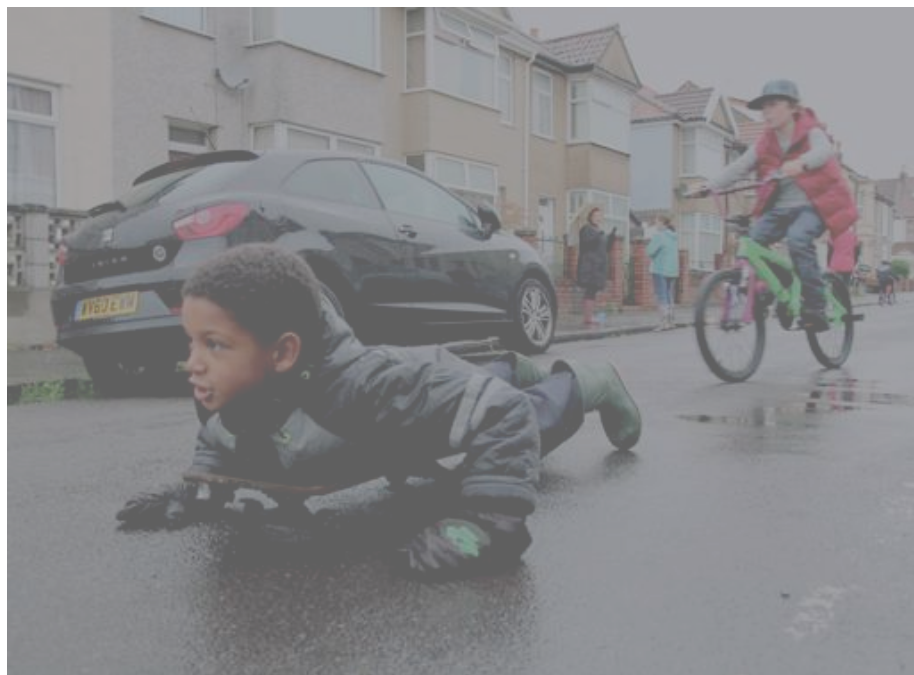


Outdoors and Active:

Delivering public health outcomes by increasing children's active travel and outdoor play



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The PEACH project (Personal and Environmental Associations with Children's Health) is the only large longitudinal study to combine objective measures of location outdoors (measured by personal GPS receivers) and physical activity (measured with accelerometers) with parental and child perceptions of their neighbourhood. 1307 UK children were first measured in their final year of primary school and again in their first and fourth year of secondary school. GPS and accelerometer measures are recorded every 10 seconds for up to 7 days and are combined to provide an objective measure of time spent outdoors. This approach to objectively measuring time outdoors has been applied to a range of interventions including the Street Play Project to determine how much activity children get outdoors during temporary street closures.

- Children are 3 to 5 times more active outdoors than indoors.
- Active travel and street play are the most sustainable approaches for delivering out of school activity for all children - whatever their age, gender or level of deprivation.
- Activity gained during street play translates to an additional 10 minutes of MVPA per day. Children who actively travel gain, on average 21 minutes more MVPA per day compared to those driven to school by car.
- To put this into context, a ten-minute per day change in weekday MVPA increases the proportion of children meeting national guidelines of at least 60 minutes per day of MVPA by 9%.



Children are 3 to 5 times more active outside compared to inside

22.6% of children's time spent outside after school is moderate to vigorous physical activity compared to 4.4% of time spent inside. Conversely 52.5% of children's time spent inside is sedentary compared to only 23.6% of time spent outside [1]

Children who report more freedom to roam unsupervised by adults have higher levels of physical activity

Of all the environmental influences we investigated, independent mobility (how often children were allowed out without an adult) was the only factor consistently

related to the three main contexts children use for physical activity (active play, active travel to school, structured exercise/sport)[2,3].

Children spend very little of their time outside in green space & the majority of their time outside on built surfaces

Whilst children are often more active in green spaces, only a small proportion of time outdoors is spent in green space (2% of monitored time), the majority of children's time outside being spent in streets [4]. Both green space and built environments are important for activity.

Decline in active travel relates to lower physical activity during adolescence

Children's time spent outside and associated physical activity declines by approximately 25% from primary to secondary school. This decline in physical activity outside is not compensated for activity gained inside. Reduced time spent outside as children age therefore contributes to the decline in physical activity during adolescence in both boys and girls. Adolescents who replace walking or cycling to school with being driven by car have less opportunity to spend time outdoors. Changing from active to passive modes of travel during the transition from primary to secondary school is directly related to a reduction in moderate to vigorous physical activity [5].

Time spent with friends outdoors is related to higher levels of activity

During the after school period, children spend most time with their mum/dad or alone, especially when indoors. When outdoors more time is spent with friends (girls: 32.1%; boys: 28.6%) than other people or alone. Time outdoors with friends is related to increased moderate to vigorous physical activity (MVPA) for girls and boys. Being outdoors with a sibling is associated with more MVPA for girls but not boys [6].



Regular temporary street closures can deliver public health outcomes

Bristol (Playing Out CIC; Bristol City Council: Temporary Street Play Order) has pioneered local authority and resident support for temporary street closures after school. Based on pilot data measured by GPS and accelerometers on Bristol streets during these street closures, children spent on average 70% of the time during the street closure outdoors. This compares to less than 20% usually spent outdoors during this time period on an average school day by Bristol children of a similar age. Children spent 30% of their time outside during street play sessions in moderate to vigorous physical activity (MVPA) and another 15% in light activity [7]. This compares to 5% of time indoors usually spent in MVPA during this time of day for children of a similar age. Similar methods are now being used in the Street Play Project**. Resident involvement and regular street closures also lead to wider benefits including improved social cohesion and community connectedness.



References

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Policy and practical support to increase promotion of active travel and street play

- **Council officers & members.** Local schemes work best and have most impact where there is cross-council support, especially from Highways, Public Health, Children's Services, Community Development, Housing and Communications. High level political support is also important to embed activities in both policy and practice.
- **Parents and local residents** need be supported to increase their confidence to promote street play and active travel. They are the driving force for sustainable change.
- **Local support from other agencies.** This could be a local activator for street play or Active Travel Champion who can support and inspire others to make changes. Support from the local police and neighbourhood partnerships can also be helpful.
- **Get a head start by learning from others.** Active residents and lead officers in active councils are also a useful source of expertise (see www.playingout.net for a map of active streets and list of active councils across the UK).

This simple, low-cost 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 across the UK.

Our Children Deserve Better – Prevention Pays,
Annual Report of the Chief Medical Officer, 2013

National sources of expertise you can turn to for help. *Playing Out* (www.playingout.net) exists to support resident-led street play across the country by providing free guidance and resources, training and peer-to-peer support through its national street play network. *London Play* (www.londonplay.org) provides support to residents and organisations in the capital and *Play England* (www.playengland.org) advises local play associations and councils on supporting street play.



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This briefing was compiled by Dr Angie Page and Professor Ashley Cooper, Centre for Exercise, Nutrition & Health Services, University of Bristol. The Centre was recently rated 1st of 51 institutions within the field of physical activity, nutrition and health, with the majority of its research considered world-leading (Research Excellence Framework: REF 2014).

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