



# Why temporary street closures for play make sense for public health

This report is an evaluation of the Street Play Project led by Play England and delivered in partnership with Playing Out, London Play, Hackney Play Association, Haringey Play Association, House of Objects, Leeds Play Network and Nottingham Playworks.

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A pdf version of this report is free to download from Play England

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# SUMMARY

- Greater time spent outside is related to higher levels of physical activity and contributes to weight management in children. There is evidence that children's time spent outside and associated independent mobility is declining.
- Temporary street play closures are a scaleable intervention that can, with support for residents and local authorities, be rolled out locally and nationally. Local authorities can successfully develop and manage a process to support and approve street play sessions. This process has been successfully used to close streets temporarily for play in 33 geographically diverse areas of England (17 local authorities and 16 London boroughs). This approach to temporarily closing streets for play maximises resident involvement and child safety whilst minimising inconvenience to resident motorists.
- Temporary street play closures are more likely to occur in areas where greenspace is limited and are present in neighbourhoods which vary in area deprivation. There is evidence that temporary street play closures are reaching the areas with the highest levels of area deprivation, although greater support may be required to successfully support street closures in areas of high deprivation.
- A combination of quantitative (activity monitors and global positioning system [GPS] receivers) and qualitative (adult and child interviews) methods were used to investigate the impact of temporary street play closures on physical activity and social wellbeing of children and adults.
- Children were outdoors for a large proportion (>70%) of the time the streets were closed and spent on average 16 minutes per hour in moderate to vigorous physical activity (MVPA) per hour during street closures. This can make a meaningful contribution to whether children are likely to meet the 60 minute MVPA daily target set out in the UK physical activity guidelines. Informal activities to specifically develop cycling confidence and skills were evident in the majority of street closures.



- Children's time spent outdoors and active during street closures was more likely to replace sedentary behaviours indoors rather than active behaviours indoors or outdoors after school.
- Parents and children are highly aware of the risk of injury from cars. Closure to through-traffic is necessary to foster perceived safety in parents and children. Increasing parental- and child-perceived safety builds confidence and resilience to use the street space more fully when temporary street closures are not in place. This is an important precursor to promoting increased independent mobility in children.
- The process of applying for street closures builds community connectedness. Street closures increase child and adult social interaction between neighbours, friends and families.
- Development of clusters of street closures within neighbourhoods has the potential to re-establish the social norm that streets can be shared spaces and challenge the current dominant social norm that streets are largely for motorised transport only.
- Providing space to play in local streets offers an important source and route to wellbeing for children. Parents recognise this has been eroded for their children compared to their own experience of street play.
- In many areas additional support is required to help residents apply to close their streets and maintain street closures once they are in place.
- Street play should be included in relevant policies (transport, health, planning, environment, children and families) that promote improved public health, child and family wellbeing, community connectedness and sustainable transport. Complexities in legislation that underpin temporary street play closures are a barrier to implementation in some local authorities, particularly London Boroughs.

# SECTION 1

## The potential for street play to contribute to public health

*Only 21% of boys and 16% of girls aged 5 to 15 years meet physical activity guidelines in England*

The prevalence of childhood obesity has increased markedly in the UK and whilst there is some evidence that the rate of increase is slowing, almost one in three UK children aged 2 — 15 years are classified as either overweight or obese<sup>1</sup>. The prevalence increases with age, 22.5% of 4 — 5 year olds and 33.5% of 10 — 11 year olds classified as overweight or obese respectively<sup>2</sup>, and continues to rise further through adolescence. Obesity in childhood is linked to obesity in adulthood, with an odds ratio for an overweight child becoming an overweight adult, 10.3 for 6 — 9 year olds and 28.3 for 10 — 14 year olds<sup>3</sup>.

These trends emphasise the urgent need for early prevention to offset the rapidly increasing costs of treating obesity and related diseases in the UK, projected to reach £49.9 billion annually by 2050<sup>4</sup>. It is argued that as the scale of obesity-related morbidity in adults is so great, health promotion approaches that include all children as a population-scale response to health resilience are required<sup>5</sup>.

Child and adolescent obesity has been associated with an increased risk of development of cardiovascular risk factors including insulin resistance, dyslipidaemia, increased adiposity, and elevated resting blood pressure<sup>6</sup>. Although physical activity is known to be associated with health benefits in children independent of sex, age, waist circumference and weight,<sup>7,8</sup> many children have levels of physical activity well below recommended guidelines of at least 60 minutes per day of moderate physical activity. Health Survey for England data (2013) based on a nationally representative sample indicates that only 21% of boys and 16% of girls aged 5 to 15 years meet these physical activity guidelines in England of 60 minutes or more of moderate intensity each day, with rates consistently lower for girls and older children<sup>9</sup>.

The limited success of individually focused interventions, along with the emerging view that physical environmental as well as social and individual factors are important for obesity prevention,<sup>4</sup> has prompted a rapid growth in studies investigating associations between the physical or built environment and physical activity, diet and obesity. Some studies have documented a direct effect on the physical environment and obesity in young people, including the positive association between traffic within 150 metres of a child's home and obesity measured at nine and 19 years<sup>10</sup>.

Although a direct link between environment and obesity is possible, it is likely that the effect is indirect, mediated by physical activity and diet. It is argued that the physical environment influences diet and physical activity behaviours by determining access, availability and quality of opportunities to be physically active or eat healthy foods<sup>11</sup>.

Time spent outside is an important indicator of children's use of their environment and is inversely related to obesity. In a sample of 1900 US families with five-year-old children, each hour of outdoor play was associated with about half a percentile point lower body mass index (BMI), which was similar to the increase for each hour of television viewing<sup>12</sup>. When considering the two behaviours, for each additional hour children were reported to spend playing outside — over and above television watching — children scored 1.5 percentile points lower on BMI. Australian longitudinal data also shows that 10 to 12 year old children who spent more time outdoors at baseline had a reduced prevalence of being overweight (27-41%) three years later<sup>13</sup>.

Time spent outdoors is also one of the most consistent correlates of physical activity<sup>14</sup>, and each hour outdoors has been associated with an extra 20 to 27 minutes of MVPA per week in Australian ten to 12 year olds<sup>12</sup>. In the UK, in children of a similar age, objectively measured physical activity was on average three times higher outdoors compared to indoors<sup>15</sup>. However the proportion of time outdoors is reported to be low. In an English study which included 345 children aged eight to 13 years from Hertfordshire and used objective measures of physical activity, children spent only a small portion of the total day engaged in 'out-of-home play', although this setting provided more moderate-to-vigorous physical activity than either school PE or structured sports<sup>16</sup>.

## Decline in time spent outside and measurement challenges

Data are sparse but there is evidence that children's time spent outside is falling. A significant decline in time spent outside for children and adolescent boys and girls over a five-year period has been reported, with the steepest rate of decline in girls whose average time spent outdoors declined by 31%<sup>17</sup>. Temporal UK data are very limited due to the fact that children's time outdoors is difficult to measure as it is often unstructured, takes place in a variety of locations and is sporadic in nature. In previous studies it has been estimated indirectly by parental proxy<sup>17,18</sup> or participant self-report/diary<sup>19</sup>, methods which are subject to a lack of precision and potential reporting bias, or by direct observation which provides an accurate estimate but is labour intensive and limited to relatively small samples observed in defined locations<sup>20</sup>.

Accelerometers have improved the precision of physical activity measurement and can be used to objectively capture children's physical activity at different time periods. However in order to accurately measure time outdoors, measurement of location (inside/outside) is required. Global positioning systems (GPS) are now being increasingly used to measure location and combined with accelerometer data, they provide an objective measure of activity in different locations<sup>21,22,23</sup>. We have successfully combined accelerometer and GPS data in over 1000 children as part of a longitudinal study investigating the influences of the environment on children's activity as they transition from primary to secondary school<sup>24,25</sup>, and have used these data to describe children's objectively measured time outside.

*Time spent outside is an important indicator of children's use of their environment and is inversely related to obesity*

*In children physical activity was on average three times higher outdoors compared to indoors*

*Girls' average time spent outdoors has declined by 31%*



## Factors related to children's time spent outside

Children's time spent outside can be spent in a number of different locations in both built and green space. Data are limited but recent evidence suggests that approximately 13% of ten- to 11-year old UK children's monitored time after school is spent outside. Only 2% of monitored time is spent in green spaces, with the majority of their time outdoors spent on built surfaces including streets<sup>25</sup>. This emphasises the importance of both green and built spaces for physical activity. Determinants of activity vary in different activity contexts<sup>26</sup>. Factors associated with outdoor free play may relate more to play space, friendship groups as well as local traffic and ability to play unsupervised<sup>26,27</sup> whereas correlates of structured sport and exercise may be more related to car ownership, household income, and access to specific sports and exercise facilities<sup>14,29</sup>.

Increases in traffic density and safety concerns of parents have been consistently proposed as reasons for the decline in time children spend outside<sup>30</sup> and maternal fear of the child playing outside has been associated with more television time<sup>12</sup>. Time for play outside of school is also a challenge and the period after school has been identified as a particularly important time for children to be physically active<sup>31,32</sup>. The hours between 3:30 pm and 6 pm on weekdays have been described as the 'critical window' for children's physical activity.<sup>13</sup> It is during this time when differences in weekday physical activity between low and high active children and non-obese and obese children are greatest<sup>33,34</sup>.

Outdoor play is often characterised as unstructured with greater opportunity for child-initiated activities and peer interaction which is not directly supervised by parents<sup>35</sup>. Children need to be provided with opportunities to engage with their environment to develop independence as evidence suggests that their independent mobility has fallen markedly in recent decades<sup>36</sup>. Children with greater independent mobility have higher levels of objectively measured physical activity<sup>37</sup> and independence is one of the few factors related to physical activity in the three main contexts where children obtain physical activity, namely structured exercise, active travel and outdoor unstructured play<sup>38</sup>. A recent systematic review of qualitative studies investigating determinants of free, outdoor play in children found that parental concern for safety is a barrier to children playing outdoors with danger from strangers, bullies and traffic as central issues<sup>39</sup>.

## Time spent outside, inequality and social cohesion

Neighbourhood social factors may be stronger predictors of physical activity than the physical environmental characteristics of neighbourhoods<sup>40</sup>. Individuals in more disadvantaged neighbourhoods have higher rates of obesity, even after controlling for individual-level social position. These links may be due to a complex interplay between safety concerns, lack of facilities

*The hours between 3:30pm and 6pm are the 'critical window' for children's physical activity*

*Individuals in more disadvantaged neighbourhoods have higher rates of obesity*

for activity or to differences in neighbourhood social processes such as social cohesion<sup>41</sup>. Neighbourhood social cohesion has been directly related to outdoor play<sup>12,39</sup>. A recent review of qualitative studies exploring determinants of child-directed, outdoor play included six studies which reported that social cohesion needed to be improved before children were able to play freely outdoors<sup>39</sup>. This relationship is likely to be bi-directional. If people feel less safe in their outside environment they are less likely to spend time active in it, which may in turn affect health as well as reducing opportunities to interact with the rest of the community, thereby limiting the development of social cohesion. There is a small body of evidence, which suggests that social cohesion is associated positively with mental health and inversely with mortality and depression<sup>42,43</sup>.

