

Physical activity interventions in schools and what constitutes the current, best evidence based practice

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Childhood Obesity Plan (2016)



“Every primary school child should get at least 60 minutes of moderate to vigorous physical activity a day. At least 30 minutes should be delivered in school every day through active break times, PE, extra-curricular clubs, active lessons, or other sport and physical activity events, with the remaining 30 minutes supported by parents and carers outside of school time.”

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Primary PE and Sport Premium (2017-18)



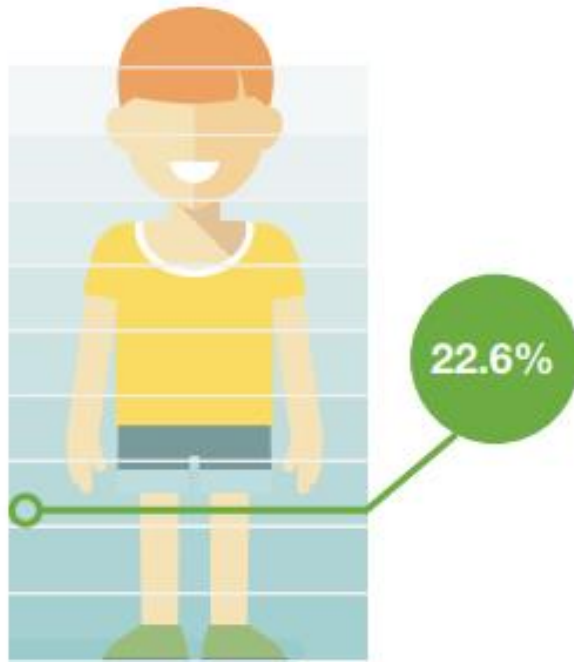
Department
for Education

“There are 5 key indicators that schools should expect to see improvement across:

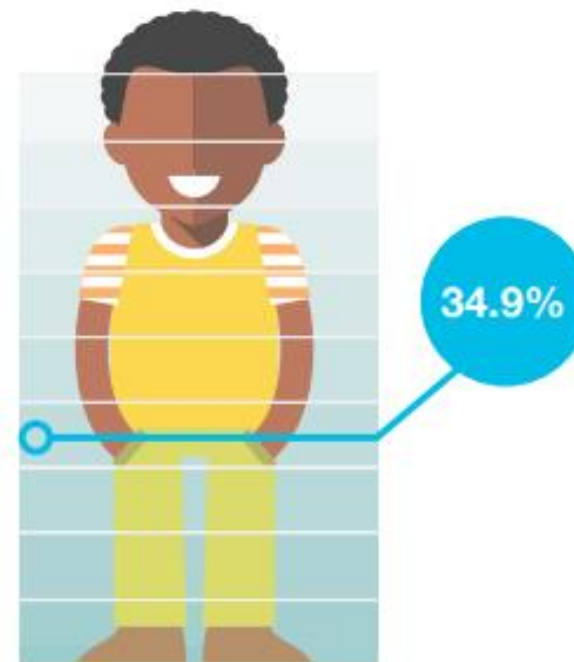
1. The engagement of all pupils in regular physical activity - the Chief Medical Officer guidelines recommend that all children and young people aged 5 to 18 engage in at least 60 minutes of physical activity a day, of which 30 minutes should be in school”

National Child Measurement Programme (2016)

One in five children in Reception is overweight or obese (boys 22.6%, girls 21.2%)



