NICE National Institute for Health and Care Excellence

Surveillance proposal consultation document

2018 surveillance of physical activity for children and young people (NICE guideline PH17)

Surveillance background

This 2018 surveillance review has taken into account 3 NICE guidelines on the theme of physical activity:

- Physical activity in the workplace. NICE guideline PH13 (May 2008).
- Physical activity for children and young people. NICE guideline PH17 (January 2009).
- Physical activity: exercise referral schemes. NICE guideline PH54 (September 2014).

This report details the surveillance proposal for one of these guidelines, NICE guideline PH17. Details of the review proposals of the other 2 physical activity guidelines, PH13 and PH54, can be found on the respective websites.

Proposed surveillance decision

We propose to not update the NICE guideline on physical activity for children and young people at this time.

Reasons for the proposal to not update the guideline

The majority of new evidence was found to be broadly consistent with the current recommendations. We found new evidence on multicomponent interventions and after-school programmes which was not fully in line with the current recommendations, however no impact is expected due to high heterogeneity in findings and small sample sizes in studies. We also found new evidence on the effect of classroom equipment and active video games which are not mentioned in the guideline. Further research is required in these areas before the impact on recommendations can be considered.

Many topic experts highlighted that the recommendations should align with the most recent Chief Medical Officer (CMO) guidelines on UK physical activity levels. We have proposed an editorial correction to take this into account and will revisit this area when the next update of the CMO guidelines is published in 2019.

For further details and a summary of all evidence identified in surveillance, see appendix A below.

Overview of 2018 surveillance methods

NICE's surveillance team checked whether recommendations in physical activity for children and young people (NICE guideline PH17) remain up to date.

The surveillance process consisted of:

- Initial feedback from topic experts via a questionnaire.
- Input from voluntary and community sector organisations and stakeholders on known variations in practice and policy priorities.
- Literature searches to identify relevant evidence.
- Assessment of new evidence against current recommendations.
- Deciding whether or not to update sections of the guideline, or the whole guideline.
- Consultation on the decision with stakeholders (this document)

After consultation on the decision we will consider the comments received and make any necessary changes to the decision. We will then publish the final surveillance report containing the decision, the summary of the evidence used to reach the decision, and responses to comments received in consultation.

For further details about the process and the possible update decisions that are available, see ensuring that published guidelines are current and accurate in developing NICE guidelines: the manual.

Evidence considered in surveillance

Search and selection strategy

We searched for new evidence related to the whole guideline.

We found 40 studies in a search for randomised controlled trials, systematic reviews and qualitative studies published between 1 August 2014 and 15 February 2018.

We also included:

- 13 studies identified by search in previous surveillance in 2015.

From all sources, we considered 53 studies to be relevant to the guideline.

See appendix A: summary of evidence from surveillance below for details of all evidence considered, and references.

Selecting relevant studies

The standard surveillance review process of using RCT and systematic review selection criteria would not capture relevant studies investigating barriers and facilitators to physical

activity uptake in children. In line with the selection criteria used in the guideline, we included qualitative evidence in this area.

Ongoing research

We checked for relevant ongoing research; of the ongoing studies identified, 2 studies were assessed as having the potential to change recommendations; therefore we plan to check the publication status regularly, and evaluate the impact of the results on current recommendations as quickly as possible. These studies are:

- Assessing the potential of training Teaching Assistants to deliver physical activity programmes after school as a method of increasing children's physical activity
- Stand Out in Class: Reducing sitting in the classroom environment

Intelligence gathered during surveillance

Views of topic experts

We considered the views of topic experts, including those who helped to develop the guideline.

For this surveillance review, 6 topic experts completed a questionnaire about developments in evidence, policy and services related to the guideline. All of the topic experts felt that the guideline is in need of an update. Examples of areas for update include aligning recommendations with the most recent guidelines from the CMO on UK physical activity levels. Other areas included evidence on sedentary behaviour, a need to emphasise importance of data collection and to amend recommendations that referenced old structures and job roles that no longer exist.

See appendix A: summary of evidence from surveillance below for details of how other concerns from topic experts have been addressed.

Views of voluntary and community sector organisations

For this surveillance review, 2 voluntary and community sector organisations completed a questionnaire about developments in evidence, policy and services related to the guideline. One organisation indicated that the guideline should be updated to align with the most recent CMO guidance on physical activity. See above for how we have addressed this concern.

See appendix A: summary of evidence from surveillance below for details of how other concerns from voluntary and community sector organisations have been addressed.

Views of stakeholders

Stakeholders are consulted on all surveillance decisions except if the whole guideline will be updated and replaced. Because this surveillance decision was to not update the guideline, we are consulting on the decision.

See ensuring that published guidelines are current and accurate in developing NICE guidelines: the manual for more details on our consultation processes.

Equalities

No equalities issues were identified during the surveillance process.

Editorial amendments

During surveillance of the guideline we identified the following issues with the NICE version of the guideline that should be corrected.

- Recommendation 2: In the 'Who should take action' section, the following organisations and job roles should be removed as they no longer exist: Chief executives of primary care trusts and chairs of children's trusts.
- Recommendation 2: The last sentence of bullet 2 should be removed as local area agreement targets are no longer in use: "The strategy should help achieve local area agreement targets."
- Recommendation 3: The mention of 'public health observatory' in bullet 1 should be replaced with 'Public Health England Centres'. Public health observatories became part of Public Health England in April 2013.
- Recommendations 3, 7 and 11: The cross referral to NICE guideline PH9 should be corrected to refer to the updated version which is: 'Community engagement: improving health and wellbeing and reducing health inequalities' (NICE guideline NG44).
- Recommendations 4 and 5: The cross referral to NICE guideline PH8 should be corrected to refer to the updated version of the guideline which is: physical activity and the environment (NICE guideline NG90)
- Recommendation 12: To avoid overlap of recommendations across NICE guidelines, this recommendation should be stood down and replaced with a cross-referral to recommendation 8 in NICE guideline PH41 (Physical activity: walking and cycling).
- Recommendation 15: Bullet 1 should be corrected so that it is aligned with the most recent CMO guidelines on physical activity. The revised bullet point should state: "Ensure parents and carers are aware of the government advice on how much physical activity children and young people should be doing."

Overall decision

After considering all evidence and other intelligence and the impact on current recommendations, we decided that no update is necessary at this time. However, we have proposed an editorial correction to ensure that the recommendations are aligned with the most recent CMO guidelines on UK physical activity levels.

Appendix A: Summary of evidence from surveillance

2018 surveillance of Physical activity for children and young people (2009) NICE guideline PH17

Summary of evidence from surveillance

Studies identified in searches are summarised from the information presented in their abstracts.

Feedback from topic experts who advised us on the approach to this surveillance review was considered alongside the evidence to reach a final decision on the need to update each section of the guideline.

This guideline was previously reviewed in 2012 and again in 2015. At both time points, the surveillance review decision was not to update the guideline.

National Policy

Recommendation 1: National campaign

Who is the target population?

- Children and young people aged 18 and under, their families and carers.
- Planners and providers of services and facilities.