Limited evidence is available to link social interaction and community cohesion directly to street play, although in a recent study conducted in Ghent, Belgium it was reported that 59.4% of parents in a street-based intervention agreed that there was more social contact with neighbours during street closures for play<sup>44</sup>. There is evidence that increasing the access and perceived safety of street spaces is positively associated with social cohesion<sup>45</sup>.

A report summarising data from UK and European 'home zones' (residential streets in which the road space is shared between drivers and other road users with the wider needs of residents — including people who walk and cycle, and children — in mind) concluded that home zones were associated with increased social contact between adults and a greater sense of community<sup>46</sup>. A more fully-described study from Cardiff, which employed time-lapse photography to observe a home zone and comparator street, confirmed an increase in social interaction in the home zone<sup>47</sup>. The author reported more time spent, more frequent talking and more frequent observations between individuals in the home zone. Whilst interventions such as 'home zones' have been shown to be effective for increasing opportunities for play and reducing traffic speeds<sup>46,47</sup> they require a built environment intervention to change the streetscape and have only been implemented in a small proportion of urban streets.

Another study which combined GPS and accelerometer data with self-report diaries from 427 children aged 10-11 in Bristol similarly found that the greatest proportion of time outdoors was spent with friends compared to indoors (girls at 32.1% compared to 14.4%, boys at 28.6% compared to 15.0%) suggesting that access to other children is either an important precursor and/or consequence of time spent outdoors<sup>48</sup>.

Children living in disadvantaged areas experience greater barriers to outdoor play due to the risk of injury on the road as the burden of these injuries is not spread evenly across our society<sup>49</sup>. Road traffic casualties disproportionately affect some groups more than others, particularly vulnerable road users such as children<sup>50</sup>. In England and Wales, children from the most disadvantaged backgrounds are nearly 21 times more likely to be killed on the roads as pedestrians than their peers from the highest socio-economic group<sup>51</sup>.

There are few community-based interventions that have been shown to increase children's physical activity beyond the school setting<sup>52</sup>. This research provides an opportunity to evaluate a potentially low cost, community-based intervention, which has the potential to reach those most at risk from obesity.

*Increasing the access and perceived safety of street spaces is positively associated with social cohesion*

Closing roads for relatively brief periods allows children to play without risk of injury from traffic and can be implemented without the need for significant built environment changes, which makes the process applicable to a large proportion of streets. The procedures for maintaining safety and engaging residents are well developed and have been trialled successfully. They do not require car users who live in the street to make any changes to parking and other car users only need to alter their journey for short, periodic periods for which they are forewarned and consulted.

## The Street Play Project

The vision of the Street Play Project was for every child to have the freedom to regularly play actively and independently in front of or near their own front door, contributing to a healthy lifestyle. The project aimed to directly support communities and local authorities across the country, particularly in disadvantaged areas, to reactivate a culture of children playing out. This was done by:

- Supporting parents and communities to kick-start resident-led street play by providing guidance and support
- Supporting residents and communities in up to nine target areas with poor health outcomes to activate street play in their neighbourhood
- Working with locally-based voluntary organisations and local authorities to advise them on the policies and processes that support street play

Two main types of street closures were promoted as part of the project:

### One-off street play sessions

One-off street play sessions varied in format and purpose. In some cases one-offs were to celebrate particular events, and provision for street play was not central to the purpose or regular follow up was not anticipated. In other cases the activity and purpose was similar to a more regular TSPC (organised by residents principally to open up their street for play). In the latter case the street was a one-off because there was not sufficient support at the resident or local authority level to set up more regular closures, or it was a 'trial' with the aim to set up more regular closures in the future.

### Regular temporary street play closures

Regular temporary street play closures (TSPCs) were generally based on a model which had been previously successfully trialled by Playing Out in Bristol. Whilst the types of TSPCs varied somewhat depending on the local authority, central to the process was that they were resident-led – i.e. responding to resident demand. Residents led on both the application process for local authority approval and operation of the street sessions (e.g. by stewarding).

## Key features of regular temporary street play closures:

- They are resident-led, i.e. based on resident demand and residents apply and largely manage the temporary street play closures
- The street is temporarily legally closed to through traffic on a designated day and time
- The street is closed with permission of the local authority and following consultation with residents.
- Residents are given the option to leave their cars parked on the street or move them out beforehand.
- ‘Stewards’ (usually residents on the street) are positioned at each road-closure point, to re-direct through traffic, allow residents or emergency vehicles safe vehicle access if required and to protect children from vehicular traffic.
- Road closure signs, cones or other removable structures, such as wheelie bins or bunting, are used to indicate that the road is closed.
- Parents are responsible for supervision of their children.
- Play activities are generally not structured and no extra materials are usually supplied, although children are encouraged to bring along their own play equipment should they wish (bikes, scooters, skipping ropes etc).

Children are thus provided with a safe space in their neighbourhood streets to play with parents and other adults providing collective informal supervision. The approval process for TSPCs varies somewhat depending on the local authority or region. In the majority of local authorities they are based on regular straightforward applications to the local authority submitted annually for permission to close streets. In London, however, some boroughs follow this model whereas in other boroughs regular closures can be made ‘permanent’ – i.e. regular closures once approved do not need to be applied for annually. These have been called permanent street play orders (PSPOs) in this document.



# SECTION 2

## Scale, spread and sustainability of temporary street play closures

The challenge for effective public health interventions are to:

- a) be of sufficient scale to achieve valuable health and social gain for significant numbers of individuals and communities,
- b) provide health improvement opportunities to those most at need or at risk, and
- c) have the capability to be maintained for long enough for those gains to be achieved and/or maintained.

This section describes the extent to which temporarily closing local streets meets these criteria. Specifically:

- 1. Scale:** The number and type of street play opportunities developed and the rate of growth.
- 2. Spread:** The geographical pattern and profile of neighbourhoods where the growth in street play occurs.
- 3. Sustainability:** The longevity of play opportunities and street play closures once they have been approved.

### 1. Scale

Figure 2.1 (overleaf) represents the scale of impact of the Street Play Project in England over the course of the three years of the project (April 2013 to March 2016).

The number of local authorities (LAs) and London boroughs (LBs) in which TSPCs occurred increased steadily over this period reaching a peak of 17 local authorities and 16 London Boroughs by 2016 (note: only a partial, ten-month, year recorded for 2015/2016).

#### Number and type of street closures

The number of TSPCs that took place in each local authority (London data is collated across all boroughs) is recorded in Figure 2.2. showing that the majority of LAs had up to ten closures with significantly larger numbers of closures in a small number of areas, namely Bristol and London. The large number of streets in Bristol represents the early introduction of temporary street closures for play supported by Playing Out and by Bristol City Council in putting in place TSPOs.

*Figure 2.1. Areas in England in which temporary street play closures took place*

33 areas (17 local authorities and 16 London boroughs) had at least one street closure between April 2013 and February 2016





In total, 311 new streets were recorded during the Street Play Project (April 2013 to March 2016) as putting in place temporary street closures for play. Twenty-five streets had already put in place temporary street closures for play before the Street Play Project began. A further 33 streets had a record of temporary closures but the timescale for these was unclear so could not be specifically attributed to the period of the Street Play Project.

The difficulty in attributing a street to a particular year was due to a range of factors but in some cases was due to the fact that streets had a more informal approach to street closures (and had not yet applied for formal closure from the local authority). In many cases this activity was intended to provide a platform for more formal closures in the future. In other cases a formal closure was not required, e.g. a short street or cul-de-sac with limited through-traffic.

The majority (67%) of streets that put in place temporary closures for play were regular closures (more than 1 per year). The frequency of closures in these streets increased over the course of the project from 64.4% of streets closing at least once a month in the first year 2013 to 81% of closures by the end of the project (2016). Twenty per cent of closures were considered 'one-offs' as defined on page 11, often where streets were 'trailing' closures before making a formal application. A small number of streets (five) were recorded as both one-offs and TSPCs (i.e. started as one-offs but became regular TSPCs over the course of the project).

## Number of local authorities involved in temporary street closures

*Figure 2.2. Local authorities in which temporary street play closures were recorded during the Street Play Project (April 2013 to February 2016)*

