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Guideline to promote physical activity

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Project Background and General Objectives

The European Healthy Lifestyle Actions (EHLA) project is a two-year Erasmus+ initiative (2024–2026) that responds to ongoing concerns about physical inactivity and unhealthy lifestyles among children in Europe. Rather than creating new evidence from scratch, EHLA builds on existing WHO and EU strategies on health-enhancing physical activity and on national experiences, with a primary focus on children aged 6–12 years in and around primary schools.

As set out in the State of the Art Analysis Report (D2.1), the project centres on three pilot tests that replicate and adapt three innovative measures – Finnish Schools on the Move, BASE and Parchi in Movimento – in different European contexts. These pilots are implemented in primary schools but deliberately link to families, medical and social services, sports organisations, children’s organisations, SMEs and public authorities, so that children and their caregivers experience a coherent set of messages and opportunities for being active, eating well and limiting highly processed foods and drinks.

Work Package 2 (D2.1, D2.2) mapped the epidemiology, policies and innovative measures; Work Package 3 develops the practical tools that make it easier for stakeholders to act: the present Guideline (D3.1), the Active for Health mobile application (D3.2) and the Capacity-Building Programme and E-book (D3.3). Together they provide a shared reference for all partners and a common language for implementation, monitoring and capacity-building.

In this context, the general objectives of the EHLA project that are most relevant to this Guideline are to:

- replicate and adapt three proven innovative measures in primary-school settings, using a holistic approach that connects schools, families, health services, sport and community actors;
- strengthen children’s and families’ positive experiences with being active, while integrating simple messages on healthy eating and reduced consumption of highly processed foods and drinks;
- support partners to design, implement and improve local action plans using behaviour-change and implementation-science concepts (such as COM-B and RE-AIM), in a way that is realistic for non-research settings;
- provide a coherent package of tools – the Guideline, mobile application and capacity-building resources – that can be used during and beyond the project to sustain more active, healthy lifestyles for children.

1. Executive Summary

Physical inactivity remains a leading modifiable risk factor for premature mortality and non-communicable diseases. In 2016, 81 % of adolescents worldwide did not reach the World Health Organization (WHO) recommendation of at least 60 minutes of moderate-to-vigorous physical activity (MVPA) per day.¹ The WHO Global Action Plan on Physical Activity 2018–2030 calls for a 15 % relative reduction in global inactivity by 2030, underscoring the urgency of stronger, coordinated action.

This Guideline, developed within the European Healthy Lifestyle Actions (EHLA) project, translates established evidence, European surveillance data and three selected innovative measures from WP2 into concrete recommendations for stakeholders working with children aged 6–12 years. It brings together:

- (a) core principles for effective physical-activity promotion, including equity and inclusion, behaviour-change science (COM-B, Behaviour Change Wheel) and supportive environments;
- (b) cross-cutting recommendations on daily activity, sedentary behaviour, active transport, active play and inclusive sport;
- (c) stakeholder-specific guidance for families, the medical and health sector, schools and educators, and public authorities and policy makers; and
- (d) an implementation roadmap, monitoring and evaluation framework (RE-AIM), and practical resources and tools.

The Guideline is part of a broader EHLA toolkit that also includes the Active for Health mobile application (D3.2) and a Capacity-Building Programme and E-book (D3.3), designed to support real-world implementation and capacity building. By adopting and adapting these recommendations, European partners can help children move more, sit less, and benefit from healthier, more active daily lives – contributing to EU and WHO goals for health-enhancing physical activity and a reduction in physical inactivity by 2030.

2. Introduction & Rationale

2.1 Why this Guideline

This Guideline has been developed to support everyone working to make Europe more active; schools, teachers, parents, coaches, communities, and policy makers. They form part of the European Healthy Lifestyle Alliance (EHLA) project, whose main goal is to help children and young people move more, sit less, and enjoy the physical, mental, and social benefits of an active life.

2.2 The Challenge

Across Europe, too many children and adults are not moving enough. According to the World Health Organization (WHO, 2020)¹, children and adolescents should be active for at least 60 minutes a day. However, more than four out of five young people fall short of this target. Inactivity contributes to rising rates of obesity, type 2 diabetes, heart disease, and mental health problems. These are not just individual health issues but growing social challenges that affect learning, participation, and wellbeing in every community.

Sedentary lifestyles are shaped by our environments. Safe parks, active transport routes, and welcoming sports facilities are not equally available to all. Data from the European Commission recommendations (2013)² on promoting health-enhancing physical activity across sectors and European Commission Report on Physical Activity (2024)³ show clear differences in participation: boys are generally more active than girls, and children from families with lower incomes or precarious employment face more barriers to being active. The COVID-19 pandemic has further reduced opportunities for everyday movement and increased loneliness and screen time, making it even more urgent to rebuild active routines.

2.3 Why Action Matters

Physical activity is one of the most powerful tools we have to improve health and happiness. It supports healthy growth and bone strength in children, helps maintain a healthy weight, improves concentration and learning, and reduces mental health symptoms as of anxiety and depression. Active children are more confident, more connected with others, and more likely to stay active as adults.

2.4 Aiming to Bridge the Gap

Despite many public campaigns, the impact of physical activity promotion has often been limited. Too often, messages about “being active” remain abstract, with few practical tools to turn good intentions into daily habits. The EHLA project aims

to close this gap by translating evidence and innovation into concrete actions that stakeholders can adopt in schools, families, and communities.

2.5 A Comprehensive Approach

This Guideline is based on a comprehensive and collaborative approach. It encourages cooperation among schools, parents, health professionals, sports organizations, and public authorities to create environments where every child, regardless of gender, background, or ability, has the opportunity to be active. By focusing on children aged 6 to 12, the project builds healthy habits at a formative age, laying the foundation for lifelong well-being.

2.6 Evidence-based data and Evidence based suggestions

The World Health Organization launched in 2020 the Every Move counts⁴ campaign where the following information are shared: *Up to 5 million deaths a year could be averted if the global population was more active.* After a time when many people were bound home due to COVID-19 pandemic, WHO Guidelines on physical activity and sedentary behaviour¹, WHO emphasized that everyone, of all ages and abilities, can be physically active and underlined that every type of movement counts.

We believe in this simple and concrete meaning and would like to be part of the challenge promoting it with this EHLA project guideline as well!

Every move counts, and every stakeholder matters.

3. Core Principles for Effective Physical-Activity Promotion

Chapter 3 sets out the core principles that underpin all EHLA recommendations. It first emphasises health equity and inclusion, highlighting the need to prioritise girls, children from low-SES backgrounds and children with disabilities, and to design environments and programmes that are genuinely welcoming and accessible. It then introduces behaviour-change science, using the COM-B model and Behaviour Change Wheel to explain how capability, opportunity and motivation must all be addressed when designing actions. The chapter also stresses the importance of environmental and policy enablers – such as active transport infrastructure, safe green spaces and supportive school settings – that make active choices easier in daily life. Finally, it explains how the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, Maintenance) will guide monitoring, learning and long-term sustainability of EHLA-inspired actions.

3.1 Health equity & inclusion

(Health equity and inclusion – prioritizing girls, low-SES populations and children with disabilities)

Health equity and inclusion are among the core principles of the project. This principle aims to ensure that everyone has fair opportunities to reach their highest health potential, regardless of their social, economic, or environmental conditions, while promoting physical activity. The project specifically focuses on girls, low-socioeconomic status individuals, and children with disabilities, aiming to remove the barriers to physical activity participation for these groups.

- **Health Equity:** Means that everyone has a fair and just opportunity to reach their highest potential for health, regardless of their social, economic, or environmental conditions. It addresses preventable health differences among different groups.
- **Inclusion:** Aims to ensure that health services and programs are accessible, relevant, and affordable for everyone.

These two concepts aim for a project or policy to fairly reach and benefit all segments of society, including disadvantaged groups.

- **Inclusive Focus:** The project is designed to ensure that physical activity interventions reach individuals from different socioeconomic groups, ages, genders, and cultural backgrounds. This includes programs and policies that encourage the participation of vulnerable groups, especially girls and individuals with disabilities.
- **Community-Based Approach:** The project adopts a multi-sectoral approach that brings together different actors like sports clubs, schools, and local governments to promote physical activity. This helps to create accessible and inclusive environments for disadvantaged groups.
- **Evidence-Based Methods:** Evidence-based analysis reports (such as D2.1) have enabled us to identify successful intervention models for specific groups, such as low-SES populations and children with disabilities. The project will use this evidence to develop customized solutions for the needs of these groups.

3.2 Behaviour change science (COM-B & Behaviour Change Wheel)

The project adopts an evidence-based behavior change approach to promote physical activity. This approach aims to understand individuals' participation in physical activity and design effective interventions by using the core elements of the **COM-B** model (Capability, Opportunity, and Motivation)⁵.

- **COM-B Model:** A framework used to understand behavior change. It argues that for an individual to exhibit a behavior, three essential elements must be present:
 - **Capability:** The individual has the necessary physical or psychological ability to perform the behavior. The guideline provides information and practical tips to help individuals develop the physical and psychological skills required to sustain physical activity. This includes training modules for teachers, coaches, and health professionals.
 - **Opportunity:** A social and physical environment exists to perform the behavior. The project focuses on providing a social and physical environment for individuals to be physically active. This includes suggestions on how to use existing spaces like parks and schools to

promote physical activity through applications like "Parchi in movimento" and "Finnish Schools on the Move."

- **Motivation:** The desire to perform or not perform the behavior. The guideline recommends interventions that increase individuals' desire to be physically active. It specifically highlights peer-to-peer inspiration (as in the "BASE" program example) and social activities that make physical activity more fun and enjoyable.

Behaviour Change Wheel: A tool based on the COM-B model that brings together nine main intervention types (e.g., education, persuasion, environmental restructuring) and seven policy categories (e.g., legislation, regulation) for behavior change. This tool helps to scientifically analyze the reasons for a behavior in order to design effective interventions.

3.3 Environmental & policy enablers

The project recognizes the importance of environmental and policy enablers in supporting individual behavior change. In this context, it focuses on systemic and structural factors that promote physical activity. These terms refer to external factors that make it easier for individuals to adopt and maintain healthy behaviors⁶:

- **Active transport:** Includes infrastructure and policies that support forms of transportation involving physical activity, such as walking and cycling (e.g., bike paths, safe crosswalks). The guideline recommends that local governments invest in infrastructure projects like bike lanes and safe crosswalks to support individuals in adopting active transport methods.
- **Safe green spaces:** The existence of accessible and safe natural areas like parks and gardens for physical activity and relaxation. Based on successful examples like "Parchi in movimento," it provides guidance on how parks and other green spaces can be turned into safe and accessible hubs for physical activity. It is suggested that these spaces be used for community events.
- **Supportive school/work environments:** School and workplace policies and culture that encourage a healthy lifestyle (e.g., physical activity breaks, healthy food options). The project is inspired by Finland's "Finnish Schools on the Move" program and encourages the development of policies that support physical activity in institutional settings like schools and workplaces. This includes practices like giving movement breaks during lessons and implementing active teaching methods.

These factors are systemic and structural-level factors that influence individual choices.

3.4 Monitoring, evaluation & continuous quality improvement (RE-AIM framework)

To ensure the success and sustainability of the project, a comprehensive monitoring and evaluation process can be implemented using the **RE-AIM** (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework⁷.

- **Monitoring and Evaluation:** The process of regularly measuring whether a program or policy is achieving its goals and how effective it is.
- **Continuous Quality Improvement:** The practice of continuously making changes to improve a program's effectiveness over time, using evaluation data.
- **Reach:** How well the targeted population is reached is one of the most important indicators of the project's success. The project aims to achieve broad reach by prioritizing vulnerable groups, such as those in socioeconomically disadvantaged areas, minority communities, and children and adolescents with physical or cognitive disabilities. The demographic data of participants (age, gender, geographic location, etc.) can be regularly monitored to clearly evaluate how well the project reaches these groups.
- **Effectiveness:** The project's success in achieving its core goals, such as reducing physical inactivity and increasing physical activity levels, will be measured. This can be evaluated with both qualitative and quantitative data (e.g., surveys and participant feedback). Data collected through the mobile application can be used to understand how well the interventions are working.
- **Adoption:** How well the developed guidelines and other tools are adopted by the intended settings (e.g., schools, sports clubs, local governments) and individuals (e.g., teachers, coaches) can be closely monitored.
- **Implementation:** It is critical that the project's activities are implemented as planned and in accordance with established standards. The project's

implementation processes can be documented in detail. The challenges encountered during pilot applications, the solutions found, and how well the activities adhered to the planned protocols can be reviewed regularly. This provides a basis for continuous quality improvement.

- **Maintenance:** One of the most important goals of the project is to ensure that the outcomes and impact created are sustained over time. This includes strategies that will guarantee that the interventions continue even after the project ends. For instance, the permanent impact of the project will be strengthened by ensuring that successful practices like "Finnish Schools on the Move" are spread as models in other countries and that the developed mobile application remains free to use after the project has concluded.

3.5 COM-B Framework Action Plan (Reasons and Interventions)

This section explains why and how the project promotes physical activity, in other words, the scientific basis for behavior change. **COM-B** helps us understand why individuals are not physically active and enables us to design interventions accordingly. Additionally, the project can use the **COM-B** (Capability–Opportunity–Motivation) behavior change framework to understand why individuals are not physically active and design effective interventions to address this issue. This framework offers a holistic and evidence-based approach to increasing physical activity.

- **Capability:** Having the necessary skills and knowledge to sustain physical activity is the foundation of behavior change. The project aims to increase the capabilities of both individuals and the professionals who support them.
- **Opportunity:** Ensuring the provision of a social and physical environment that facilitates physical activity is critical for individuals to take action.
- **Motivation:** The desire to perform physical activity. The project will be based on motivation to increase individuals' desire to take action.

3.6 RE-AIM Framework for Evaluation and Sustainability

To evaluate how effective and sustainable the project can be in the long term, the **RE-AIM** (Reach, Effectiveness, Adoption, Implementation, and Maintenance)



framework can be used. This framework aims to ensure that the project's outputs and impacts continue not only during the project period but also afterward.

- **Reach:** How well the targeted population is reached is one of the most important indicators of the project's success. The project aims to achieve broad reach by prioritizing vulnerable groups, such as those in socioeconomically disadvantaged areas, minority communities, and children and adolescents with physical or cognitive disabilities. The demographic data of participants (age, gender, geographic location, etc.) can be regularly monitored to clearly evaluate how well the project reaches these groups.
- **Effectiveness:** The project's success in achieving its core goals, such as reducing physical inactivity and increasing physical activity levels, will be measured. This will be monitored with both qualitative and quantitative data (e.g., surveys and participant feedback). Data collected through the mobile application will be used to understand how well the interventions are working.
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4. Evidence Base

Chapter 4 summarises the evidence base that underpins this Guideline. Systematic reviews show that the most effective interventions to increase physical activity in children are multi-component, work across settings (school, family, community) and combine supportive environments with behaviour-change techniques, rather than relying on single, isolated actions. Epidemiological data indicate that most European children do not meet WHO physical-activity recommendations, with persistent differences by gender, age, socioeconomic status and country. These inequalities mean that girls, children from low-SES backgrounds and some migrant and rural populations are consistently less active and more sedentary than their peers. This evidence justifies EHLA's focus on comprehensive, equity-oriented approaches that link schools, families, communities and policies.

4.1 Systematic Review Evidence on Effective Interventions

Promoting physical activity (PA) in children requires a multi-setting approach. High-quality systematic reviews indicate that no single intervention is a magic bullet; instead, combined strategies across schools, families, communities, and policies yield the best results^{8,9}. Key findings from review evidence include:

- School-based interventions:** School programs can modestly increase children's daily activity, especially when they are *multi-component* (integrating quality physical education (PE), active breaks during class, enhanced recess, and after-school sports)⁸. Reviews show school interventions have a **small positive effect** on children's moderate-to-vigorous physical activity (MVPA) levels¹⁰. Notably, purely educational or one-off programs tend to have limited impact; more comprehensive initiatives are needed to see measurable gains¹⁰. Importantly, *involving parents or the community* in school interventions amplifies their effectiveness⁹. For example, a meta-analysis found that programs which included family components or community partnerships led to greater increases in children's PA than those confined to the classroom⁹. Overall, while the average effect sizes are modest, evidence supports schools as a critical setting to increase activity – provided interventions are continuous, engaging, and supported by the whole school environment.
- Family and home-based interventions:** The family environment plays a **key role** in children's activity levels^{8,11}. Reviews emphasize that interventions empowering parents, through education, goal-setting, and role modeling, can lead to improvements in children's PA and reductions in sedentary

behavior. A recent meta-analysis of family-focused programs for children aged ~2.5–12 showed a **significant, though small, effect** on increasing kids' physical activity (standardized mean difference ~0.10)¹¹. Effective strategies include providing parents with **education materials, regular counseling or coaching, and practical tools** to support active play (e.g. ideas for family outings, limiting screen time)¹². Consistent parental engagement is crucial – interventions that had *frequent contact* with parents (such as weekly feedback or sessions) were more successful than those with minimal engagement¹². In summary, family-based approaches can produce modest increases in activity, especially in younger children who rely on parental support. The evidence underscores that helping parents create an active home (through encouragement, reduced screen time, and co-participation in activity) is a valuable component of broader PA promotion efforts.

