

STANDARDS FOR HEALTHY EATING, PHYSICAL ACTIVITY, SEDENTARY BEHAVIOUR AND SLEEP IN EARLY CHILDHOOD EDUCATION AND CARE SETTINGS: A TOOLKIT



Active



World Health Organization

STANDARDS FOR

HEALTHY EATING, PHYSICAL ACTIVITY,

SEDENTARY BEHAVIOUR AND SLEEP

IN EARLY CHILDHOOD EDUCATION

AND CARE SETTINGS: A TOOLKIT

Active



World Health
Organization

Standards for healthy eating, physical activity, sedentary behaviour and sleep in early childhood education and care settings: a toolkit
ISBN 978-92-4-003225-5 (electronic version)
ISBN 978-92-4-003226-2 (print version)

© World Health Organization 2021

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<http://www.wipo.int/amc/en/mediation/rules/>).

Suggested citation. Standards for healthy eating, physical activity, sedentary behaviour and sleep in early childhood education and care settings: a toolkit. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Design: Eddy Hill Design



CONTENTS

Acknowledgements	iv
Glossary	vi
Introduction	1
What does this toolkit provide?	3
Who is this toolkit for?	3
The global action plan on physical activity 2018–2030	4
Section One: Why establish standards for ECEC settings?	6
Section Two: ECEC standards for healthy eating, physical activity, sedentary behaviour and sleep	8
<i>Development of standards</i>	8
Guiding principles	9
Rationale, intent and criteria	10
Section Three: How to plan and implement the standards	22
<i>Enabling factors and actions at the national/subnational level</i>	23
Leadership	23
Partnerships	24
Resourcing/financing	24
Building workforce capability	25
Using evidence to inform policy and practice	26
<i>Enabling factors and actions to be taken at the ECEC level</i>	28
Leadership	28
Partnerships	28
Resourcing/financing	28
Building workforce capability	29
Using evidence to inform policy and practice	29
References	30
Annex: Technical expert group	32

Web Annex: Development of the standards and global survey questionnaire
<https://apps.who.int/iris/bitstream/handle/10665/345927/9789240032279-eng.pdf> 

ACKNOWLEDGEMENTS

Senior Professor Tony Okely, Associate Professor Bridget Kelly, and Dr Ellie Taylor (University of Wollongong, Australia) reviewed the evidence, existing standards and survey results and drafted the background report.

Dr Juana Willumsen and Dr Fiona Bull (Physical Activity Unit, Department for Health Promotion, World Health Organization (WHO) Headquarters) provided technical guidance and supervision. Colleagues from the Department of Nutrition for Health and Development, and regional advisors from each WHO regional office reviewed this toolkit. Dr Betzabé Butrón (Regional Advisor Child Health, Department of Family Health, Gender and Life Course, Pan American Health Organization (PAHO)), Dr Bernadette Daelmans (Department of Maternal, Newborn, Child and Adolescent Health, WHO Headquarters), and Riita-Maija Hämäläinen (Regional Advisor, Health Promotion, WHO Regional Office for the Western Pacific) provided specific inputs to the development of this toolkit. Yuri Belfari, Head of Division of Early Childhood and Schools (Organisation for Economic Co-operation and Development (OECD)), Frances Bowen (Education Consultant, World Bank Group), Amanda Devercelli (Global Lead for Early Childhood Development), and Robyn Landais (consultant) also provided comments on drafts.

Technical Advisory Group included: Assistant Professor Nicolas Aguilar (Universidad de la Frontera, Chile), Professor Greet Cardon (Ghent University, Belgium), Dr Alejandra Jáuregui de la Mota (National Institute of Public Health, Mexico), Dr Fan Jiang (Shanghai Jiao Tong University, China), Paula Klenner Fortes (UNESCO, Chile), Rhonda Livingstone (Australian Children's Education and Care Quality Authority, Australia (ACECQA)), Senior Professor Tony Okely (University of Wollongong, Australia), Matias Portela (Ministry of Health, Chile), Liz Prosser (Healthy Early Years London, United Kingdom of Great Britain and Northern Ireland), Professor Nirmala Rao (University of Hong Kong, China, Hong Kong SAR), Dr Muneera Rasheed (Aga Khan University, Pakistan), Dr Selma Simonstein (Universidad de Santiago Metropolitana, Chile), Professor Dianne Stanton Ward (University of North Carolina, United States of America), Zorica Trikic (International Step by Step Association, Netherlands).

