010. The increases are  
290 below the aim of Liverpool Active City to increase the proportion of the population who  
291 were active for 30 minutes per week by 1% year on year. However, it is important to  
292 emphasise that these recorded differences are not statistically significant. It should also be  
293 pointed out that the national survey, upon which Liverpool relied, focused on the  
294 governments targets and not on the more challenging, but from a health perspective more  
295 significant, target of 30 minutes per week on five days each week.

296

297 Within the NMAs, the largest recorded increase between 2007-2008 – when the sample size  
298 was first boosted – and 2008-2009 was in the City and North NMA which had the lowest  
299 rate of activity at the outset. This was an area where Liverpool Active City took particular  
300 steps to increase support and placed emphasis on boosting activity rates. The survey  
301 indicated that the population who were active for 30 minutes three times per week  
302 increased from 14.2% to 19.5%. Also, between 2008-2009 and 2009-2010 equivalent  
303 participation rates in the South Central area grew from 23.7% to 27.2%, coinciding with the  
304 opening of a major Aquatics Centre in the area. Again, however, the sample sizes were not  
305 sufficiently large enough to detect a statistically significant change.

306

307 In relation to physical activity for young people under 16 years old, the evidence from the  
308 national survey for the physical education and Sports Strategy for Young People (PESSYP)

309 suggests that the proportion of physically active young people has risen. For instance,  
310 survey data from 2008-2009 and 2009-2010 indicated that the proportion of young people  
311 in Years 1 to 11 who participated in at least three hours of high quality physical exercise and  
312 out of hours, school sport increased from 50% to 58% (TNS-BMRB 2010).

313

314 Although the range of survey data is not as strong as would be liked, various output data  
315 collected throughout the programme paint a compelling picture to suggest that the  
316 programme has got more people being more active more often. For instance, as of 2011,  
317 55,000 people currently use Lifestyle Centres - municipal centres located across the city that  
318 offer a range of sporting and exercise facilities, including gyms and swimming pools - a  
319 43% increase since 2005. Also, over 1,000 new people per year attend "Walk for Health" -  
320 an extensive programme of walks led by qualified walk leaders for people of all ages, ability  
321 and fitness levels and 250 new people per year attend "Cycle for Health" - a project to  
322 encourage people in Liverpool to become physically active through cycling. Cycle leaders  
323 lead participants on regular cycle rides, Moreover, 91% of children (in years 3 to 6)  
324 participated in at least 120 minutes of curriculum physical exercise each week.

325

## 326 **Conclusions**

327

328 The Liverpool Active City experience highlights several important lessons for health  
329 professionals, local policy-makers and others involved in intersectoral and partnership  
330 approaches that seek to bring about health improvements in urban areas. The use of  
331 intersectoral measures created several benefits that contribute to Liverpool Active City  
332 goals and succeeded in integrating health sector with other sectors of the society. The  
333 health sector managed to create synergies between different strands of the health and well-  
334 being agendas and create common goals with other sectors, such as education,  
335 environment, transport and economic sectors.

336

337 Success factors include the involvement of a broad range of agencies from a variety of  
338 sectors in the development phase of the physical activity strategy that helped to foster a  
339 widespread sense of ownership of the strategy and its agenda. Also the setting up of the  
340 multi-agency steering group, the SPAA, reinforced a sense of leadership and partnership of  
341 the physical activity agenda and supported the implementation of diverse activities in a  
342 coherent way, secured resources and helped to maintain policy support. A consistent  
343 support for the physical activity agenda from key leaders in the City Council and the Primary  
344 Care Trust was central to ensuring that resources were made available for Liverpool Active  
345 City and that support for it has been maintained over many years. Moreover, an extensive  
346 programme of activity mixing interventions that engage large numbers of adults or young  
347 people together with more narrowly targeted actions has been central to efforts to make a  
348 difference at a population level and ensure inclusion. At the same time, it has secured

349 access to opportunities for those with particular barriers to engaging in physical activity,  
350 such as members of minority ethnic groups.

351

352 Targeting inactive people, providing them with opportunities to take initial steps to become  
353 more active and supporting them to develop the frequency and intensity of their physical  
354 activity has been central to Liverpool Active City's approach to generate health  
355 improvement at the population level. The Liverpool Active City experience reinforces the  
356 value of having coherent campaigns to raise awareness of the benefits of physical activity  
357 and to provide information about opportunities available and how to access them. The  
358 adoption of social marketing techniques has also helped to target messages more  
359 effectively. Furthermore, an extensive research and evaluation agenda, with external  
360 research expertise, has complemented and strengthened the approach to increasing levels  
361 of physical activity in the city. Project evaluation has provided a useful management tool by  
362 providing evidence about what has worked well and what could be improved. Research into  
363 the determinants of physical activity has also supported efforts to improve policy responses.  
364 For instance, it has provided evidence about barriers to participation in physical activity for  
365 specific groups, which has led to initiatives becoming more effective by taking into account  
366 and being more sensitive to the needs of such groups.