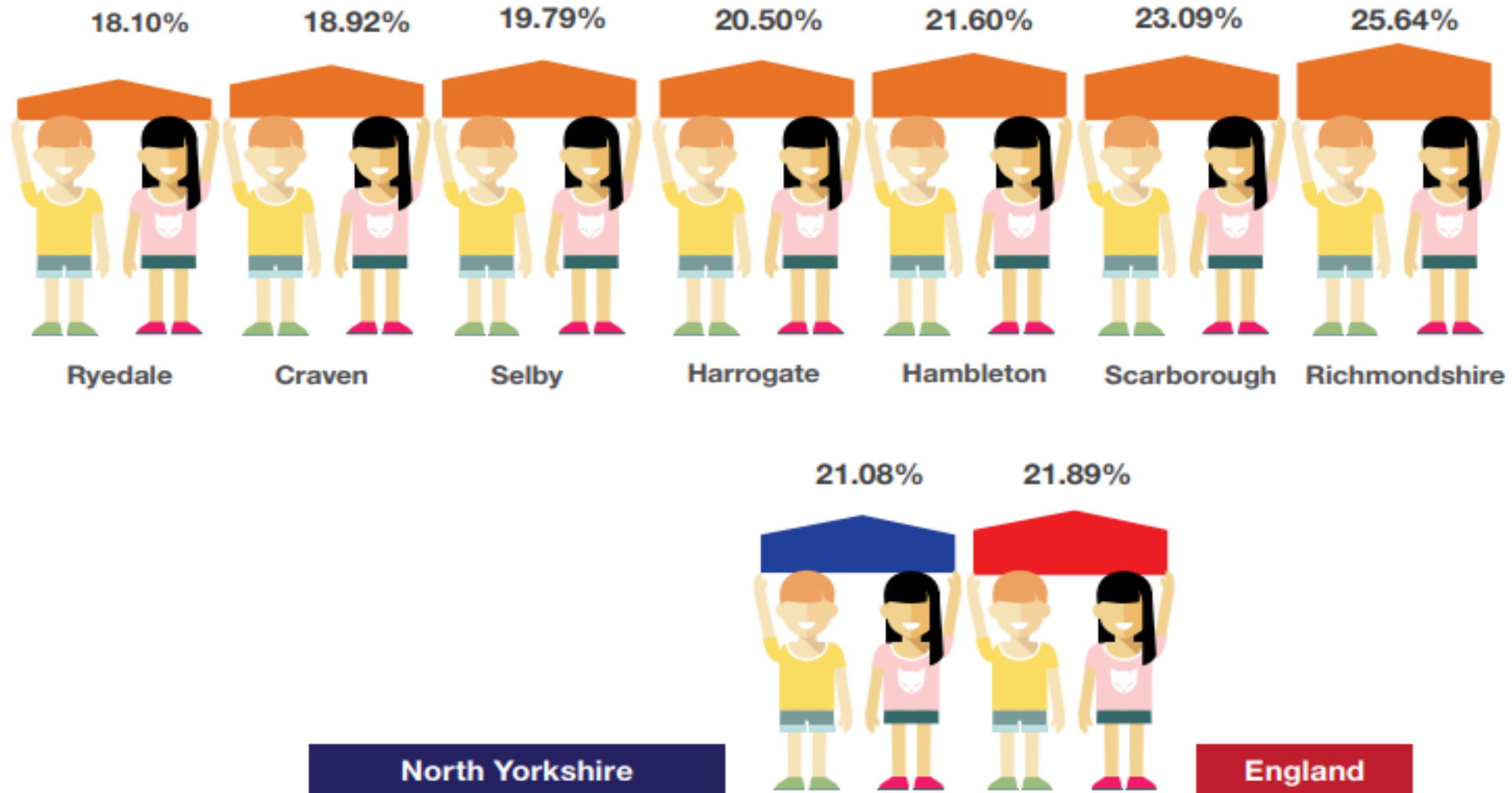
One in three children in Year 6 is overweight or obese (boys 34.9%, girls 31.5%)



(National Child Measurement Programme, 2014/15)