Administrative support: Ms Karina Wolbang-Sakulin (WHO)

Survey peer review (external): Perry Campbell (ACECQA), Professor Greet Cardon (Ghent University, Belgium), Associate Professor Valerie Carson (University of Alberta, Canada), Dr Christine Chen (Early Childhood Development Specialist, Singapore), Dr Catherine Draper (University of the Witwatersrand, South Africa), Ana-Luisa Franco, Fay Gowers, Karen Tonge (University of Wollongong, Australia), Dr Noshin Khan (Early Childhood Education Consultant, Pakistan), Rhonda Livingstone (ACECQA); Charley Sanford (University of Surrey, United Kingdom).

Standards peer review: Frances Bowen (World Bank Group, United Kingdom), Amanda Devercelli (World Bank Group, United Kingdom), Dr Guan Hongyan (Capital Institute of Pediatrics, China), Dr Rachel Jones (University of Wollongong, Australia), Erin Kerr (University of Wollongong, Australia), Dr Denise Koh (Universiti Kebangsaan, Malaysia), Dr Audrey Morris (PAHO/WHO Regional Office for the Americas, Jamaica, Bermuda & The Cayman Islands), Yuri Obara Belfali (OECD, France), Associate Professor Trish Tucker (Western University, Canada).

Case study coordination and contribution: Issad Baddou (Morocco), Perry Campbell (Australia), Professor Greet Cardon (Belgium), Dr Cecilia Chan Hoi Sze (China, Hong Kong SAR), Eline Coppens (Belgium), Marieke De Craemer (Belgium), Dr Catherine Draper (South Africa), Dr Asmaa El Hamdouchi (Morocco), Dr Guan Hongyan (China), Mr Nazmul Hossain (Bangladesh), Dr Alejandra Jáuregui de la Mota (Mexico), Kathy Knight-Robinson (Canada), Denise Koh (Malaysia), Matthieu Lenoir (Belgium), Rhonda Livingstone (Australia), Muhammad Mahbubul Alam (Bangladesh), Imane Menchawy Benjelloun (Morocco), Outbout Najat (Morocco), Tammy Potter (Canada), Marlene Power (Canada), Liz Prosser (United Kingdom), Hortensia Reyes-Morales (Mexico), Kim Roberts (United Kingdom), Dr Mohammad Sorowar Hossain (Bangladesh), Professor Dianne Stanton Ward (USA), Di Swanston (United Kingdom), Palmira Sweeney (Australia), Zhiguang Zhang (China). The Australian Government Department of Health provided funding to conduct field testing.



GLOSSARY

Active play	Involves physical activity as part of play (see definitions of Physical Activity and Play).
Director/service leader	Person who oversees the day-to-day operations of an early childhood education and care setting, including the budget, policies, programmes, and staff.
Early childhood	Defined, for the purpose of these global standards, as the period from birth to the age of 5 years. (Early childhood can also be defined as the period from birth to the age of 8 years as per the Nurturing Care Framework)
Early childhood education and care (ECEC) settings	Also referred to as child development centres, child care, crèche, nursery, pre-kindergarten, kindergarten, long day care, family day care or child care, or pre-school.
Fine motor skills	Movement skills that involve small muscle groups that control the hand, fingers and thumb. For example, drawing, cutting with scissors, playing with puzzles and buttoning a shirt.
Food security	Access to a sufficient quantity of affordable, nutritious food.
Gross motor skills	Movement skills that involve large muscle groups and are generally categorized as locomotor, stability and object-control skills, e.g. running, jumping, hopping, kicking, throwing, galloping, balancing, catching and striking. They reflect the status of motor development at a specific age.
Healthy eating	A definition has not been provided for this term, as each country or region follows different dietary guidelines in relation to eating the right amounts and kinds of foods and drinks needed for health and well-being. Where relevant, the term "healthy eating" encompasses breastfeeding or feeding with expressed breast milk.
Information technology	Devices and other technology through which information can be created, gathered, processed, stored, presented and disseminated (e.g. via electronic tablets, iPads, computers, smartphones).
Organized learning programme	The curriculum or framework of an ECEC setting, including the environment, daily interactions between children, staff and pedagogy.
Naptime	Time periods during the ECEC setting's day where children sleep in accordance with their stage of sleep development. The pattern and timing of daytime naps changes during early years.
Play	Play is defined as being for its own sake (without a specific goal), voluntary, a special activity (out of the ordinary), enjoyed by participants, governed by rules (implicit or explicit) and imaginative. It can be solitary or social, and with or without objects. Young children acquire and consolidate developmental skills through playful interactions with people and objects.
Primary caregivers	Includes parents, families and other people directly responsible for the child at home.
Physical activity	Any bodily movement involving muscle groups that increases energy expenditure above resting (sitting) levels. Examples include active play, swimming, dancing or moving to music, skipping, jumping, riding a tricycle or scooter, and playing with balls.
Policies	Principles or values that dictate decisions and actions within a place of work. In the context of this document, policies (legal or otherwise) are those deployed in an ECEC setting.