- **Community and environmental interventions:** Efforts at the community level, including youth sports programs, active play spaces, and community-wide campaigns, show promise, though research is somewhat limited. Community sports or activity programs **after school** can provide additional active time for children, particularly those who may not get sufficient exercise during the school day. For instance, providing safe, accessible play spaces (parks, playgrounds, sports fields) and programming (like free sports lessons or play sessions) can increase children's overall activity. Evidence from intervention studies suggests that **improving playgrounds and outdoor facilities** can increase children's activity during recess and leisure time (e.g. adding playground markings or equipment has been associated with more MVPA during breaks)¹³. Community-wide PA campaigns (e.g. "active kids" initiatives, charity walks, or sports festivals) tend to raise awareness and *can* boost activity, but their direct impact on long-term behavior is mixed without sustained programming. One area with strong evidence is **active transport initiatives**: interventions to promote walking or cycling to school have significantly increased children's daily activity in many settings. A systematic review found that active travel programs (such as *walking school bus* groups, where children walk to school in supervised groups, and cycling skills training) led to substantial rises in walking/biking to school¹⁴. On average, interventions increased active commuting trips and were associated with improvements in fitness; for example, walking school bus programs increased the frequency of active trips to school significantly¹⁴. These findings highlight that creating opportunities for **active transport and outdoor play** in the community environment is an effective strategy to get children moving.

- Policy-level interventions:** Upstream policy measures set the stage for sustainable increases in physical activity. While these interventions are harder to evaluate via trials, **observational evidence and policy tracking** suggest they are critical. Policies can mandate time and resources for activity – for example, requiring daily PE in schools, or investing in cycling/walking infrastructure. Countries that have implemented comprehensive **Health-Enhancing Physical Activity (HEPA) policies** across sectors have seen improvements in opportunities for children's activity. According to a joint WHO/European Commission report, between 2015 and 2024 European Union (EU) Member States markedly expanded PA promotion policies, achieving on average 81.8% of key policy indicators by 2024 (up from 64.7% in 2015)¹⁵. Such policies include **urban planning for walkable communities, funding for school sports, active school transportation programs, and public awareness campaigns**. There is *strong consensus* that multi-sectoral policy support is needed to sustain behavior change at scale⁸. For instance, city-level policies creating safe sidewalks, bike lanes, and "safe routes to school" enable more children to commute actively, which—as noted—can significantly increase daily PA. Likewise, regulations or guidelines setting minimum PE minutes in schools ensure every child has structured activity time. While quantifying the direct impact of a single policy is challenging, the overall evidence base indicates that supportive policy environments **correlate with higher physical activity levels** in youth⁸. In short, policy interventions – from education mandates to urban design – provide the necessary infrastructure, resources and incentives that make active lifestyles easier for children and their families.

Table 4.1 – Summary of “What Works” by Setting and Population (evidence-based strategies to increase physical activity):

Setting	Effective Strategies	Works Best For / Considerations
School	– Multi-component programs (quality PE, active lessons, recess play) – Trained teachers integrating movement in class – School policies mandating daily activity (e.g. Daily Mile) – Involving parents in school PA events	Works for most children in a captive setting. Need to engage less-active children (offer varied activities, non-competitive options). Important to secure leadership support and teacher buy-in for sustainability.

Setting	Effective Strategies	Works Best For / Considerations
Family/Home	– Parent education & coaching on PA and limiting screen time – Family activity goals (e.g. active outings, step challenges) – Reducing sedentary pastimes (family screen-time rules) – Role modeling by parents (being active together)	Especially effective for younger children (who depend on parents). Helps establish healthy habits early. Needs sustained parent engagement; consider families' time and resource constraints. Culturally tailor advice to fit family routines.
Community	– Accessible sports and recreation programs (parks, clubs, after-school sports) – Community "open play" opportunities (free play streets, playgrounds) – Active transport initiatives (walking school buses, bike-to-school days) – Public awareness campaigns (e.g. community PA challenges)	Reaches children outside school hours , including those not in organized sports. Important for social inclusion – ensure programs are low- or no-cost to include low-SES families. Safe infrastructure (sidewalks, bike paths, lighting) is a precondition for success in active travel and outdoor play.
Policy	– Education policies (mandatory PE curriculum time, active school standards) – Urban planning (sidewalks, cycling lanes, traffic calming near schools, green spaces) – Sport funding and access (subsidies for youth sports, inclusive facilities) – National guidelines and monitoring (PA guidelines, surveillance systems)	Benefits all children by creating supportive environments. Particularly helps those in underserved areas by providing opportunities that might not otherwise exist. Requires cross-sector collaboration (health, education, transport, urban planning). Monitoring and enforcement are key, e.g. ensure schools implement mandated PE minutes.

Key takeaways: Interventions that are **comprehensive and inclusive** have the highest impact. For example, a school program that not only improves PE classes but also involves parents with homework assignments for active play, and coordinates with local sports clubs, is more effective than isolated actions⁹. Additionally, across all settings, approaches that consider **behavior change principles** (goal-setting, feedback, motivation) and **health equity** (making sure

girls, children from lower socioeconomic status (SES), and children with disabilities are fully included) are critical. The evidence base, therefore, supports a *holistic strategy* – combining school, family, community, and policy efforts – to achieve meaningful increases in physical activity among 6–12-year-olds.

4.2 Epidemiology of Physical Inactivity in European Children

Physical inactivity in childhood is a widespread challenge in Europe, with significant variations across countries and demographic groups. Understanding the epidemiological data is essential for targeting interventions. This section summarizes current evidence on how active (or inactive) European children are, including differences by age, gender, socioeconomic status, and geography.

- Prevalence and trends:** Most European youth are **not meeting the recommended PA levels**. Recent estimates suggest that over 80% of adolescents in Europe fail to achieve the recommended 60 minutes of MVPA per day¹⁶. Even in children aged 11–12, compliance is low. One review of European studies found the proportion of youth meeting the daily PA guideline ranged from as low as 5% in some samples to at most 47% in others¹⁷. In other words, at best only about half of children get an hour of exercise daily, and in many settings fewer than 1 in 10 do so. A large WHO collaborative survey reported that **only ~25% of boys and 15% of girls in Europe** achieve the 60-minute daily target⁸. This highlights a gender gap (detailed below). Over the past decade, overall PA levels in youth have **stagnated or declined** in many countries. Global analyses have shown no significant improvement in adolescent activity levels between 2001 and 2016¹⁶, and Europe is no exception. Thus, without new actions, most countries are not on track to reach the WHO Global Action Plan target of a 15% relative reduction in inactivity by 2030¹⁸. These trends underscore the urgency of scaling effective interventions.
- Differences by gender:** A consistent finding is that **boys are more active than girls** at these ages. By late childhood (10–12 years) and especially adolescence, girls' activity levels drop markedly. Europe-wide data indicate about 75% of boys vs. 85% of girls do *not* meet PA recommendations⁸. In practical terms, boys are roughly twice as likely as girls to achieve 60 minutes daily. This gap emerges early – even at age 7–8, studies often find boys engage in more moderate-to-vigorous play and sport than girls. The reasons are multifaceted (cultural norms, opportunities for girls' sports, safety concerns, etc.), but the implication is clear: **interventions must specifically address female participation**. Ensuring equal access to enjoyable activities for girls – such as offering diverse options and positive female role models – is crucial to closing this gender gap.

- Differences by age:** Within the 6–12 range, older children tend to be less active than younger ones. Physical activity often peaks in early childhood and then declines during late childhood and adolescence. For example, 11-year-olds in Europe are generally less active than 7-year-olds, partly due to more time spent on screens and academic work as they age¹⁶. One cross-national survey (Health Behaviour in School-aged Children) showed a drop in the percentage meeting PA guidelines from age 11 to 15 in nearly all countries¹⁶. The transition to secondary school (around age 11–12) is a vulnerable time when activity levels frequently fall. Therefore, primary school interventions should aim to build habits *before* this decline, and special focus is needed on keeping preteens active as they approach adolescence.
- Socioeconomic and demographic disparities: Socioeconomic status (SES)** significantly influences children's activity opportunities. In general, children from higher SES families (e.g. higher parental education or income) report *more* physical activity and sport participation than those from lower SES backgrounds¹⁶. A recent systematic review and meta-analysis covering high-income countries found that children in high-SES households were about 21% more likely to meet PA guidelines than low-SES children, and nearly *twice* as likely to participate in organized sports¹⁶. The gap was especially pronounced in organized sports (likely due to costs and access), whereas differences in casual physical play and active transportation were smaller¹⁶. Indeed, some studies suggest that lower-SES children might engage in slightly more unstructured active play or walking (for example, playing outside in the neighborhood) than their higher-SES peers, but this does not fully compensate for their lower sports participation¹⁶. Additionally, children in socioeconomically disadvantaged areas often face environmental barriers – fewer parks, less safe walking routes, and limited affordable sports programs. **Addressing these inequities** is critical: interventions should ensure free or low-cost opportunities are available and actively recruit children from all backgrounds.
- Geographical differences:** Physical activity levels vary widely across Europe. Generally, countries in **Northern and Western Europe** tend to report higher average activity in children than those in Southern or Eastern Europe, though there are exceptions. For example, Scandinavian countries with strong sports club cultures and safe outdoor environments often have a greater proportion of active youth. By contrast, surveys have found particularly low activity levels in some Southern European countries¹⁷, where cultural patterns and urbanization (e.g., dense cities with traffic) may limit active play. A broad WHO review covering 24 European countries noted large disparities: in some countries a significant share of 7–9-year-olds

engage in daily active play and sport, while in others sedentary lifestyles (high screen time, low sport participation) are far more prevalent^{19,20}. **Urban-rural differences** also exist: urban children might have more access to organized facilities but less space for free play, whereas rural children may play outside more but have fewer sports clubs – the net effect on total activity can differ by region. These geographic patterns mean interventions may need to be tailored: for instance, in countries or communities with very low baseline activity, intensive programs and infrastructure improvements are needed, whereas in places with higher activity, the focus might be on sustaining participation through adolescence.

In summary, Europe faces a **widespread inactivity challenge among children**, with only a minority meeting health guidelines. Girls, older children, and those from lower socioeconomic backgrounds are notably less active, indicating the need for targeted strategies to engage these groups. The epidemiological evidence underlines why the promotion of physical activity in childhood is a top public health priority: establishing active habits in this age group is crucial, as inactivity is already pervasive by age 11–12 and tends to track into later life. These data also reinforce the importance of equity-focused approaches – ensuring that improvements in physical activity benefit *all* children, not just those already advantaged.

5. Cross-Cutting Recommendations

Building on the evidence base, this chapter provides practical **guidelines for promoting daily physical activity** among European children aged 6–12. The recommendations cut across settings and stakeholders, emphasizing general principles that everyone, from parents and teachers to doctors and policy makers, should support. The aim is to translate scientific evidence into clear action steps that can be readily understood and applied by non-researchers (e.g. parents, educators, community leaders).

5.1 Daily Physical Activity and Sedentary Behaviour Guidelines

Ensure every child gets daily active time: All stakeholders should promote the goal that children accumulate **at least 60 minutes of moderate-to-vigorous physical activity (MVPA) each day**¹. This aligns with the WHO 2020 guideline, which specifies an *average* of 60 min/day of mostly aerobic activity for 5–17-year-olds, with vigorous-intensity and muscle/bone-strengthening activities on 3 days per week¹. In practice, the 60-minute target can be achieved through any combination of age-appropriate activities – for example, brisk walking or cycling to school, active play during breaks, sports or dance classes, and outdoor games in the evening. The activity can be accumulated in short bouts (e.g. 10–15 minutes at a time) if needed; it does not have to be a continuous hour. The key message is “**every movement counts**”, any physical activity is better than none, and more is better. Stakeholders should encourage children to move as much as possible throughout the day, while of course balancing with rest and schoolwork.

Emphasize reducing sedentary time: In parallel with promoting active time, children’s **sedentary behaviours (especially recreational screen time)** should be limited¹. Long periods of sitting – whether watching TV, playing video games, or sitting in class without breaks – have negative impacts on children’s health and development. While some sedentary time (like reading or homework) is unavoidable, the goal is to **break up extended sitting frequently** and to **moderate screen-based leisure**. International recommendations for school settings suggest that young children (ages 5–11) should not sit for longer than ~30 minutes at a stretch without some movement break²¹. In practical terms, teachers can incorporate brief “activity breaks” during lessons (e.g. a 2-minute stretch or an active game every half-hour)²¹, and parents can encourage kids at home to get up between TV episodes or gaming levels. For older children (10–12), a break at least every 60 minutes is advised²¹. These movement breaks can be as simple as standing and stretching, walking to get a glass of water, or a quick dance – anything to get out of a chair.

Set screen-time boundaries: It is also recommended to **place sensible limits on recreational screen time** for this age group. Many European countries follow guidance similar to, for example, the Australian recommendation of *no more than 2 hours per day* of recreational screen use for school-aged children²². While exact limits can be flexible, stakeholders (especially families and schools) should strive to minimize excessive sedentary screen use. This might involve rules like no TV or gaming before homework is done, enforcing device curfews in the evening (avoiding screens at least an hour before bedtime), and encouraging alternative pastimes (outdoor play, hobbies) to screen-based entertainment. The overarching principle is to **prioritize movement whenever possible**: children should be encouraged to walk or cycle rather than ride in a car, play active games rather than solely passive electronic games, and engage in *active learning* (hands-on projects, outdoor exploration) in addition to desk-based learning.

In summary, the cross-cutting message on daily activity is: **"60 minutes a day, break up sitting, and swap screen time for play time."** All stakeholders can help reinforce this message. For instance, a doctor might remind a child during a check-up to be active every day and limit video games; a teacher might incorporate movement into class and educate students on the 60-minute goal; and a parent might implement family screen-free times for outdoor play. Consistent messaging and supportive environments are vital to ingrain these healthy habits.

5.2 Active Transport and Active Play Opportunities

Make active transport the easy choice: Active transport (walking, cycling, scootering or other non-motorized ways of getting around) is a simple daily habit that significantly boosts physical activity. Communities and schools should collaborate to **enable and encourage children to walk or bike to school safely**. This can include organizing *"Walking School Bus"* programs where groups of children walk a designated route with adult volunteers, implementing **"Safe Routes to School"** (improving crosswalks, traffic calming, bike lanes around schools), and providing secure bike parking on school grounds. Evidence shows that such initiatives can substantially increase active commuting, benefiting children's health and reducing traffic congestion¹⁴. For example, a city might introduce car-free zones around schools during drop-off times, prompting families to park a bit further and walk the last part, or a school might reward classes with the highest rates of walking/biking. The recommendation is to integrate active travel into the daily routine wherever feasible. *Public authorities* should prioritize infrastructure that makes walking and cycling safe, *schools* should actively promote walk-to-school days and cycle training, and *parents* can commit to walking or biking short trips with their kids instead of driving.

Promote unstructured active play: Not all physical activity needs to be formal exercise. In fact, for children, free play is one of the most important and natural forms of staying active. Stakeholders should ensure that kids have ample **time and space for active play**, both during and after school. Schools can protect sufficient recess time and provide equipment (balls, jump ropes, etc.) or playground markings that encourage movement. Community planners and local governments should work to **provide safe play spaces** in neighborhoods – for instance, well-maintained parks, playgrounds, and traffic-free areas where kids can run, skate, and play games. Families can be encouraged to visit parks, play outdoor games, or simply allow children to play with friends outdoors (with appropriate supervision). The idea is to make outdoor play easy and appealing. Initiatives like closing off certain streets as “play streets” on weekends, or setting up community play events (e.g. an afternoon where a public square has sports equipment for anyone to use), can spur more active play.

Leverage before- and after-school time: Beyond the school day, there are additional opportunities to increase activity. Schools and communities should collaborate to offer **extracurricular sports or activity clubs** that are *inclusive* and fun. For example, low-cost after-school programs could include not just traditional sports, but also dance, martial arts, or active games – catering to a wide range of interests. Ensuring these programs are accessible (financially and location-wise) is crucial, especially for children who may not otherwise have opportunities for supervised play in the afternoons. Municipalities can also extend the hours of sports facilities or schoolyards (opening them to the public during non-school hours) to provide safe venues for play in the evenings or on weekends.

In essence, the recommendation is to **embed physical activity into children’s daily lives through active travel and play**. Walking or cycling to destinations should be normal and supported. Play should be recognized not as wasted time, but as key to children’s health and development – thus protected in schedules and facilitated by infrastructure. By making the *active choice also the fun and convenient choice*, we create an environment where children naturally move more.

5.3 Inclusive Sport and Recreation for All Children

It is vital that physical activity opportunities are **inclusive** – reaching every child, regardless of gender, ability, or background. Stakeholders should work together to **offer a diverse range of sport and recreation options** that cater to different interests and needs, and to remove barriers that exclude some children from participation.

Provide a variety of activities: Children are more likely to find an activity they enjoy if a broad menu is available. Schools and community clubs should go beyond

the “usual” sports – not every child likes competitive team sports. Include options like dancing, swimming, gymnastics, martial arts, biking, running games, or newer activities like skateboarding – something for everyone. Especially aim to engage groups who typically have lower participation, such as girls (who might enjoy dance or non-competitive fitness classes if not traditional sports) and children who are less sporty or confident. By offering non-competitive and play-focused activities alongside competitive sports, we can attract those who might be intimidated by formal sports. **Child input** is valuable: involve kids in choosing or designing activity programs, which can improve uptake and enjoyment.

Ensure gender equity and co-ed participation: Efforts should be made to create a *welcoming environment* for girls in sports and active recreation. This can include having female coaches or teachers as role models, offering girls-only sessions if it encourages participation, and addressing any cultural or dress-code barriers (for instance, allowing flexible sports attire). At the same time, many activities can be co-educational; mixed-gender play can be positive if inclusivity is emphasized. The overarching principle is to **avoid stereotyping** (e.g. assuming certain sports are “for boys” only) and to actively encourage girls to join in all physical activities. Monitoring participation rates by gender and taking corrective actions (such as targeted outreach or programs like “Girls in Sports” initiatives) is recommended to close the gap in activity levels.

Include children with disabilities or special needs: An inclusive approach means adapting physical activities so that children of *all abilities* can participate. Schools and sport clubs should utilize principles of **adapted physical activity** – for example, offering wheelchair-accessible sports, using equipment modifications (like lighter balls, sound balls for visually impaired children), and training staff on inclusive practices. Many sports have modified versions (e.g. wheelchair basketball, inclusive dance, adaptive swimming) that can be integrated into programs. It’s important that children with physical, developmental, or intellectual disabilities have opportunities for exercise and play alongside their peers whenever possible. Public authorities and schools should ensure facilities are accessible (ramps, appropriate surfaces) and consider dedicating resources or partnerships (with disability sports organizations) to support these inclusive programs. As the WHO guidelines emphasize, all children should have **equitable opportunities** to be active and enjoy movement¹.