Who should take action?

- Department of Health, Department for Children, Schools and Families and Department for Culture, Media and Sport working with:
  - Department for Business, Enterprise and Regulatory Reform
  - Department for Communities and Local Government
  - Department for Energy and Climate Change
  - Department for Environment, Food and Rural Affairs
  - Department for Innovation, Universities & Skills
  - Department for Transport
  - Cabinet Office

- Home Office
- Ministry of Justice.

What action should they take?

- Deliver a long-term (minimum 5 years) national campaign to promote physical activity among children and young people. The campaign should be integrated with and support other national health campaigns and strategies to increase participation in play and sport and reduce obesity (such as 'Change4Life').
- Use research, consult and actively involve children and young people and their parents to determine the best media to use, the most effective messages and the most appropriate language for different groups. (Examples of different groups that could be covered include families, parents and carers, and children of different ages, ethnicity and who have different levels of physical ability.)
- Ensure the campaign is consistent and sustained. It should convey that physical activity:
  - is healthy, fun and enjoyable, makes you feel good and can be sociable (that is, it can be undertaken with existing friends or can help develop new ones)
  - promotes children and young people's independence
  - helps develop children's movement skills
  - can involve a wide variety of formal and informal activities such as play, dance, swimming, the gym, sport (including street sport and games) and physically active travel (such as walking, cycling and wheelchair travel)
  - can (and should) become a regular part of daily life and that small lifestyle changes can be worthwhile (for example, active travel to school, the shops or the park, using the stairs and ramps instead of lifts and helping with housework)
  - can be maintained by trying new and challenging activities to keep children and young people interested and motivated
  - is something that adults, especially parents and carers, should incorporate into their lives to set an example.
- Ensure the campaign addresses any concerns that parents and carers may have about their children's safety.
- Encourage regional and local campaigns to use the same messages, as well as promoting examples of local opportunities to be physically active.
- Develop resources for regional and local dissemination of the campaign (for example, promotional materials and support for those delivering it). (For more on training see recommendation 8.)

Use process, impact and outcome measures to ensure national, regional and local campaigns are delivered effectively. For recommendations on the principles of evaluation,

see 'Behaviour change at population, community and individual level' (NICE public health guidance 6).

Surveillance decision

The remit of NICE Public Health guidelines no longer covers national policy. Therefore this recommendation did not undergo surveillance.

High level policy and strategy

Recommendation 2: Raising awareness of the importance of physical activity

Who is the target population?

- Children and young people aged 18 and under, their families and carers.

Who should take action?

- Chairs of children's trusts.
- Chairs of local strategic partnerships.
- Chief executives of primary care trusts (PCTs).
- Directors of children's services.
- Directors of public health.

What action should they take?

- Ensure the following explicitly address the need for children and young people to be physically active:
  - children and young people's plans
  - joint strategic needs assessments
  - local development and planning frameworks
  - sustainable community plans and strategies.
- Ensure there is a coordinated local strategy to increase physical activity among children and young people, their families and carers. The strategy should help achieve local area agreement targets.
- The strategy should ensure:
  - there are local indoor and outdoor opportunities for physical activity where children and young people feel safe

  - individuals responsible for increasing physical activity are aware of national and local government strategies as well as local plans for increasing physical activity
  - partnership working is developed and supported within local physical activity networks
  - physical activity partnerships establish and deliver multi-component interventions involving schools, families and communities. (Partners may include: schools, colleges, out-of-school* services, children's centres and play services, youth services, further education institutions, community clubs and groups and private sector providers)
  - local factors that help children and young people to be (or which prevent them from being) physically active are identified and acted upon
  - local transport and school travel plans are coordinated so that all local journeys can be carried out using a physically active mode of travel.

- Ensure physical activity initiatives aimed at children and young people are regularly evaluated. Evaluations should measure uptake among different groups (for example, among those with disabilities or from different ethnic backgrounds). Any changes in physical activity, physical skills and health outcomes should be recorded. In addition, progress towards local area agreement targets should be monitored.
- Identify a senior council member to be a champion for children and young people's physical activity. They should:
  - promote the importance of encouraging physical activity as part of all council portfolios
  - ensure physical activity is a key priority when developing local authority programmes and targets
  - promote partnership working with council member leads of relevant departments (for example, transport, leisure and health)
  - explain to the public the local authority's role in promoting physical activity.

* Out-of-school services are defined as those providing activities that take place outside the formal school day, possibly as part of extended school services. They could involve using school facilities during the evening, weekends and school holidays.

Surveillance decision

This recommendation should not be updated.

The following editorial corrections are needed:

- In the ‘Who should take action’ section, the following organisations and job roles should be removed as they are no longer in use in current structures: Chief executives of primary care trusts (PCTs) and chairs of children’s trusts.
- The last sentence of bullet 2 should be removed as local area agreement targets are no longer used: “The strategy should help achieve local area agreement targets.”

Raising awareness of the importance of physical activity

Previous surveillance summary

No relevant evidence was identified.

2018 surveillance summary

No relevant evidence was identified.

Intelligence gathering

Many of the topic experts noted that recommendation 2 makes reference to several structures and positions that no longer exist or do not universally exist. Examples of these include: PCTs and chair of children's trusts.

Additionally, the second bullet point of recommendation 2 makes reference to 'local area agreement targets' that no longer exist.

Impact statement

No new evidence was identified at any surveillance review which would impact this recommendation.

However, in response to topic expert comments on out-of-date content, the recommendation will be amended accordingly with editorial corrections.

New evidence is unlikely to change guideline recommendations.

Local strategic planning

Recommendation 3: Developing physical activity plans

Who is the target population?

- Children and young people aged 18 and under, their families and carers.

Who should take action?

- All local authority departments and other local strategic partnership agencies responsible for physical activity facilities and services for children and young people.
- Policy makers and planners working in the public, voluntary, community and private sectors.

What action should they take?

- Identify groups of local children and young people who are unlikely to participate in at least 1 hour of moderate to vigorous physical activity a day. Work with the public health

observatory, schools and established community partnerships and voluntary organisations to achieve this.

- Involve these children and young people in the design, planning and delivery of physical activity opportunities, using the information gathered.
- Consult with different groups of children and young people and their families on a regular basis to understand the factors that help or prevent them from being physically active. Pay particular attention to those who are likely to be less physically active. Ensure children and young people from different socioeconomic and minority ethnic groups are actively involved in the provision of activities. Also ensure those with a disability (or who are living with a family member who has a disability) are actively involved.
- Use the information gathered to increase opportunities for children and young people to be physically active and to plan dedicated programmes that tackle any inequalities in provision.

For further recommendations on community engagement, see 'Community engagement to improve health' (NICE public health guidance 9).

Surveillance decision

This recommendation should not be updated.

The following editorial corrections are needed:

- The mention of 'public health observatory' in bullet 1 should be replaced with 'Public Health England Centres'. Public health observatories became part of Public Health England in April 2013.
- The cross referral to NICE guideline PH9 should be corrected to refer to the updated version of the guideline which is: 'Community engagement: improving health and wellbeing and reducing health inequalities' (NICE guideline NG44).