Procedure	A guideline or series of actions that determine how a task should be achieved.
Resources	Assets or stock required for a child care centre to run effectively, e.g. financing, staff, and practical materials.
Schedules or routines	The daily pattern followed in the ECEC setting, including movement of children in and between environments, structured/unstructured and indoor/outdoor activities, and day-to-day activities such as meals, rest time, sleep and nappy or diaper changes.
Sedentary screen time	Engagement with any electronic media device in a sitting or lying position. For example, a smartphone, tablet, laptop or desktop computer, television, or video game.
Sedentary behaviour	Any waking behaviour characterized by an energy expenditure ≤ 1.5 metabolic equivalents (METs), while in a sitting, reclining or lying posture. For example, electronic media use, looking at books, playing games, drawing/colouring, playing with blocks, or craft activities.
Situation analysis	An activity often commenced at the start of a process (in this case the implementation of the global standards) to assess the strengths, weaknesses, opportunities and areas for improvement with respect to existing practices and procedures. This can provide a starting point for the best course of action.
Staff	Includes those who educate and care for children, including management and food service staff.
Standard	A statement of a defined level of quality in an ECEC setting that is required to meet the needs of children, staff and parents. A standard defines the performance expectations, structures or processes needed for a centre to provide safe, equitable, acceptable, accessible, effective and appropriate services.
Subnational	A subsection or portion of a country, such as a territory, province, or state; or an organization that provides ECEC at this level.



INTRODUCTION

PHYSICAL ACTIVITY IS GOOD FOR HEARTS, BODIES AND MINDS AT ALL AGES.

Regular physical activity can prevent noncommunicable diseases (NCDs) such as heart disease, cancers and diabetes (1), and can improve mental health, cognitive function and educational attainment (1). In young children, regular physical activity and active play are vital for healthy growth and development (2) and not only improves children's fitness, health and well-being, but also their learning.

There are currently no global estimates of physical activity levels among young children. However, in most countries, the most socially disadvantaged groups (such as girls, children living with disability, and those of lower socioeconomic status) are often the least active. Knowledge, opportunity and social and cultural values, as well as environmental and economic conditions, determine how accessible, acceptable and safe it is for children to be physically active and to play.

However, it is not only physical activity that is beneficial for children's mental, physical and emotional well-being; equally important are healthy eating and adequate sleep. Early childhood education and care (ECEC) settings have a unique opportunity to promote healthy eating, physical activity, and adequate sleep for young children that will help them develop healthy behaviours through their childhood and beyond. This aligns with the primary goal of ECEC: to support a child's learning and development to their full potential, and the rights of children to play. The Nurturing Care Framework (3) calls for holistic care that encompasses child health and nutrition, provided in all settings where children socialize, play, learn and grow.

In addition, the Sustainable Development Goals have, at their core, the ambition to enable all people to participate fully in the social and economic opportunities available to them; not only to survive, but also to thrive and realize their rights to health, well-being, education and a sustainable society (4). An essential requisite for this is the protection of children's rights to health, education and care so that they can grow and develop to their full potential (5).

In 2016 the Commission on Ending Childhood Obesity made specific recommendations for ECEC settings on physical activity (Recommendation 4.11); sedentary time and sleep for young children (Recommendation 4.12); the provision of healthy foods and beverages (Recommendation 4.9); and food education and understanding (Recommendation 4.10) (6).

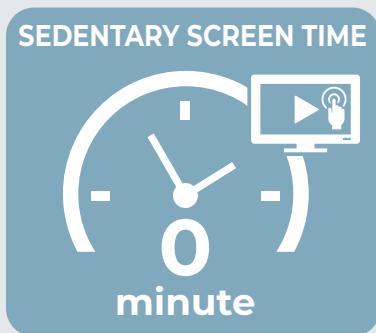
While the Commission on Ending Childhood Obesity; the Global Action Plan on Physical Activity 2018–2030; and the ACTIVE technical package (7, 8) set global, normative recommendations and strategic direction, they do not provide implementation recommendations or standards for specific settings. This toolkit aims to help fill this gap. It is one of a series of toolkits created to support countries in developing and implementing effective policy actions to increase physical activity, and focuses on interventions that can be delivered through ECEC services.

How much physical activity is needed for health?