Address economic barriers: No child should be left out of sports and recreation due to cost. Communities and governments should consider **financial supports** such as subsidies or vouchers for low-income families to enroll children in sports programs, free equipment loan schemes, or free community sports sessions. Schools can help by lending equipment to students who can’t afford their own

(sneakers, bikes, etc.) and by making school sports clubs free or very low cost. Partnerships with local businesses or charities can help sponsor children in need. The goal is to ensure that *family income is not a determinant of a child's physical activity opportunities*.

Foster a positive, fun atmosphere: An often-overlooked aspect of inclusion is the *emotional* environment. Coaches, teachers, and parents should emphasize fun, self-improvement, and teamwork over competition and winning, especially for younger kids. A child who is less skilled should never be made to feel unwelcome in an activity. Training for coaches and PE teachers can instill positive coaching techniques that build every child's confidence and enjoyment. Bullying or exclusion in sports must be actively discouraged. When children have positive early experiences with physical activity, they are more likely to remain active as they grow.

In summary, inclusive sport and recreation means **opportunities for every child to participate, thrive, and feel valued in being active**. By following the above recommendations, stakeholders can help break down the barriers (whether social, physical, or economic) that lead to inequalities in physical activity. This not only improves health equity, but also enriches the social fabric of activities where children learn to play together across lines of ability or background, fostering understanding and friendships.

5.4 Monitoring and Use of Valid Tools

To effectively promote physical activity, stakeholders should also focus on **monitoring and evaluation**. Essentially, keeping track of how active children are, and using that information to guide improvements. This involves using valid, reliable tools to measure physical activity and sedentary behaviour in various settings.

Objective monitoring: Whenever feasible, utilize **objective tools like accelerometers** to measure children's activity levels. Accelerometer devices (worn on the waist or wrist) record movement intensity and can provide accurate data on how many minutes of moderate or vigorous activity a child accumulates, as well as how sedentary they are. Research has shown that accelerometers are superior to simple step counters for capturing the full range of activity and are not subject to self-report bias²³. Schools or researchers running programs can employ accelerometers on sample groups of students to get baseline and follow-up measures of MVPA. Some advanced pedometers or wearable fitness trackers can also approximate intensity and may be more affordable – these can be used for personal tracking (e.g., giving children feedback on their daily steps or active minutes). For community and school initiatives, objective monitoring helps in evaluating whether interventions are working (e.g., did average active minutes per

day increase after implementing an active playground program?). *Medical professionals* might also consider prescribing wearable activity monitors for children with specific health needs (like those managing weight), to motivate and monitor progress.

Subjective monitoring: In many cases, self-report or proxy-report tools are more practical (e.g., in large surveys or routine surveillance). It is recommended to use **validated short questionnaires** to track physical activity and sedentary time. For instance, the Physical Activity Questionnaire for Children (PAQ-C) is a brief survey that asks kids about their activity over the past week; it has been used in European school settings with good reliability. Another example is the WHO/HBSC (Health Behaviour in School-aged Children) survey question that simply asks on how many days of the past week the child was active for at least 60 minutes – this provides a quick gauge of guideline compliance. For sedentary behavior, questions about daily screen time (hours of TV, computer, mobile use for fun) help identify high-sedentary individuals. *Families* can use simple logs or apps to monitor their child's activities (some families find it useful to track screen time or steps as a form of awareness-building). The key is to choose tools that are age-appropriate (e.g., using pictures or simple language for younger kids, or having parents assist in reporting for kids under 10) and that have been tested for accuracy.

Growth monitoring and fitness tests: Beyond tracking minutes of activity, stakeholders can monitor related indicators. Schools in many countries conduct periodic fitness assessments (such as the Eurofit or national fitness test batteries) which measure things like aerobic capacity (e.g., shuttle run test), strength, and flexibility. These can be used carefully as educational tools – to show improvements and identify kids who might need extra help – but should be framed positively (avoid shaming lower performers). Growth and weight status are also routinely monitored in schools or pediatric check-ups; combining this with questions about physical activity can help identify children who might benefit from interventions. For example, a pediatrician might note a child is gaining excess weight and inquire about their daily activity and screen habits, using that information to counsel the family.

Leverage technology for monitoring: There are now many apps and digital platforms that allow for fun tracking of physical activity. Schools could implement challenges using apps (for instance, a class competition on who takes the most steps, tracked by simple pedometers or smartphone apps). Some national programs use digital dashboards where schools enter data on how many children walked to school or participated in sports day, helping to monitor progress across regions. Privacy and data protection are important, especially with children's data, so any monitoring should be done with appropriate consent and safeguards.

Use data to inform action: Monitoring is only useful if the data are acted upon. Schools should review their students' activity levels – if many are far from the 60-minute goal, it signals a need for stronger interventions (like more PE or active breaks). Public authorities can use surveillance data (e.g., from national health surveys) to target resources – for example, if a region shows particularly low activity or high obesity rates in children, one might invest in community sports programs there. Health services can identify at-risk youth (say, very sedentary kids) and offer referrals to activity programs (exercise referral schemes). At the policy level, establishing a **regular surveillance system** (as recommended by the EU Physical Activity Guidelines) is crucial to track trends and disparities¹⁸. Many European countries now participate in shared monitoring efforts – such as the WHO European Physical Activity Monitoring Framework – to measure indicators like active transport rates, PE time in schools, and sport participation¹⁵. These indicators should be reported and used to celebrate successes or call out areas needing improvement.

In summary, “what gets measured, gets done.” All stakeholders are encouraged to utilize the tools at their disposal to **keep track of children's physical activity and sedentary time**, at both individual and population levels. By doing so, we can provide feedback and positive reinforcement to children and families, tailor interventions where they are most needed, and hold ourselves accountable to the goal of increasing physical activity across the board.

5.5 Stakeholder-Specific Recommendations

While the above recommendations apply broadly, different stakeholders have unique roles in implementing them. Below are tailored action points for four key stakeholder groups. Each group can lead by example within their sphere, and collaboration among these stakeholders will amplify the impact.

5.5.1 Schools and Educators

- **Adopt a whole-school physical activity policy:** Schools should treat physical activity as a priority for student health and learning. This means setting a *school policy* that every student will have opportunities to be active every day. For example, include a statement in the school's mission about promoting active lifestyles and ensure the timetable protects time for PE and recess.
- **Guarantee quality physical education (PE):** Provide all children with regular, high-quality PE lessons – ideally daily, but at minimum **120–150 minutes per week** spread over several days. PE should be delivered by trained teachers and focus on fun, skill-building, and keeping all students moving (minimize standing in line time). Use a curriculum aligned with

Quality Physical Education guidelines (e.g. UNESCO QPE), emphasizing inclusive, progressive skill development²⁴. Assess students not just on athletic skill, but on participation and personal improvement to keep it encouraging.

- **Integrate physical activity into the classroom:** Promote **active classrooms** by incorporating short activity bouts into lessons (energizer games, stretching, or subject-related movement). This improves concentration and health. Encourage teachers to use standing desks or take lessons outdoors when possible. Homework can even sometimes include physical tasks (e.g. nature walks for science, active learning projects).
- **Promote active recess and break times:** Make recess a physically active break. Schools should provide equipment (balls, jump ropes), playground markings (like hopscotch, foursquare grids), or play structures that invite movement. Consider trained play facilitators or playground monitors who can engage less-active kids in games. Avoid withholding recess as punishment – every child needs that activity break.
- **Run extra-curricular sports and activity clubs:** Offer a range of **after-school physical activity programs**. This could include traditional sports teams but also non-competitive clubs like hiking club, dance club, or simple “fun fitness” clubs, to attract a broader group. Ensure clubs are accessible to all (no or low fees, open to beginners). Partner with local sports organizations if helpful to provide coaching.
- **Create an active school environment:** Little changes in the school environment can prompt movement – e.g. install bike racks to encourage cycling, have a “daily mile” track on campus where classes go for a daily jog/brisk walk¹⁴, put up posters promoting stair use (and keep stairs safe and accessible as an alternative to elevators). Celebrate active travel (reward classes with high walk-to-school rates). Organize school-wide events like sports days, walkathons or “activity weeks” to build a culture of movement.
- **Monitor and evaluate:** Track students’ activity where feasible – perhaps via simple surveys or fitness tests each term – and use the data to improve your programs. Schools can also participate in national monitoring schemes (like youth fitness tests or surveys) to contribute to the bigger picture.
- **Educate and engage parents:** Communicate with families about the importance of physical activity and how they can support it. For instance, send a leaflet home with tips for active play, or host a family sports

afternoon. When parents see the school prioritizing activity, they are more likely to reinforce it at home.

5.5.2 Medical and Health Sector

- **Treat physical activity as a vital sign:** Pediatricians, family doctors, and nurses should **routinely ask about and encourage physical activity** in children during medical visits²⁵. Just like checking height and weight, ask: “How many days a week are you active or playing sports?” or “How much screen time do you usually have?” Making it a standard part of consultations emphasizes its importance to families.
- **Provide brief counseling and clear advice:** Even a short conversation can motivate change. Health professionals should advise children and parents on meeting the 60 min/day guideline¹ and reducing sedentary time. Explain the health benefits (better fitness, mood, school performance) in simple terms. Help families set small achievable goals – e.g. “Can you try to walk to school twice a week?” or “How about replacing 30 minutes of video games with shooting hoops outside each day?”
- **Use “exercise prescriptions” for at-risk kids:** For children with weight issues, chronic conditions that benefit from exercise (like mild asthma, anxiety, etc.), or very sedentary habits, consider a formal **physical activity prescription**. This might be a written plan given to the family, such as “Child will engage in at least 20 minutes of physical play after school on 5 days a week, check back in one month.” This concrete approach can increase adherence. Some countries have Exercise Referral schemes. If available, refer to community exercise programs or physiotherapists for tailored activity guidance.
- **Screen for barriers and refer appropriately:** If a child is inactive, explore why. Is it lack of safe space? Family’s lack of time or awareness? Screen for issues like motor skill delays or weight-related limitations that might make activity hard. Then **connect families to resources:** for example, if weight is a barrier, refer to a pediatric weight management program that includes exercise; if a child has a disability, link to adaptive sports opportunities; if safety is a concern, inform them about supervised programs or help advocate for safer play areas.
- **Promote active lifestyles in health education:** Healthcare settings can share educational materials (posters in waiting rooms about playing outside, pamphlets on limiting screen time, etc.). Community health workers could run workshops for parents on healthy lifestyles, including how to keep kids

active. School nurses can collaborate with PE teachers to identify kids who might need extra help engaging in activity and reach out to their families.

- **Leverage multi-disciplinary support:** Encourage integration of physical activity advice by all relevant professionals – dietitians discussing weight management should include activity tips; mental health professionals might suggest exercise to alleviate mild depression or anxiety in children. The “exercise is medicine” philosophy should be a team effort across the pediatric healthcare spectrum²⁶.
- **Follow up and reinforce:** In subsequent visits, ask about progress on physical activity goals and congratulate any improvement (positive reinforcement can be powerful). If goals weren’t met, problem-solve with empathy (“I understand it was hard to find time; let’s brainstorm a different strategy”). Keep the tone supportive rather than scolding, to keep families engaged.

5.5.3 Families and Caregivers

- **Be active role models:** Children imitate what they see. Parents and caregivers should demonstrate an active lifestyle – let your child see you taking walks, doing exercise, or choosing stairs over elevators. Make family time active: for instance, instead of a movie night, try an evening bike ride or a trip to the playground. If parents prioritize and enjoy physical activity, kids are more likely to do the same¹¹.
- **Prioritize daily active play:** Ensure your child has opportunities for at least 60 minutes of active play or exercise each day¹. This could be cumulative – a walk in the morning, playground after school, a short game of tag or dancing at home. Treat that hour of activity as essential as eating meals or doing homework. It may help to set a regular “active time” routine (e.g., after school from 4–5 pm is play time outside). Young children especially need parents to facilitate – take them to the park, kick a ball around together, etc. Encourage outdoor play with friends where safe.
- **Limit screen time and sitting at home:** Set family rules on sedentary entertainment. For example, you might allow video games or TV for an hour after dinner, but not before school or not more than a set amount. Remove TVs from children’s bedrooms and establish “screen-free” periods (perhaps no screens on family outings or during meals). Instead of screen-based rewards (“If you finish homework you can play on the iPad”), consider active rewards (“we’ll go to the trampoline park this weekend”). Breaking up long homework or study periods with short activity breaks (stretching, jumping jacks) can also help kids focus and reduce sedentariness.

- **Support and encourage, don't force:** Help your child find activities they *enjoy*. Expose them to various sports or classes to see what clicks; some kids love team sports, others prefer solo activities or nature hikes. Once they find their interest, show enthusiasm for it. Praise their efforts and improvements rather than focusing on wins or competitive success. If a child is reluctant or shy about sports, try low-pressure ways to get moving (family bike rides, casual backyard games). The goal is to associate physical activity with fun and positive feelings.
- **Provide logistical support:** Be willing to invest time (and if possible, resources) into your child's physical activity. This might mean driving or chaperoning them to sports practice, buying basic equipment or appropriate clothing for activities, and rearranging schedules to fit in active time. For busy families, this can be challenging, but consider it part of essential parenting for health. Just like making time for doctor's appointments or school events. If cost is an issue, look for community programs or ask schools/clubs about scholarships or equipment swaps. If safety is an issue (no safe play area in neighborhood), advocate with other parents for community solutions or utilize school playgrounds after hours if open.
- **Connect with your community:** Join or form parent groups that encourage active kids. For instance, organize neighborhood playdates that are activity-focused, or rotate supervision of a group of kids playing in the local park. Participate in school's walk-to-school initiatives or volunteer for sports events. When parents band together, it creates a supportive network and can lead to broader changes (like convincing local authorities to improve parks or sidewalks).
- **Balance structured and unstructured activity:** Enroll your child in sports or dance classes if they're interested, but also allow free play time. Both have benefits: classes build skills and social lessons, while free play fosters creativity and independence. Don't overschedule to the point of burnout; ensure your child has down time, but try to make some of that down time active rather than always screen-based.

In short, families are the front line for creating an active lifestyle. By prioritizing movement, setting reasonable limits on sedentary pastimes, and most importantly making active fun family time, parents and caregivers can instill habits that last a lifetime. Remember that **every bit of activity helps** – walk instead of drive when you can, play together, and celebrate movement as a normal and enjoyable part of daily life.

5.5.4 Public Authorities and Policy Makers

- Invest in active-friendly infrastructure:** Local and national authorities should allocate funding and planning efforts towards environments that make physical activity safe and easy for children. This includes building and maintaining **parks, playgrounds, and sports facilities** in all communities (especially in disadvantaged areas with shortages of such spaces). It also means urban planning for **walkability and bikeability**: continuous sidewalks, safe road crossings, bicycle lanes or paths, traffic calming measures near schools (like speed bumps, lower speed limits), and adequate lighting. Schools should have proper facilities too; ensure every school has at least a basic gym/sports hall and outdoor play area. These environmental supports are foundational; without them, advice to “go play outside or walk to school” is not feasible²⁷. Thus, governments must lead on creating **active communities by design**.
- Implement and enforce supportive policies:** At a policy level, there are many levers. Education ministries or local education authorities can mandate a minimum amount of PE time per week and monitor compliance. They can also require that schools integrate physical activity into their improvement plans. Health and sport sectors can create policies for *inclusive sports* (e.g., requiring that publicly funded sports programs have strategies to reach girls and minorities). Transport departments should incorporate child active transport goals into their policies (for example, aiming to increase the percentage of school trips made on foot or bicycle). An example of effective policy is the **EU Council Recommendation on HEPA (Health-Enhancing Physical Activity) across sectors**, which calls for actions in education, sports, transport, environment, and urban design¹⁵. Policy makers should ensure such recommendations are translated to national and local action and critically, **monitor their implementation**¹⁵. Regular progress reports (like the WHO/EU PA country profiles) can help track if policies (e.g., on PE or urban planning) are being put into practice¹⁵.
- Fund and support programs for active living:** Provide grants or stable funding for community programs that encourage child physical activity. For example, after-school sports in low-income neighborhoods, “sports for all” initiatives, or school-based pilot projects (like introducing physically active learning methods). Consider fiscal measures too: e.g., subsidies or tax breaks for youth sports clubs to keep fees low, or incentives for schools that innovate in physical activity promotion. Some countries have successfully used schemes like “sports vouchers” for kids or reimbursement of sports club memberships as part of healthcare. Public authorities should also

sponsor mass participation events (family sports days, fun runs) that raise awareness and get communities moving together.

- **Cross-sector partnerships:** Create mechanisms for different sectors to collaborate on active lifestyle promotion. For example, a city council can convene a **“Healthy Children Task Force”** with members from the education department, health department, urban planning, and local sports clubs to coordinate efforts. Schools could partner with local health clinics (so doctors can refer kids to school exercise programs and vice versa). Public-private partnerships can also be beneficial: working with businesses to sponsor playgrounds or bike-share programs for kids, etc. The complex issue of inactivity requires a *joined-up approach* and policy makers should break down silos and encourage shared responsibility.
- **Surveillance and targets:** Establish or strengthen **surveillance systems** to regularly collect data on children’s physical activity (e.g., through school health surveys, physical fitness tests, or integrating PA questions into existing health monitoring). Use this data to set concrete targets – for instance, aim to increase the proportion of children meeting PA guidelines by X% in 5 years, or to reduce the average daily screen time. Tracking by subgroups (gender, SES, region) is important to ensure equity. Publicly report on these indicators to maintain accountability. For example, if data show only 20% of girls in a region are sufficiently active, that can galvanize targeted programs for girls.
- **Awareness campaigns and education:** Governments and public health agencies should run **communication campaigns** that highlight the importance of physical activity for children’s well-being and academic achievement. These might include media campaigns (TV, social media) with messages like “Kids need 60 minutes of play a day!” or sharing success stories of active schools. Additionally, integrate PA promotion into broader health initiatives – for example, when tackling childhood obesity or mental health, always include physical activity as a key component. Ensure that training programs for teachers, urban planners, and healthcare providers include content on promoting active lifestyles, so that the workforce across sectors is prepared and motivated to implement these recommendations.