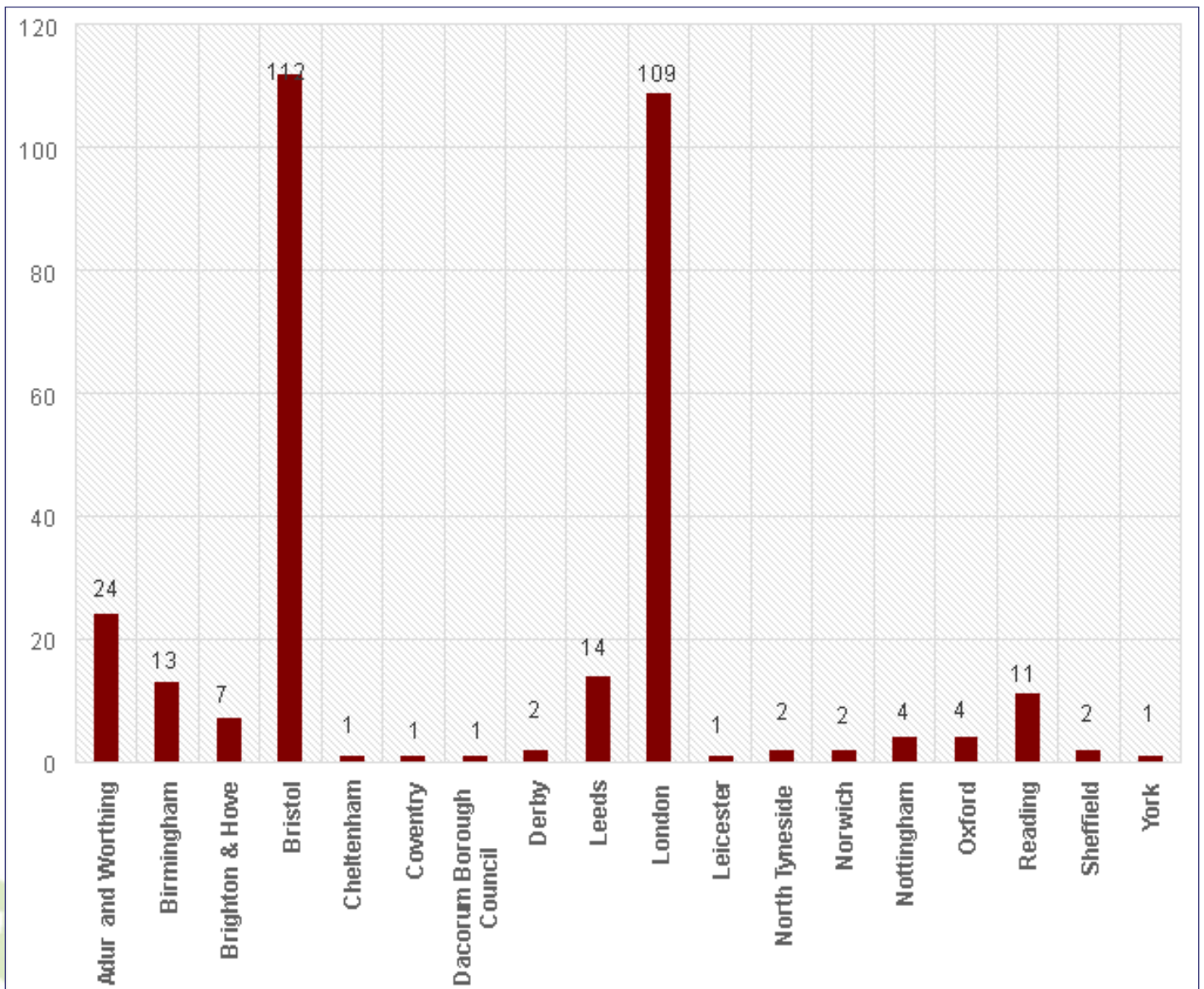
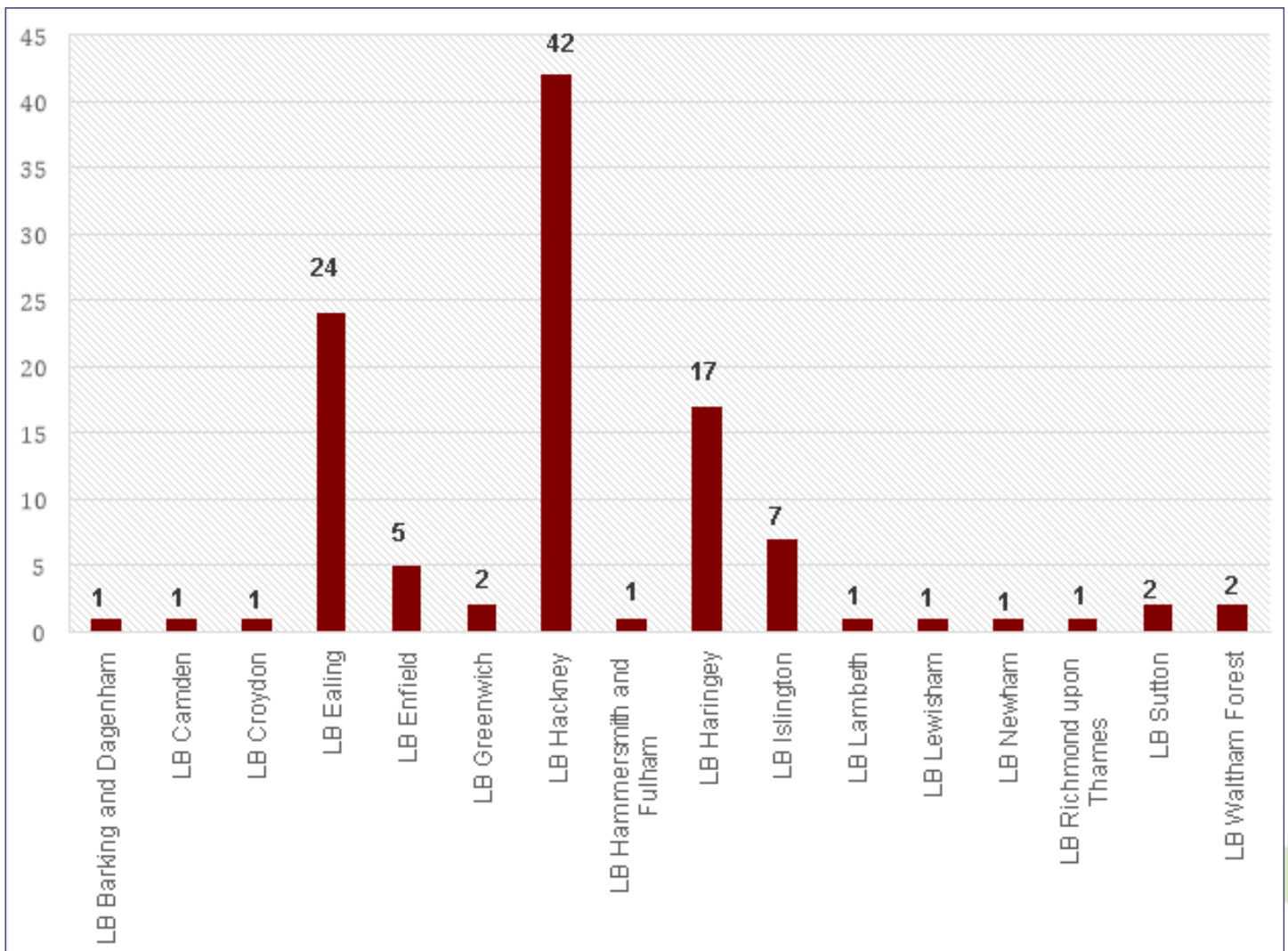




Figure 2.3 shows the scale of closures across London boroughs with approval of temporary street closures for play in 16 of the 32 London boroughs demonstrating the wide support across London. In the majority of boroughs only a small number ( up to 5 closures) had been formally approved.

**Figure 2.3. London boroughs in which temporary street play closures were recorded during the Street Play Project (March 2013 to February 2016)**



## 2.Spread

Spread is interpreted as the distribution of streets where TSPCs took place, according to level of deprivation and access to green space. These were used to as indicators of the spread or reach of TSPCs as they are factors that influence physical activity, risk of overweight in individuals and social connectedness in communities.

### Representation in relation to deprivation

The reach of temporary street play closures into areas of deprivation was investigated by comparing the deprivation in streets in which TSPCs occurred to national levels of deprivation. This was done using the index of multiple deprivation (IMD), which ranks every small area — defined as lower super output areas (LSOAs) — in England from 1 (most deprived area) to 32,844 (least deprived area).

This rank was split into quintiles in **Table 2.1** (quintile 1 equals the least deprived 20%, quintile 5, the most deprived 20%). So, for example, if small area X is ranked 5,000 out of 32,844 small-areas in England, where 1 is the most deprived, then it would fall into the most deprived quintile or 20% of areas in England. If streets where closures took place were similarly ‘deprived’ in terms of IMD compared to the national average levels of deprivation, then we would expect 20% to be in each quintile.

As can be seen from Table 2.1, streets in which closures took place were broadly similar to the national distribution but there were fewer streets than would be expected in quintile 1 (the least deprived). This means that the streets in which closures took place were under-represented in the least deprived areas but were generally representative of the deprivation levels in the other 80% of areas. The profile was broadly similar for both regular and one-off street closures although there was slightly higher representation in more deprived areas for regular compared to one-off closures. This was reflected in the mean IMD rank for the streets, although both were close to the national median rank or ‘average deprivation’ of 16,422.

It is important to note that although a street may be characterised as relatively ‘deprived’ based on the small area deprivation measures, there may still be considerable variation in households within that area. Equally, some areas may have a low score because they are relatively deprived on one component of IMD (e.g. employment) but less deprived on another (e.g. access to services).

**Streets in which temporary street closures were held were situated in neighbourhoods with a wide range of deprivation. There are more streets than average in areas of higher compared to lower neighbourhood deprivation.**

## Abbreviations

IMD = index of multiple deprivation

TSPC = temporary street play closure

**Table 2.1. National characteristics of Temporary Street Play Closure (TSPC) streets by rank of Index of Multiple Deprivation (IMD) for England**

	Total TSPCs	Regular TSPCs	One-offs only
Number	357	272	85
Mean IMD rank	14,052	13,673	15,263
Standard Deviation	8,203	8,211	8,106

Distribution per quintile of IMD (1 = least deprived, 5 = most deprived)	No. TSPCs		No. TSPCs		No. TSPCs	
1	30	8%	22	8%	8	9%
2	75	21%	55	20%	20	24%
3	76	21%	51	19%	25	29%
4	97	27%	79	29%	18	21%
5	79	22%	65	24%	14	16%

<b>Abbreviations</b>	<b>IMD = index of multiple deprivation</b>	<b>TSPC = temporary street play closure</b>
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## Representation in relation to greenspace

Data are provided overleaf to compare the level of greenness (based on percentage of green space) in streets in which temporary closures took place (Table 2.2). Greenspace data are based on the 'Generalised Land Use Database Statistics for England 2005'. Table 2.2. shows that the streets in which temporary closures took place were on average less green, with more than half of streets in the least green 20% of areas. Again, little difference in this pattern was observed for regular compared to one-off street closures.

Similar patterns were observed when comparing LSOAs in which street play closures were held to average green space in urban areas only (rather than all greenspace data). TSPCs were more common in areas that were less green on average compared to other urban streets. This is particularly relevant as this reflects the environment in which the majority of street closures took place, i.e., within cities or large towns

**Streets in which temporary street closures took place had on average less green space around them compared to other urban areas.**

A limitation of this greenspace measure is that it does not take into account greenspace in immediately adjacent LSOAs, and therefore may underestimate the association between local greenspace and other outcomes (Department for Communities and Local Government, 2007. *Generalised Land Use Database Statistics for England 2005*).

### 3. Sustainability

Sustainability is difficult to determine as the majority of TSPCs were relatively recent and only a small number of places had sufficient numbers of streets to provide temporal data. Where possible, information is provided for all streets but where this was not available more in-depth analysis of particular areas is included to demonstrate potential for sustainability.

#### Progression from one-off event or closure to more regular street play

One marker of sustainability is the extent to which streets ‘transition’ from one-off events to more regular TSPCs, i.e. whether one-off sessions represent an early step towards more regular closures and opportunities for street play. Alternatively one-off closures may not directly relate to more regular closures within the time frame of this project but may contribute to building social connectedness in different ways or building a platform for more regular closures further down the line.

**Table 2.2. National characteristics of temporary street play closure (TSPC) streets by percentage greenspace of urban areas.**

	Total TSPCs		Regular TSPCs		One-offs only	
<b>Number</b>	357		272		85	
<b>Quintiles of green space, urban areas (1 = least green, 5 = most green)</b>	No. TSPCs		No. TSPCs		No. TSPCs	
1	192	55%	160	59%	38	45%
2	78	22%	53	19%	25	29%
3	45	13%	36	13%	10	12%
4	28	8%	17	6%	9	11%
5	8	2%	5	2%	3	4%



*89% of temporary street play closures (TSPC) that occurred during the Street Play Project continued activity once the TSPC had been put in place*

Only a small proportion of streets ‘transitioned’ from one-off events to more regular TSPCs in the lifetime of the project (2013-2016). These twelve streets were in Brighton & Hove (2), Bristol (2), Camden (1), Croydon (1), Enfield (2), Hackney (1), Hammersmith & Fulham (1), Islington (1) and Norwich (1) — areas where street play was generally well established. These figures are based on streets recorded as having a one-off closure, which transitioned to regular closures in subsequent years during the Street Play Project (April 2013 to March 2016).

There was no clear pattern temporally with four streets transitioning in 2013-2014, none the following year and two in the final year of the project (2015-2016). These numbers do not include transitions that occurred before the Street Play Project began or were not recorded, and is likely to be an underestimate of potential transition beyond the lifetime of the Street Play Project.

### **Longevity of street closures once they have been put in place**

Analysis of yearly figures indicates that TSPC ‘progress’ is not always linear once established. Street closures are not always renewed every year once they have been put in place. However the majority (89%) of TSPCs that occurred during the Street Play Project (April 2013 to March 2016) continued activity (e.g. reapplying for TSPC) once the TSPC had been put in place. Only 36 of the streets (11%) had no further activity recorded after they had taken place.