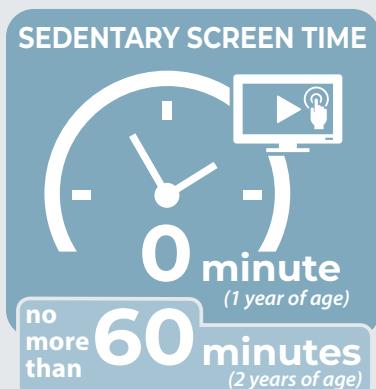
The WHO Guidelines on physical activity, sedentary and sleep behaviour for children under 5 years of age, published in 2019 (2) provide specific recommendations on the amount of time young children should spend every day being physically active and sleeping, and the maximum recommended time spent in sedentary screen-based activities.

Figure 1: Summary of the WHO guidelines on physical activity, sedentary behaviour and sleep for children aged under 5 years

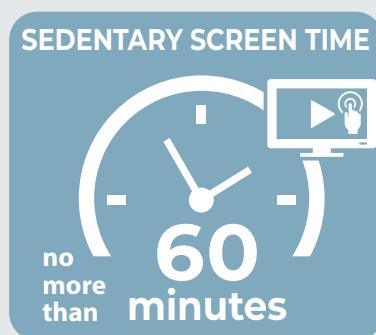
Infants (less than 1 year)



Children 1–2 years of age



Children 3–4 years of age



WHAT DOES THIS TOOLKIT PROVIDE?

This toolkit supports countries in establishing standards to strengthen the integration of healthy eating, physical activity and safe sleep into ECEC settings, based on best available evidence and practice. These standards were developed to support the implementation of WHO guidelines on childhood healthy eating (9, 10), which include healthy beverages and breastfeeding (where relevant); physical activity; sedentary time; and sleep (2). In this document, physical activity, sedentary behaviour and sleep are collectively referred to as “movement behaviours”.

The standards are applicable in different ECEC settings (such as pre-schools, long day care, family child care, day care, nurseries, crèches, kindergartens and playgroups) and are relevant to a range of contexts with differing resources. The standards also provide a framework to develop or enhance training for early childhood staff, particularly in low- and middle-income settings. In these settings, ECEC can play a vital role in children’s cognitive, motor, language, emotional and social development. For this reason, this toolkit aims to support all countries but particularly low- and middle-income countries with limited resources. It has three key sections:

- **Section 1** outlines the role of the ECEC in promoting healthy eating, physical activity and safe sleep, and minimizing sedentary behaviour.
- **Section 2** presents the four global standards for healthy eating, physical activity, sedentary behaviour and sleep in ECEC settings.
- **Section 3** describes the enabling factors and necessary actions at national, subnational and ECEC level to implement these standards.
- **The Web Annex** provides the detailed description of how the global standards were developed.

WHO IS THIS TOOLKIT FOR?

This toolkit is for policy-makers, programme managers and those responsible for ensuring ECEC standards at different levels within ministries of health, social welfare, or education (depending on where responsibility for the ECEC sector lies).

This toolkit will also be of interest to those working with and within ECEC at all levels, such as directors, administrators, educators and carers, as well as allied health care workers. It is intended to support:

- national or subnational policy-makers, directors and managers who are responsible for developing, implementing and evaluating standards in ECEC;
- heads of training organizations, societies and colleges, tertiary education and academic institutions responsible for training ECEC staff;
- ECEC providers (directors, managers and staff).



The global action plan on physical activity 2018–2030

The Global Action Plan on Physical Activity (GAPPA) 2018–2030 (7) sets a global vision of **more active people for a healthier world**. It calls for all countries to implement a whole-of-system approach to reduce global levels of physical inactivity by 10% by 2025 and 15% by 2030, and so improve health and well-being. The action plan outlines 20 actions across four objectives to increase levels of physical activity:

- **ACTIVE SOCIETIES** – change social norms and attitudes
- **ACTIVE ENVIRONMENTS** – better places and spaces for all people to be active
- **ACTIVE PEOPLE** – more programmes and services for people of all ages and abilities
- **ACTIVE SYSTEMS** – strong systems to implement effective and coordinated actions

Effective implementation of policy recommendations requires multisectoral engagement, including health, sport, education, transport, urban design, civil society, academia and the private sector. Implementation of the plan is supported by WHO's *ACTIVE: a technical package for increasing physical activity* (8), which is a series of "how to" toolkits (of which this toolkit is one), each addressing in more detail the specific tasks and processes necessary to implement the policy recommendations across different settings and across the life-course.



Figure 2: Summary of a whole-of-system approach to increasing physical activity



SECTION ONE:

WHY ESTABLISH STANDARDS FOR ECEC SETTINGS?