Developing physical activity plans

Previous surveillance summary

No relevant evidence was identified.

2018 surveillance summary

No relevant evidence was identified.

Intelligence gathering

A topic expert noted that bullet 1 in recommendation 3 mentions public health observatories, which are now part of Public Health England.

Impact statement

No new evidence was identified at any surveillance review which would impact this recommendation.

However, in response to topic expert comments on out-of-date content, the recommendation will be amended accordingly with an editorial correction.

New evidence is unlikely to change guideline recommendations.

Recommendation 4: Planning the provision of spaces and facilities

Who is the target population?

- Children and young people aged 18 and under, their families and carers.

Who should take action?

- The following should take action in partnership with, or as part of, the local strategic partnership:
  - Directors of children's services.
  - Directors of leisure and cultural services.
  - Directors of planning and regeneration.
  - Governors and heads of schools and colleges, office managers and other decision-makers involved with buildings and outdoor spaces within the public, voluntary, community and private sectors.
  - Planning and regeneration service managers and project managers and those involved in developing the 'Unitary development plan' (UDP) or other strategic planning documents.
  - Representatives from crime and disorder reduction partnerships.

What action should they take?

- Ensure physical activity facilities are suitable for children and young people with different needs and their families, particularly those from lower socioeconomic groups, those from minority ethnic groups with specific cultural requirements and those who have a disability.
- Provide children and young people with places and facilities (both indoors and outdoors) where they feel safe taking part in physical activities. These could be provided by the public, voluntary, community and private sectors (for example, in schools, youth clubs, local business premises and private leisure facilities). Local authorities should coordinate the availability of facilities, where appropriate. They should also ensure all groups have access to these facilities, including those with disabilities.
- Make school facilities available to children and young people before, during and after the school day, at weekends and during school holidays. These facilities should also be available to public, voluntary, community and private sector groups and organisations offering physical activity programmes and opportunities for physically active play.

- Actively promote public parks and facilities as well as more non-traditional spaces (for example, car parks outside working hours) as places where children and young people can be physically active.
- Town planners should make provision for children, young people and their families to be physically active in an urban setting. They should ensure open spaces and outdoor facilities encourage physical activity (including activities which are appealing to children and young people, for example, in-line skating). They should also ensure physical activity facilities are located close to walking and cycling routes.
- Ensure the spaces and facilities used for physical activity meet recommended safety standards for design, installation and maintenance. For example, outdoor play areas should have areas of shade from the sun and sheltered areas where children can play to reduce the impact of adverse weather.
- Assess all proposals for signs restricting physical activity in public spaces and facilities (such as those banning ball games) to judge the effect on physical activity levels.

For further recommendations on the environment, see 'Promoting and creating built or natural environments that encourage and support physical activity' (NICE public health guidance 8).

Surveillance decision

This recommendation should not be updated.

The following editorial correction is needed:

- The cross referral to NICE guideline PH8 should be corrected to refer to the updated version of the guideline which is: physical activity and the environment (NICE guideline NG90).

Planning the provision of spaces and facilities

Previous surveillance summary

Two studies were identified as being relevant to this section of the guideline. An after-school programme based in the community was found to be an effective way of increasing moderate to vigorous physical activity (MVPA) (1). Shared use of school facilities in the community was found to increase participation in after-school programmes (2).

2018 surveillance summary

No relevant evidence was identified.

Intelligence gathering

A report was highlighted which evaluates the 'Street Play' project led by Play England. The Street Play project examined the effect of temporary street closures to encourage physical activity in a safe environment. There was no comparison of

physical activity levels before and after the Street Play intervention, however the report concludes that the intervention was acceptable for residents and may help to reduce sedentary time spent indoors.

Impact statement

The new evidence is consistent with recommendation 4 which states: provide facilities for children and young people to take part in physical activities in both the school and community setting.

A report from Play England was highlighted which evaluated the impact of street closures on physical activity in children. As the report did not contain any effectiveness data, it is unlikely to impact the recommendations at this point. However this area will be monitored and considered at the next surveillance point.

New evidence is unlikely to change guideline recommendations.

Recommendation 5: Local transport plans

Who is the target population?

- Children and young people aged 18 and under, their families and carers.

Who should take action?

- Governors and heads of schools and colleges.
- Local transport authorities and executives.
- Police casualty reduction officers.
- Road safety officers.
- School travel advisers.
- Transport planners.

What action should they take?

- Ensure local transport and school travel plans continue to be fully aligned with other local authority plans which may impact on children and young people's physical activity. This includes local area agreements, local area play strategies and healthy school plans. Liaise with the local strategic partnership to achieve this.
- Ensure local transport plans continue to be developed in conjunction with local authority departments and other agencies that provide spaces and facilities for children and young people to be physically active.
- Ensure local transport plans acknowledge any potential impact on opportunities for children and young people to be physically active. Transport plans should aim to increase the number of children and young people who regularly walk, cycle and use other modes

of physically active travel. They should make provision for the additional needs of, or support required by, children, young people and their parents or carers with a disability or impaired mobility. For recommendations on local transport plans, see 'Promoting and creating built or natural environments that encourage and support physical activity' (NICE public health guidance 8).

- Continue working with schools to develop, implement and promote school travel plans (see recommendation 12). This may, for example, include: mapping safe routes to school; organising walk and bike to school days and walking buses; organising cycle and road safety training; and helping children to be 'streetwise'.
- Organise training courses for school travel plan advisers.
- Identify any aspect of transport policies which discourages children and young people from using modes of travel involving physical activity (such as walking or cycling). For example, policies that aim to keep traffic moving may make it difficult to cross the road. Consider how these policies can be improved to encourage physically active travel.

Surveillance decision

This recommendation should not be updated.

The following editorial correction is needed:

- The cross referral to NICE guideline PH8 should be corrected to refer to the updated version of the guideline which is: physical activity and the environment (NICE guideline NG90).

Local transport plans

Previous surveillance summary

One study was identified as being relevant to this section of the guideline. A 'Safe Routes to School' programme was found to encourage walking and cycling to school (3).

2018 surveillance summary

No relevant evidence was identified.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

This evidence is consistent with recommendation 6 which says that local transport plans should aim to increase the number of children and young people who regularly walk, cycle and use other modes of physically active travel, and that school travel plans should be developed that have physical activity as a key aim.

New evidence is unlikely to change guideline recommendations.

Local organisations: planning, delivery and training

Recommendation 6: Responding to children and young people

Who is the target population?

- Children and young people aged 18 and under, their families and carers.

Who should take action?

- Public, voluntary, community and private sector managers and decision-makers responsible for – or able to influence – opportunities for children and young people to be physically active.
- Governors and heads of schools and colleges.

What action should they take?