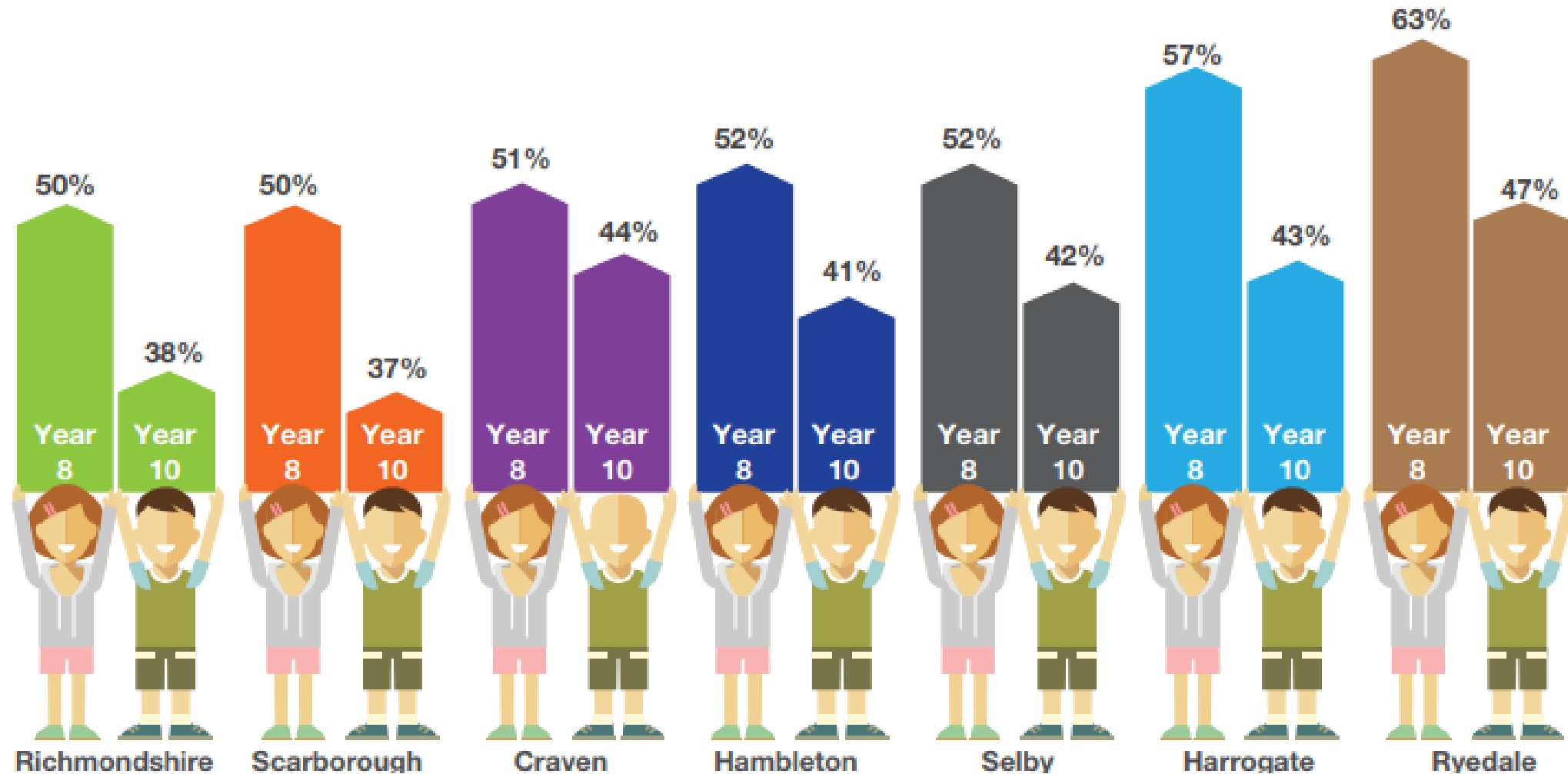
National Child Measurement Programme (2016)