In conclusion, public authorities are uniquely positioned to shape the **environment, policy landscape, and resource allocation** that collectively determine how easy or hard it is for children to be active. By following the above recommendations, policy makers can create a virtuous cycle: active kids who are healthier and happier, which leads to more vibrant communities and lower healthcare costs in the long run. The commitment at the top levels (political and

institutional leadership) sends a clear signal that physical activity is not an “extra-curricular” luxury, but a core component of a healthy society and a necessary investment in Europe’s future.

Each stakeholder, schools, health sector, families, and authorities, has distinct responsibilities, but **success lies in all working together**. A school can do a lot, but with supportive parents, engaged doctors, and enabling policies, it can do even more. Likewise, families trying to be active will benefit if the neighborhood is safe and schools are on board. Therefore, the final overarching recommendation is collaboration: create partnerships, share best practices, and support each other’s efforts in the collective mission to get Europe’s children moving and thriving.

6. Innovative Measures from WP2

Work Package 2 – Deliverable 2.1 of the Erasmus+ and EU co-funded EHLA project identified a range of innovative measures aimed at increasing physical activity among children aged 6–12 (State of the art analysis report presented by EHLA consortium, ²⁸). Three top innovations were selected for pilot implementation in EHLA: **Finnish Schools on the Move**, **BASE**, and **Parchi in Movimento**. These initiatives represent diverse approaches (school-based, peer-led, and community-based, respectively) to tackling inactivity. In this chapter, we provide an overview of each innovation, detailed logic models, draft implementation packages, and a synthesis of how these measures work to influence behavior and environments in favor of active lifestyles.

6.1 Overview of Selected Innovations

The table on the next pages summarizes the key features of the three selected innovations, including their origin, goals, core components, maturity, settings, and relevance for primary school-aged children (6–12 years).

Innovation / Origin (Country)	Goal	Core Components	Maturity Level	Delivery Setting	Relevance for Age 6–12
Finnish Schools on the Move²⁹ / Finland	Increase daily physical activity and reduce sedentary time during the school day ³⁰ .	Whole-of-school approach: active recess, movement breaks in lessons, physically active teaching methods, active commuting, student involvement.	Fully scaled national program (initiated 2010) – now implemented in over 90% of Finnish comprehensive schools; strong evidence of effectiveness (improved student activity and engagement).	Primary and lower secondary schools (nationwide)	Very high – specifically targets schoolchildren; proven to increase physical activity levels in 7–12 year-olds (notably benefitting less-active groups such as girls).
BASE³¹ / The Netherlands	Encourage inactive individuals to become active (“the next 10%” beyond the already active) through peer support.	Community-based buddy system: train <i>mentors</i> (professionals) and <i>buddies</i> (volunteers/peers) who inspire and accompany others in activities (e.g. walking groups, cycling). Emphasizes peer-to-peer inspiration and social engagement.	Emerging innovation – developed from a 2023 Erasmus+ project focused on seniors, now being expanded regionally and nationally in the Netherlands. Extension possible to other groups (teenagers, young adults) beyond older adults.	Community and school settings (adaptable): originally in community sports/health programs; potential adaptation for schools or youth clubs.	High – not originally designed for 6–12, but concept is adaptable. Peer buddy models can be applied to upper primary students as mentors or to engage inactive children.

Parchi in Movimento ³² / Italy	Offer free, enjoyable physical activity opportunities for all ages to foster active lifestyles and fight sedentariness, especially among inactive or socially disadvantaged groups.	Multi-activity community program: organized exercise classes and events in public parks (spring–summer). Wide range of activities (e.g. yoga, gentle gymnastics, dance, parkour, walking groups, etc.) led by local sports instructors, open to all and family-friendly. Partnership of sports clubs, health services, and municipalities.	Established local good practice – ongoing annual program since ~2016, incorporated in regional health promotion plan. Successful in Verona (Italy), engaging ~2000 participants each season; recognized as a model at European level.	Community setting – urban and neighborhood parks, in collaboration with local authorities and health agencies.	High – inclusive of children : offers activities like parkour and dance targeted at youth, and encourages family participation. Children can join age-appropriate outdoor sessions, making it easier for 6–12 year-olds to be active with peers and family in a fun, accessible environment.
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6.1.1 Finnish Schools on the Move²⁹

Finnish Schools on the Move is a nationwide, school-based initiative to integrate physical activity into the daily routine of students. Launched in 2010, it has grown into a cornerstone of Finland's education and health policy, with over 90% of comprehensive schools participating³⁰. Schools join voluntarily and create their own action plans to foster an active school culture. Typical measures include adding **active recess** periods, short **movement breaks** during lessons, incorporating **physically active teaching methods**, redesigning facilities to encourage movement, and promoting **active travel** (walking or biking to school). The approach is highly inclusive and emphasizes whole-school engagement: teachers, students, and local authorities (municipalities) all collaborate to make activity a normal part of the school day. Evaluations have shown significant benefits: reduced sedentary time, increased overall physical activity levels, improved student focus and school engagement, and even a higher proportion of children meeting the daily physical activity recommendations (especially among previously less-active groups like girls). Importantly, these gains have come with no detriment to academic performance; on the contrary, teachers report better on-task behavior and a more positive classroom atmosphere when students have opportunities to move.

Logic Model – Finnish Schools on the Move

- **Inputs:** Policy support from government and education authorities (national framework and funding); training materials and guidelines for schools; buy-in from school leadership and staff; minor infrastructure/equipment (e.g. playground markings, sports equipment, standing desks); engagement of students and parent support.
- **Activities:** Schools develop and implement action plans that embed physical activity throughout the day. Key activities include scheduling longer or more frequent recesses with active games, introducing movement breaks in classrooms, integrating movement into academic lessons (e.g. active math drills), encouraging active commuting (e.g. walking/biking “bus” groups), and student-led initiatives like recess sports clubs or activity challenges. Teacher teams and/or a school “activity coordinator” often facilitate these activities, and students are given a voice in planning to ensure activities are fun and engaging.
- **Outputs:** Observable outputs include new school schedules or timetables that allow for activity (e.g. an added 15-minute active break); creation of activity-friendly spaces (e.g. mini playgrounds, classroom standing areas); number of teachers trained in active pedagogies; number of activity sessions per day or week; and high participation rates by students in the

offered activities (including previously inactive children). Also, outputs include resources produced (guides, lesson plans for active learning) and events (school “activity days”, active commute campaigns, etc.).

- **Outcomes:** In the short-to-mid term, schools report decreased sedentary time during school hours and increased time spent in moderate-to-vigorous physical activity by students³⁰. Students show improved concentration and on-task behavior in class (as they return from active breaks refreshed). There is also greater student enjoyment of school – primary pupils in active schools are more satisfied with opportunities for physical activity at school than those in less active schools³⁰. Teachers and administrators develop a more positive attitude toward integrating physical activity as they observe benefits rather than drawbacks to academics. Participation in the program often leads to a *culture shift* at the school: physical activity becomes a normative part of the day, and students increasingly take initiative (e.g. organizing playground games).
- **Expected Impact:** The long-term impact is a higher proportion of children meeting recommended daily physical activity levels and an ingrained habit of daily physical activity carried into adolescence. By making “active school days” the norm, the initiative contributes to better health outcomes (healthier weights, improved fitness, mental well-being) and academic success (through better readiness to learn). On a broader scale, Finnish Schools on the Move demonstrates that large-scale behavior change in schools is possible when supported by policy and a whole-of-school approach. It serves as a model for other countries, illustrating how changing the **environment and culture** of schools can directly increase children’s physical activity in a sustainable way.

Implementation Package – Finnish Schools on the Move

To replicate or adapt **Finnish Schools on the Move** in another context, the following implementation guidance is offered:

- **Preparation:** Secure commitment from education authorities and school leadership. Early steps include assessing the current school day structure (time for recess, etc.) and identifying opportunities to insert activity. Schools should be encouraged to perform a needs assessment (e.g. how active are students currently? What spaces or times could be activated?). It’s crucial to create flexibility in schedules (e.g. allowing a 15-minute break mid-morning) and to prepare some basic resources (sports/play equipment, classroom movement tools like mats or timers). Additionally, gather evidence to share with teachers and parents about the benefits of active schools – in Finland, sharing research that exercise does *not* harm

academics but can boost concentration was key to overcoming initial skepticism. Planning should also involve setting up a simple monitoring system (like periodic student activity surveys or use of pedometers) to track progress once the program starts.

- Stakeholder Involvement:** A whole-of-school approach means engaging multiple stakeholders. **School staff** are central – teachers, principals, and PE specialists should be involved in planning the activities. Gaining teacher “buy-in” is important; in practice, this is done by involving teachers in designing active lesson ideas and addressing their concerns (for example, Finland provided forums for teachers to share best practices and success stories, which built enthusiasm). **Students** should be involved from the outset – for instance, forming a student committee or asking classes to suggest active games ensures the activities match children’s interests and empowers students as champions of the program. **Parents** can be engaged via school newsletters or meetings, highlighting the benefits (parents often appreciate improvements in their children’s focus and mood). Some schools invite parents to contribute ideas or even join events (like a family fitness day), further reinforcing the home-school link in promoting activity. **Health professionals** (e.g. school nurses or local pediatricians) and **physical education experts** can provide guidance on inclusivity (ensuring activities are safe and appropriate for all children, including those with disabilities or health conditions) – aligning with the Health Promoting Schools concept. **Municipalities/local authorities** are important for support and sustainability: they might provide funding for equipment or playground improvements, or coordinate crossing guards and infrastructure for active travel initiatives. In Finland, municipalities partnered with schools to adjust infrastructure (like bike racks, safe walking routes) and reinforce policy support, which is a model worth emulating.
- Training Needs:** Teachers and staff benefit from training in how to integrate physical activity into the school day. Professional development workshops can be held on topics such as “physically active learning methods” (e.g. teaching math through movement games) and how to manage classroom energy during frequent breaks. Finland’s program offered training and a toolkit of activity ideas to every participating school, and facilitated peer learning (teachers sharing experiences of what works). Additionally, training recess monitors or **student leaders** (e.g. older students coaching younger ones in playground games) can amplify the program’s reach. It’s also helpful to train teachers on inclusive practices – ensuring children of all abilities can participate. Simple guidelines on adapting activities for kids with disabilities or less athletic kids will help maintain the inclusive ethos.

- **Scalability:** One strength of Finnish Schools on the Move is its scalability – it started with pilot schools and scaled up nationally. For scalability, it's important to allow **local adaptation** while maintaining core principles. Encourage each school to “own” its action plan (as was done in Finland with voluntary, school-specific plans) so that it fits their context. A central coordinating body (like a ministry or a dedicated project team) can provide a platform for schools to register, receive materials, and report progress. Building a network of participating schools to share successes (via webinars, newsletters, site visits) can sustain momentum and spread the innovation. Policy integration is also key for scaling – for example, integrating the concept into curriculum guidelines or national health strategy helps legitimize and spread it. Finally, plan for resource scaling: ensure that as more schools join, there are enough support staff or ambassadors to provide guidance.
- **Monitoring & Evaluation:** Continuous monitoring and periodic evaluation will help refine the program and demonstrate impact. At the school level, tools like student questionnaires (on physical activity frequency, or on how they feel about active breaks) and simple measures (counts of children participating in active recess, or pedometer readings) can be used. Many Schools on the Move use self-evaluation surveys to gauge how well they've integrated activity³⁰. At a broader level, it's valuable to measure changes in physical activity (e.g. % of children achieving 60 minutes daily activity) – Finland's studies found participating primary students were more likely to meet guidelines than others³⁰. Also track outcomes like attentiveness in class or even academic indicators to ensure no adverse effects (and potentially document improvements in behavior or performance). Qualitative feedback from teachers, students, and parents is also useful to capture. As part of evaluation, identify any barriers or unequal participation (e.g. are certain groups of children still less active?) and address them – perhaps by introducing targeted activities or extra support. Overall, a robust monitoring framework not only helps in iterative improvement but also builds the case to policymakers that the initiative is worth sustaining and expanding.

6.1.2 BASE³¹

BASE is a community-driven “buddy” programme originally designed to increase physical activity among older adults through peer support, now being adapted for broader groups. Developed in Drenthe (Netherlands) as a result of a European Erasmus+ project, BASE's core idea is simple yet powerful: train motivated individuals to become **buddies or mentors who inspire their peers to be active**.

Rather than top-down instruction, BASE leverages social connections – *people encourage people* – to reach those who are inactive or hesitant about exercise. The approach has two tiers of support: **professional mentors** (e.g. community sport coaches, health workers) are trained to oversee the programme, and **volunteer buddies** are trained to work directly with participants as activity companions. A buddy might, for example, be paired with an inactive child or family and engage them in regular walks, bike rides, or play sessions, providing friendship, motivation, and guidance. BASE was initially focused on seniors (addressing loneliness and inactivity in older populations), but its methodology can be expanded to other demographics – including teenagers and potentially children – recognizing that **peer support and social engagement can benefit any age group**. The program provides structured training and tools (a “complete process with many tools” is available) to ensure buddies are effective motivators. In the Netherlands, BASE has grown from a local pilot to a national initiative in progress, with regional trainings conducted and plans for nationwide rollout. A notable aim often cited is reaching “the next 10%” – those who are not yet active but are within reach if given the right support. By focusing on this group through relatable peer influence, BASE seeks to create a ripple effect of active living in the community.

Logic Model – BASE

- **Inputs:** Key inputs include a well-designed training curriculum for mentors and buddies (covering topics like health benefits, motivational techniques, safety, and how to organize activities); facilitators or trainers to deliver this education (often provided by project leaders or sport organizations); partnership with local organizations (schools, sport clubs, community centers, or health clinics) to recruit participants and volunteers; and modest resources for activities (e.g. walking routes, bicycles, pedometers or tracking tools, promotional materials). In a school context, inputs would also involve school permission and identifying suitable older students or staff to act as mentors/buddies.
- **Activities:** The program conducts **training workshops** for mentors (professionals like physical education teachers or community sports coaches) and for volunteer buddies (e.g. parents, older students, or community volunteers). Once trained, buddies are matched with target participants – for children, this could mean pairing a physically active “buddy” student with a less-active peer, or an older youth/young adult volunteer with a referred inactive child. The buddy-partner pairs then engage in regular physical activities together. These activities can range from daily/weekly walks or cycling outings, to playing sports or active games, or even attending exercise classes together – the idea is *doing it together* to make it enjoyable and to build confidence. Meanwhile, mentors oversee

the process, checking in with buddies, organizing group events (e.g. a monthly community fun walk or a sports day for all buddy pairs), and providing ongoing encouragement and troubleshooting. BASE often organizes **one-day kick-off events** that bring the whole community together (for instance, a large group walk or a sports festival) – in Drenthe, one-day events reached up to ~1000 participants with dozens of buddies facilitating activities. Additionally, there are social elements: coffee meet-ups, group chats, or reward ceremonies to celebrate milestones, which reinforce the social support network.

- **Outputs:** Immediate outputs include the number of mentors and buddies trained (e.g. how many teachers/coaches and volunteers obtain the BASE training certification) and the number of participants (children or families) enrolled to receive a buddy. We would also see a schedule of regular activity sessions established (for example, each buddy-child pair meets twice a week for a walk or playground play). Other outputs: creation of peer support groups or clubs (like a “walking club” at school led by buddies), and materials such as training manuals, activity plans, and monitoring logs. If implemented in schools, an output might be a new “buddy program” integrated into the school’s extracurricular offerings. Documentation of activities (attendance, frequency) is another output that helps track engagement.
- **Outcomes:** In the short term, participants who have a buddy should experience increased physical activity levels – e.g. previously inactive children start engaging in regular active play or exercise because their buddy makes it fun and routine. We expect improvements in **motivation and confidence** toward physical activity among those children: having a supportive friend can enhance their self-efficacy (“I feel more capable of doing sports now”) and enjoyment of being active. Social outcomes are key as well: the program reduces isolation by fostering a new friendship or mentorship bond; children feel supported and included. For the buddies and mentors, outcomes include enhanced skills in coaching and empathy, and a sense of accomplishment from helping others. At the school or community level, one outcome is a more supportive social environment for activity – a “culture of encouragement” where peers invite each other to play or exercise. We anticipate that classes or groups with active buddies see higher participation in sports events, more kids joining games at recess, or families being more involved in weekend active outings. These are indicators that the peer-led approach is shifting norms. Another outcome could be improvements in specific health or fitness indicators for participants (for instance, increased daily step counts, improved stamina in a fitness test, or even emotional well-being gains from social interaction).

- **Expected Impact:** Over the longer term, BASE aims for a **population-level increase in physical activity** – moving that “next 10%” of previously inactive individuals into the active category. In a primary school setting, this could translate to a measurable jump in the proportion of students meeting daily activity recommendations, particularly among those who were hardest to reach with traditional PE classes or campaigns. The social support structure could lead to sustained behavior change: children who got active with a buddy are more likely to continue being active (because they associate it with friendship and fun, rather than a forced task). Moreover, an enduring impact is the strengthening of community ties and volunteerism – a network of mentors and buddies remains in place, potentially ready to support new cohorts (for example, older students mentoring incoming younger ones year after year). This creates a self-sustaining model of **peer-driven health promotion**. In terms of broader health impact, one would expect reductions in sedentary behavior and related issues (like childhood obesity rates or anxiety levels) over time in communities that implement BASE widely. The program’s ethos of “active togetherness” also contributes to social inclusion – ensuring no child (or adult) is left behind due to lack of company or support to be active. If scaled, BASE can complement formal sports or education systems by reaching those who don’t engage in organized activities, thus filling a critical gap in public health efforts.