### **Availability and access to approval for temporary street closures**

Arguably a prerequisite for sustainability of regular street closures to promote play and social interaction is easy access and procedures to gain approval for closures to take place. Many local authorities use a similar system of application for annual approval.

Bristol is used as an example here, as its system for approving TSPCs has been in place for a relatively long period, allowing temporal patterns to be uniquely observed and it has the largest number of streets closures (outside London) and the most complete data. Thus Bristol City Council represents the best data in relation to the implementation and use of new procedures for temporary street play closures (these are called Temporary Play Street Orders in Bristol). Bristol also provides open access to all street play closure applications as well as data on which streets were not granted and reasons for refusal or cancellation.

Based on these data, the number of orders granted by Bristol increased from 12 streets in 2012/2013 to 66 streets in 2014/2015 (the final full year of the project). The numbers of applications turned down for approval was low and declined over the period with 98% of applications approved by 2015/16. Reported reasons by Bristol City Council for not approving applications indicate that objections from residents were less common in later years. This may have been due to a change in interpretation of policy whereby in later years an objection had to be material (affecting person/livelihood) to inhibit approval.

## Clustering of temporary closures within neighbourhoods

It may be that the larger and more sustained the cluster of temporary street play sessions within a neighbourhood, the more likely street play opportunities are to be sustained. This may be due not only to the support for street closures between residents within a neighbourhood, but also to the opportunity for children to play on local streets when their own is not 'closed'. Clusters of street closures are also more likely to impact on cultural change within a neighbourhood where residents and car drivers are more used to seeing streets closed.

Figure 2.4 provides a visual representation of the spread of the temporary street play orders approved by Bristol City Council over a four-year period (112 in total in 71% (25) of the 35 Bristol wards). Streets in which approved closures are in place are overlaid in red onto a map of Bristol and show clear patterns.

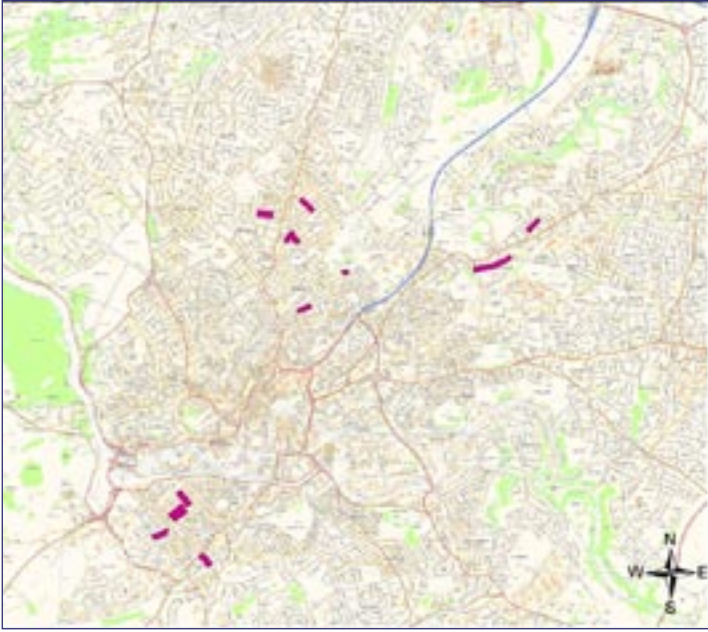
The first pattern is clustering of streets in neighbourhoods in geographically distinct areas of the city (Southville, Bishopston, and Fishponds) in the early years in a small number of areas. The second apparent pattern is the physically proximal clustering of Temporary Play Street Order (TPSO) streets to one another, to the extent that blocks of adjacent TPSO streets were formed. As such this appears to be a synergistic effect, that is the occurrence of a TPSO street seems to increase the likelihood of additional TPSO streets nearby over time.

Divergent to these patterns, over time there was also an increase in individual TPSO streets scattered singly in other neighbourhoods and without other TPSO streets in close proximity. A larger number of individual streets may provide a platform for building more clusters of streets over time. This more diverse representation across the city also represents the increasing support for streets and street play activators across the city. Combined these patterns provide a platform for a potential greater opportunity and acceptance of street play which may challenge the dominant social norm inhibiting street play in urban areas. However, there is insufficient temporal data in areas with enough streets to determine if this pattern will be reflected in other areas.

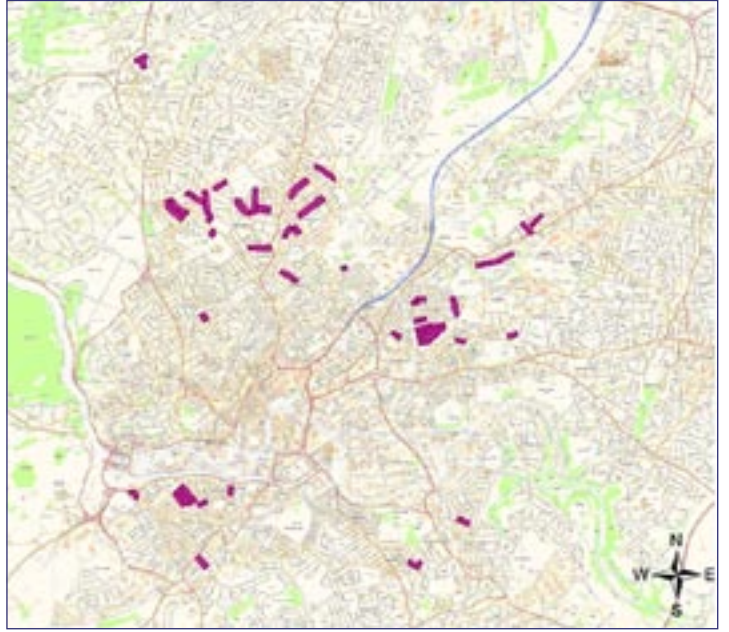
*Clusters of street closures are more likely to impact on cultural change within a neighbourhood where residents and car drivers are more used to seeing streets closed.*

*A larger number of individual streets may provide a platform for building more clusters of streets over time*

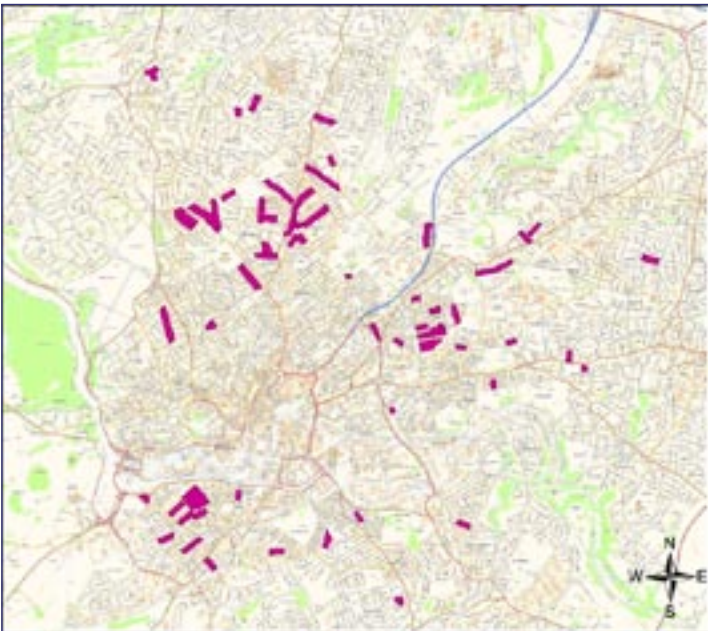
*Figure 2.4: Spread of temporary street play closures in Bristol over a four year period*



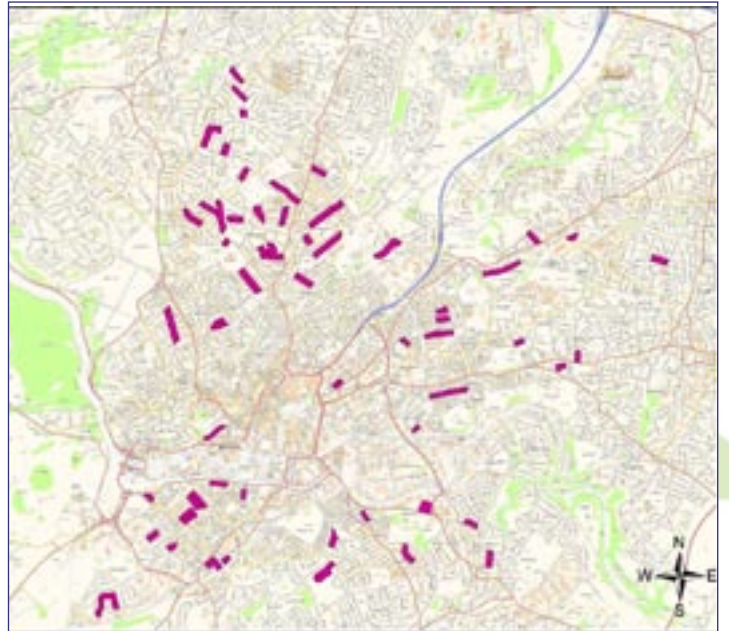
2012/13



2013/14



2014/15



2015/16







# SECTION 3

## Physical activity obtained by children during temporary street play closures

As reported in Section 1, children and young people are substantially more active when they are outdoors, so one of the outcome indicators for the success of temporary street closures is how much time children spend outdoors during the sessions. Furthermore, in order to contribute to whether children meet the physical activity guidelines, it is important that children are able to take part in activity which is of at least moderate intensity during street play closures.

Objective measures were used to investigate time outdoors and time spent in moderate to vigorous physical activity (MVPA) in 105 children who took part in temporary street closures. Streets were selected according to the process outlined in Figure 3.1. Portable global positioning system (GPS) receivers were worn by the children around the waist during street play events.