Child excess weight in 4-5 year olds (%) - 2014-15

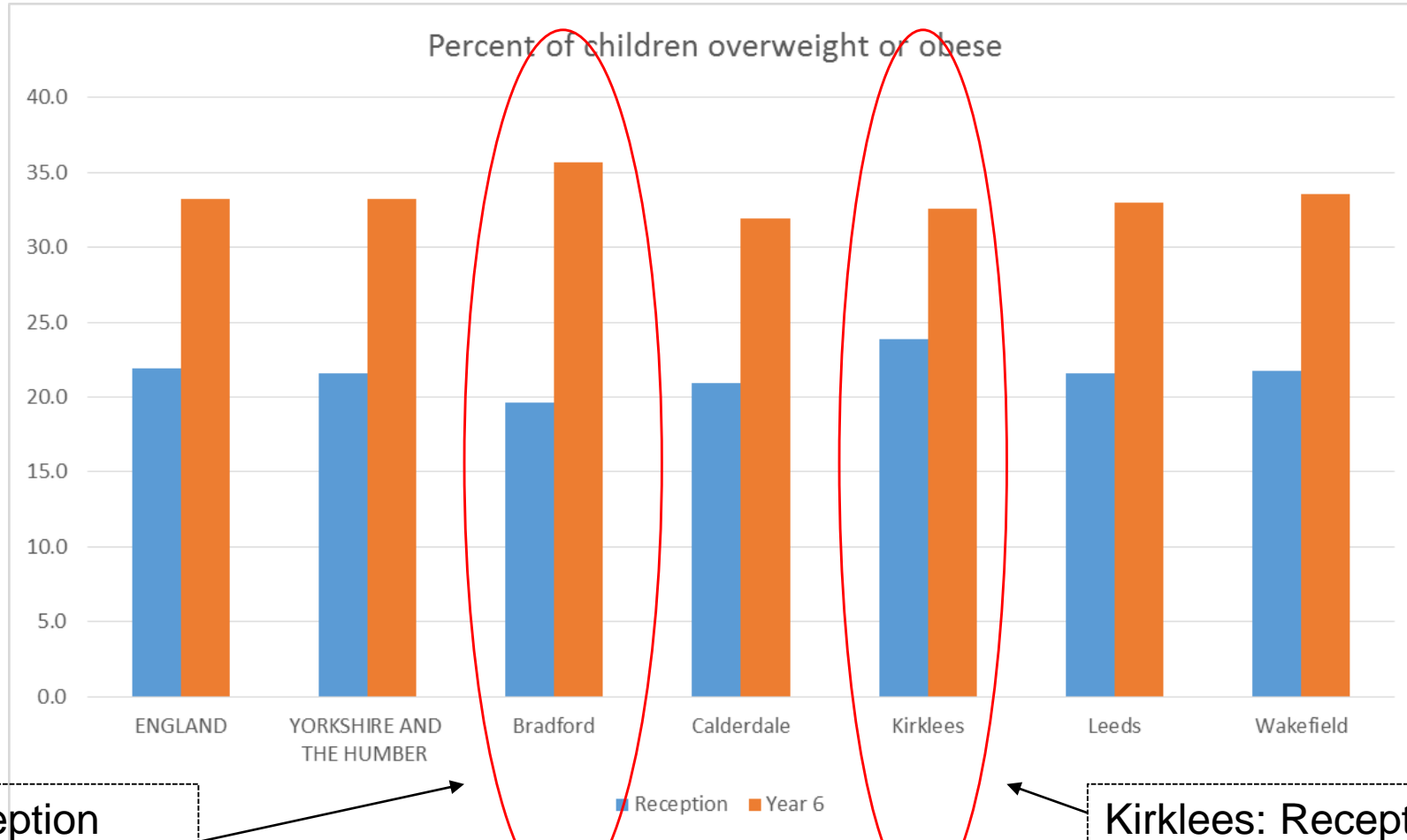


National Child Measurement Programme (2016)

% Year 8 and 10 Children who spent time participating in sport after school - GUNY 2015



National Child Measurement Programme (2016)



Bradford: Reception less than national average due to under weight pupils but Yr6 higher than NA

Kirklees: Reception higher than NA but Yr6 lower. Smallest increase in overweight between YrR and Yr6 Why and how?

- Active break times
Providing structured activities to enable all pupils to be active
- PE
High quality teaching and learning with suitable levels of physical activity (MVPA)
- Extra-curricular clubs
To provide an offer suitable for all pupils to access, including the least active
- Active lessons
Class based lessons to increase PA levels and reduce time spent sat at desks being sedentary

Active break times

- Evidence suggests pupils are sedentary 23% of the time, 41% standing, 28% walking, 3% VPA (Johns & Ha 1999)
- Gender differences: boys engage in more walking and vigorous activity and girls spending more time standing (Ridgers et. al. 2011)
- Ridgers et al: playtime currently only contributes 5-40% towards the daily activity requirement
However “energy expenditure and physical activity levels have increased during playtime following the implementation of playtime-based interventions.”

Active break times

- Gao et. al. (2013) Over one school year, children who played active video games like Dance, Dance, Revolution during recess experienced more improvements in both physical fitness and academic performance in math than students who participated in traditional recess.
- Playground Leaders (Sports Leaders UK) and Change4Life clubs (DH)
Evidence from Ofsted exists which shows that interventions at break times reduce instances of bad behaviour however little evidence to suggest it increases levels of MVPA



PE

- What is the recommended amount of time to be active?
- Sallis et al. found that PE only provided 17.8 minutes of MVPA per week, contributing less than 5% to overall activity requirements.
- Wood and Hall (2015) primary school children only spend an average of 9.5% of their PE lessons engaged in MVPA
- Average primary ITT for PE is 6 hours

PE

Sallis et al. Students spent more minutes per week being physically active in specialist-led (40 min) and teacher-led (33 min) health-related physical education classes than in control classes (18 min).