Implementation Package – BASE

Implementing BASE for primary-school-aged children requires adapting the buddy system to that context while preserving its core social support mechanism. Below is a draft package of implementation considerations:

- **Preparation:** Begin by identifying the target group of children who would most benefit – for example, children aged 6–12 who are physically inactive or reluctant to participate in sports. Engagement with schools or community youth programs is essential at this stage to help nominate or encourage suitable participants (some might be referred by teachers, school nurses, or parents concerned about a child’s inactivity). At the same time, recruit potential **buddies**. Depending on context, buddies could be older students (e.g. fifth/sixth graders or teenagers from a nearby secondary school), parents or family members, or community volunteers (such as college students interested in sports coaching, or members of local sport clubs). Conduct introductory meetings to explain the program and generate enthusiasm – for instance, host a school assembly or community event about the value of being active and how the buddy system works. Logistically, prepare training materials tailored for working with children (the

existing BASE training for senior buddies can be modified to focus on engaging kids in play and basic exercises safely). It's also important to address safeguarding and consent: obtain parental consent for children to participate and ensure all adult or teen volunteers are screened (particularly if working one-on-one with minors). Lastly, map out resources: identify safe routes for walking or cycling, secure some equipment (like balls, jump ropes, etc.), and if possible, partner with a local sports facility for occasional group meet-ups.

- Stakeholder Involvement:** The **school administration and teachers** are key stakeholders if BASE is implemented in or around a school. They can assist in integrating buddy activities into school life (e.g. allotting time during lunch or after school for buddy pairs to be active, or allowing the buddy program to be part of an official school club). Teachers can also help monitor progress informally and encourage mentees in class. **Parents** should be seen as partners: for children to consistently meet with buddies outside of school hours, parents need to be supportive (ensuring the child is available and feels safe). Regular communication with parents – e.g. an orientation session and periodic updates – will help; parents might even serve as buddy volunteers themselves or help with transporting kids to group activities. **Health professionals** (like pediatricians or community health workers) and **physical activity specialists** can be involved to provide credibility and guidance – for example, a local pediatrician could speak to families about the health importance of physical activity and endorse the buddy approach as an effective solution for kids who need a nudge. **Sports clubs and youth organizations** are valuable stakeholders too: a local football club or scouting group might encourage their young members to volunteer as buddies, or offer free trial sessions for buddy pairs. **Municipalities** and community leaders can support the program by providing small grants or resources (e.g. free access to parks or community centers for events) and by helping to publicize the initiative. In Drenthe, the success of BASE has been bolstered by collaboration across sectors – similarly, a multi-stakeholder task force or working group can oversee the adaptation for children, ensuring educational, social, and health perspectives are all integrated.
- Training Needs:** Training is at the heart of BASE. **Mentor training** should be provided to the coordinators (for example, a PE teacher or community sport coach who will lead the program) – this covers how to run the buddy system, monitor pairs, and support the buddies. **Buddy training** is needed for the volunteers who will directly work with children. The training can be short (perhaps a one-day workshop or two shorter sessions) and interactive. Key topics to include: basic principles of engaging kids in play and exercise (making it fun, age-appropriate games, ensuring safety), communication

skills (how to be encouraging, how to listen to the child's interests or concerns), and motivational strategies (like goal-setting, using praise to build confidence). The training should also discuss boundaries and child protection (so buddies understand their role and limits clearly). Since many buddies for this age group could be older adolescents, the training should be delivered in an accessible way (possibly with role-playing scenarios, e.g. "What would you do if your buddy says they are too tired to play?"). Providing buddies with a *toolkit* of ideas is helpful – for instance, a booklet of simple active games, a calendar to log activities, and tips on how to gradually increase activity levels. In addition to initial training, plan for **ongoing support**: regular debrief meetings or WhatsApp groups for buddies to share experiences can reinforce training lessons and keep motivation high. If the original BASE training curriculum (focused on seniors) is available, it can be adapted in collaboration with experts in children's physical activity to ensure relevance.

- Scalability:** To scale the buddy system, start with a pilot in a few schools or communities, then expand based on learning. Scalability will depend on building a **network of trainers and coordinators** – for example, *train-the-trainer* approaches could certify new mentor trainers in each region so they can in turn train more buddies locally. It's also important to gather success stories and data from early pilots to "make the case" for expansion to other schools or cities (e.g. show how many kids became active and happier due to having a buddy). Because BASE relies on human relationships more than heavy resources, it is *highly scalable* if the social infrastructure is developed: consider establishing a **Buddy Program Club** or an online platform where new communities can register and access the training modules, templates, and guidance. Such a platform can be run by a NGO or public health agency, for instance. Collaboration with national youth organizations or volunteer organizations could provide a pipeline of volunteers as the program grows. Additionally, linking BASE with existing initiatives (for instance, if there's a national "daily mile" campaign or a school health program, the buddy system can be introduced as a component) can help it spread. Ensure that as it scales, quality is maintained – e.g. by defining standards (each buddy should receive X hours of training, each pair should meet at least Y times, etc.) and perhaps a light certification for participating organizations. Finally, consider the **sustainability** of the volunteer base: recognizing and rewarding buddies (even if just with certificates, or a thank-you event) helps with retention and word-of-mouth recruitment of new buddies, which is vital as the program expands.
- Monitoring & Evaluation:** From the outset, decide on metrics to track both implementation and outcomes. For monitoring implementation, keep a

roster of buddy–child pairs, how often they meet, and what activities they do. Mentors or coordinators can gather this information through simple logs or regular check-ins (for example, buddies might fill a weekly report or a shared Google spreadsheet with a short note of what they did). Track recruitment and dropout rates (how many buddies and children start, and if any discontinue, note reasons). For outcomes, measure changes in the children’s physical activity levels – ideally using a mix of subjective and objective data. Subjective: ask children (or their parents) about their activity habits before and after (e.g. via a short survey: “How many days per week do you play outside now?”). Objective: if resources allow, use pedometers/step counters or simple fitness tests (maybe a shuttle run or step test at baseline and after a few months) to see improvements. Also assess psycho-social outcomes: surveys or interviews can reveal if the child’s attitude towards exercise improved, if they gained friends, or if they feel more confident in PE class. Because the social aspect is fundamental, evaluate the quality of the buddy relationship too – for example, a feedback form where buddies and participants each reflect on their experience (Did they enjoy it? Do they plan to continue being active together or independently?). In a school-based adaptation, also look at school records or teacher observations: has the target group’s participation in PE or active play during recess increased? Are there fewer issues with those students in terms of engagement or behavior? Collecting these data will help demonstrate impact. Moreover, share evaluation results with stakeholders: success stories (like “X was a shy 10-year-old who never joined games; after 3 months with a buddy, she now plays soccer at lunch”) can inspire others and help secure ongoing support from school boards or sponsors. Lastly, continuous evaluation allows you to refine the model – for instance, if certain pairs aren’t clicking or some buddies feel they need more support, that feedback can shape future training or matching processes.

6.1.3 Parchi in Movimento³²

Parchi in Movimento (Parks in Movement) is a community-based innovation from Verona, Italy that turns public parks into hubs of free physical activity for everyone. The initiative was developed by UISP Verona (the local Sport for All association) in collaboration with the city’s health authority (ULSS) and municipalities. It addresses a common challenge: many people, although aware that “exercise is good,” do not engage in it due to barriers like cost, lack of motivation, or limited access to organized sports. Parchi in Movimento seeks to *bridge this gap* between awareness and action by bringing activity directly to citizens in a convenient, fun, and social way. Each year during the warmer months (typically May through

September), a schedule of **free outdoor exercise classes and events** is offered in various parks across the city and province. The range of activities is impressively broad to attract diverse participants: one can find everything from gentle morning stretching (“Risveglio Muscolare”) and yoga, to dance classes and “ginnastica dolce” (light exercise), to more vigorous options like Nordic walking, parkour for youth, martial arts, Pilates, Zumba, and even capoeira. Qualified instructors from local sports clubs lead these sessions, and all ages are welcome – often whole families come out to the park together. The underlying goal is **to make physical activity accessible and enjoyable for all**, thereby fostering an “Active Community.” By utilizing public green spaces, the program also emphasizes the connection between physical activity and environment, encouraging people to use and appreciate urban parks. Parchi in Movimento has been integrated into the regional preventive health plan as a strategy to combat sedentariness and strengthen community ties around healthy living. Its success is evident in the large turnout (thousands of participants each season) and the expansion of both locations and offerings year after year. For children 6–12, Parchi in Movimento provides an opportunity to be active outside of school in a fun, non-competitive setting, often alongside their family or peers, which can reinforce positive attitudes toward exercise from an early age.

Logic Model – Parchi in Movimento

- Inputs:** Major inputs for this program include **partnerships and coordination** among stakeholders: the local UISP committee provides organizational capacity, municipalities offer use of park spaces and logistical support, and the health agency backs the initiative as part of public health outreach^{32,33}. Human resources are crucial: a roster of sports instructors from various associations who volunteer or are contracted to run classes (the diverse expertise – from yoga teachers to dance coaches – is an input reflecting the network of sports clubs). Material inputs are relatively modest: basic sports equipment as needed for classes (e.g. mats for yoga, music speakers for Zumba), signage in parks, and promotional materials (brochures, social media, banners) to inform citizens about the free activities. If the program is expanded to new areas, initial funding or sponsorship is needed to cover coordination staff time, instructor stipends (if not purely volunteer), and advertising. Importantly, **community buy-in** is an input – you need local champions or organizations convinced of the concept to drive it. In Verona, having it under an established sports-for-all organization (UISP) with endorsement from city officials provided that credibility.
- Activities:** The core activities are the **free exercise sessions** conducted in parks. These are scheduled at various times (morning, late afternoon,

evening) to accommodate different groups. For example, a weekday evening might feature an aerobics class for adults while a weekend morning has family-friendly activities or kids' parkour workshop. In practice, the program publishes a calendar (weekly or monthly) listing which activity happens in which park and when. Beyond regular classes, **special events** are organized: kickoff events (often coinciding with MOVE Week in late May), closing events, or thematic sports festivals. During MOVE Week, for instance, there might be a big outdoor event showcasing multiple activities to draw attention to the benefits of being active. Another activity is outreach – program staff and volunteers actively reach out to the community, for example through social media campaigns, flyers in schools and community centers, and local media, to invite people who might not otherwise know about or consider these activities. They also coordinate with healthcare providers or social workers to refer individuals who could benefit (such as sedentary individuals or those in social isolation). Instructors, as part of their activity, do some tailoring: they ensure sessions are adaptable to different fitness levels (demonstrating easier vs. harder versions of exercises) so that everyone from a child to an elderly person can participate in their own way. A supportive atmosphere is maintained – activities are non-competitive, and instructors often incorporate games or group exercises to make it social. Throughout the season, feedback is gathered (instructors might chat with participants after classes to gauge enjoyment and collect suggestions). An additional “activity” (less visible to participants) is the coordination meetings among organizers and instructors to monitor how things are going and adjust the schedule or offerings based on attendance and feedback.

- **Outputs:** Tangible outputs include the **number of activity sessions** delivered (e.g. X classes per week, Y total sessions over the summer) and the **participation numbers** – how many people attend each session and cumulatively across the program. For example, an output could be “200 free classes offered across 10 parks, with a total attendance of 2,500 people over the summer.” Another output is the variety of disciplines offered (ensuring a broad menu of activities is itself an output that indicates program richness). Additionally, outputs encompass the communication pieces: creation of a program schedule (flyers, website updates), media coverage achieved, etc. If the program successfully engages the target demographic, one might note outputs like “percentage of participants from sedentary background” or “number of older adults/newcomers who joined.” Qualitative outputs are also noteworthy: stories of participants who tried a new activity, or community connections formed (like a walking group that continues informally). Lastly, an output aligned with the goals is how many people are connected to ongoing opportunities – for instance, the program

often provides info on how to continue activities after the summer, like suggesting local UISP clubs or classes; an output could be “referral of 100 participants to year-round sports programs” (the state-of-art mentioned an incentive: offering opportunity to continue practice in UISP facilities post-summer).

- Outcomes:** The short-term outcomes of Parchi in Movimento are increases in physical activity and improvements in attitudes toward exercise among participants. Many people who join these park sessions are those who might not have been active otherwise – so a key outcome is that *previously inactive individuals become active* at least intermittently. Participants often report discovering activities they enjoy (e.g. “I never tried tai chi before, but I found it really relaxing and now I go every week”). For children, an outcome is exposure to new forms of movement in a fun setting – this can lead to greater fundamental movement skills and enthusiasm for physical play. Another outcome is enhanced **social connectedness**: neighbors meet each other in the park, families spend active time together, and people of different generations mix (you might see kids, parents, and grandparents all doing Zumba together). This fosters a sense of community and mutual encouragement. On a community level, there’s an outcome of increased visibility of physical activity – active events in parks make moving normative and “visible,” which can have a ripple effect (someone passing by might join next time). The program likely contributes to improved health indicators in the medium term: participants may experience better mood and energy (an outcome often noted anecdotally soon after regular exercise starts), and some might see improvements in fitness or weight if they attend frequently. Importantly, by targeting those facing barriers (economic, social, etc.), Parchi in Movimento outcomes include **reducing inequalities in access to exercise** – many who couldn’t afford or wouldn’t feel comfortable in a gym find this free, open option welcoming. There may also be outcome data like increased overall physical activity minutes per week among certain groups in the city, if surveyed. For local authorities, a successful outcome is that these active communities help relieve some strain on health services long-term (prevention payoff), and create a model to replicate in other municipalities.
- Expected Impact:** Over the long run, Parchi in Movimento aims to instill a culture of active living in the population. The expected impact is a sustainable increase in the proportion of citizens of all ages engaging in regular physical activity, contributing to lower rates of lifestyle-related conditions (from childhood obesity to adult hypertension, etc.). For children who grow up with these park activities as a normal part of summer, the impact could be lasting active habits and positive memories associated

with exercise. We also expect an environmental impact: more usage of public parks and appreciation for having safe green spaces, which can motivate further investments in such infrastructure. The community cohesion built through recurring gatherings in the park can have spillover effects, such as residents organizing their own informal exercise groups or advocacy for healthy city initiatives. In terms of policy impact, Verona's success with this program might influence other cities/regions (and indeed it has drawn European interest), leading to wider adoption of the "active parks" model, thereby impacting physical activity levels on a larger scale. In summary, the ultimate vision is an **Active City/Region** where engaging in free physical activity is a routine, socially supported behavior – narrowing the gap between knowing that one *should* be active and actually living actively. This aligns with WHO and EU strategies on community-based physical activity promotion, demonstrating how local action can drive population health improvements.

Implementation Package – Parchi in Movimento

For communities looking to implement a "**Parchi in Movimento**" style program, the following guidance can serve as an implementation blueprint:

- **Preparation:** Start by mapping available **parks and public spaces** that could host activities. Ideally, identify a mix of locations covering different neighborhoods (to ensure accessibility for diverse communities). Engage early with city officials (parks department, mayor's office) to get buy-in for using these spaces regularly and possibly to secure permits or support services (like electricity for sound systems, restroom access, or street closures if needed for big events). Next, collaborate with local health authorities to align the program with health promotion goals – in Verona, tying it into the Regional Prevention Plan added legitimacy. Secure a coordinating organization or committee – this could be a sports association (like UISP) or a coalition of local NGOs – which will be responsible for scheduling and oversight. Begin outreach to **sports clubs and fitness instructors** in the area: explain the vision and invite them to contribute a few sessions pro bono or subsidized (many instructors are happy to volunteer a class for community goodwill and exposure). Varied offerings are a strength, so gather commitments across different disciplines. Plan the timing: choose a season (spring/summer) and days/times for activities based on local climate and when target populations are likely free (for example, evenings for working adults, mornings for seniors, afternoons or weekends for children/families). Develop a draft timetable and ensure no major conflicts (check city event calendars, etc.). In preparation, also

consider risk management – ensure instructors have appropriate qualifications or certification, have first-aid measures in place for events (perhaps St. John Ambulance or Red Cross volunteers at larger events), and consider insurance for public liability if required. Finally, prepare promotional materials well in advance: a clear **schedule brochure or website**, and a communications plan (social media, local newspapers, schools, community centers, and healthcare facilities are all channels to reach people who could benefit).