Early childhood is critical developmental period, and one in which children and their families and caregivers are most susceptible to external influences that can shape health and well-being throughout life (11). It is also a time during which lifestyle habits can contribute to preventing NCDs later in life. The Commission on Ending Childhood Obesity recognized the need to start obesity prevention early in life and acknowledges the important role that ECEC settings play in shaping children's food and physical activity preferences, and supporting caregivers and families (6).

In most countries, including low- and middle-income countries, children aged under 5 years spend at least some time each week in ECEC environments, making these important settings through which to enhance their health through physical activity and developing healthy sleep and eating habits. Those working in the sector have indicated that they would benefit greatly from standards tailored for specific settings, as well as guidance on how to support and engage with parents, caregivers, families, staff, and the wider community on these movement behaviours among children.

However, currently, there are no global standards for ECEC providers on healthy eating and physical activity, sedentary behaviour (including screen time) and sleep.

Some (mostly high-income) countries have national or regional guidance or standards for ECEC; however these may not be evidence-based and typically provide only general recommendations with no detail or policy options for specific environments, services or programmes. Global guidance is particularly needed in low- and middle-income countries, where there may be fewer professional development opportunities for staff in ECEC settings and where resources are limited.

Potential benefits global standards in ECEC settings include:

- the development of healthier food and drink habits (i.e. increased consumption of fruit and vegetables and reduced intake of unhealthy foods and beverages);
- support for, and promotion of, breastfeeding for infants of breastfeeding age;
- the integration of responsive feeding practices that are interactive and promote self-feeding and self-regulation of food (as appropriate to the child's age), and the recognition of a child's signals of hunger and satiety;
- higher levels of physical activity and the development of gross motor skills;
- the appropriate use and management of electronic devices (e.g. mobile phones, tablets/iPads, computers);
- support for appropriate sleep/nap duration;
- support for appropriate management of sedentary behaviours, including incorporating movement into typically sedentary activities where appropriate; and
- the development of early childhood staff skills in engaging with parents, caregivers and families, ECEC providers, and the wider community.

It is also important to note that the global standards are designed to align with the primary goal of ECEC: to support a child's learning and development to their full potential. For example, while the standards include the appropriate management of sedentary behaviours, they acknowledge that particular activities undertaken while sedentary or sitting form an important part of the main ECEC mission, and as such are relevant developmentally and to be encouraged. Examples include meal times, time spent looking at books, activities undertaken at table where children develop fine motor skills and group experiences, or a child's independent play.

The global standards are for all children of all ability levels worldwide. They are intended to be culturally and contextually sensitive and, as such, have four guiding principles: diversity, equity, participation and inclusivity. These principles provide the foundation to support young children's development and strengthen their

family/caregiver and community ties (3). Promoting the four principles can help children develop to their full potential and reduce the impact of threats such as insecurity, violence, gender inequities, stigmatization, discrimination and environmental toxins (3).

Table 1: Summary of relevant recommendations supporting the promotion of healthy eating and physical activity in ECEC

Sustainable Development Goal 4 (4)	Target 4.2, to " <i>ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</i> "; Target 2.2, to " <i>end all forms of malnutrition</i> "; and Target 3.4, to " <i>reduce by one third premature mortality from noncommunicable diseases</i> "
Global Action Plan on Physical Activity 2018–2030 (7)	The Global Action Plan on Physical Activity calls specifically for <i>the strengthening of physical activity opportunities in pre-primary education institutions</i> (Action 3.1); and for <i>the strengthening of policy frameworks, governance systems and leadership to support implementation of actions to increase physical activity and reduce sedentary behaviours for all ages</i> (Action 4.1)
Commission on Ending Childhood Obesity (6)	The Commission made specific recommendations for ECEC settings on <i>physical activity</i> (Recommendation 4.11); <i>sedentary time and sleep for young children</i> (Recommendation 4.12); <i>the provision of healthy foods and beverages</i> (Recommendation 4.9); and <i>food education and understanding</i> (Recommendation 4.10)
Nurturing Care Framework (3)	The Framework encompasses <i>Adequate nutrition</i> (Component 2), <i>Responsive Caregiving</i> (Component 3) and <i>Opportunities for early learning</i> (Component 4)



SECTION TWO:

ECEC STANDARDS FOR HEALTHY EATING, PHYSICAL ACTIVITY, SEDENTARY BEHAVIOUR AND SLEEP

DEVELOPMENT OF STANDARDS

The four standards were developed collaboratively by WHO departments and offices and academic partners, in consultation with a panel of technical experts and other relevant stakeholders. Development included a systematic review, analysis of existing national and subnational standards, an online global survey, and a technical expert review. Full details are available in the [Web Annex](#).