These GPS units record data every 10 seconds and the strength of the GPS signal (signal to noise ratio) is used to determine time spent indoors compared to outdoors whilst the GPS is worn. These GPS data can be merged with data from the physical activity monitor (accelerometer), which is also worn around the waist and records every 10 seconds to determine total physical activity and time spent in different intensities (sedentary, light and moderate-to-vigorous physical activity) defined according to agreed thresholds:

- sedentary time — up to 100 counts per minute (cpm)
- light intensity physical activity — 100-2249 cpm
- moderate-to-vigorous physical activity (MVPA) — up to 2249 cpm

### Abbreviations:

TSPCs: temporary street play closures

MVPA: moderate to vigorous physical activity

GPS: global positioning system

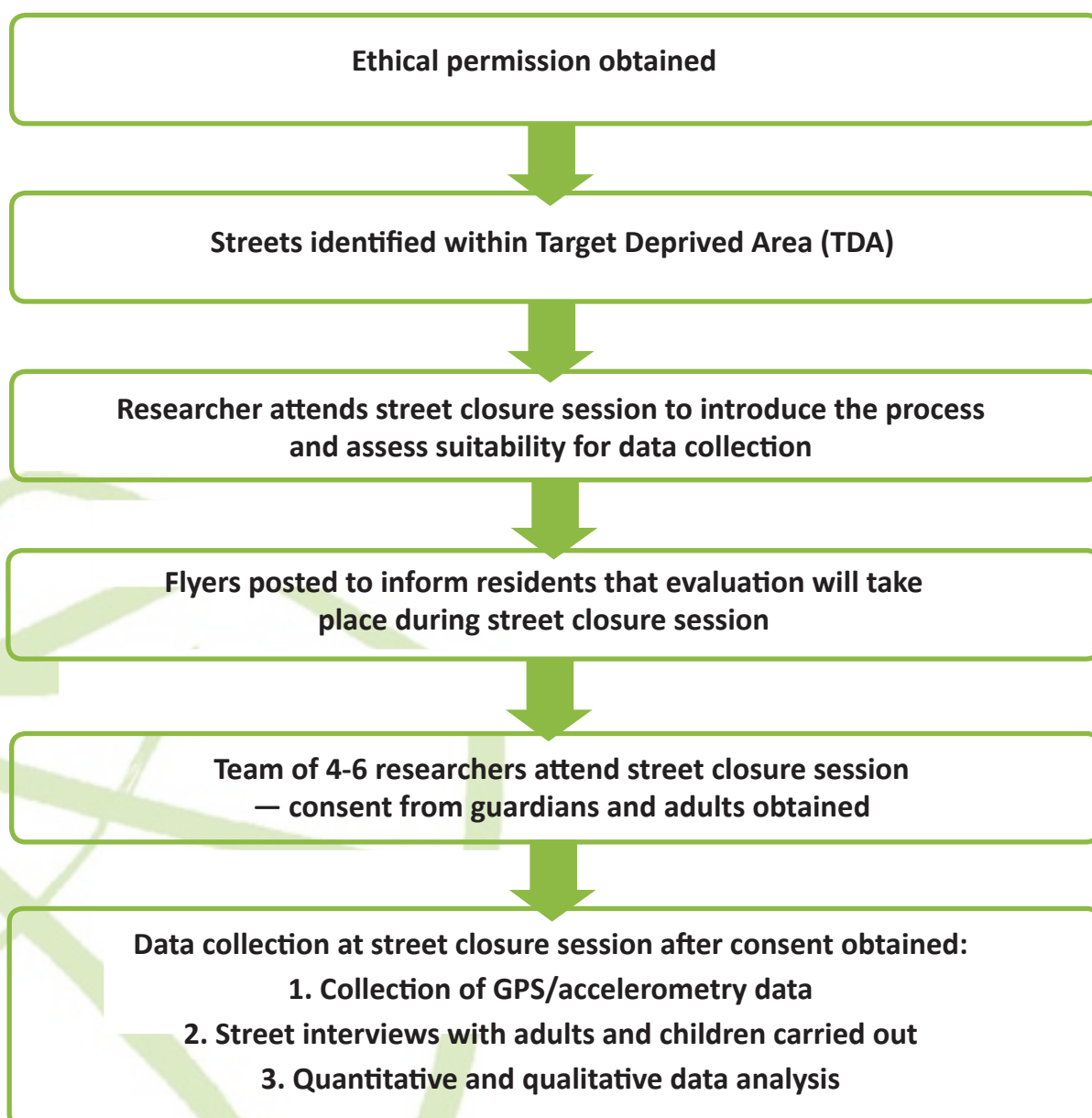
cpm: counts per minute

TDAs: target deprived areas

Data from the GPS and accelerometer are time-matched to determine physical activity (MVPA) during time spent outdoors (and indoors) whilst the monitors are worn during street play closures. Due to resource restrictions, direct measurement was only possible in a small sample of children.

Streets in which temporary street play closures had taken place were identified by Playing Out and London Play and postcodes were provided. Using this information, University of Bristol determined which streets were in target deprived areas (TDAs) based on available spatial and census data. Streets were defined as being in a TDA if they met one of the criteria in Table 3.1. Only those streets which met the criteria in Table 3.1 (compared to national data) were eligible to be considered for data collection (approximately 15% of all regular temporary street closures recorded during the Street Play Project). A University of Bristol researcher visited eligible streets to assess the most appropriate for data collection.

**Figure 3.1 Data collection process for the street play project**



During these visits the researcher met with the lead or organiser of the street closure. Final selection of the streets for interviews and physical activity measurement was based on the number of children who usually play out in particular streets, any barriers to the evaluation and whether potential closures were planned when evaluation was due to take place. Streets selected were characterised by a high proportion of Black and Minority Ethnic groups (BMEs) and relatively large numbers of families per street. The streets were primarily residential with through-access for cars often enclosed by a network of smaller streets, which allowed flow of traffic when the streets were closed for play. Housing was predominantly terraced, split into a small number of flats or maintained as two- to three-bedroomed houses.

**Table 3.1: Criteria for definition of Target Deprived Areas (TDAs)**

Criterion	Data source	Criteria for selection
Super output areas in the 10% most deprived	Indices of deprivation (IMD, 2010)	Lower Super Output Area in most deprived decile of income deprivation affecting children
High rates of obesity amongst children	Census data: self-reported general health (2011)	Lower Super Output Areas in poorest health decile
Population with high risk of poor health outcomes	National Child Measurement Programme	Lower Super Output Area: three year aggregate obesity prevalence (2009-2012) for either reception or Year 6
High levels of overcrowding	Census data (2011)	Lower Super Output Areas in top decile of overcrowding (% households with occupancy rating -1 or lower — 1 or more rooms fewer than required)

## Statistical terms

Standard deviation

‘p’

±

β

are all statistical terms used in this report.

## Physical activity and sedentary time during temporary street play closures

One hundred and five children — 57 female (54%) — aged between 1.5 years and 13 years\* were measured during street closures. All parents provided informed consent for children taking part and only one parent refused consent for their child to take part. The children lived in residential streets, which were open to through-traffic and the volume of parked cars meant that there was limited street space available. Parked cars were left in place during street play sessions but streets were closed to through traffic during TSPCs.

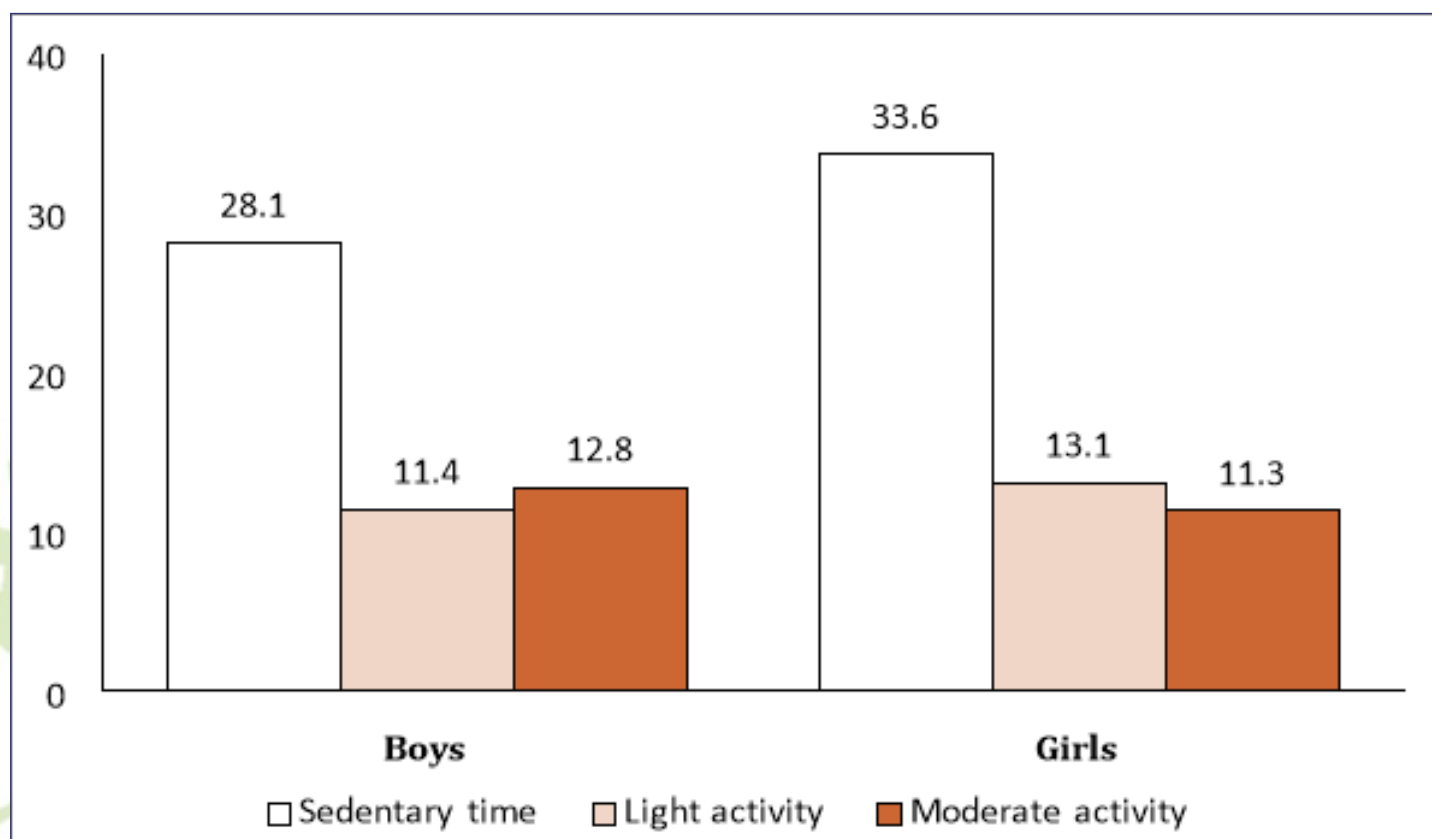
\* mean age 6.7 years old; standard deviation=2.5 years)

Children who took part in the monitoring spent on average 38.9 (SD = 19.8) minutes outdoors during temporary closures (approximately 70% of the average monitored time — 52.3 minutes for girls and 58 minutes for boys). Consistent with previous data,<sup>15</sup> time spent outdoors was a significant predictor of increased time spent in moderate to vigorous physical activity (MVPA) such that the longer children spend outside the more MVPA they obtained. This was equivalent to an extra 16 minutes of MVPA for every hour of time spent outdoors during temporary street closures \*

On average, children spent 12.3 (SD 7.6) minutes in MVPA, 11.2 (SD 6.9) minutes in light intensity physical activity and 32.2 (SD 14.8) minutes in sedentary during temporary street play closures. Although boys spent on average 1.5 minutes more in MVPA during street closures, this difference did not reach statistical significance. Similarly, average time spent in light physical activity during street closures did not significantly differ by gender, but girls spent significantly more time sedentary compared to boys during street closures (Figure 3.2; p=0.018).

Younger, pre-school children (aged one to four years) generally spent more time sedentary and less time physically activity (light or MVPA) during TSPCs compared to older, predominantly primary school-aged, children. For example

**Figure 3.2 Minutes spent in sedentary, light and moderate physical activity by gender during temporary street closures**



\*  $\beta=0.16$ , 95% Confidence Intervals 0.09,0.23,  $p<0.001$ .