- Stakeholder Involvement:** The success of an active parks initiative hinges on multi-stakeholder collaboration. **Municipal authorities** are crucial stakeholders – their endorsement might come in forms like the Mayor launching the program, city staff assisting with logistics, or budget allocation for marketing. **Public health agencies** not only provide credibility (e.g. doctors encouraging patients to attend) but might also offer resources such as health educators to occasionally join and do blood pressure checks or give healthy lifestyle advice at events (making it a holistic wellness program). **Local sports clubs and fitness professionals** are key players since they deliver the activities – maintaining a good relationship (perhaps acknowledging clubs in publicity, or allowing them to distribute info about their year-round classes) creates a win-win. **Schools and parent associations** can be involved by promoting the free activities as a summer extension of keeping kids active (flyers sent home or posts on school Facebook groups can invite families to join). Engaging schools is a way to reach children who need activity during holidays. **Community and cultural organizations** (like neighborhood councils, churches, immigrant community groups) can help reach specific populations – for example, if language was noted as a barrier for some communities^[41], partnering with community leaders to spread the word in those languages or organizing special sessions (maybe a “Women’s only fitness day” for communities with such preferences) can improve inclusivity. Another stakeholder group is **the media** – local media outlets, bloggers, and radio can be partners to increase visibility; consider holding a press conference or demo class for the media at launch. Lastly, don’t forget the **participants themselves** as stakeholders: once the program starts, gather a group of regular attendees who can act as “community ambassadors,” bringing friends and neighbors along. This peer-to-peer promotion (for instance, a motivated parent from one area championing the program among other parents) is invaluable to sustained participation.
- Training Needs:** While the activities are led by qualified instructors, there is a need to brief and orient them to the ethos of the program. Hold a preparatory meeting or workshop for all instructors and volunteers where

you outline the objectives: emphasize *inclusivity, friendliness, and adaptability*. Instructors should be trained or reminded how to handle mixed-ability groups – e.g. showing low-impact modifications of exercises for beginners or older adults, which is likely something many are skilled at, but aligning on this ensures consistency. They should also be aware of safety protocols: checking the environment (no hazards in the park area), warming participants up and cooling them down properly, and being attentive to anyone struggling. Since activities involve children and adults together, discuss strategies for keeping sessions family-friendly (perhaps instructors can incorporate child-parent pair exercises when both are present). If any volunteers are helping (like to take attendance or guide people to the right spot), give them a short training on their tasks and on being welcoming faces to newcomers. For sustainability, consider training some volunteers or community members as **activity leaders** for simple formats like walking groups or basic calisthenics – this could allow the program to continue in a lighter form even without professional instructors every time. Another training aspect is cultural competence: ensure the team is sensitive to cultural differences in sports participation (for example, some participants may have never exercised before or might be self-conscious); a compassionate approach is key. Providing instructors with a summary of participant demographics or any known special needs can help them prepare appropriate routines. Finally, train the coordinating staff on how to collect monitoring data (e.g. counting participants, using a simple feedback form) so that each session yields information for evaluation.

- **Scalability:** Parchi in Movimento can start in one city and grow to others – scalability is achieved by proving the concept locally and then sharing the model. To scale within a city, you might increase the number of parks or length of season once demand grows. Ensure documentation of the process (create an “implementation manual” as you go) to make it easier to replicate. For expansion to new locales, leverage networks like UISP or other sports associations to identify interested towns. A possible strategy is to organize exchange visits – bring officials or organizers from other cities to observe a session in Verona (this happened through the EHLA project, effectively). When scaling, maintaining quality is important: don’t dilute the supervision – each new location should have a dedicated coordinator. Also, adapt to context – for example, a smaller town might have fewer instructors, so the schedule might be lighter; or a very hot climate might shift timings to cooler hours. In scaling, also consider **year-round opportunities**: while outdoor parks are ideal in good weather, the model could inspire indoor equivalents (E.g. using school gyms in winter). Securing funding is key for scale – present the data of local success (attendance numbers, positive feedback, any

health improvements) to regional authorities or sponsors (e.g. sports equipment companies, health insurers) to get financial support to expand. Emphasize the cost-effectiveness: the program has been rated as a fair to excellent return on investment given it uses existing public space and volunteer contributions. Finally, build a community of practice: as multiple cities run active parks programs, set up a forum or annual meetings for coordinators to exchange lessons and collectively innovate (this keeps the scaled network vibrant and improves each local implementation).

- Monitoring & Evaluation:** Tracking participation and outcomes in a community program can be challenging but is important to demonstrate impact. Implement a simple sign-in or headcount process for each session – the instructor or a volunteer can record roughly how many people and of what general age groups (children, adults, seniors) attended. Over a season, this data shows which activities were most popular. Collecting demographic information (even just informally asking “how did you hear about us?” or which neighborhood people come from) can help assess if you are reaching those sedentary or high-need groups. For more feedback, you can deploy a short survey towards the end of the season – ask participants about changes in their physical activity (e.g. “Because of this program, did you become more active than before?”), their satisfaction, and suggestions. In Verona’s case, an observed barrier was reaching disadvantaged groups (linguistic, economic barriers), so it’s useful to monitor the inclusivity aspect: are people from various communities attending? If not, why? (This might require focus group discussions or speaking with community orgs.) In evaluation, also use qualitative methods: collect a few personal stories or testimonials – these narratives (like a testimonial from a parent who says their child was glued to screens but started looking forward to playing in the park every week) put a human face on the stats. Health outcomes in such a program are diffuse, but if possible, partner with the health authority to see if any community health indicators budge (for instance, did the local public health survey show an uptick in the percentage of population meeting exercise guidelines after a couple of years?). Even without that, metrics like repeat participation (how many people come back regularly) or progression (did some participants transition into joining a sports club or continue the activity on their own) are valuable indicators of impact. Share evaluation results with all stakeholders – city officials will appreciate evidence for policymaking, and instructors/partners will be motivated to see the difference their work made. Continuous improvement based on evaluation could include adjusting the mix of activities (e.g. if youth turnout was low, maybe add more teen-oriented sessions or partner with youth centers next time) and refining promotional strategies to better target underrepresented

groups. By rigorously monitoring and evaluating, the program builds a strong case for its role in promoting an active lifestyle, which in turn helps secure its future and potential scaling.

6.2 Mechanisms of Action and Theoretical Foundations

Though each of the three innovations operates in a different context – one in schools, one through peer mentoring, and one in community parks – they share common **mechanisms of action** rooted in behavioral science and environmental change theory. All three can be understood through a socio-ecological lens: they target multiple levels of influence on physical activity, from individual motivation and social support to organizational policy and the built environment. Below is a narrative synthesis linking each measure to its theoretical foundation and the determinants of physical activity it affects:

- Finnish Schools on the Move:** This program exemplifies the **Whole-of-School approach**, aligning with the WHO's Health Promoting Schools framework. The theoretical premise is that children's behavior is profoundly shaped by their daily environment; by reshaping the school environment and culture, you change behavior en masse. It leverages principles of **behavioral economics** and habit formation – making the active choice the easy, default choice (e.g. if recess is active by design, children accumulate activity without requiring individual decisions). It also integrates **self-determination theory** elements: students have a say in designing activities (supporting autonomy and relatedness) and activities are made fun and competence-building, which fosters intrinsic motivation. The mechanism by which academic performance is maintained or improved is explained by exercise science – short bouts of activity increase arousal and improve cognitive function and concentration in children, which translates to better on-task behavior and potentially better learning outcomes. From a public health perspective, Finnish Schools on the Move addresses **behavioral determinants** like enjoyment of physical activity and self-efficacy (children discover they can be active and still succeed at school, reducing fear that activity is “not for me”) and **environmental determinants** like time allocation and physical space. By introducing longer recess and active lessons, it removes time barriers and sedentary norms; by providing equipment and space (like playground improvements, standing desks), it removes physical barriers to movement. It also shifts **social norms**: when 90% of schools adopt active culture, being active becomes a social expectation – children, teachers, and parents come to see moving and learning as complementary. This normative change is crucial for sustainability, as it creates a positive feedback loop (active kids are happier

and more attentive, reinforcing teachers' and parents' support for the program). In terms of theory, it's informed by the **Social Ecological Model** (intervening at policy, community, school, and individual levels simultaneously) and draws on evidence from **multi-component intervention models** in schools that have shown greatest effectiveness in increasing youth activity. It's also an application of **social learning theory**: students and teachers learn from each other's experiences – for example, one school's success with "active math class" becomes a model for others, and children see peers enjoying activity and want to join (peer modeling). In summary, Finnish Schools on the Move works through *environmental enablement* (turning the school into an active living space) and *cultural change*, grounded in the idea that an active child is a better learning child. Over time, this shapes behavioral determinants such as attitudes (kids associate movement with fun and normalcy) and skills (kids develop fundamental movement skills through daily practice), which increase the likelihood of lifelong physical activity.

- **BASE:** BASE operates primarily at the **interpersonal level of influence**, with a strong foundation in **social support theory** and **social cognitive theory**. The guiding mechanism is that **behavior change is more likely when supported by peers** – a buddy provides encouragement, accountability, and modeling of active behavior. The "peer-to-peer inspiration" noted in the program is a direct application of Albert Bandura's concept of observational learning: seeing someone like oneself being active (and enjoying it) can inspire an individual to try it. In addition, having a buddy tackles psychological determinants such as fear, low self-confidence, or lack of enjoyment. Many inactive children (or adults) are inactive not purely from lack of knowledge, but because of low confidence or simply not having someone to be active with. BASE addresses this by pairing them with a supportive friend – this increases **self-efficacy** (the person feels "if my buddy can do it and is by my side, I can do it too"). Emotional support and companionship fulfill basic psychosocial needs (relatedness, per self-determination theory), which can transform exercise from a chore into a social activity one looks forward to. The theoretical underpinning is also related to **motivation through relatedness**: people often commit to a behavior because they don't want to let their friend down or because it's part of a shared routine. Over time, this external social motivation can internalize into personal motivation as they experience positive outcomes (feeling fitter, happier). BASE also touches on **community empowerment theory** – by training local volunteers and building networks, it empowers communities to take charge of their health, rather than relying solely on professionals. In terms of environmental determinants, BASE creates a new

social environment around the participant. For a child, having a buddy might mean their immediate environment (school or neighborhood) now contains regular opportunities for active play (because the buddy arranges them). It thus alters the child's **micro-environment**: instead of spending an afternoon alone indoors, the child might be at the park with their buddy. The program's focus on "the next 10%" suggests a strategy rooted in **diffusion of innovations theory** – rather than targeting the extremely hard-to-reach (which can be resource-intensive), BASE aims for those on the cusp of being active, using early successes to then influence others. If 10% more people in a community become active, they can influence the next segment by normative pressure and expanded social networks of activity. Additionally, BASE's mechanism of training mentors and buddies builds **social capital** in communities – strengthening inter-personal trust and networks through shared activity, which is known to have broad health benefits. In essence, BASE's theory of change is that by changing the **social environment** (through peer support and mentoring), you change individual behavior. It targets determinants like motivation, self-efficacy, and enjoyment (all personal factors) by leveraging determinants like social norms and support (interpersonal factors). This two-level influence is powerful for children: a supportive friend or near-peer can normalize active play and break down barriers like "I'm not good at sports" or "girls don't do that" (the buddy can counteract such notions by example and encouragement). We see in BASE echoes of successful peer-led interventions in other health domains (e.g. peer tutoring, Big Brothers/Big Sisters mentoring), applied here to physical activity – confirming the theory that **positive peer influence** can be a potent driver of behavior change in youth.

- Parchi in Movimento:** This initiative is grounded in principles of **community-level intervention** and **environmental psychology**. A key theoretical foundation is the idea of "**making the healthy choice the easy choice**" – by providing free, conveniently located exercise opportunities, the program reduces common barriers like cost and accessibility. It aligns with the **ecological model** by modifying the physical environment: parks are turned into open-air gyms and social spaces for activity. This changes the context in which people make choices – a normally quiet park might not invite exercise, but when you stumble upon a group doing Zumba to music, the threshold to join in is much lower. The mechanism of action here heavily involves **social norms and collective efficacy**. When citizens see their peers of all ages exercising in public, it reinforces the norm that "being active is normal and desirable in our community." The presence of many types of activities also taps into the concept of "**find your fun**" – a behavioral approach that recognizes enjoyment as a key determinant of sustained

physical activity. By offering dance, yoga, sports, etc., the program acknowledges that different people (and especially children) will be motivated by different activities. This variety increases the chance everyone finds an activity they *enjoy*, which is critical for intrinsic motivation. The family- and all-ages aspect leverages **behavioral contagion** within social groups: parents and children influence each other. For example, a child might drag a parent to the park because there's a fun class, or a parent might bring a child along, modeling active behavior. This mutual reinforcement is supported by family systems theory – interventions that engage the family unit often have stronger effects on children's lifestyle habits. Parchi in Movimento also rests on **removing psychological barriers**: the informal, no-commitment nature of free park classes lowers intimidation. People who might fear judgement or failure in a formal gym setting feel more comfortable joining a loosely structured group in the park, thus addressing determinants like anxiety or perceived competence. The theoretical basis here connects to **social marketing and diffusion**: the program "markets" physical activity as a free, fun leisure activity (not a medicine), using enjoyable events to draw people in. Once people have a positive experience, word-of-mouth spreads, tapping into diffusion theory as more community members give it a try. Another key mechanism is **integration into daily life**: by situating in local parks, it nudges people who are out for a stroll to participate, effectively integrating exercise into the fabric of community life rather than requiring a separate trip to a gym. Over time, this can shift community identity ("we are an active community"). For children, playing in the park with others in an organized activity also builds **social skills and confidence** – important psychosocial determinants that make them more likely to join sports or play with peers later. In theoretical terms, Parchi in Movimento exemplifies **collective efficacy**: as more people partake and see others partaking, the community's confidence in being active grows ("people like us can do this"). It also draws on **health equity frameworks**: by targeting those "often not active due to obstacles (economic, social, discrimination, etc.)", the program tries to flatten disparities. This resonates with the idea that **environmental change is a pro-equity strategy** – improving free public resources tends to benefit those with fewer private resources. Thus, the mechanism is not just increasing overall activity, but doing so in a way that reaches underserved groups, which can reduce gaps in health outcomes. In summary, Parchi in Movimento changes the **extrinsic context** (making activity easy, fun, social, and visible), which in turn influences intrinsic factors (motivation, attitudes) and leads to behavior change. It stands on theories of **community activation**, demonstrating that creating a supportive environment can

unlock the latent desire people have to be active by overcoming inertia and isolation.

In conclusion, the three innovative measures – although distinct in setting – collectively illustrate how **multi-level approaches** can effectively promote physical activity among children (and communities at large). Finnish Schools on the Move changes institutional practices and physical environments in schools, BASE provides personal encouragement through social bonds, and Parchi in Movimento transforms community spaces and norms. Each addresses both **behavioral determinants** (like knowledge, attitudes, self-efficacy, enjoyment) and **environmental determinants** (like availability of opportunities, social support, cultural norms) in complementary ways. Together, they embody a comprehensive strategy: **educate and empower the child (and their peers), shape the settings where the child learns and plays, and engage the broader community**. Such evidence-based yet accessible interventions are likely to yield not only more active 6–12 year-olds, but also more supportive families, schools, and neighborhoods – creating a reinforcing cycle of healthy, active lifestyles for the next generation.

7. Stakeholder-specific guidance

This chapter translates the general recommendations from Chapters 4–6 into concrete guidance for four main stakeholder groups: families and the general public, the medical and health sector, schools and educators, and public authorities and policy makers. The focus remains on children aged 6–12, but many actions will also benefit siblings, parents and the wider community. Physical activity should be promoted together with other healthy habits, such as eating nutritious foods and drinking water instead of sugary drinks, so children experience “healthy living” as a single package rather than separate messages.^{1,18,28,34}

Across all stakeholders, equity is a core principle. As shown in Chapter 4, children from lower socioeconomic backgrounds, some migrant communities and girls are less likely to meet activity guidelines and face more barriers to sport, active transport and outdoor play.^{16,17,19,20,35} Measures should therefore be designed so that every child can benefit – regardless of family income, neighbourhood, gender, ability or migration status.^{15,18,25,34} This means paying attention to cost (free or low-cost options), accessibility (safe places to be active, easy to reach by walking or public transport), inclusion (welcoming children with disabilities, different body sizes or limited fitness), and cultural and language fit.^{16,19,20,27}

The following sections outline what each stakeholder group can do in practical terms. They build on earlier cross-cutting recommendations (Chapter 5), the evidence base on effective interventions (Chapter 4), and lessons from the innovative measures described in Chapter 6.2.

7.1 General public and families

Families are the main “environment” for children. Parents, grandparents and caregivers decide how children get to school, how much screen time they have, what is available to eat and drink at home, and how weekends are spent. Supporting families to build active, healthy routines is therefore one of the most powerful ways to help children reach the recommended activity levels and reduce sedentary time.^{1,11,17,18}

Key goals for families

- Help children achieve an average of at least 60 minutes of moderate-to-vigorous physical activity per day, in line with WHO guidelines for children and adolescents.¹
- Reduce long periods of sitting and limit recreational screen time (e.g. TV, gaming, social media) in line with school-related sedentary behaviour guidance.

- Make water the default drink and offer mostly unprocessed, nutrient-dense foods, while keeping sugary drinks and highly processed snacks as occasional treats, consistent with EHLA's focus on combining activity with healthy eating.^{28,34}

Everyday movement: building activity into family life

- Plan a daily "active hour": This can include walking or cycling to school where possible, playing in the park, using local playgrounds, or doing active games at home (dance videos, obstacle courses, skipping).^{11–13}
- Use short moments of time: Several 5–10 minute bursts of movement throughout the day (walking after dinner, stair climbing, ball games in the yard) can add up to the daily 60-minute target.^{1,11}
- Choose active transport when possible: For short trips, walking, cycling or using a scooter can replace car travel; for longer distances, families can park further away or get off public transport one stop earlier and walk the rest.^{14,18}
- Be active role models: When adults are visibly active and enjoy movement, children are more likely to be active themselves.^{11,18}

Healthy routines around screens, sleep and food

- Set clear but realistic screen-time expectations: Using guidance from SBRN and national recommendations, families can aim to limit recreational screen time to around 2 hours per day and avoid screens during meals and before bedtime.^{21,22}
- Break up sitting: Encourage children to stand up, stretch or move every 30–60 minutes when doing homework, gaming or watching videos.²¹
- Link snacks to activity when possible: Offer fruit, vegetables, nuts, yoghurt or whole-grain options, particularly around active play, while limiting sugary drinks and energy-dense snacks.³⁴
- Make water easy and visible: Keep water jugs on the table, provide refillable bottles for school and activities, and encourage children to choose water over sugary drinks.^{18,27,34}

Using community and digital resources

- Make use of local assets: Parks, playgrounds, community centres, sports clubs, and "open streets" events provide low- or no-cost opportunities for movement and social contact.^{12,13,31,32}
- Explore both organised and informal options: Organised sports or classes can work well for some children, while others may prefer informal play such as cycling, skateboarding or playing games in local parks.^{8,9,12}
- Take advantage of EHLA tools where available: The "Active for Health" mobile application can support families by sharing activity ideas, school-linked

challenges, reminders and simple tips on healthy nutrition and hydration. (EHLA D3.2 “Mobile Application – Active for Health”).