Each standard represents a key component of quality ECEC settings (see **Table 2**), and ECEC settings should aim to achieve all standards. Further guidance on recommended actions for implementing these standards is provided in Section 3.

Table 2: Global standards for ECEC environments

Build children's knowledge and skills	Standard 1. The ECEC learning programme and planning incorporate opportunities to build children's knowledge and skills around healthy eating and movement behaviours.
Provide supportive environments	Standard 2. The ECEC environment supports healthy eating and movement behaviours, respecting diversity and promoting equity and inclusion.
Work with families and caregivers	Standard 3. ECEC providers engage with local communities and families/primary caregivers about healthy eating and movement behaviours in the ECEC setting.
Ensure children's safety	Standard 4. The ECEC setting ensures children's safety through appropriate sleep, food hygiene and food handling practices, and the provision of access to safe and inclusive play and learning opportunities that build competence and support exploration.

Available online at <https://apps.who.int/iris/bitstream/handle/10665/345927/9789240032279-eng.pdf>

Guiding principles

Diversity, equity, participation and inclusivity are the guiding principles that underpin all four standards and are key values of the ECEC sector.

Figure 3 shows how the four standards intersect with each other to form an holistic ECEC approach, supported by the guiding principles.

Through inclusiveness, ECEC settings acknowledge, adapt to and celebrate the diversity in cultural background, family/caregiver/home structure, physical capacity, and the vulnerabilities and beliefs of the community they serve. Tailoring ECEC programmes to incorporate and meet the needs of all children and families/caregivers

is essential to building a relationship with parents/caregivers based on trust and respect. This in turn supports the participation of families/caregivers in the overall programme and aims of the ECEC setting, and in providing nurturing care. Equity, including gender equity, is fundamental to the realization of a child's rights. Special attention is needed to ensure that children with disabilities, those from marginalized or vulnerable groups, and those with varying abilities in movement, benefit from interventions that will enable them to reach their full potential, offer them a healthy start in life, and recognize the importance of the child as an agent of change.

Figure 3: Framework for promoting healthy eating and movement behaviours in ECEC settings



To help the ECEC sector implement each standard, accompanying criteria for input, process, and output were developed. These criteria apply consistently across the standards and align with the health-promoting ECEC framework for healthy eating and movement behaviours (see **Figure 3**). For each standard:

- the **input criteria** are the common influencing factors. These include the policies, resources and development of staff capabilities that the ECEC setting needs to put in place to achieve the defined standard;
- the **process criteria** define what should be implemented by ECEC providers to achieve the standard (i.e. the activities); and
- the **output criteria** are what should be observable in the children as a result of the input and process criteria.

The standards and criteria outlined in the following section are designed to guide best practice, though it is recognized that resources are limited in some ECEC settings, especially those in low- and middle-income countries. Nurturing care remains at the forefront of each criterion to ensure that ECEC providers strive for, and promote, good health, proper nutrition, safety, and responsive caregiving with the resources they have available (3). Although greater access to resources is associated with healthy eating and movement behaviours in ECEC settings, these standards acknowledge that in resource-poor settings, this might not be possible and available resources may be directed towards more pressing needs such as food security, staff salaries/stipends, basic hygiene and child safety.

Rationale, intent and criteria

STANDARD 1: Build children's knowledge and skills

The ECEC learning programme and planning incorporate opportunities to build children's knowledge and skills around healthy eating and movement behaviours.

Rationale: The importance of building children's knowledge and skills around healthy eating and movement behaviours was highlighted in 28 of the existing national and subnational standards for ECEC settings. One review concluded that physical activity and nutrition education is an important facilitator of changes in behaviour among children, with positive benefits including increased time spent in physical activity in ECEC settings (12). Further, healthy eating is enabled when health education in ECEC settings is sensitive to a child's hunger and satiety cues and when it is fun and engaging (13–15).

Intent: Standard 1 aims to highlight the importance of developing children's healthy eating and movement knowledge and skills (including gross and fine motor skills and ability to prepare food) and offering children regular opportunities to further develop these within ECEC settings. If children have adequate knowledge and skills in these areas, they are more likely to adopt and maintain healthy behaviours both inside and outside the ECEC setting. To do this, ECEC settings need to develop and implement appropriate policies and learning programmes to build children's knowledge and skills. Staff professional development is also key to successful policy and practice development and implementation, especially if it is in an area of need recognized by staff.

Among the ECEC providers who identified in the survey that they needed more guidance regarding physical activity, 57% noted that "development of children's gross motor skills" would be their first or second priority. When survey respondents were asked whether they have adequate knowledge and/or skills to provide support to children and/or parents/caregivers regarding development of gross motor skills, around half said their knowledge was inadequate. This demonstrates that training staff in the knowledge and skills required to develop children's gross motor skills is an area of need.