## Longer street play closures may facilitate increased physical activity

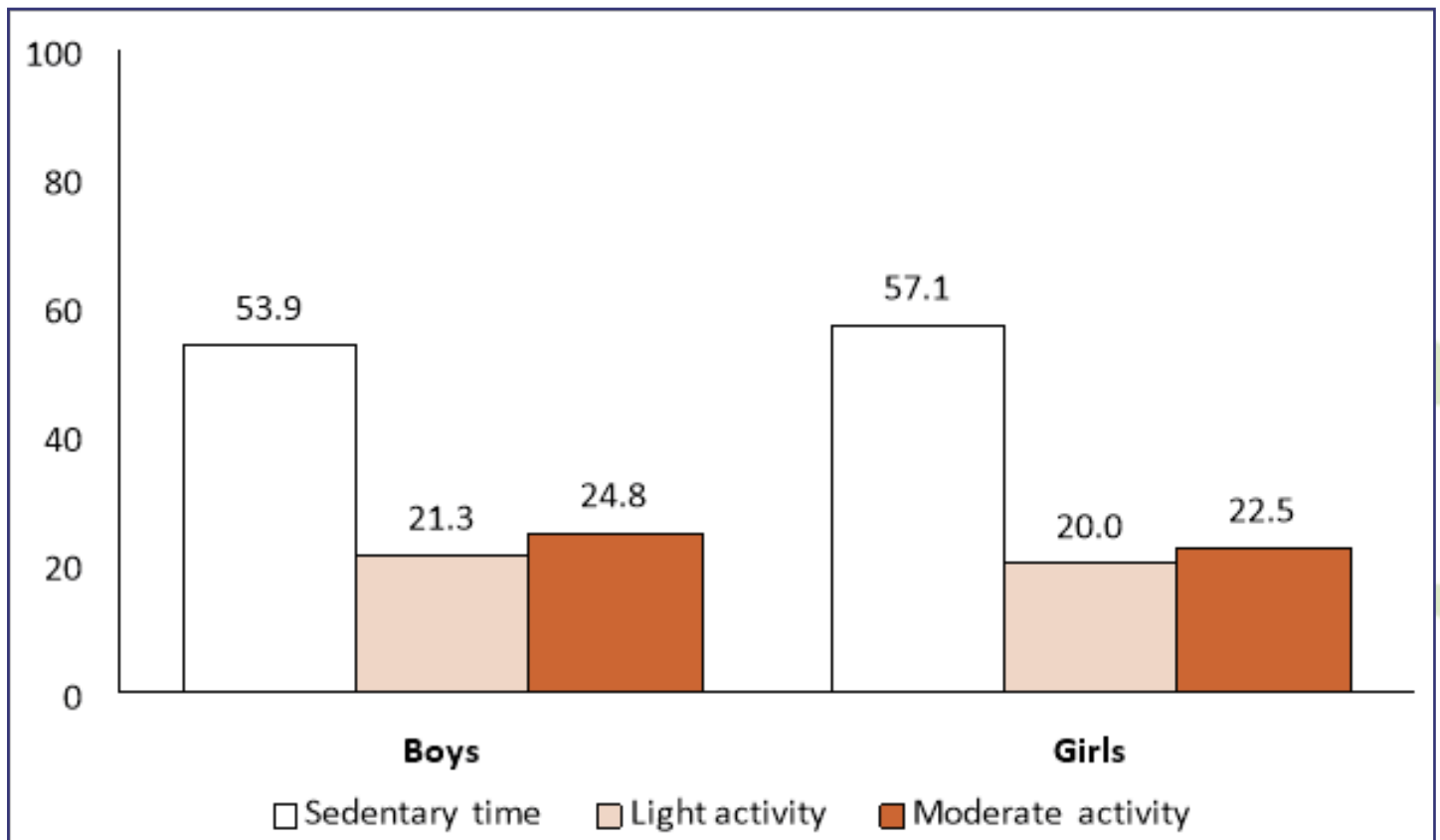
mean minutes of MVPA for one to four-year olds was 9.6 minutes for boys and 7.9 minutes for girls, compared to 14.7 minutes and 13.1 minutes for five to 13-year old boys and girls respectively. This is consistent with a recent study of 27,637 participants from 20 studies in ten different countries, which shows that activity levels in pre-school children were lower for pre-school children compared to children once they reached age five<sup>53</sup>. This study was based on data collected using the same physical activity monitor and data reduction procedures used in this evaluation.

Time spent outdoors and volume and intensity of physical activity were positively, moderately correlated with the length of street closure, suggesting that longer street play closures may facilitate increased physical activity.

In order to take account of differences in the amount of monitored time, figures are presented as a proportion of monitored time spent in sedentary, light and MVPA in Figure 3.3. Both boys and girls spent over half the monitored time during street closures in sedentary time with girls spending 4.4% more time sedentary compared to boys ( $p=0.02$ ). Smaller gender differences were observed in time spent in light and MVPA and although girls spent slightly less time (1-2%) in light and moderate to vigorous physical activity, this difference did not reach significance ( $p>0.05$ ).

Whilst no data were available pre- or post the street play closures in this evaluation to compare whether time spent outdoors or physical activity was

**Figure 3.3 Percentage of time spent in sedentary, light and moderate physical activity by gender during temporary street closures**



greater when TSPCs were in place compared to 'normal' activity, reference data are available to indicate what is usual or average during this period after school.

A study using similar GPS methods in 1307 UK children showed that children aged nine to 10 years spent in total just over 40 minutes outside after school each day ( $41.7 \pm 46.1$  minutes) with the mean time outdoors highest in the first hour after school ( $14.1 \pm 11.4$  minutes)<sup>16</sup>. This suggests that it is likely that TSPCs can provide extra time outdoors and activity compared to a normal day. This is supported by a recent Belgian study,<sup>45</sup> which used similar methods to measure physical activity (accelerometry). The study adopted a 'matched' control group and pre-test/post-test study design to investigate MVPA and sedentary time in children aged six to 12 years during play street interventions.

The play street interventions were designated streets which were closed to motorised traffic except local traffic from two to seven in the afternoon using temporary fences and signs for up to 14 days during the summer. This study reported an average 12-minute difference in MVPA between children in the intervention group and children in the control group, as well as a decrease in sedentary time during the same period. This effect was independent of age, sex and educational attainment of the parents.

*TSPCs can provide extra time outdoors and activity compared to a normal day.*

## Compensation for time spent physically activity

Importantly, the effects observed in the Belgian study remained significant when investigating physical activity across entire day, indicating that the children did not compensate for increased physical activity accumulated during street play by decreasing their activity at other times. This is counter to the view espoused by some that if children are more active than normal at certain points during the day as a result of intervention, they will tend to 'compensate' for this at other times. However there is little evidence that children, unlike adults, compensate in this way.

## Replacement of physical activity and sedentary time

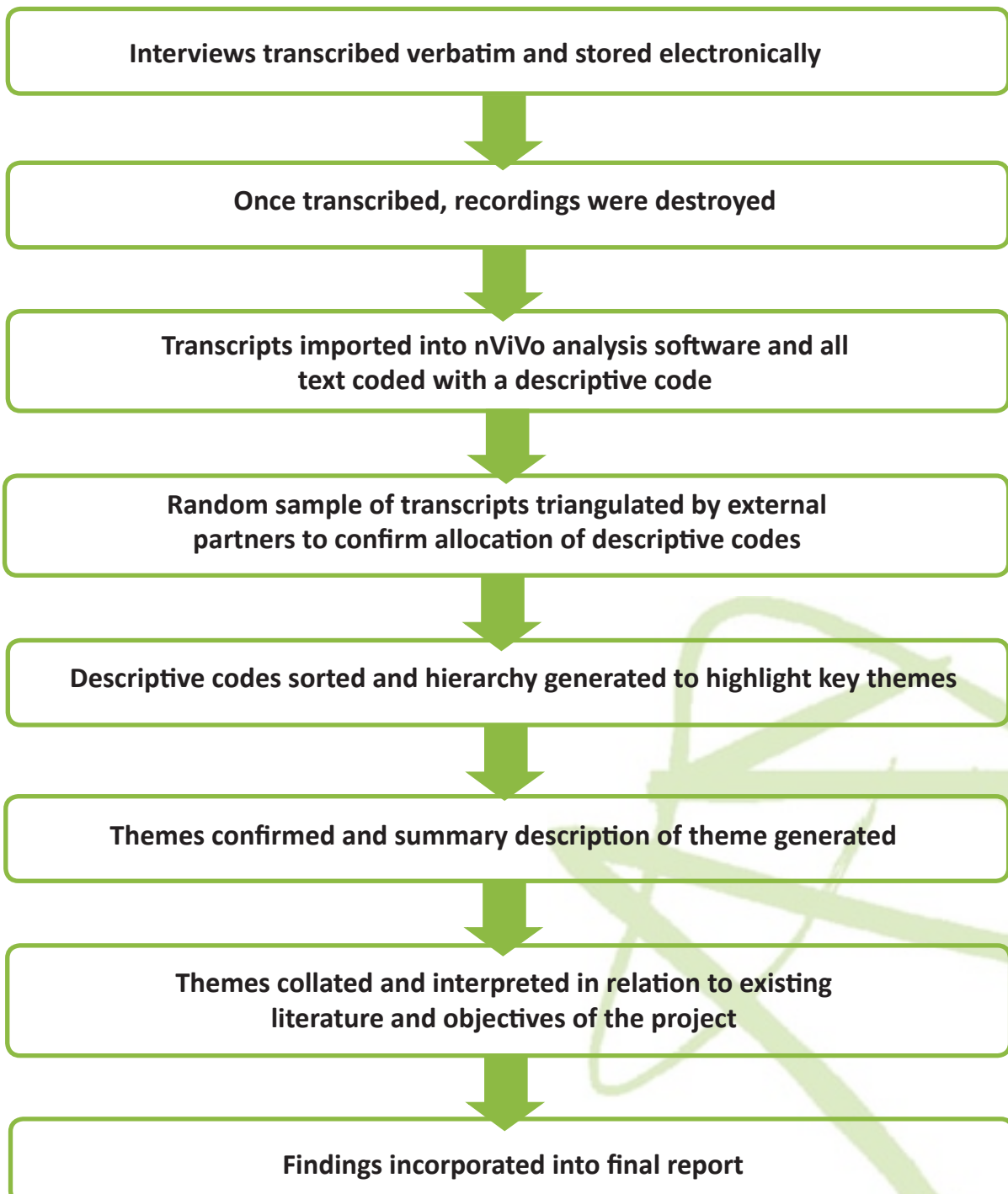
It is also important to investigate the extent to which physical activity carried out during the TSPCs replaced activity that would normally have normally taken place at that time in another form, such as a trip to the park or a friend's house. Alternatively it may be that the activity obtained during street play sessions replaced more sedentary activities that usually took place at that time, such as screen based activities or homework. This was investigated qualitatively in this study based on data from 23 adult and 37 child interviews (see section 4).

Following the procedure outlined in Figure 3.1, interviews were carried out during street play events to maximise participant recall and participation in the project and to enable perceptions of a relatively large number of participants to be collected in a short period of time.

Dictaphones were used to record the interviews with permission of participants, to ensure that all data were preserved for analysis.