Equity and inclusion for families

- Keep activities low-cost: Prioritise free parks, public play areas, and low-cost community programmes; where fees are required, families can explore subsidy schemes, local vouchers or reduced-fee options.^{15,16}
- Adapt to different family circumstances: Short, home-based routines are important for families with limited time, no car or shift work, making it possible to be active even when schedules are tight.^{12,16,28}
- Be sensitive to weight, disability and culture: Focus on enjoyment and effort rather than appearance or performance; choose activities that children of different body sizes and abilities can enjoy together; and respect cultural norms around clothing or gender mixing by offering suitable options.^{16,19,20}

7.2 Medical and health sector

Pediatricians, general practitioners, nurses, physiotherapists and other health professionals are trusted sources of advice for families. They see children at key moments (routine check-ups, vaccination visits, illness consultations) and can help identify inactive children, provide brief counselling, and link families to supportive programmes and community resources.^{25,26,34}

Treat physical activity and healthy lifestyle as vital signs

- Ask routinely about movement and screens: Simple questions such as “On a usual day, how much time do you spend being active or playing outside?” and “How much time do you spend on screens?” make the topic visible and normal in consultations.²⁵
- Check basic lifestyle items alongside height and weight: This can include whether the child meets the 60 minutes/day guideline, has regular sleep, drinks mostly water, and eats fruit and vegetables daily.^{18,34}

Provide brief, tailored advice

- Use clear, simple messages: Explain that children should be active every day and should break up long periods of sitting, drawing directly on WHO and SBRN recommendations.^{1,21,25}
- Link physical activity to outcomes families care about: Improved mood, concentration at school, social inclusion and prevention of weight gain are concrete benefits that many families find motivating.^{18,25,34}
- Support realistic goal-setting: For example, encourage families to select one or two goals such as walking or cycling to school twice per week, playing

outside for 30 minutes after school, or replacing one sugary drink per day with water.^{25,27}

Use simple tools for assessment, prescriptions and referrals

- Screen for inactivity and prolonged sitting: Short validated questions or checklists in line with WHO and SBRN recommendations can help identify children at risk (e.g. those who do no organised sport, very little play, or have high screen time).^{1,21,25}
- Provide “activity prescriptions”: For children with overweight, chronic disease risk or very low fitness, written plans specifying type, frequency and duration of activity can be helpful, especially when combined with follow-up and family involvement.^{25,26}
- Refer to local resources and school programmes: Health professionals can signpost families to community sports clubs, active play groups, adapted physical activity providers, or school-based initiatives inspired by models such as Finnish Schools on the Move, BASE and Parchi in Movimento.^{30–32}

Integrate basic nutrition and hydration messages

- Combine movement advice with simple dietary guidance: Encourage “mostly water” for drinks, daily fruit and vegetables, and limiting sugary drinks and energy-dense snacks, consistent with WHO and EHLA recommendations on healthy lifestyles.^{18,27,34}
- Coordinate with dietitians and other professionals: Where dietitians, school nurses or psychologists are involved, consistent messages on physical activity, diet, sleep and screen time help avoid confusion for families.^{18,25}

Equity-focused practice in health settings

- Proactively support high-risk groups: Girls, children from low-income families, those with obesity, chronic conditions or disabilities, and migrant families may face additional barriers to physical activity and organised sport.^{16,17,19,20} Health professionals can be particularly attentive to these groups.
- Ask about barriers and problem-solve: Barriers may include cost, lack of safe spaces, transport difficulties, bullying or parents’ own health problems. Problem-solving together with the family can identify feasible alternatives such as home-based routines or structured community programmes.^{12,16,25}
- Use accessible language and supports: Avoid jargon, use visual aids, and offer interpretation where needed, especially when working with families with limited health literacy or who do not speak the majority language fluently.^{16,19,20}

7.3 Schools and educators

Schools are central in EHLA because they reach almost all children daily and can influence movement, sitting, food and drink, and social norms. A “whole-school” approach – covering policy, curriculum, classroom practice, environment and partnerships – has strong evidence for increasing activity without harming academic outcomes.^{6,8–10,15,30} Schools can also promote healthy eating and drinking habits by shaping the food environment and working with families.

Establish a whole-school commitment

- Embed physical activity and healthy lifestyles in school visions and plans: School mission statements and improvement plans can explicitly mention daily movement and healthy living as key priorities.^{6,15,27}
- Develop or update a written policy: Policies can specify minimum PE time (e.g. aligning with national or regional expectations), daily opportunities for active breaks, and approaches to promoting active transport and inclusive sport.^{2,6,15,18}
- Involve staff, students and parents: Co-designing activities and rules with students, staff and parents, as seen in programmes like Finnish Schools on the Move, increases acceptance and sustainability.^{8–10,29,30}

Guarantee quality physical education (PE)

- Align PE with Quality Physical Education (QPE) principles: PE should be regular, inclusive and enjoyable, focus on developing movement skills and confidence, and provide equal opportunities for girls and boys and for pupils with disabilities.^{6,24}
- Minimise inactivity during lessons: Reducing time spent waiting in lines and using small-sided games or station-based activities helps keep most pupils moving throughout the lesson.^{8,10}
- Offer a variety of activities: Including team games, individual sports, dance, gymnastics and outdoor activities can cater to different interests and cultural backgrounds.^{8,9,12}

Create active classrooms and school days

- Incorporate short movement breaks: A 2–5 minute movement break at least every 30–60 minutes of classroom time, especially for younger children, helps reduce sedentary time and can support attention.^{1,8,9,22}
- Use physically active learning: Integrating movement into regular lessons (e.g. maths relays, spelling races, acting out stories) is a core feature of programmes like Finnish Schools on the Move and shows promising results.^{29,30}

- Encourage active homework: Periodically setting homework that involves movement (for example family walks, nature observation, step-count or “movement challenge” tasks) can strengthen school–home links.¹²

Make the school environment supportive

- Ensure safe, inviting play spaces: Well-maintained playgrounds, diverse play equipment, painted markings and multi-use games areas encourage varied and active play for different ages and abilities.^{13,29}
- Support active travel to school: Schools can provide bike racks, safe entry points, and work with local authorities and parents to promote walking or cycling routes, including “walking school bus” or cycle groups where feasible.^{14,15,29}
- Shape a healthy food and drink environment: Promoting water as the main drink, limiting the availability and marketing of sugary drinks and energy-dense snacks on school premises, and integrating healthy eating messages throughout the curriculum supports a broader health culture.^{18,34}

Build staff capacity and use EHLA resources

- Provide training and peer support: Professional development on active teaching methods, inclusive PE and managing active classrooms can draw on UNESCO QPE guidance, national toolkits and EHLA’s Capacity Building Programme (D3.3).^{6,15,28}
- Use the Active for Health app where available: Teachers can schedule activities, share information with parents, and coordinate participation in challenges using the mobile application linked to EHLA.
- Link to capacity-building materials: The EHLA e-book provides practical tips, examples and worksheets that schools can use to develop activity plans, communication strategies and evaluation approaches.

Equity and inclusion in schools

- Target less-active groups: Offering non-competitive options, girls-only sessions where appropriate, and adapted activities for children with disabilities or lower fitness can reduce participation gaps.^{16,19}
- Reduce financial barriers: Keeping after-school programmes low-cost or free where possible, and clearly communicating subsidy options or free community initiatives such as BASE and Parchi in Movimento, can support participation for lower-income families.
- Create a safe, welcoming climate: Address bullying related to body size, fitness, disability or cultural differences; emphasise effort, personal progress and enjoyment rather than performance or weight.^{16,19,20}

7.4 Public authorities and policy makers

Local and regional authorities, ministries and other public bodies influence the conditions in which families, schools and health services operate. Their decisions on urban planning, transport, education, sport, social policy and health strongly affect whether active lifestyles are easy or difficult for children and families.^{2,15,18,27,28,34}

Plan and design active communities

- Prioritise walkability and safe cycling: Measures such as pavements, safe crossings, traffic-calmed zones around schools and connected cycling networks are central to HEPA strategies and EU recommendations.
- Protect and develop green and play spaces: Investing in parks, playgrounds, school yards open to communities and multi-use game areas – particularly in underserved areas – supports active play and social contact.
- Integrate active transport into broader mobility plans: School transport policies, public transport stops and cycling infrastructure can be aligned with the goal of increasing active trips to school and reducing car dependence.

Use legislation, funding and incentives

- Translate recommendations into regulations: Council and WHO HEPA guidance can be reflected in national or regional regulations on minimum PE time, school physical activity policies and active transport provisions.
- Provide stable funding for PA programmes: Authorities can support school-based initiatives, grassroots sports clubs, youth programmes and community events that provide free or low-cost opportunities for children to be active, aligning with evidence on effective community and school interventions.
- Reduce inequalities through targeted investments: Additional resources can be directed to low-income neighbourhoods, rural regions with limited facilities and communities with low participation in sport or active transport, in line with equity-oriented strategies.

Coordinate across sectors and with communities

- Establish multi-sectoral working groups: Bringing together education, health, transport, urban planning, sport, social services and community representatives supports integrated planning and monitoring of child physical activity.
- Support schools and health services: Public authorities can provide guidance, toolkits and training aligned with this Guideline, and facilitate

partnerships between schools, health providers, sports organisations and community groups.

- Involve children and families in decision-making: Through consultations, school councils, youth forums and community meetings, authorities can ensure that children's and parents' perspectives inform local plans, such as the design of parks or safe routes to school.

Integrate monitoring, communication and digital tools

- Align with existing monitoring frameworks: WHO and EU HEPA documents recommend tracking child activity levels, PE time, active transport and participation in sport, ideally disaggregated by gender, socioeconomic status and region.
- Share results transparently: Local or national "report cards" on child physical activity can help engage the public, celebrate progress and highlight areas needing more attention.
- Support digital tools such as the Active for Health app: Authorities can facilitate roll-out, data protection and sustainability for digital platforms that support coordination and communication between schools, families and community organisations.

Equity and child-rights focus in policy

- Apply a health-equity lens to all decisions: Policy impact assessments can consider how new policies in transport, housing or education may affect different groups of children and adjust plans to avoid widening inequalities.
- Prioritise the most vulnerable: Investment decisions can explicitly aim to benefit children in deprived areas, those with disabilities, migrant children and girls at least as much as other groups, consistent with the WHO European Physical Activity Strategy.
- Uphold children's right to play and physical activity: National and local strategies can explicitly recognise play, rest and leisure as fundamental rights and treat safe spaces for physical activity as essential infrastructure rather than optional amenities.

By acting within their specific roles and collaborating with each other, families, health professionals, schools and public authorities can together create environments where active, healthy lifestyles become the easy and normal choice for every child.

8. Implementation roadmap

This chapter provides a practical roadmap for planning, piloting and scaling EHLA-style actions in local contexts. It is aimed at schools, municipalities and partner organisations who want to implement the Guideline, the three innovative measures from WP2 and the Active for Health mobile application in a coherent way. The roadmap combines lessons from implementation science (COM-B, Behaviour Change Wheel, RE-AIM) and from EHLA's state-of-the-art analysis, knowledge exchange visits and capacity-building programme.

It follows four iterative phases:

- 1) Prepare and co-create;
- 2) Design the local EHLA package and pilot;
- 3) Implement, monitor and refine;
- 4) Scale-up and sustain.

Stakeholders may move back and forth between phases as they learn what works in their context. D3.3 offers practical examples for each step (D3.3 "E-Book Capacity Building Programme").

8.1 Phase 1 – Prepare and co-create

Clarify aims and scope

- Define clear goals, such as "increase the proportion of children achieving at least 60 minutes/day of moderate-to-vigorous physical activity" or "increase active transport to school by X% in two years," aligned with WHO and HEPA policy goals.
- Start with a manageable number of schools or neighbourhoods, and plan from the start how successful pilots can later be extended.

Map stakeholders and existing initiatives

- Identify key actors: schools, parents' associations, local health services, sports clubs, NGOs, youth councils and municipal departments (education, health, transport, urban planning).
- Map existing programmes and assets (e.g. active transport policies, school health projects, initiatives like Finnish Schools on the Move, BASE or Parchi in Movimento) to avoid duplication and build on what works.

Understand needs, barriers and motivators

- Use simple tools (surveys, focus groups, informal interviews) with children, families, school staff and health professionals to identify what helps or hinders active, healthy lifestyles.
- Apply COM-B to structure findings:⁵
 - Capability – skills and knowledge (movement skills, confidence, understanding of benefits).
 - Opportunity – safe spaces, time in the school day, affordable programmes, supportive policies.
 - Motivation – whether being active is enjoyable, valued and “for people like them.”

Co-create priorities with stakeholders

- Form a local “implementation team” with representatives from schools, families, health services, sports organisations and the municipality, reflecting EHLA’s multi-sector approach.
- Involve children (school councils, class discussions, youth groups) so planned activities fit their interests.
- Use structured action-planning (as in the EHLA Capacity-Building Programme) to agree on 2–4 priority changes for the first 12–18 months.

Define governance and roles

- Nominate a local coordinator or small core team (for example a municipal health officer and a school-based lead) to steer the process and communication.
- Clarify roles early: who leads school actions, who manages app roll-out, who liaises with parents and community partners.

8.2 Phase 2 – Design the local EHLA package and pilot

In this phase, stakeholders translate priorities into a concrete package of actions that can be piloted in a small number of settings (e.g. 2–4 schools and their communities).

Select and adapt components

- Combine elements from three main “pillars”:
 1. School-based measures (active classrooms, QPE, active breaks, support for active transport).
 2. Family and community measures (family events, use of parks and playgrounds, community challenges, low-cost programming inspired by BASE or Parchi in Movimento).

3. Health sector and policy measures (brief PA counselling, local HEPA strategies, regulations supporting active transport and minimum PE time).
 - Decide how the Active for Health app connects these components (e.g. coordinating school challenges, sending reminders to families, collecting simple participation data). See also D3.2 “Mobile Application – Active for Health”.

Plan for cultural and language adaptation

- Review materials (posters, app messages, lesson plans) to ensure simple language, relevant translations and images reflecting local cultures, genders, body sizes and abilities.
- Test a small set of messages with children, parents and staff, and adjust based on their feedback.

Develop an implementation plan for the pilot

- For each action, define: who does what; when and how often activities occur (e.g. daily classroom breaks, weekly after-school sessions, monthly community events); and what resources are needed (time, training, equipment, facilities, digital support).
- Plan staff training and support using the EHLA Capacity-Building Programme (communication, delivery, engagement, technology), integrated into existing staff development structures where possible (EHLA D3.3 “E-Book Capacity Building Programme”, 2025).
- Agree on a small set of process indicators (e.g. classes delivering active breaks, families registered in the app, attendance at community events).

Address ethics, safety and data protection

- Ensure all activities are safe and age-appropriate and that staff know basic safety guidelines for children’s PA.
- For the app or other digital tools, ensure consent procedures, data minimisation and privacy safeguards meet national and EU requirements, particularly for children.

8.3 Phase 3 – Implement, monitor and refine

The pilot phase tests the local EHLA package, generates learning and prepares for scaling.

Support implementation in practice

- Provide hands-on support in the first months (e.g. classroom visits, joint planning, troubleshooting of app use).
- Encourage peer learning between schools and organisations via meetings or online groups, building on WP2 knowledge exchange and capacity-building activities.
- Communicate regularly with families, sharing progress and inviting feedback.

Monitor reach, participation and basic outcomes

- Collect simple data such as:
 - Numbers reached (e.g. classes using active breaks, children enrolled in the app).
 - Frequency of activities (PE lessons per week, active breaks per day, community events).
 - Basic changes (teacher ratings, simple diaries, counts of children walking/cycling to school on sample days).
- Where feasible, add objective measures (e.g. accelerometers in a sub-sample) to better estimate changes in activity and sedentary behaviour.

Use feedback loops and the RE-AIM logic

- Use RE-AIM to interpret findings:⁷
 - Reach – who is taking part, and are girls, low-SES children and children with disabilities reached?
 - Effectiveness – are there signs of improved activity, sedentary time or related outcomes (enjoyment, confidence)?
 - Adoption – how many schools, classes or organisations are using the new practices?
 - Implementation – are components delivered as intended (e.g. frequency of active breaks, QPE principles)?
 - Maintenance – which elements are likely to continue, and what support is needed?
- Combine these indicators with qualitative feedback from children, parents, teachers and other stakeholders to understand what works and why.

Refine the local package

- Adapt activities based on evidence and feedback (e.g. simplify app features, adjust timing, add non-competitive options, strengthen family communication).

- Document adaptations and reasons so learning can inform future scale-up and transfer to other settings.

8.4 Phase 4 – Scale-up and sustain

When pilots show feasibility, acceptability and early benefits, partners can extend and embed the EHLA approach more widely.

Plan for gradual expansion

- Use pilot results to select components for expansion (e.g. school-wide active classrooms, broader app roll-out, regular community events).
- Develop a phased plan (e.g. adding schools or neighbourhoods over 2–3 years) while maintaining support and monitoring.

Embed in policy, budgets and organisational routines

- Work with education and health authorities to integrate successful elements into local or regional policies (e.g. minimum PE time, guidance on active breaks, support for active transport), aligned with EU and WHO HEPA strategies.
- Secure longer-term funding for coordination, training and basic equipment, using evidence from D2.1, the pilot and WP4 evaluation to show contribution to broader health goals.
- Incorporate tasks into existing roles (e.g. school health coordinators, municipal HEPA officers) so implementation does not rely on a single project-funded post.

Strengthen capacity and communities of practice

- Continue training cycles using the EHLA Capacity-Building Programme and national resources (e.g. QPE guidance), updating content as new evidence emerges.
- Build communities of practice across schools, municipalities and organisations (learning sessions, online platforms, annual meetings) to share experiences and solutions.