The appropriate development and implementation of policies can only occur if all relevant staff have received adequate training in these areas. It is the intent of Standard 1 to stress the need for staff training not only in knowledge areas (for example, how much time should be allocated to various movement behaviours), but also in the skills and self-efficacy needed for staff to teach children in developmentally appropriate ways. Comprehensive training should be provided across all movement behaviours, especially newer ones, such as limiting time spent in prolonged and restrained sitting, while at the same time ensuring adequate time for sedentary activities that are an important part of a child's learning and development. It is essential that ECEC

staff plan schedules in such a way that opportunities to develop gross and fine motor skills are interspersed throughout each day, and screen-based sedentary time is limited (or non-existent for children under 2 years of age).

The intent of Standard 1 is also to respond to the needs of ECEC providers, who reported needing greater guidance on how to promote physical activity; recognize children's need for flexible scheduling to accommodate snacking and varied levels of hunger; manage appropriate levels of sedentary behaviour (including screen time); and reduce long periods of sitting.

Measurable criteria for Standard 1

Input	Process	Output
<p>The ECEC setting:</p> <p>1a. develops policies and practices on:</p> <ul style="list-style-type: none"> the inclusion of healthy eating and daily movement behaviour education in its learning programme and planning; and allocation of appropriate time each day for children to be physically active and engaged in meaningful sedentary activities (e.g. drawing, storytelling) and sleep, rest and relaxation. <p>1b. provides continuous professional development on:</p> <ul style="list-style-type: none"> building children's knowledge and skills in healthy eating and movement behaviours; implementing relevant healthy eating and movement behaviour guidelines; identifying healthy meals/snacks, appropriate portion sizes, and how to teach children to respond to hunger and satiety cues, acknowledging that in food insecure environments, hunger may be widespread and children should learn how to make healthier choices in these environments; making links between healthy eating and movement behaviours and learning and socioemotional development. <p>1c. provides adequate resourcing to support the building of children's knowledge and skills in healthy eating and movement behaviours (e.g. gross and fine motor skills, food preparation, cooking appropriate foods).</p>	<p>The ECEC setting/staff:</p> <p>1d. develop children's knowledge in healthy eating and movement behaviours through learning experiences, activities and routines;</p> <p>1e. provide opportunities for children to participate in appropriate adult-led and child-led (physical) activities as well as sleep, rest and relaxation;</p> <p>1f. limit use of sedentary screen-based technologies and time spent in extended or restrained sitting;</p> <p>1g. encourage and support children to develop their gross and fine motor skills during all daily activities, including during meal times where possible; and</p> <p>1h. encourage and support children to become familiar with a variety of healthy foods and physical activities and recognize hunger and satiety cues (in accordance with their age).</p>	<p>1i. Children are knowledgeable about healthy eating and movement behaviours, as demonstrated through their interaction with staff.</p> <p>1j. Children willingly prepare, handle, taste and eat a variety of healthy foods, in appropriate portion sizes, and in line with relevant guidelines.</p> <p>1k. Children can express hunger and satiety and their need to sleep, rest and relax.</p> <p>1l. Children engage in appropriate levels of physical activity, in line with relevant guidelines.</p> <p>1m. Children demonstrate gross and fine motor skills appropriate for their age and ability, and in line with norms from standardized assessments within or outside of the country.</p> <p>1n. Children engage in learning programmes that limit time in extended or restrained sitting, in line with relevant guidelines.</p> <p>1o. Children have no, or limited, exposure to sedentary screen time in line with WHO Guidelines for physical activity, sedentary behaviour and sleep for children under 5 years of age (7) or relevant national recommendations.</p>

CASE STUDY**Promoting healthy eating and preventing childhood obesity, Mexico**

Childhood obesity is an emerging public health problem in Mexico, leading to child-care centres being seen as favourable settings in which to implement healthy eating and physical activity strategies. One multifaceted intervention to reduce obesity risk behaviours in children aged 2–4 years using healthy practices was rolled out at 16 child-care centres. The intervention comprised 12 weekly curriculum sessions for the children, and six family workshops, including game dynamics for key eating behaviours and physical activity. The *healthy eating component* included teaching children about healthy snacks and water consumption. The activities offered options for different foods and beverages as well as games to teach them how to select the healthiest alternatives. The *physical activity component* presented children with simple, purpose-built games, designed to teach them about incorporating movement into their day. All materials and equipment were provided by researchers, who also conducted the educational sessions, with support from educators. Changes in children's food habits, eating behaviours, physical activity, food availability at home, and maternal feeding styles were determined after 6 and 12 months.