Questions were asked during interviews to investigate whether time spent during street closures replaced other active or sedentary pursuits. One of the questions that adults and children were asked was 'what would you/your child be if playing out wasn't on today?'. Data were collected and analysed according to the procedure outline in Figure 3.4 and provided evidence that time spent outdoors and active during street play closures was more likely to replace

**Figure 3.4** *The procedure for analysing interview data*



**Table 3.2. Example of sedentary activities ‘replaced’ by time spent outdoors and active during temporary street closures**

Relationship/age of children	Report from adults and children describing replacement of sedentary activities
cousins: four-year old boy / five-year old girl	R: ‘So if playing out wasn’t on today what would you normally be doing at this time?’ Cousins: ‘We would normally be in the house’ Researcher: ‘What sort of stuff would you be doing and they would be doing?’ P: ‘Just TV.’
mother of two and a half-year old	‘Maybe playing, maybe watching cartoon or film or something, as to be quite honest with you I don’t like taking her to the parks in this area anymore, as she either ends up with a stone in her face, or there is something dirty on the ground you know, it’s just, it’s not. Put it this way, it doesn’t cheer up my day or her day if we go to the park in this area.’
girl nine, girl six, boy five, girl two, 11-year old girl	‘Indoors, watching TV, playing games and eating pizza.’
father — five- and four-year old boy and girl	‘Yeah playing maybe TV.’
mother of 10-year old boy	P: ‘He might be on the computer’ Researcher: ‘Does he play games on the computer?’ P: ‘Yeah he plays games on there, and then watches television, he has an hour-a-day on the computer, so he can select what he wants to do. But he’s only allowed to play games for 10 minutes.’
mother of 9 year old girl	‘...today she would have just gone home and played Minecraft on the computer, but she would prefer to do this afterwards.’
seven and four-year old	‘We would, we would do what we normally do. We could come home from school do a bit of reading, do a bit of tele. Do a bit of play or a bit of homework. Have tea, have bath, go to bed. So I mean, all the gardens are tiny around here....’



*Children monitored were outdoors the majority of the time during TSPCs and spent on average 25% of this time in moderate to vigorous physical exercise.*

sedentary rather than physical activities. These sedentary activities were predominantly screen-based, usually watching TV and examples of responses are provided in Table 3.2.

Although there was some evidence that parents were resistant to taking children outdoors on non-street closure days, (such as the example provided by the mother of a young child in the second row of Table 3.2), a small number of parents provided examples of activities that would occur on days when street closures were not in place. The quotation below highlights that although this provided an alternative opportunity for physical activity, the experience was qualitatively and practically different for the parent:

*'...walk up that road, and go to the park. So the plan for today [when the street was closed] was to go take the scooter to the park and let him scooter around the ramps. So he would have been out doing something active he just would of done it in a park...' Yes, yes it's about half a mile. Feels a bit longer sometimes. Half a mile walk or scooter along. We would be there for an hour and then we would be back. I mean I think that's a big disadvantage, that it is quite a contained amount of time as I am with him. Whereas I think if it was just the street and it was the street we lived on, I would not be clock-checking. There is a limited amount of time I can stand in a park waiting for him to have fun.... if it's just your street he could be out for three or four hours, and if I am just busy doing things in the house that's just great.'*

*(mother of son, eight years old)*

There were clearly opportunities available for physical activity in the park, but the distance and restrictions imposed by the journey and the destination away from home constrained the experience and limited the utility of the experience compared to more local activity available during street play closures.

It was also noteworthy that the majority of the sedentary time was spent outdoors, socially interacting, predominantly with other children. This might be termed 'social sedentary time' and merits further investigation as whilst children are not gaining moderate to vigorous physical activity, their time is spent in social interaction, developing and maintaining friendships.

Another prevalent behaviour, which was not always associated with increased MVPA during street play but may promote increased physical activity and independent mobility beyond street play sessions, was development of cycling skills and confidence. This was observed in those children new to cycling (some as old as nine and ten years) who had not had the opportunity to learn how to cycle or were not confident enough to cycle unaided.

Children who were monitored were outdoors the majority of the time during TSPCs and spent on average 25% of this time in MVPA. This equates to, on average, 16 minutes of MVPA for both girls and boys in every hour the street is closed and so can make a meaningful contribution to daily physical activity.

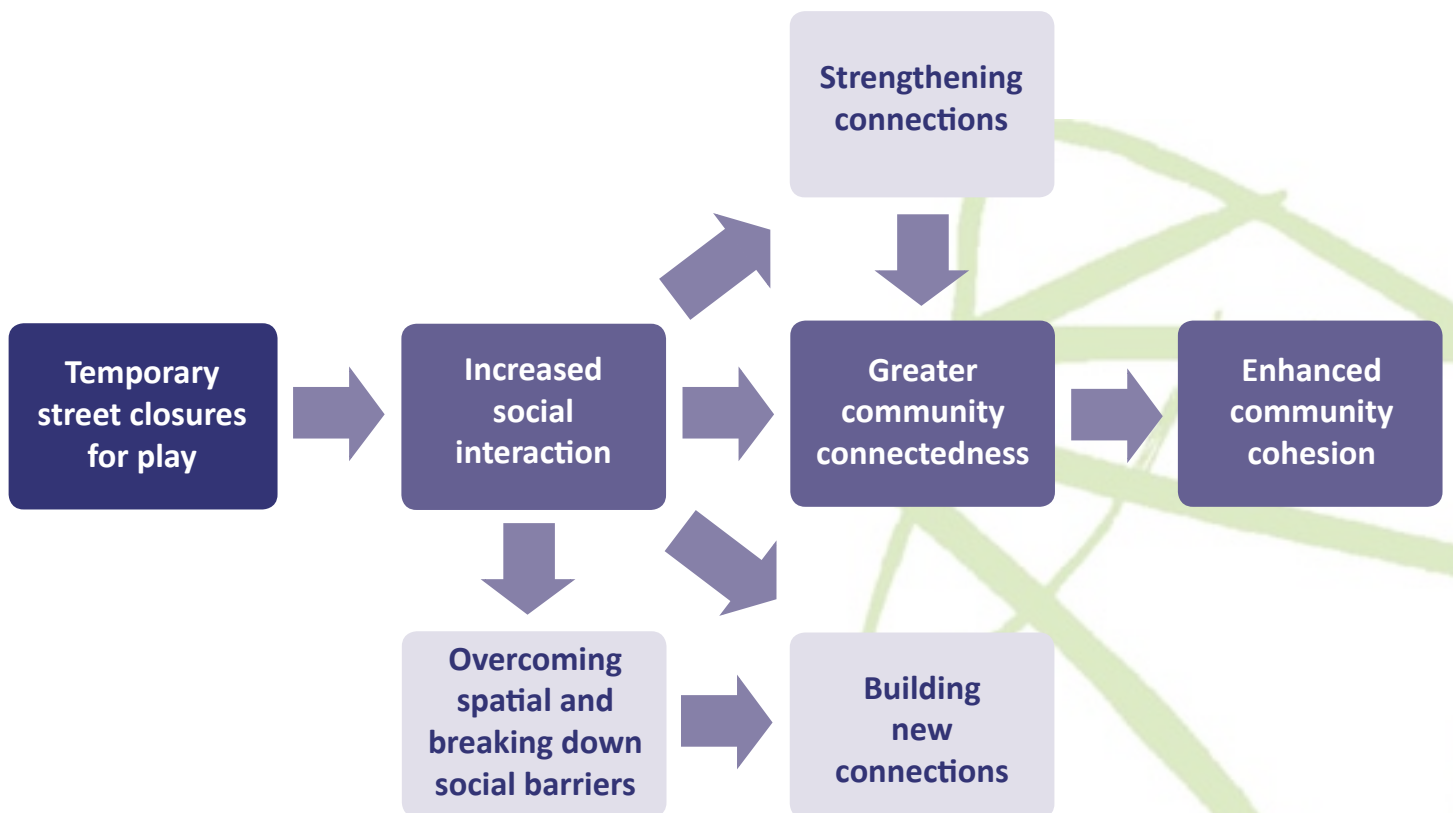




# SECTION 4

## Building community connectedness and improving wellbeing

Figure 4.1 Social impact of temporary street closures for play on community connectedness and cohesion





Data from 23 adult interviews and 37 child interviews living on or near streets where street play sessions took place were analysed to investigate the influence of street closures on social and physical wellbeing.

Figure 4.1 highlights the main themes relevant to building community connectedness that emerged from the qualitative data and how they relate (these are marked in bold in the text overleaf).

## Building and strengthening connections through social interaction

One of the strongest themes to emerge from analysis of interviews from 23 adults and 37 children was the opportunity that temporary closures provided for increasing **social interaction** within the community. This related to both **building new connections:**

*'People are seeing people they have never seen, and getting to know people they wouldn't normally interact with.'* (Mother of nine, six, five and two-year old, non-resident but parents live on street nearby.)

and **strengthening connections** that were already in place but were based on limited and/or infrequent social interaction:

*'We have got to know a lot more people. I have been on the street for like five years now. I didn't know people, and it's the same with him. He has got to know the kids, and I've got to know the adults and before this I hardly spoke to anyone.'* (Mother and guardian to 5 year-old cousin and 5 year-old son).

This 'social' interaction extends beyond the street closure and is maintained by face-to-face interaction, but also increasingly **interaction via social media**

*'...Facebook page, that was good, I think that was a direct consequence of playing out, it kind of all came, really. It's a really good space to air your views and ideas, it's kind of weird to Facebook the people who live on your street but it makes a lot of sense I think.'* (Father, five- and four-year old.)

Social interaction is an important route to fostering **community cohesion**. Some talked of this in terms of 'community spirit', enhancing positive feelings about the neighbourhood:

*'Yeah it's definitely created more of a community spirit I would say'* (mother of three-year old): *'I think everyone would say hello to each other in this street now, I think it's really improved it as a community. It's built a good feeling.'* (Mother of four- and nine-year olds).

Community cohesion is generally understood as the sharing of common values and goals which facilitate social order<sup>55</sup> *'If issues come up people are willing to engage in whatever issue it maybe they are willing to listen'*, and inclusive social networks that enable individuals and communities to establish their social wellbeing. This is done by facilitating access to material resources.