367

368 Liverpool Active City's experience also demonstrated how intersectoral action brought  
369 benefits to its physical activity goals. For example, the strategic integration of the physical  
370 activity agenda with wider obesity and other health goals ensured synergy between  
371 different strands of the health and well-being agendas. Intersectoral work around health  
372 and environmental goals allowed green spaces to become attractive settings for physical  
373 activity whilst boosting use of parks. Moreover, a close intersectoral collaboration between  
374 the public health, sport and education sectors was crucial to boosting activity rates amongst  
375 school-aged children and young people, and collaborative working between health and  
376 transport professionals and civil society campaign groups led to physical activity  
377 opportunities being incorporated within the city's transport and mobility plans. In addition,  
378 engagement with Liverpool's extensive workforce, by utilising workplaces as a setting for  
379 health promotion activity and to engage employers from across the local economy, was a  
380 key component of efforts to ensure a widespread approach to generating behavioural  
381 change.

382

383 There are also key lessons for future action and for policy-makers elsewhere that could have  
384 enhanced the Liverpool experience to date. For example, it is increasingly recognised that  
385 efforts to raise levels of physical activity amongst the population, to the extent that it can  
386 boost their health, requires physical activity to become part of people's everyday life, and  
387 not simply to taking part in physical activity in free time through sports and recreation  
388 activity, important though that is. The recent efforts to integrate transport and physical  
389 activity is a significant step in this process though, as has been argued during the interviews

390 for this study, more needs to be done. For instance, there remains considerable scope to  
391 enhance considerations for encouraging physical activity by ensuring that the planning  
392 process for urban development takes this and wider health and well-being aspects into  
393 account. Also measuring change, in a way that can more accurately detect behavioural  
394 change at a population level (especially where small but important changes to the  
395 proportion of residents being physically active of 1% per annum are concerned), and that  
396 incorporates change at levels that evidence suggests will impact on health, could have  
397 enhanced understanding of the impact of the programme and informed policy making  
398 accordingly.

399

400 In the UK, the strategic focus on improving population health through addressing a range of  
401 lifestyle issues including alcohol consumption, smoking, diet and physical activity has been  
402 maintained specifically with the help of the Foresight Report (2007) that explicitly  
403 championed the adoption of intersectoral approaches to bring about increased levels of  
404 physical activity at the population level. Also the Marmot Review (2010) of health  
405 inequalities that highlights the need to improve active travel – such as walking and cycling –  
406 across society, and National Institute for Health and Clinical Excellence guidelines (2010)  
407 have been important tools for policy-makers aiming to foster health through intersectoral  
408 measures.

409 Liverpool Active City experience is instructive for other cities wishing to progress physical  
410 activity agendas and wider intersectoral approaches to improve urban health. Embodying  
411 partnership working across public, private, academic and civil society sectors and building  
412 physical activity into other policy and economic sectors such as transport, education,  
413 obesity and mental well-being fields has promoted an integrated and comprehensive  
414 approach to achieving both common goals and specific physical activity objectives.

415

## 416 **References**

417

418 Adelaide Statement on Health in All Policies. WHO, Government of South Australia, Adelaide  
419 2010.

420

421 Dawson Jonathan. From City Action to National Legislation: A Case Study of Liverpool's  
422 Smoke-Free Intervention, A Report for the WHO (TFI - WKC) – NIPH (Japan) Smoke Free  
423 Cities Project. 2010.

424

425 Ferruci L et al. "Smoking, physical activity and active life expectancy" American Journal of  
426 Epidemiology, Vol. 149 (7), 645-653, 1999.