- Identify local factors that may affect whether or not children and young people are physically active by regularly consulting with them, their parents and carers.
- Find out what type of physical activities children and young people enjoy, based on existing research or local consultation (for example, some might prefer non-competitive or single-gender activities). Actively involve them in planning the resulting physical activities.
- Remove locally identified barriers to participation, such as lack of privacy in changing facilities, inadequate lighting, poorly maintained facilities and lack of access for children and young people with a disability. Any dress policy should be practical, affordable and acceptable to participants without compromising their safety or restricting participation.
- Provide regular local programmes and other opportunities for children and young people to be physically active in a challenging environment where they feel safe (both indoors and outdoors). Ensure these programmes and opportunities are well-publicised.
- Ensure physical activity programmes are run by people with the relevant training or experience.

Surveillance decision

This recommendation should not be updated.

Responding to children and young people

Previous surveillance summary

No relevant evidence was identified.

2018 surveillance summary

A systematic review of 22 studies (n not reported) aimed to identify the barriers to children participating in sport (4). Barriers identified in quantitative studies included 'time' (2 studies), 'cost' (3 studies), 'opportunity/accessibility' (3 studies) and 'friends' (2 studies). Barriers identified in qualitative studies included 'time' (6 studies), 'cost' (5 studies), 'not being good at sport' (6 studies) and 'fear of being judged/embarrassed' (6 studies).

Intelligence gathering

A topic expert noted that cost may be another barrier to physical activity in children, particularly for looked-after children and large families. They called for attractive pricing arrangements in leisure facilities to promote physical activity.

Impact statement

Evidence was identified which highlighted several barriers that children may face in sports participation. These included 'time', 'cost', 'friends', 'not being good at sport' and 'fear of being judged'. A topic expert also highlighted that cost could be another barrier to physical activity in children.

The guideline currently mentions lack of privacy in changing facilities, inadequate lighting, poorly maintained facilities and lack of access for children with a disability as barriers to physical activity which should be removed. It also states that dress policies should be practical and affordable, however it does not make any other reference to cost as a barrier. No new evidence was identified on the pricing arrangements of leisure centres to promote physical activity in children.

Barriers such as 'friends' and 'fear of being judged' are factors that could be addressed during the design phase of physical activity programmes, when there is a consultation with children and parents (see recommendation 6). Therefore no impact on the guideline is expected at this point.

New evidence is unlikely to change guideline recommendations.

Recommendation 7: Leadership and instruction

Who is the target population?

- People who provide programmes or opportunities for children and young people aged 18 and under to be physically active.

Who should take action?

- Employers or supervisors of the above.

What action should they take?

- Ensure informal and formal physical activity sessions for children and young people (including play) are led by staff or volunteers who have achieved the relevant sector standards or qualifications for working with children. This includes the requirements for child protection, health and safety, equality and diversity.
- Ensure staff and volunteers have the skills (including interpersonal skills) to design, plan and deliver physical activity sessions (including active play sessions) that meet children and young people's different needs and abilities. Those leading activities should make them enjoyable. The leaders should also be inspiring. They should raise children and young people's aspirations about what they can participate in – and the level of ability they can achieve. In addition, leaders should help foster children and young people's personal development.
- Use community networks and partnerships to encourage, develop and support local communities and volunteers involved in providing physical activities for children and young people. For recommendations on the principles of networking and partnership working, see 'Community engagement to improve health' (NICE public health guidance 9).
- Employers should provide regular and relevant development opportunities for employees and volunteers. The impact on practitioner performance and on children and young people's experiences should be monitored.

Surveillance decision

This recommendation should not be updated.

The following editorial correction is needed:

- The cross referral to NICE guideline PH9 should be corrected to refer to the updated version of the guideline: 'Community engagement: improving health and wellbeing and reducing health inequalities' (NICE guideline NG44).

Leadership and instruction

Previous surveillance summary

One study was identified as being relevant to this section of the guideline. A programme to promote healthy weight in preschool settings through both physical activity and nutrition, using staff and parent education and providing opportunities for play and physical activity, was found to increase physical activity levels among young children in early years day-care centres (5).

2018 surveillance summary

No relevant evidence was identified.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

The new evidence is broadly consistent with recommendation 7 which states that: staff and leaders should have appropriate skills; opportunities for play and physical activity should be available in pre-school establishments; and parents and carers should get involved in physical activities with their children.

New evidence is unlikely to change guideline recommendations.

Editorial amendments

The following editorial correction is needed:

- The cross referral to NICE guideline PH9 should be corrected to refer to the updated version of the guideline: 'Community engagement: improving health and wellbeing and reducing health inequalities' (NICE guideline NG44).

Recommendation 8: Training and continuing professional development

Who is the target population?

- People who provide and deliver physical activity programmes (formal and informal) and other opportunities for children and young people aged 18 and under to be physically active.

Who should take action?

- Education and training organisations.

What action should they take?

- Establish continuing professional development (CPD) programmes for people involved in organising and running formal and informal physical activities. The education and training should enable them to:
  - give children and young people information and advice on physical activity, taking into account their needs (for example, their developmental age, physical ability and any medical conditions they may have)
  - give children and young people confidence in their own abilities and motivate them to be physically active (this includes encouraging them to set goals, where appropriate)
  - understand the practical issues and problems that may discourage families or groups of children and young people from getting involved. (This may include, for example, time constraints, access issues – including accessibility for those with a disability – and the cultural appropriateness of activities)
  - develop and foster partnership working and get the local community involved.

- Monitor and evaluate the impact of training on practitioner performance.
- Train people to deliver physical activity CPD programmes.

Surveillance decision

This recommendation should not be updated.

Training and continuing professional development

Previous surveillance summary

One study was identified as being relevant to this section of the guideline. A professional staff-development programme ('Movin' Afterschool') was found to reduce sedentary behaviour and increase some aspects of physical activity among children aged 4–13 years (6).

2018 surveillance summary

A cluster RCT (n = 402) examined the effect of a training initiative for existing after school programmes to increase physical activity levels in children aged 5 to 12 years old (7). The initiative consisted of three 3-hour learning workshops with additional opportunities for further training and technical assistance. No details of the control group were reported in the abstract and the follow-up time is not stated. Results indicated that compared to control sites, there was no change in MVPA at the intervention sites. However, total minutes of vigorous activity, vigorous activity in bouts and total accelerometer counts per day were significantly higher at the intervention sites compared to control.

An RCT (n = 76) examined the short-term effect of an education intervention for basketball coaches to increase MVPA in girls aged 9 to 12 years old (8). The intervention consisted of two 2-hour coach education sessions which covered strategies to increase MVPA and decrease inactivity. The intervention was delivered over 2 days and compared to a control, but there are no further details of the control group in the abstract. Results indicated that compared to the control group, girls in the intervention group spent significantly more time in MVPA, vigorous physical activity, moderate activity and significantly lower proportion of the practice being inactive.

A cluster RCT (n = 379) examined the effect of a training intervention for pre-school teachers to encourage physical activity of 4-year olds during school hours (9). The intervention included training for pre-school teachers in how to encourage children to increase physical activity during structured sessions in the classroom, structured and unstructured sessions during break times and how to integrate physical activity into pre-academic lessons. Data was collected over 2 years but the intervention duration was not reported and there are no details of the control group in the abstract. Results indicated that the intervention schools engaged in significantly more MVPA than control schools.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

Evidence was identified to suggest that training staff who provide and deliver physical activity programmes was effective in increasing physical activity in children. This is in line with recommendation 8 in the guideline which covers training and continuing professional development to promote physical activity.