*'There is talk of getting more trees, along the houses, there is a grant application being looked at'. Fostering community cohesion is also an important route for combating social exclusion and **overcoming barriers between people.***

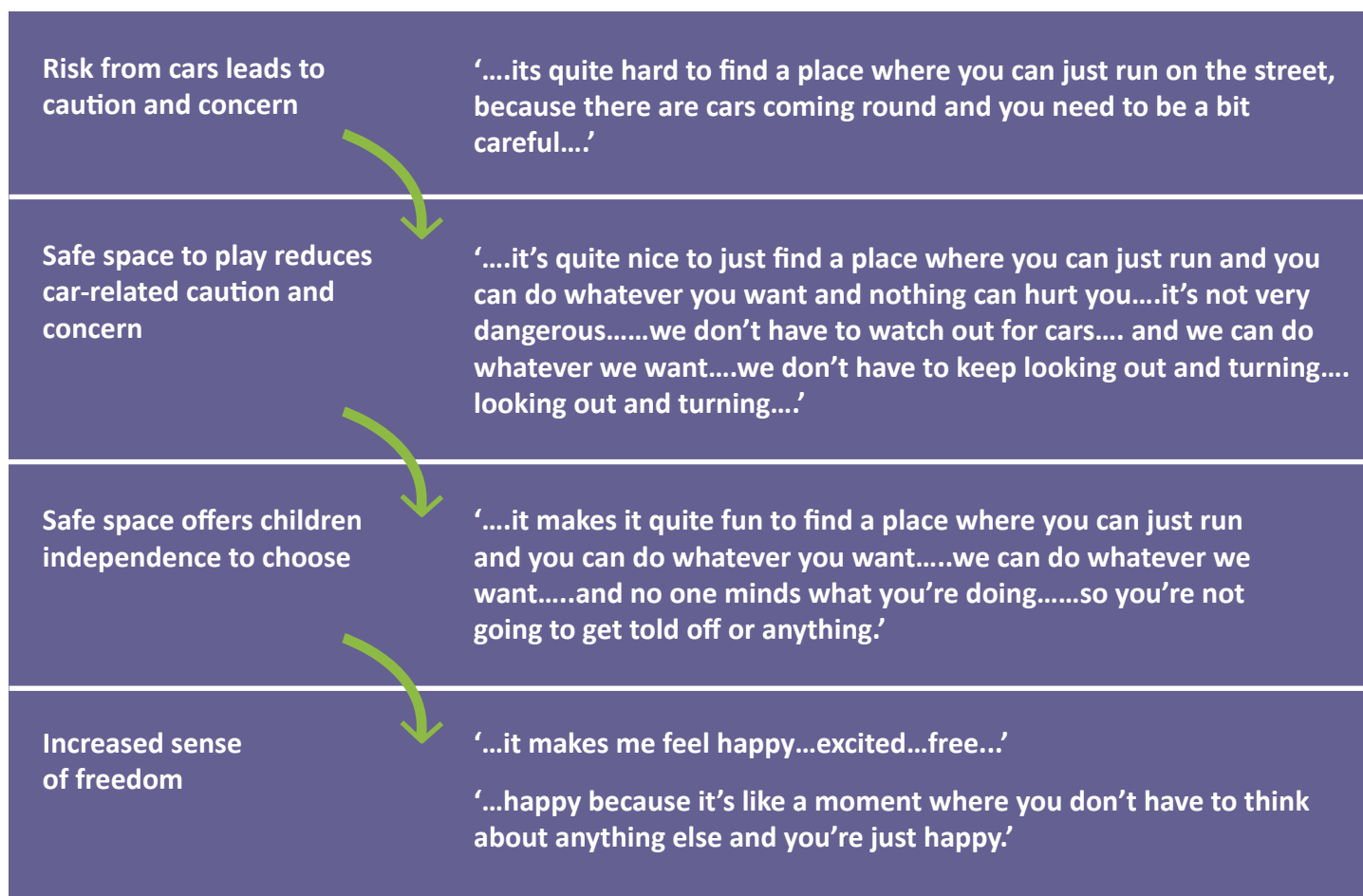
*'When people on the street have functions on, have a little do, we get invited now, and it's nice.'* (Mother/ guardian of five-year old son and girl (cousin) five years old.).

These barriers can also be physical and can be overcome when the street becomes a social, shared space:

*'The other thing which is really nice is one of the ladies has a wheelchair and this is really accessible for her son and her, and in terms of she can whizz up and down and they can all be on their roller skates holding on to her as she goes up and down the road, but it's, but actually she can't get into my house and it's awful how it can effect relationships.'* (mother, four and nine-year old)

Even where a community is already cohesive, relationships can be enhanced and reinforced through particular events. Many referred to their street as already being 'a close community' (mother of six- and eight-year olds) and 'a good community' (mother of eight-year old). However, they went on to describe the ways in which taking part in street play sessions was 'building a community' (mother of ten-month, four- and seven-year olds) and contributing to community cohesion: 'I think it's another thing that is bringing it together' (mother of 6- and 8-year olds). There is evidence that high neighbourhood social cohesion is significantly associated with decreased psychological distress and enhanced wellbeing among residents. Increasing social interactions may contribute to reducing neighbourhood inequalities<sup>55</sup>.

Figure 4.2 Impact of removing motorised traffic during temporary street closures on children



## Enhanced social and physical wellbeing for children

Increased social interaction between children was also a new opportunity provided by the street play sessions, particularly to play with children they wouldn't normally get to play with. *'Yes he was definitely socialising with some of the girls he wouldn't normally who are in his class and some boys he's never been with, and he was fascinated with some of the children from the other school who were on the big bikes as well as slightly older children.'* (Mother, son 8 years old).

This was contrasted with school where *'the three lower years play in one play ground and all the other years are in a completely different playground so [they] are separate.'* (mother, son aged five-years old).

However, the biggest emergent theme for children was in response to the interview question 'How do you feel when playing out is on?' Or 'How does it make when you feel when you can play in the street?'. Figure 4.2 is based on 72 responses from 32 children ranging in age from three to 11 years.

Figure 4.2 highlights the profound impact that removing the risk from vehicular traffic has on children. Children are very vigilant about the risk that motorised traffic represents. This helps them navigate the potential ambiguity of whether the road is 'closed' or 'open'. When asked about this, children could clearly describe visual and audial cues which signalled that the road was open: *'the bins come out...the high viz jackets....the car noise stops'*. Similarly, parents felt confident that their children even as young as three were able to tell when the road was safe to play in or not, and acknowledged they were still responsible for teaching their children 'the rules of the road'.

Whilst many children illustrated highly developed vigilance when navigating the road, Figure 4.1 highlights that the negative impact of this vigilance is significant concerns and the expression of a sense of restriction that being constantly exposed to the risk of traffic brings. This impacts on their choices and movement.

They really valued the opportunity that street play sessions brought to play in the street — worry-free. They could choose what they wanted to do and run free and they clearly express how positive they feel about this.

Reducing the risk from vehicular traffic is central to the street play model evaluated within this report. The recent Office for National Statistics (2015) release that '...land transport accidents are the leading cause of death for both males and females aged 5-19 accounting for 13% of deaths at this age group' emphasises the real barrier that motorised traffic represents for children's wellbeing and parental license for their children to be active in their neighbourhood.



# SECTION 5

## Conclusions

This evaluation provides strong evidence that street play can deliver meaningful health and social benefits at scale. The involvement of residents and the low impact of closures on other road users provides a strong basis for sustainability. However the scale of the evaluation of the Street Play Project was limited and further work is required to strengthen the case for street play. Specifically:

- Longer-term monitoring to quantify physical activity to confirm that physical activity on street play closure days is greater than non-closure days. New wrist-worn activity monitors facilitate longer wear and compliance in children so could form the basis for future measurement to strengthen this evaluation.
- The acceptability and impact of street play closures for different populations including adults without children, older adults and older adolescents should be investigated further as adults interviewed were primarily parents.
- Routine monitoring at local authority level represents the most practical long-term approach to evaluation of health outcomes. This could be incorporated into routine surveys capturing children's travel patterns, activity behaviours and independent mobility as well as parental perceptions of risk and license. These routine data could be linked to progress against health and social outcomes that are monitored at local authority level.
- It would be beneficial for local authorities to maintain open access records of streets where closures have been approved or where approval has not been granted. This would enable growth and sustainability of street play closures to be monitored going forward.
- This report has focused primarily on the experiences of residents (adults and children). Further work building on positive previous reports<sup>54</sup> should focus on the how street play has been supported by the national, local agencies and resident activators and how this informs policy and practice to help residents open up their streets for play.
- Other initiatives such as traffic-calming and speed restrictions (20mph zones) are likely to complement street play initiatives. Further work should focus on investigating how policy initiatives may be synergistic and provide added-value for promoting health and social wellbeing in communities. Interpreting complex legislation to support street play remains a challenge in some local authorities and clear guidance from Department for Transport would reassure more reticent local authorities that closing streets for play temporarily is consistent with current legislation.



Despite the limitations of this evaluation it is clear that setting up and maintaining regular temporary street play closures are an achievable goal in local authorities and should be included in relevant policies (transport, health, planning, environment, children and families) that promote improved public health, child and family wellbeing, community connectedness and sustainable transport at both the local and national level. Play is recognised in current policy, for example, as a contributor to physical activity and social wellbeing in children and young people in the recent Department for Health infographic highlighting sources of physical activity for children and young people (Figure 5.1).

The contribution of street play closures to social outcomes should also be recognised and highlighted in relevant policy documents. The fact that temporary street play closures are resident-led and managed, and promote increased social interaction (even in residents who have previously felt isolated from their communities) is important for tackling health inequalities. As recognised in a recent report on social isolation, ‘the quality and quantity of social relationships affect health behaviours, physical and mental health, and risk of mortality’.<sup>55</sup>

To conclude, temporary street play closures have the potential to yield significant health and social benefits highlighted by the Chief Medical Officer, Dame Sally Davies, in her Annual Report ‘Our Children Deserve Better – Prevention Pays’, 2012. She states, ‘This simple, resident-led intervention has immediate and long-term benefits for children and the wider community. With widespread uptake, there is potential to change the culture towards outdoor neighbourhood play being a normal part of everyday life in the UK.’

Figure 5.1. Infographic for physical activity in children and young people<sup>56</sup>



# SECTION 6

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# STREET PLAY PARTNERS

## Play England

Play England is the national charity for children's play. We campaign nationally for children's right to play and provide guidance for thousands of play providers: adventure playgrounds, after-school clubs, parks departments, parents, volunteers and schools.

## Playing Out

**BankSpace, 145-147 East Street, Bristol BS3 4EJ**  
[playingout.net](http://playingout.net)

Playing Out created the national hub for Street Play. Based on its existing model of resident-led street play, Playing Out provided direct support for residents, organisations and local authorities across the country.

## London Play

**Unit F3 89-93, Fonthill Road, London N4 3JH**  
[www.londonplay.org.uk](http://www.londonplay.org.uk)

London Play coordinated the London Street Play schemes. London Play began putting play back on the capital's streets in 2009 and has since worked with a majority of local authorities and hundreds of Londoners to ensure thousands of children have regular play opportunities on their doorstep through play street sessions.

## The Centre for Exercise, Nutrition and Health Sciences, University of Bristol

**Senate House, Tyndall Avenue, Bristol BS8 1TH**  
<http://www.bristol.ac.uk/sps/research/centres/enhs/>

The Centre for Exercise, Nutrition and Health Sciences at the University of Bristol is the leading institution in the UK for research on physical activity and public health.

## Hackney Play Association

Homerton Grove Adventure Playground,  
Wardle Street, London E9 6BX  
<http://www.hackneyplay.org/>

## Haringey Play Association

Somerford Grove Community Project & Adventure  
Playground, Park Lane Close, Tottenham N17 0HL  
[www.haringey-play.org.uk](http://www.haringey-play.org.uk)

## House of Objects

**Rising Sun Countryside Centre, Whitely Road,  
Benton, Newcastle-upon-Tyne NE12 9SS**  
[houseofobjects.org](http://houseofobjects.org)

## Leeds Play Network

Credcoll House, 96 Marsh Lane, Leeds LS9 8SR  
[www.leedsplaynetwork.org.uk](http://www.leedsplaynetwork.org.uk)

## Nottingham Playworks

**Alfred Street North, Nottingham NG3 1AE**  
[playworks.org.uk](http://playworks.org.uk)

**Play England**  
c/o Homerton Grove Adventure Playground  
Wardle Street  
London  
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