- Physical education program: SPARK physical education classes were designed to promote high levels of physical activity, teach movement skills, and be enjoyable.
- Recommended frequency of physical education classes was 3 days a week. A typical SPARK lesson lasted 30 minutes and had two parts: health-fitness activities (15 minutes) and skill-fitness activities (15 minutes).
- Ten health-related activity units included aerobic dance, aerobic games, walking/jogging, and jump rope. Progression was developed by modifying the intensity, duration, and complexity of the activities.
- Although the main focus was on developing cardiovascular endurance, brief activities to develop abdominal and upper body strength were included.
- To enhance motivation, students self-assessed and recorded their own fitness levels monthly.

PE

- Primary PE Specialism courses (ITT and retrospective)
- Coaching staff to support lessons



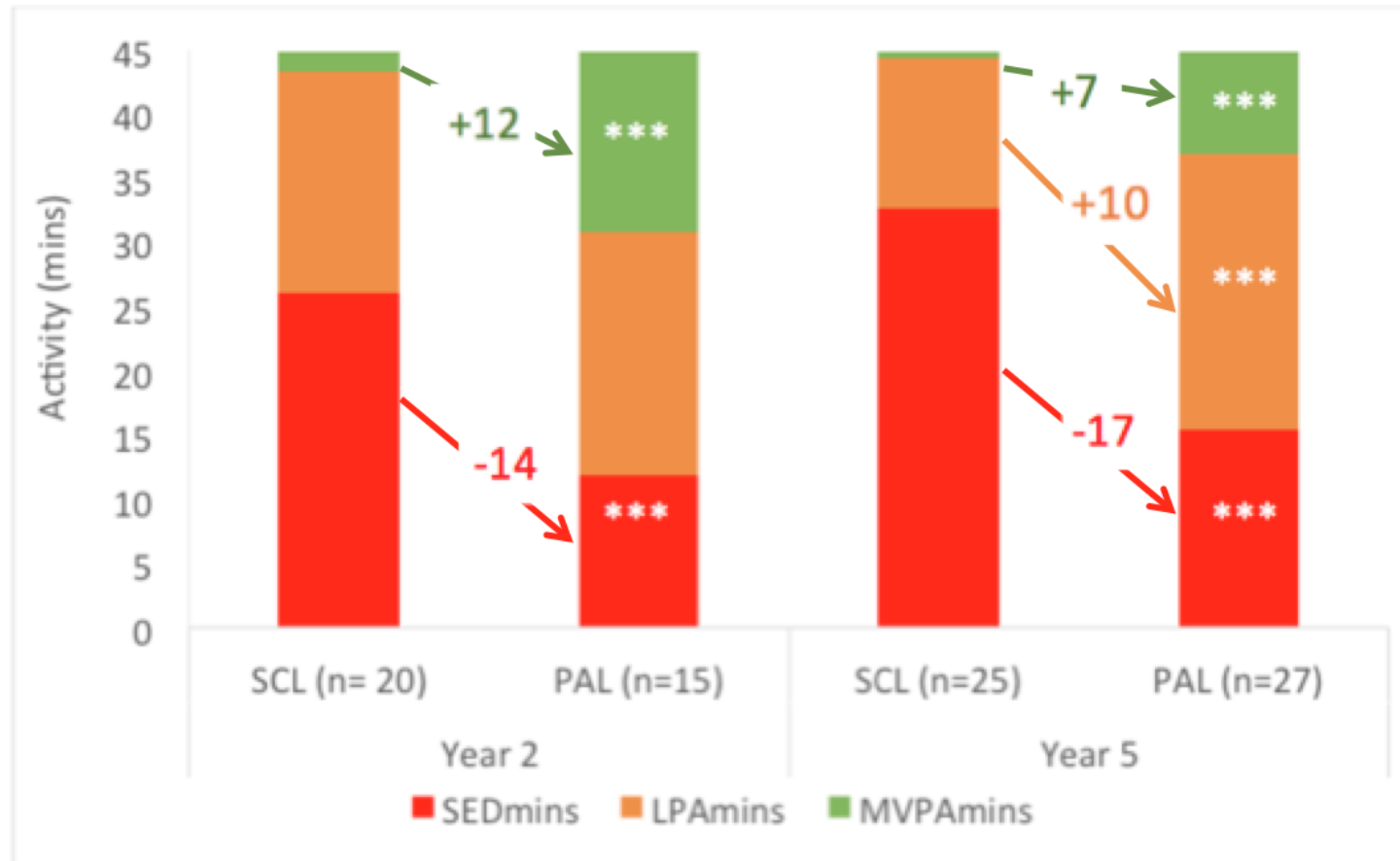
Extra Curricular clubs

- Harvard Family Research Project (Little et. al. 2008): “Afterschool programs can contribute to healthy lifestyles and increased knowledge about exercise and nutrition”
- Conditions which must be present to make an impact
 - Access to and sustained participation in the program
 - Quality programming and staffing
 - Strong partnerships among the program and other places where students are learning, such as their schools, their homes, and other community institutions
- Adab, Pallan, Lancashire et al. (2018) “This intervention did not statistically significantly impact on childhood obesity”

Active Lessons

- Martin & Murtagh (2017) Looked at 15 studies and concluded “Physically active academic lessons increase physical activity levels and may benefit learning and health outcomes. Both students and teachers positively received and enjoyed these teaching methods.”
- Anecdotal impact has been noted from interventions including
 - Tagtiv8
Active maths lessons
 - Maths of the Day
Active maths lessons
 - Forest Schools
Using the outdoor environment to achieve social and mental wellness outcomes
 - iMoves
Using videos and resources to make literacy, numeracy and science more active
 - Questr
Using technology and orienteering to increase PA in literacy and science

Active Lessons



Leeds Beckett
University
evaluation of
Tagtiv8