Maintain focus on equity and continuous improvement

- Monitor whether expansion reaches children in less advantaged areas, girls, children with disabilities and migrant communities, and adjust strategies where gaps persist.
- Use regular review cycles (for example annual reflection using RE-AIM as a checklist) to refine the package and ensure activities remain relevant, inclusive and aligned with WHO and EU HEPA priorities.⁷

Taken together, these four phases provide a concise, flexible path from initial planning to long-term integration of EHLA-style actions in local systems. Co-creation, careful piloting, systematic monitoring and policy integration can help ensure that effective innovations become part of everyday practice rather than short-lived projects.

9. Monitoring & evaluation

This chapter outlines how partners can monitor and evaluate EHLA-style actions in a pragmatic but evidence-informed way. Monitoring and evaluation (M&E) help to track progress, learn what works in different contexts and demonstrate contribution to broader WHO and EU HEPA goals.^{15,18,27,34} In EHLA, detailed impact evaluation will be conducted in WP4, but all implementing partners are encouraged to collect a core set of indicators and to use simple evaluation frameworks to support continuous improvement.

The focus is on three elements:

1. core indicators for children, settings and systems;
2. feasible data collection methods, including digital tools;
3. light-touch use of the RE-AIM framework to interpret results and define success criteria.⁷

9.1 Aims and principles of monitoring & evaluation

Monitoring and evaluation in EHLA should:

- Track changes in key behaviours and opportunities for children aged 6–12 (physical activity, sedentary time, active transport, PE and playtime, healthy eating and drinking), in line with WHO recommendations for health-enhancing physical activity.
- Assess whether actions reach those who need them most, particularly girls, children from low-SES backgrounds, children with disabilities and migrant communities, reflecting known inequalities in participation.
- Provide feedback to schools, municipalities and families so they can refine actions and invest resources where they have most impact.
- Contribute to national and European monitoring efforts by using indicators that align with WHO and EU HEPA frameworks.

M&E should be proportionate: a small, well-chosen set of indicators collected consistently is preferable to many indicators that are difficult to maintain.^{7,15,27}

9.2 Core indicators

The following core indicators are proposed as a minimum package for EHLA-related monitoring. They can be complemented by additional indicators to meet local or national requirements.

a) Child behaviour indicators

- **MVPA minutes per day / proportion meeting guidelines**
 - Example indicator: proportion of children who achieve at least 60 minutes per day of moderate-to-vigorous physical activity on average, reflecting WHO guidelines for school-aged children.
 - This can be estimated via brief questionnaires, simple activity diaries or accelerometers in sub-samples.
- **Sedentary time and screen use**
 - Example indicator: average hours per day spent in leisure screen time on school days and weekends; proportion of children exceeding recommended limits from school-related sedentary behaviour guidance.
- **Active transport to school**
 - Example indicator: proportion of children who usually travel to school by walking, cycling or other active modes.
 - This can be captured via short pupil or parent surveys or simple “hands-up” classroom counts on sample days.¹⁴
- **Participation in organised sport or physical activity**
 - Example indicator: proportion of children participating in at least one organised sport or physical activity session per week (school-based or community-based), acknowledging evidence that such participation supports higher overall activity.

b) School and setting indicators

- **PE and active time in school**
 - Minutes of PE per week per class (compared with national or local expectations, and Quality Physical Education principles).
 - Number of active classroom breaks per day and proportion of classes implementing them.
- **Use of school and community facilities**
 - Frequency of playground and outdoor area use during breaks; opening of school facilities for community use; participation in community programmes such as BASE or Parchi in Movimento.
- **Implementation of EHLA measures**
 - Number and proportion of schools implementing defined EHLA components (e.g. active classrooms, active transport promotion, family events).
 - Number of professionals trained using the EHLA Capacity-Building Programme (EHLA D3.3 “E-Book Capacity Building Programme”).

c) System and equity indicators

- **Policy and strategy indicators**
 - Existence of local or regional policies that support health-enhancing physical activity (e.g. minimum PE time, active travel plans, physical activity strategies), consistent with EU and WHO recommendations.
- **Equity indicators**
 - Where possible, disaggregation of key indicators (MVPA, active transport, participation) by gender, age, socioeconomic status and, where relevant, migrant background or disability status, to monitor gaps and progress towards fairer participation.

9.3 Data collection methods and tools

Different methods can be combined to build a coherent picture while keeping data collection feasible.

a) Questionnaires and brief surveys

- Short, age-appropriate questionnaires for children and/or parents can capture MVPA, active transport, screen time and participation in organised sport.
- Items can be adapted from existing instruments used in European surveillance and intervention studies, allowing comparison over time and with other regions.
- Online formats (including integration in the Active for Health app where appropriate) can reduce administrative burden.

b) Objective measures in sub-samples

- Accelerometers or other wearable devices can be used in smaller samples to obtain accurate estimates of MVPA and sedentary time and to validate self-report measures.
- Given cost and complexity, objective measures should be focused on pilot schools or specific evaluation studies (e.g. WP4) rather than routine system-wide monitoring.

c) Observations and routine school data

- Simple observational methods (e.g. counts of children walking or cycling to school, structured playground observations) can provide information on active transport and active play.

- School records (timetables, attendance lists, activity logs) can be used to monitor PE minutes, active breaks and participation in extracurricular activities.

d) Digital tools and app data

- The Active for Health app can generate data on registration, engagement with challenges, and frequency of use, which can serve as process indicators for EHLA implementation. (EHLA D3.2 “Mobile Application – Active for Health”).
- Dashboards or portals can provide simple feedback to schools and municipalities (e.g. participation in challenges, number of active classes) while respecting data protection and privacy rules.

e) Qualitative methods

- Focus groups, interviews and open-ended survey questions with children, parents, teachers, health professionals and policy makers help to understand perceived changes, barriers and facilitators.
- Qualitative data are especially useful for interpreting quantitative findings and informing refinement of interventions (see Chapter 8).

9.4 Using RE-AIM and defining success criteria

The RE-AIM framework provides a simple structure to interpret results and plan improvements without making the evaluation overly complex.⁷ It can be applied at school, municipal or regional level.

- **Reach** – Who is participating?
Typical questions include: What proportion of eligible schools, classes and children are engaged? Are girls, children from low-SES backgrounds and children with disabilities being reached?
- **Effectiveness** – What changes are observed?
Here the focus is on changes in MVPA, sedentary time, active transport and participation in organised activity, as well as related outcomes such as enjoyment and confidence.
- **Adoption** – Which organisations take up the programme?
This considers the proportion of schools, health services or community organisations that implement one or more EHLA components and the level of leadership support.
- **Implementation** – How well are components delivered?
Questions include whether the components are delivered as intended (e.g.

frequency of active breaks, adherence to QPE principles in PE), how much staff training has been completed and what adaptations have been made.

- **Maintenance** – What is sustained?

This dimension looks at which elements continue 6–12 months after initial support, how far they are integrated into policies, routines and budgets, and whether there is ongoing monitoring and improvement.

It is helpful to agree simple “success criteria” at the outset, for example:

- **Behavioural:** a specified increase in the proportion of pupils walking or cycling to school or meeting MVPA guidelines over a defined period.
- **Implementation:** a high proportion of classes delivering at least one active break per day for most of the school year.
- **Equity:** reductions in participation gaps between boys and girls or between schools in high- and low-SES areas.

These criteria should be realistic, aligned with baseline levels and negotiated with key stakeholders.^{7,15}

9.5 Practical steps for local evaluation

To keep evaluation feasible and useful, local partners can follow five practical steps:

1. **Agree evaluation questions**

Examples include: “Are more children active every day?”, “Who is being reached?”, “Which components are most used and appreciated?”, “Are there emerging inequalities?”

2. **Select a small, balanced indicator set**

Choose a limited number of behaviour indicators, setting/process indicators and at least one equity indicator, aligned with local priorities and with WHO/EU frameworks where possible.

3. **Choose feasible methods and responsibilities**

Decide who will collect which data (schools, municipal staff, researchers, app provider), how often and with what tools, keeping demands realistic.

4. **Ensure ethics, data protection and quality**

Use age-appropriate consent and information procedures, respect privacy, and provide clear guidance and training for those collecting data.

5. **Analyse, discuss and act on findings**

Summarise results in accessible formats (brief dashboards, infographics, school reports), share them with stakeholders, and use them to adjust implementation plans and guide further investment.

By combining a clear indicator set, feasible methods and a RE-AIM-informed interpretation, EHLA partners can build a robust yet pragmatic monitoring and evaluation system. This supports learning within and across countries, strengthens the evidence base for effective school- and community-based strategies, and helps ensure that progress towards more active, healthy and equitable childhoods is visible and sustained over time.

10. Resources & tools

This chapter briefly summarises key resources and tools that partners can use to implement, monitor and communicate EHLA-style actions, and indicates where to find them. The emphasis is on:

1. measurement tools;
2. implementation and communication tools;
3. EHLA-specific digital and capacity-building resources.

Partners are not expected to use everything listed; the idea is to choose a small set that fits local needs and capacity.

10.1 Measurement tools

10.1.1 Self-report questionnaires

Self-report tools are the most practical option for routine monitoring in schools and municipalities. They can be administered on paper, online, or (for selected items) via the Active for Health app. Some useful types are described below.

- **Short child PA/sedentary questionnaires**
 - A few questions on days/week and minutes/day of moderate-to-vigorous physical activity, aligned with WHO recommendations for school-aged children.
 - One or two questions on screen time (school days vs. weekend) and usual travel mode to school.
- **Child/adolescent activity questionnaires**
 - Slightly longer tools that cover activity at school, in leisure time and in transport.
 - Prefer instruments that are validated or widely used in your language (e.g. items from national school health surveys or HBSC-type surveys).^{1,19}
- **Parent / home-environment questionnaires**
 - Brief forms for caregivers on family routines, rules around screens, support for active transport and healthy eating.
 - Helpful for tailoring communication and understanding how school/community actions fit into daily life.

10.1.2 Objective activity measures

Objective measures are mainly relevant for pilots and evaluation studies (e.g. WP4), not for routine monitoring.

- **Accelerometers and wearables**
 - Worn at the hip or wrist to estimate MVPA and sedentary time with good precision.
 - Best used in sub-samples of classes or schools to validate self-report and quantify change.
- **Simple devices**
 - Pedometers or step-counters can be used in time-limited challenges (e.g. "step weeks") to motivate and to obtain rough indicators of change.

10.1.3 Context and environment tools

Understanding the setting helps explain why some schools or areas make more progress than others.

- **School policy/practice checklists**
 - Short forms to record PE minutes, use of active breaks, support for active transport, facilities, and alignment with Quality Physical Education principles.
- **Playground / facilities audits**
 - Simple checklists or maps of playgrounds, sports areas, green spaces and walking/cycling routes around schools.
- **Community "asset maps"**
 - Lists or maps of local clubs, programmes and initiatives (e.g. Finnish Schools on the Move, BASE, Parchi in Movimento) that can collaborate with schools and families.

10.2 Implementation and communication tools

10.2.1 Planning and implementation templates

The Capacity-Building E-book (Deliverable D3.3) presents EHLA as a practical workbook and includes an example Action Plan Worksheet for integrating innovations into local practice. Based on this, partners can:

- **Create a simple action-plan template**

- One or two pages to define goals, target groups, key activities, timelines, responsibilities and needed resources.
- Teams can adapt the example from the E-book into Word, online forms or internal planning systems.
- **Develop brief component checklists**
 - One-page checklists for each EHLA component (active classrooms, active transport, family events, etc.) capturing the main “to-dos” before, during and after implementation.
- **Use basic safety/risk checklists**
 - Short lists to check supervision, equipment, inclusion and emergency procedures for activities.

10.2.2 Communication materials

The E-book (D3.3) also offers guidance and examples for communication with families, staff and community partners. In practice, partners can develop:

- **Information sheets for families**
 - One to two pages explaining what the school/municipality is doing, why it matters, and what families can do at home.
 - Translated or simplified versions where needed.
- **Slide decks and infographics**
 - Short presentations (around 5–10 slides) and one-page visuals summarising key messages (e.g. “60 minutes/day movement”, “less sitting, more moving”, “walk/cycle to school when possible”).
- **Social-media and website posts**
 - Ready-made short posts to promote events, challenges and success stories on school or municipal channels, emphasising fun and inclusion rather than performance.

10.3 EHLA-specific digital and capacity-building tools

10.3.1 Active for Health mobile application (D3.2)

The Active for Health app is the main digital product of WP3 (Deliverable D3.2 “Mobile Application – Active for Health”). It is designed to:

- schedule and share activity sessions and challenges with classes and families;
- send reminders and simple tips about movement, screen time and healthy eating;

- collect basic process data (e.g. registrations, participation in challenges, self-reported activity);
- link to the ActiveForHealth.eu website and a secure online portal (dashboard.activeforhealth.eu) powered by the SURPASSPORT platform, where authorised teachers and coordinators can manage classes, activities and feedback;
- give parents access to static resource materials (on activity, healthy eating and drinking well) and support secure “peer buddy” links between families.

Details of functionalities, roles, technical architecture and data protection are described in D3.2. Schools and municipalities should contact their national EHLA partner for access, technical support and accompanying training materials.

10.3.2 Dashboards and feedback

Where technically feasible, aggregated data from the app and from schools can be displayed in simple dashboards:

- school-level views (e.g. number of active classes, challenge participation);
- municipal/regional overviews (participating schools, trends over time);
- project-level views to support WP4 evaluation.

These dashboards should never show identifiable child-level data and must follow national and EU data-protection rules.

10.3.3 Capacity-Building E-book (D3.3)

The EHLA Capacity-Building Programme (E-book, D3.3) is the primary training and support resource. It includes:

- short background chapters on physical activity, sedentary behaviour, active transport and equity;
- practical chapters on communication, engagement and programme delivery;
- an example Action Plan Worksheet and guidance on team reflection and planning.

The E-book will be available as a PDF on the project website <https://activeforhealth.eu/> and can be used in workshops, staff meetings and self-study.

10.3.4 State-of-the-art and knowledge-exchange reports (D2.1, D2.2)

Finally, Deliverable D2.1 (State of the Art Analysis Report) and Deliverable D2.2 (Report on Knowledge Exchange Visits) provide:

- descriptions of promising programmes and policies relevant to EHLA;
- real-world examples of implementation in different European contexts;
- lessons learned and common pitfalls.

Partners can consult these reports when looking for case studies, arguments for local decision-makers, or ideas for adapting EHLA actions to their own context.

11. Glossary & abbreviations

This chapter explains key abbreviations and terms used throughout the guideline.

11.1 Abbreviations

- **EHLA** – European Healthy Lifestyle Alliance / Actions (project focusing on healthy lifestyle promotion, especially physical activity, in Europe).
- **EU** – European Union.
- **WHO** – World Health Organization.
- **HEPA** – Health-Enhancing Physical Activity (any physical activity that benefits health and well-being).
- **PA** – Physical Activity (any bodily movement produced by skeletal muscles that requires energy expenditure).
- **MVPA** – Moderate-to-Vigorous Physical Activity (activities that noticeably raise heart rate and breathing, such as brisk walking, running, or active games).
- **PE** – Physical Education (planned, curriculum-based lessons that teach movement skills, fitness, and healthy lifestyle habits at school).
- **QPE** – Quality Physical Education (PE that is regular, inclusive, skills-oriented and delivered by appropriately trained staff).
- **COM-B** – Capability, Opportunity, Motivation – Behaviour (a framework for understanding and changing behaviour).
- **RE-AIM** – Reach, Effectiveness, Adoption, Implementation, Maintenance (a framework for planning and evaluating public-health interventions).
- **SES** – Socioeconomic Status (a person's or group's social and economic position, often based on income, education and occupation).
- **WP** – Work Package (a major work stream within the EHLA project, e.g. WP2, WP3, WP4, WP5).
- **HBSC** – Health Behaviour in School-aged Children (an international research study on young people's health and behaviours).
- **D2.1 / D2.2 / D3.1 / D3.2 / D3.3** – Codes for EHLA project deliverables (state-of-the-art report, knowledge-exchange report, guideline, mobile application and capacity-building e-book).

11.2 Key terms

- **Physical activity** – Any movement of the body produced by muscles that uses energy, from walking and cycling to organised sport and active play.
- **Sedentary behaviour** – Waking behaviour with very low energy expenditure while sitting, reclining or lying (e.g. watching TV, gaming, sitting at a desk).
- **Active transport** – Walking, cycling or using other physically active modes to travel to and from places such as school, home or the shops.
- **Active play** – Unstructured, often spontaneous physical activity (e.g. running games, playground play) usually driven by children's own interests.
- **Health equity** – The absence of unfair, avoidable differences in health between groups; all children have a fair chance to be active and healthy.
- **Inclusion** – Ensuring that programmes and environments are welcoming, safe and accessible for all children, regardless of ability, gender, culture or income.
- **Stakeholder** – Any person or organisation that can influence, or is affected by, physical-activity promotion (e.g. schools, families, health professionals, municipalities, sports clubs).
- **Co-creation** – Developing programmes or policies together with those who will use or be affected by them (e.g. children, parents, teachers, clinicians).
- **Scale-up** – The planned expansion of a successful intervention so that it reaches more people, settings or regions.
- **Innovative measure** – A promising or novel approach to promoting physical activity, often developed locally and supported by early evidence or experience.
- **Best practice** – An approach or programme that has shown positive effects and is considered a strong example others can learn from or adapt.
- **Implementation roadmap** – A step-by-step plan describing how an intervention will be prepared, delivered, adapted and sustained in practice.
- **Indicator** – A specific variable or measure (e.g. PE minutes per week, proportion meeting MVPA guidelines) used to track progress.
- **Active for Health app** – The EHLA mobile application that supports planning and communication around activity sessions and challenges, and offers families tips on movement, screen time and healthy living.

- **Capacity building** – Activities that strengthen knowledge, skills, resources and systems so organisations and professionals can sustainably promote physical activity and healthy lifestyles.

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