New evidence is unlikely to change guideline recommendations.

Recommendation 9: Multi-component school and community programmes

Who is the target population?

- Children and young people aged 4 to 18 who attend school or other education institutions.

Who should take action?

- Public, voluntary, community and private sector organisations involved in designing physical activity projects and programmes.
- Governors and heads of schools and colleges.

What action should they take?

- Identify education institutions willing to deliver multi-component physical activity programmes involving school, family and community-based activities. Identify families, community members, groups and organisations and private sector organisations willing to contribute.
- Develop multi-component physical activity programmes. These should include:
  - education and advice to increase awareness of the benefits of physical activity and to give children and young people the confidence and motivation to get involved
  - policy and environmental changes, such as creating a more supportive school environment and new opportunities for physical activity during breaks and after school
  - the family: by providing homework activities which children and their parents or carers can do together, or advice on how to create a supportive home environment. (For example, advice on how they might help their child become involved in an activity.) It could also include school-based family activity days

– the community: for example, by setting up family fun days and schemes such as 'Play in the park'.

Surveillance decision

This recommendation should not be updated.

Multi-component school and community programmes

Previous surveillance summary

Provision of non-traditional play materials in school playgrounds, alongside managing adults' perceived risk of free play, was found to increase MVPA and reduce sedentary time in children aged 4 to 7 years old (10). However, the increase was not significant after a 2-year follow-up.

A review of reviews found that interventions to reduce sedentary behaviour in children and young people appear to have some effect (11). However, the types of sedentary behaviour that should be targeted, how best to target them, and how these behaviours interact with physical activity levels, have not been firmly established.

A tailored online intervention to promote physical activity among young people aged 12–13 years, delivered in a school setting, was found to have no effect on MVPA levels (12).

2018 surveillance summary

One systematic review was identified which examined the effect of multicomponent interventions to improve physical activity (13). The study focussed on children aged 2 to 5 years (n = 24 studies, number of participants not reported) and concluded that theory-driven, multicomponent interventions involving structured physical activity and both parents and their children were the most promising interventions to increase physical activity. However, the authors note that there was a large amount of heterogeneity in study design and outcome measures which limited their ability to draw firm conclusions.

In addition, 9 studies were identified which investigated the effect of a multicomponent intervention on increasing physical activity in children. Results were as follows:

- A 12 month lifestyle intervention delivered to schools was found to have no significant effect on physical activity levels of children aged 5 to 6 years old. The intervention included help to teachers to provide an extra 30mins of activity a day, promoting healthy lifestyles learning, school-based healthy cooking and education workshops for parents and children and highlighting local physical activity opportunities in the community. (14) (cluster RCT, n = 1467)
- A school-based pedometer intervention was found to significantly increase MVPA and active commuting in

children aged 12 to 17 years old. The intervention group received pedometers and took part in a class competition lasting 12 weeks, with rewards given for creative ideas to promote physical activity. The control group received education as usual. (15) (cluster RCT, n = 1162)

- A playground intervention with workshops for parents and teachers was found to significantly increase total accelerometer counts, minute of MVPA and reduce sedentary time compared to control. The intervention involved adding recycled materials without an obvious play purpose into school playgrounds alongside a workshop for parents and teachers about risk reframing. There were no details of the control group in the abstract. (16) (RCT, n = 226)
- An 8 week mobile-phone-based intervention was found to significantly increase physical activity days per week in adolescents after a 6 month follow-up, compared to control. The intervention involved use of a Fitbit alongside an online educational programme and biweekly text messages. There were no details of the control group in the abstract. (17) (RCT, n = 40)
- A 6 week pre-school intervention was found to have no significant effect on step count of children aged 4 to 6 years old. The intervention was implemented by teachers and included environmental changes to the classroom and classroom activities. There were no details of the control group in the abstract. (18) (cluster RCT, n = 2438).
- A multi-level intervention based in childcare services was found to have no significant impact on the step counts of children aged 3 to 5. The intervention included fundamental movement skill sessions, structured activities, staff role modelling, limiting screen time and sedentary time, and environmental changes to promote physical activity. The follow-up time was 6 months however the abstract does not contain details of the intervention duration. (19) (cluster RCT, n = 459)
- A 10-week school-based lifestyle intervention was found to significantly increase physical activity time at break and lunchtimes but not total daily physical activity minutes in children aged 9 to 12 years old. The intervention was conducted before and after school and included weekly physical activity lessons and breaks, biweekly promotions, posters and material for parents. There were other intervention components that aimed to improve fruit and vegetable consumption. The intervention was compared to a control group but no details of this group were included in the abstract. (20) (cluster RCT, n = 3463)
- A 20-week school-based intervention was found to have no significant effect on physical activity in adolescent boys aged 12 to 14 years old. However it was found to significantly reduce screen time. The intervention consisted of teacher development, provision of fitness equipment to schools, physical activity sessions, lunchtime student mentoring, researcher led seminars, and a smart-phone application with a website as well as parental strategies for reducing screen time. There were no

details of the control group included in the abstract. (21) (cluster RCT, n = 361)

- A multilevel preschool-based intervention was found to significantly reduce sedentary time, and increase MVPA and total physical activity in children aged 2 to 4 years, when comparing pre-intervention to post-intervention. However there was no significant effect on light physical activity or any physical activity measures after 6 and 12 months. The intervention included staff training, portable play equipment and modified outdoor playtime. The control group was described as standard care. (22) (cluster RCT, n = 338)
- A school-based lifestyle intervention was found to have no significant impact on physical activity in children aged 9 to 10 years old at 18 and 24 month follow-up. The intervention included building a receptive environment, a drama-based healthy lifestyles week, one-to-one goal setting and reinforcement activities. The intervention was compared to a control group but no details of this group were included in the abstract. (23) (cluster RCT, n = 1324).

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

There was mixed evidence on the effectiveness of multicomponent interventions to increase physical activity in children. In general, findings were supportive of recommendation 9 which advises organisations to develop multicomponent interventions that include education, advice, family, lunch and break time sessions.

There was some evidence to suggest that broader lifestyle interventions (focussing on diet and activity), environmental changes in classrooms, and online programmes had no effect on physical activity. However, there was substantial variability in sample size, age groups and intervention components of these studies which limits the conclusions that can be drawn. Until there is consistent evidence in these areas, no impact on the guideline is expected.

One study was identified supporting the use of mobile phones and an activity tracker to increase physical activity. The guideline does not currently mention the use of wearable technology as part of a physical activity intervention. However more evidence in this area is required before the impact on guidance can be assessed.

New evidence is unlikely to change guideline recommendations.

Recommendation 10: Facilities and equipment

Who is the target population?

- Children aged up to 11.

Who should take action?

Public, voluntary, community and private sector managers and decision-makers responsible for – or able to influence – opportunities for children to be physically active including:

- early years providers and carers of young children, including those involved with nurseries, playgroups and creches
- school governors, head teachers and teachers
- those working in children's centres.