427

428 Foresight (2007) Tackling Obesity: Future Choices, London: Government Office for Science

429

- 430 Liverpool First (2005) Liverpool Active City Strategy: One step at a time, 2005-2010.  
431
- 432 Liverpool NHS Primary Care Trust (2008) Healthy weight: healthy Liverpool. Healthy weight  
433 strategy for Liverpool 2008-2011  
434
- 435 Christakopoulou S and Dawson J. Survey of food habits and attitudes to food, report for  
436 Liverpool Primary care Trust, Jon Dawson Associates. 2007.  
437
- 438 Department of Health (2004). Choosing health: making healthier choices easier, London:  
439 DOH, 2004.  
440
- 441 DCMS/Strategy Unit. Game Plan: a strategy for delivering the Government's sport and  
442 physical activity objectives, London: Cabinet Office, 2002.  
443
- 444 Wanless D. Securing good health for the whole population: Population health trends,  
445 London: HMSO. 2003.  
446
- 447 Department of Health (2005) Choosing Activity: A Physical Activity Action Plan, London:  
448 DOH.  
449
- 450 COI Healthy Weight, Healthy Lives: a cross Government strategy for England, London:  
451 DOH/DCFS. 2008.  
452
- 453 Glasgow RE, Vogt TM and Boley SM (1997) Evaluating the public health impact of health  
454 promotion interventions: the RE-AIM Framework, American Journal of Public health, 89,  
455 1322-7  
456
- 457 NHS North West. A North West Framework to Achieve Healthy Weight for Children and  
458 Families within the Context of Food and Nutrition and Physical Activity. 2008.  
459
- 460 Foresight. Tackling Obesity: Future Choices, London: Government Office for Science. 2007.  
461
- 462 Marmot M. Fair Society, Healthy Lives - Strategic Review of Health Inequalities in England -  
463 post 2010. Marmot Review Team. 2010.  
464
- 465 National Institute for Health and Clinical Guidance (2006) Four Commonly Used Methods To  
466 Increase Physical Activity: Brief Interventions In Primary Care, Exercise Referral Schemes,  
467 Pedometers And Community-Based Exercise Programmes For Cycling And Walking, Public  
468 health intervention guidance no.2, NICE  
469
- 470 RE-AIM. Available at: [www.re-aim.org](http://www.re-aim.org). Accessed 20 July 2009.

- 471  
472 Welk GJ. The Youth Physical Activity Promotion Model: A Conceptual Bridge Between  
473 Theory And Practice, *Quest*, 51, 5-23. 1999.  
474  
475 TNS-BMRB. PE and Sports Survey 2009-2-10. Department for Education. 2010.  
476  
477 (UN 2011) High-Level Meeting of the United Nations General Assembly on the Prevention  
478 and Control of Noncommunicable Diseases, res A/66/L.1, 2011.  
479  
480 World Health Organization (1997) Intersectoral action for Health. A Conference for Health-  
481 for-all in the Twenty-First Century. Halifax, Nova Scotia, Canada, 22-23 April 1997.  
482  
483 World Health Organization. 2009.  
484  
485 (WHO 2010a) World Health Organization. Global Recommendations on Physical Activity for  
486 Health, WHO 2010.  
487  
488 (WHO 2010b) World Health Organization. Intersectoral Action on Health: Impact on  
489 noncommunicable diseases through diet and physical activity Report of an Expert  
490 Consultation 6–7 September 2010 Helsinki, Finland.  
491  
492 (WHO 2011a) World Health Organization. Intersectoral Action on Health. A path for Policy-  
493 makers to Implement Effective and Sustainable Action on Health, WHO 2011.  
494  
495 (WHO 2011b) Global status report on noncommunicable diseases 2010, (p vii). WHO 2011.  
496  
497 Yin, Robert K. 1994. Case study Research. Design and Methods.

498

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512 **Tables**

513

514 **Table 1. Sectors participating to the Liverpool Sports and Physical Activity Alliance (SPAA)**

515

<b>Education sector</b>	Liverpool School Sports Partnership Liverpool Healthy Schools Liverpool Youth Service
<b>Urban environment sector</b>	City Council Planning Mersey Forest
<b>Civil society</b>	Liverpool Charity and Voluntary Services (Multi-Sectoral) Age Concern
<b>Health sector</b>	Local National Health Service (co-chair)
<b>Sports and recreation sector</b>	Liverpool City Council (co-chair) Liverpool Sports Forum
<b>Academic sector</b>	LJMU

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518 **Table 2. Governmental and non-governmental sectors participating to the Liverpool Active**  
519 **City programme**

520

<b>Sector</b>	<b>Governmental</b>	<b>Non-governmental</b>
<b>Economy and employment</b>		Health @ Work
<b>Education and early life</b>	Department for Education Liverpool School Sports Partnership Liverpool Healthy Schools Liverpool Youth Service	
<b>Environment, infrastructure and transport</b>	City Council Planning Department City Council Parks and Recreation	Arriva Bus Merseyside Transport Partnership Mersey Forest Friends of Reynolds Park
<b>Housing and community development</b>	Community Council	
<b>Culture, sport</b>	City Council's Sport and	Liverpool Sports and Physical Activity

<b>and leisure</b>	Recreation Services Sports Strategy for Young People City Council leisure centres Sport England	Alliance (SPAA) Liverpool Sports Forum Liverpool FC Everton FC Sportslinx Liverpool Charity and Voluntary Services
<b>Health and social</b>	Public Health Department of Liverpool Primary Care Trust	Age Concern
<b>Media and advertising</b>		
<b>Academic</b>	John Moores University	