SCL= Seated classroom lesson, PAL= physically active lesson.

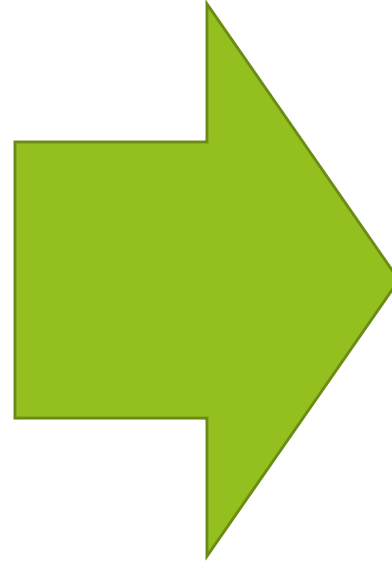
*** Significant different between condition within activity threshold, by year group (P<0.001)

Also consider...

- Short burst of PA (eg. GoNoodle, Just Dance)
 - Used when pupils are struggling to concentrate
 - Anecdotally very significant impact on concentration
 - No evidence of an impact on fitness
- Daily running initiatives
 - Very popular in schools currently
 - Evidence is very mixed
 - Potential for opposite of desired effect

Also consider...

 Improving later life ageUK – representing the voluntary sector	 Airedale, Wakefield and Craven Clinical Commissioning Group	 Craven District Council – representing District Council members	 Hambleton, Richmondshire and Wharfedale Clinical Commissioning Group
 Harrogate and Doncaster Clinical Commissioning Group	 North Yorkshire	 NHS England	 North Yorkshire County Council
 Ryedale District Council – representing District Council officers	 Easingborough and Ryedale Clinical Commissioning Group	 Tees, Esk and Wear Valleys Clinical Commissioning Group	 Rotham Clinical Commissioning Group
 Harrogate and Doncaster Clinical Commissioning Group	The organisations that are signatories to this strategy have made a commitment to work together to support local systems to achieve continuous improvements in the prevalence of overweight and obesity across the population of North Yorkshire.		



Physical activity

Work with North Yorkshire Sport to support the effective use of the PE and Sport Premium for Primary schools, in particular the strands around using the premium to support Whole School Improvement and increasing pupil engagement in physical activity.

Work with North Yorkshire Sport to specifically target inactive pupils through delivery of Change4Life clubs in schools and Change4Life festivals.

Work with primary schools to support all children to complete the 'Daily Mile'.

Work with primary schools to implement the Fit for Sport 'Activity Challenge' to test and improve on levels of fitness each term.

A request...

Questr development phase

- Using QR codes and phones/ tablets to increase PA in other curriculum areas
- Engaging communities in games in parks
- Research partners required to establish the benefits



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