What action should they take?

- Ensure opportunities, facilities and equipment are available to encourage children to develop movement skills, regardless of their ability or disability (for a definition of movement skills see glossary).
- Provide children with access to environments that stimulate their need to explore and which safely challenge them. (Examples include adventure playgrounds, parks, woodland, common land or fun trails.) Also provide them with the necessary equipment. The aim is to develop their risk awareness and an understanding of their own abilities as necessary life skills.
- Ensure children have the opportunity to explore a range of physical activities to help them identify those they can enjoy by themselves and those they can do with friends and family.
- Provide daily opportunities for participation in physically active play by providing guidance and support, equipment and facilities. Keep children motivated to be physically active by updating and varying the way physical activities are delivered (including the resources and environments used).
- Ensure opportunities are available after school, at weekends, during half-term breaks and during the longer school holidays. Activities should be led by appropriately trained and qualified staff (paid or voluntary) and take place in schools and other community settings..

Surveillance decision

This recommendation should not be updated.

Facilities and equipment

Previous surveillance summary

Two studies were identified as relevant to this section of the guideline.

Provision of non-traditional play materials in school playgrounds, alongside managing adults' perceived risk of free play, was found to increase MVPA and reduce sedentary time in children aged 4 to 7 years old (10). However, the increase was not significant after a 2-year follow-up. A

further report from the Health and Safety Executive (24) was highlighted about the benefits of challenging play opportunities.

Results from a meta-analysis suggested that school break-time interventions appear to increase physical activity levels in children aged 3 to 11 years old (25).

2018 surveillance summary

Classroom equipment

A systematic review of 8 studies (n not reported) examined the impact of school-based standing desk interventions on sedentary behaviour of children (26). Results indicated that time spent standing increased in all studies and sitting time decreased from a range of 59 to 64 minutes. However, the authors conclude that half of the studies had a non-randomised design and many were pilot or feasibility studies.

A pilot RCT (n = 85) examined the impact of 'virtual field trips' on sedentary behaviour in a primary school lesson (27). The intervention was a 30 minute London 2012 Olympic-themed session delivered via an interactive whiteboard. The comparator group were shown a sedentary version of the 'fieldtrip'. Results indicated that compared to the control, the intervention group showed significantly less sedentary time and significantly more light, moderate and vigorous physical activity.

Playgrounds

A cluster RCT examined the effect of a 4-month school playground intervention on physical activity levels of children aged 4-13 years (28). The intervention, which included policy changes and portable equipment for playgrounds, was compared to a control (no further details provided). Results indicated that at follow-up, the intervention group significantly increased the proportion of break time in MVPA compared to the control.

Active video games

Two systematic reviews were identified which examined the effect of active video games (29) and health games (30). One review of 22 studies (n not reported) reported mixed effects of active video games, with 9 out of 14 studies showing an increase in physical activity (29). The other review (5 studies, n not reported) concluded that active games (n = 3) and educational games (n = 1) had positive effects on children's physical activity self-efficacy (30). Whilst a game themed mobile phone application was found to have no impact on activity levels (30). Both reviews concluded that more rigorous research is needed in this area.

Results from 2 RCTs (31,32) indicated that active videogames:

- Significantly decreased total sedentary time in adolescents. The intervention involved an active video game and encouragement to play, with a 10 month follow-up. (31) (n = 270)
- Significantly increased MVPA in children aged 8 to 11 years old. The intervention involved playing an active video game on the Xbox 360, twice a week for 60 minutes over a 12 week period. (32) (n = 80)

A further study (33) (n = 40) examined the effect of adding a narrative cutscene to an existing active video game on the Nintendo Wii game 'Swordplay Showdown'. The intervention involved watching a narrative cutscene before game play, whereas the control group played the

active video game without the narrative. Results indicated that the intervention group significantly increased their steps per 10 second period and overall step count during game play.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

A variety of evidence was identified which relates to interventions involving facilities and equipment to increase physical activity in children.

Classroom equipment

Results from a systematic review indicated that standing desks may be effective at decreasing sedentary behaviour, however the evidence is considered too preliminary at this point to impact the guideline. Similarly, results from a pilot study suggest that interactive white-boards to deliver 'virtual field trips' may increase physical activity in the classroom. More evidence is needed in this area before an impact on guidance can be assessed.

Playgrounds

Evidence was also identified to support the enhancement of school playgrounds to promote physical activity, which is in line with recommendation 10.

Active video games

Evidence was identified on the use of active video games to promote physical activity in children. Whilst all findings indicated a positive effect of active video games on activity levels, two systematic reviews concluded that more rigorous research is needed in this area. The guideline does not currently mention active video games as a way to increase physical activity in children. However, more high quality evidence from studies with larger sample sizes are needed before the impact on the guideline can be assessed.

New evidence is unlikely to change guideline recommendations.

Recommendation 11: Supporting girls and young women

Who is the target population?

- Girls and young women aged 11–18.

Who should take action?

- Public, voluntary, community and private sector managers and decision-makers able to influence physical activity facilities, opportunities and programmes for girls and young women.

What action should they take?

- Consult with girls and young women to find out what type of physical activities they prefer. Actively involve them in the provision of a range of options in response. This may

include formal and informal, competitive and non-competitive activities such as football, wheelchair basketball, dance, aerobics and the gym. Activities may be delivered in single and mixed- gender groups.

- Offer school-based physical activities, including extra-curricular ones. Provide advice on self-monitoring and individually tailored feedback and advice.
- Address any psychological, social and environmental barriers to physical activity. For example, provide opportunities in easily accessible community settings with appropriate changing facilities offering privacy. Any dress policy should be practical, affordable and acceptable to participants without compromising their safety or restricting participation.

For further recommendations on community engagement, see 'Community engagement to improve health' (NICE public health guidance 9).

Surveillance decision

This recommendation should not be updated.

The following editorial correction is needed:

- The cross referral to NICE guideline PH9 should be corrected to refer to the updated version of the guideline: 'Community engagement: improving health and wellbeing and reducing health inequalities' (NICE guideline NG44).

Supporting girls and young women

Previous surveillance summary

No relevant evidence was identified.

2018 surveillance summary

Two meta-analyses of 20 studies (34) and 45 studies (35) examined the effectiveness of interventions to increase physical activity in adolescent girls. The reviews indicated that effect sizes were small but significant, with greater treatment effects for interventions that were theory-based (34,35), had multiple components (34,35), school-based (34,35), tailored to girls only (35) and targeted both physical activity and sedentary behaviour (35).

A cluster RCT (n = 199) examined the effect of a school-based peer-led walking intervention on physical activity levels of girls aged 11 to 13 years (36). The intervention lasted 12 weeks and involved regular 10-15-minute peer-led walks throughout the school week. The comparator group did not receive the intervention. Results indicated that the intervention group significantly increased their light intensity physical activity compared to the control group, but there were no significant changes to MVPA.

A cluster RCT (n = 357) investigated the impact of a multi-component school-based

programme on physical activity of girls aged 12 to 14 years old (37). The 12-month intervention included enhanced school sport, lunchtime physical activity sessions, interactive seminars, student handbooks, nutrition workshops, pedometers, parent newsletters and text messages to encourage physical activity. There were no details of the control group in the abstract. Results indicated that the intervention significantly decreased sedentary time compared to control, but there were no significant differences in physical activity levels.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

Evidence was identified which supports the use of school-based interventions for girls, which is in line with recommendation 11. Interventions found to be particularly effective included those that were school based, such as peer-led walking programmes. Other effective interventions included those that had multiple components and targeted girls only.

Bullet 1 in recommendation 11 states that "Activities may be delivered in single and mixed- gender groups". This is partially consistent with the new evidence, which favours interventions tailored to girls only. The new evidence does not mention interventions delivered to mixed-gender groups, therefore no impact on the guideline is expected.

The new evidence also supports the use of interventions that target both physical activity and sedentary behaviours. Although sedentary behaviours are not explicitly mentioned in the guideline, this is generally in line with recommendation 11 which advises that a broad range of options be considered. We will revisit this area once the updated CMO physical activity guidelines are published in 2019.

New evidence is unlikely to change guideline recommendations.

Recommendation 12: Active and sustainable school travel plans

Who is the target population?

Children and young people aged 18 and under who travel to:

- pre-school or an early years facility
- school or college
- local, out-of-school activities

Who should take action?

- Governors and heads of schools and colleges.
- Those involved in governing or leading pre-school and early years education.

- School travel advisers.

What action should they take?

- Continue to encourage a culture of physically active travel (such as walking or cycling).
- Develop a school travel plan which has physical activity as a key aim, in line with existing guidance. Integrate it with the travel plans of other local schools and the local community (see recommendation 5). The aim is to encourage children and young people to choose physically active modes of travel throughout their school career.
- Ensure schools provide suitable cycle and road safety training for all pupils.
- Encourage children and young people, especially those who live within a 2-mile radius of their school or other community facilities, to walk, cycle or use another mode of physically active travel to get there.
- Work with local authorities to map safe routes to school and to local play and leisure facilities. Take into account the views of pupils, parents and carers and consult with the local community. Overcome any barriers that are identified (for example, a lack of secure cycle parking).
- Involve children and young people, their parents and carers, the local community and external agencies in implementing the school travel plan. Use a mix of measures to promote it (for example, walking buses, walk and bike to school days). Work with the local authority school travel plan adviser to recruit volunteers on a long-term basis to help implement it.
- Set performance targets for school travel plans which are audited annually and which form part of delivery plans for local strategic partnerships. Remedial action should be taken when agreed targets are not reached.
- Develop parents' and carers' awareness of the wider benefits of walking and cycling and other physically active modes of travel. For example, explain how it can improve children and young people's movement skills, social wellbeing, self-confidence and independence. Also explain how it can help children to explore and become more familiar (and at ease) with their local environment while, at the same time, being physically active.

Surveillance decision

This recommendation should be stood down and replaced with a cross-referral to recommendation 8 in NICE guideline PH41 (Physical activity: walking and cycling).

Active and sustainable school travel plans

Previous surveillance summary

One study was identified as relevant to this section of the guideline. A 'Safe Routes to School' programme was found to encourage walking and cycling to school (3).

2018 surveillance summary

A systematic review of 27 studies (n not reported) examined the effectiveness of active school transport interventions to increase physical activity in children (38). The review concluded that interventions to increase active school transport may be effective, however effect sizes were generally low and many of the studies were of poor quality and had short follow-up periods.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

Evidence was identified to support the use of interventions to increase active school transport. These findings generally support the guideline which recommends various ways to promote active school travel (see recommendation 12).

Since the guideline was published, NICE guideline PH41 (Physical activity: walking and cycling) has been released which includes the information covered in this recommendation. To reduce duplication within NICE guidelines, we propose that recommendation 12 in PH17 be stood down and replaced with a cross-referral to recommendation 8 in PH41.

New evidence is unlikely to change guideline recommendations.

Local practitioners: Delivery

Recommendation 13: Helping children be active

Who is the target population?

- Children up to age 11.

Who should take action?

- Children's centre staff.
- Early years providers such as playgroup (creche) leaders and child minders.
- Parents and carers.
- Teachers and school support staff.

- Those providing local opportunities for physical activity in the voluntary, community and private sectors.

What action should they take?

- Provide a range of indoor and outdoor physical activities for children on a daily basis, including opportunities for unstructured, spontaneous play.
- Tailor activities according to the child's developmental age and physical ability. Ensure they are inclusive, progressive and enjoyable. The activities should develop the child's movement skills (such as crawling, running, hopping, skipping, climbing, throwing, catching and kicking a ball). Children should also experience more advanced activities such as swimming, cycling, playing football and dancing.
- Provide opportunities at intervals throughout the day in pre-school establishments; during playtimes and lunch breaks at school; as part of extra-curricular and extended school provision; and during leisure time (including weekends and holidays) in wider community settings and the private sector.
- Help children identify activities they can enjoy by themselves and those they can enjoy with their friends and families.

Surveillance decision

This recommendation should not be updated.

Helping children be active

Previous surveillance summary

Two studies were identified as relevant to this section of the guideline. A systematic review found that interventions aimed at increasing physical activity levels among pre-school children do appear to be affective in this age group (39).

An obesity prevention programme was found to improve movement skills in girls aged 3 to 5 years at 3-year follow-up (40).

2018 surveillance summary

After school programmes

A systematic review of 15 studies examined the effectiveness of after-school interventions to increase physical activity in children aged 5 to 18 years old (41). Due to differences in study designs, it was not possible to confirm the effect of after-school programmes on physical activity. The authors concluded that the effect of after-school interventions varied considerably.

Results from two RCTs (42,43) indicated that afterschool programmes:

- Significantly increased light and MVPA and decreased sedentary time in children aged 8 to 11 years old. The intervention lasted 10 weeks and involved nutrition information and supervised physical activity at a community centre. (42) (n = 36)

- Significantly increased physical activity levels in children with an average age of 12.3 years. The intervention involved sports mentoring with weekly 90 minute sessions over 18 weeks. (43) (n = 664).

Teacher led and classroom interventions

Three meta-analyses were identified which examined the effect of school-based (44,45) and childcare centre-based (46) interventions to increase physical activity in children. Results indicated that there was no significant overall effect of school-based interventions on physical activity (44,45) or MVPA (44). However, larger treatment effects were found for younger age groups (44). Both reviews of school-based interventions concluded that the findings were limited by high heterogeneity and that more high quality evidence is needed. Interventions in childcare services centres were found to significantly increase physical activity in children under 6 years old (46), particularly those that included structured activity, were delivered by experts, and used theory.

Intelligence gathering

No topic expert feedback or additional information was relevant to this recommendation.

Impact statement

After school programmes

There was mixed evidence to support the effectiveness of after school programmes in promoting physical activity in children. Results from one systematic review were inconclusive due to high heterogeneity, whilst a further two studies showed positive effects of after school programmes. The guideline currently recommends providing opportunities as part of extra-curricular and extended school provision (recommendation 13) and after school (see recommendation 9), which is consistent with some of the new evidence. Therefore no change to the guideline is expected at this point.

Teacher led and classroom interventions

There was mixed evidence to support the use of school-based interventions to increase physical activity in children. Results from two meta-analyses showed no significant effect of school-based interventions, which is not in line with the guideline. However, the authors note that findings are limited by high heterogeneity between studies and conclude that more high quality research is needed. Because of this uncertainty, the recommendations are unlikely to be impacted at this point.

New evidence is unlikely to change guideline recommendations.

Recommendation 14: Helping girls and young women to be active

Who is the target population?

- Girls and young women aged 11–18.

Who should take action?

- Practitioners who lead physical activities including youth leaders, teachers, coaches and volunteers.

What action should they take?

- Support participants of all abilities in a non-judgemental and inclusive way. Emphasise the opportunities for participation, enjoyment and personal development, rather than focusing on the evaluation of performance.
- Encourage those who initially choose not to participate to be involved with physical activities in other ways. Help them move gradually towards full participation.
- Encourage a dress code that minimises their concerns about body image. It should be practical, affordable and acceptable to them, without compromising their safety or restricting participation.
- Provide appropriate role models.

Surveillance decision

No new information was identified at any surveillance review.

This recommendation should not be updated.

Recommendation 15: Helping families to be active

Who is the target population?

Children and young people aged 18 and under, their families and carers

Who should take action?

Groups and individuals who have regular contact with children, young people, their parents and carers including:

- health practitioners
- local authority personnel
- physical activity professionals in the public and private sector
- teachers and early years providers
- volunteers and staff from community organisations.

What action should they take?

- Ensure parents and carers are aware of government advice that children and young people should undertake a minimum of 60 minutes moderate to vigorous physical activity a day.

Make them aware that, at least twice a week, this should include activities to improve bone health, muscle strength and flexibility.

- Provide information and advice on the benefits of physical activity, emphasising how enjoyable it is. Provide examples of local opportunities.
- Encourage parents and carers to get involved in physical activities with their children.
- Encourage parents and carers to complete at least some local journeys (or some part of a local journey) with young children using a physically active mode of travel. This should take place on most days of the week. The aim is to establish physically active travel (such as walking or cycling) as a life-long habit from an early age. Parents and carers should also be encouraged to allow their children to become more independent, by gradually allowing them to walk, cycle or use another physically active mode of travel for short distances.
- Act as a role model by incorporating physical activity into daily life. For example, opt for travel involving physical activity (such as walking or cycling), use the stairs and regularly participate in recreational activities or sport.
- Promote physically active travel as an option for all the family. Raise awareness of how it can help children and young people achieve the recommended daily amount of physical activity.

Surveillance decision

This recommendation should not be updated.

The following editorial correction is needed:

- Bullet 1 should be corrected so that it cross-refers to the most recent CMO guidelines on physical activity. The revised bullet point should state: “Ensure parents and carers are aware of the government advice on how much physical activity children and young people should be doing.

Helping families to be active

Previous surveillance summary

One study was identified as being relevant to this section of the guideline. A systematic review found that evidence for the effect of family-based and community-based interventions on physical activity in children and young people is limited, but interventions targeted at families appear to have some effect (47).

2018 surveillance summary

Two meta-analyses were identified that examined the effect of family or parent interventions to encourage physical activity in children (48,49). The results indicated that both family-based interventions (48) and parent-child interventions (49) significantly increased physical activity in children, however the effect size for family interventions was small (48).

In addition, 4 RCTs were identified which investigated the effect of family based interventions on increasing physical activity in children. Results were as follows:

- A year-long tailored family counselling intervention was found to significantly decrease MVPA in children aged 4 to 7 years old. There was no effect of the intervention on throwing and catching a ball or motor functioning. (50) (cluster RCT, n = 91).
- A family-based intervention to reduce screen-time was found to have no effect on physical activity levels in children aged 9 to 12 years old. The intervention was delivered over 20-weeks and included face-to-face meeting with the parent where training and education was provided. The control group received the intervention at the end of the study. (51) (RCT, n = 378).
- A 7 week 'Healthy Dads, Healthy Kids" intervention was found to significantly increase physical activity in primary school-aged children at 14-week follow-up. The intervention was delivered to overweight fathers and involved 7 sessions plus booklets and pedometers. The comparator group was a waitlist control. (52) (RCT, n = 93 fathers and 132 children).
- A 6-month parental support programme was found to have no effect on physical activity in 6-year old children. However, results from a subgroup analysis suggested that total physical activity significantly improved in girls at the weekend. The intervention was delivered to parents and included motivational interviewing, health information and teacher-led classroom activities for children. There were no details of the control group in the abstract. (53) (cluster RCT, n = 243).

Intelligence gathering

Several topic experts highlighted that the guidance from the Chief Medical Office (CMO) on how much physical activity people should be doing has been updated since the guideline was first published.

Impact statement

There was mixed evidence to support the use of family and parent interventions to increase physical activity in children. The results of two meta-analyses reported small but positive effects on activity levels, whilst a number of separate reports indicate non-significant findings. This new evidence is broadly consistent with the current recommendation, which lists various ways to help families be active together.

One study reported a significant decrease in MVPA after a family counselling intervention. This is not an intervention currently mentioned in the guideline, so no impact is expected.

Since the guideline was published, the CMO guidance on physical activity levels has been updated. This is likely to impact bullet 1 of recommendation 15 and an editorial correction has been proposed to address this.

New evidence is unlikely to change guideline recommendations.

Research recommendations

RR – 01 Develop valid, sensitive, and reliable tools to measure physical activity in children and young people. The tools should measure the amount and pattern of activity (including sedentary behaviour).

Summary of findings

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 02 Future research should be conducted with greater rigour, improved study design, appropriate sample sizes, and valid and reliable measures of physical activity. It should include long-term follow-up of participants and monitoring of implementation fidelity. Studies should seek to identify causal pathways leading to a change in physical activity and health outcomes (such as a decrease in body fat and an increase in self-esteem). They should identify any potential mediating variables. They should also investigate the relationship between the length and intensity of the intervention and changes in physical activity (including sedentary behaviour).

Summary of findings

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 03 Determine the most effective and cost-effective methods of increasing (and sustaining) the number and length of journeys children and young people take using a physically active mode of travel. The focus should be on journeys in the wider community (that is, not just on those to and from school).

Summary of findings

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 04 Determine the most effective and cost-effective methods of increasing and sustaining different types of physical activity among specific groups of children and young people. Groupings could be by: age, culture, ethnicity, disability (including families where someone else is disabled), gender, geographic area (for example, inner-city, urban, rural), religion or socioeconomic status. Particular attention should be given to disadvantaged groups. The interventions examined may target specific behaviours (for example, active play).

Summary of findings

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 05 Determine to what extent different types of physical activity displace others and the factors leading to sedentary behaviour over time.

Summary of findings

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

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