The intervention group showed a greater decrease in reported home consumption of non-recommended foods, and a greater increase in physical activity compared to the control group. After 6 months, a significantly higher proportion of availability of apples was reported, and a lower proportion of fritters and cakes in the intervention group compared with the control group. Water consumption also increased for children in the intervention group compared with the control group.

Further information is available at www.sciencedirect.com/science/article/pii/S2444340916300036

CASE STUDY**Play Active Program for ECEC, Australia**

Many pre-school children in ECEC environments do not meet physical activity recommendations, but there is some evidence that children are more active in their ECEC setting if it has a written physical activity policy. However many ECEC services do not have such a policy, and if they do, the policy may not be well implemented.

In response to this, the Australian National Health and Medical Research Council provided funding for the Telethon Kids Institute to lead the development of the Play Active Physical Activity Program, launched in 2020 in Western Australia. As part of the programme, an evidence-based Play Active Policy was developed which provides clear guidance for ECEC educators on the amount of physical activity and sedentary time (including screen time) children should have while in ECEC environments. To ensure its success and sustainability, the programme was co-developed with ECEC providers, physical activity researchers and other related organizations with a remit to promote physical activity and related government policy. The policy enables ECEC services to be better equipped to meet national quality standards, and outlines procedures to enable ECEC providers to successfully implement the policy.

Play Active is currently being rolled out in 80 ECEC settings in Western Australia, and evidence-based, face-to-face or online training is available to support educators in providing children with the recommended daily physical activity while in an ECEC setting. A resource guide has been developed, providing information and practical tips on how to implement the policy, and strong partnerships have developed between 12 government, nongovernment, ECEC sector and research institutions. In 2021, Play Active will be available to other Australian states and territories, as well as internationally.

Further information is available at www.telethonkids.org.au/projects/play-active-program



STANDARD 2: Provide supportive environments

The ECEC environment supports healthy eating and movement behaviours, respecting diversity and participation, and promoting equity and inclusion.

Rationale: Supportive environments – where children are allocated adequate time and space to eat together in a relaxed setting, free of distractions – are conducive to improvements in food habits and eating behaviours (16). Staff are better able to create such environments when they have knowledge and awareness of healthy eating; when comprehensive policies and procedures are available to them; and when they create a warm and responsive relationship with the children and among themselves (17). Similarly, adapting the built ECEC environment, including quality fixed and portable play equipment, can help children take part in physical activity (18, 19). Natural environments, playground markings and painted playgrounds, rotating play equipment and increased opportunities to play outdoors can increase active play in these settings (20).

Scheduling in ECEC facilities should encourage regular opportunities for children to make healthy food and movement choices. Scheduling refers to the pattern of the day at the ECEC setting, including movement of children in and between environments, structured/unstructured and indoor and outdoor activities and activities of daily living such as meals, rest time and nappy or diaper changes. Staff should offer regular healthy meals and snacks where resources are available, helping children learn to recognize and respond to hunger and satiety cues. Changing, for example the timing of lunch or menu modifications, can facilitate positive dietary behaviour change (21). There is evidence that both structured (12, 22–24) and unstructured (16, 20) activities increase physical activity. Staff should also offer ample opportunities for variety of different physical activities throughout the day, including, where possible, appropriate structured and unstructured activities or games that promote regular movement (17). Play time should not be withheld as a punishment for inappropriate behaviour.

Ensuring ample time is provided for children to explore and engage in active play is important, not only for their physical health, but also as a way for them to learn social skills, cooperation, problem-solving and to help them

make sense of the world and of others. Interrupting prolonged periods of sitting with active play can also result in children being better able to transition to the next activity and improve their on-task behaviour and concentration (25). By ensuring ample opportunities for physical activity and active play in scheduling, staff can limit prolonged sitting, including screen time. Evidence from a systematic review suggests that decreasing children's use of digital technology (e.g. electronic tablets) in the ECEC setting directly facilitates increased movement among children (26).

Intent: Standard 2 stresses the importance of supportive environments in the adoption of healthy eating and movement behaviours in ECEC settings. It incorporates several staff and child behaviours that can enhance a supportive environment, such as:

- staff actively supervising children during meal times and eating healthy food with children;
- children consuming water as the drink of choice and, where appropriate, supporting and encouraging breastfeeding (including feeding expressed breast milk);
- encouraging restful sleeping; and
- children accessing a variety of culturally and age-appropriate equipment and resources (e.g. books, boxes, chairs, tables, colouring pencils) as part of their daily routine.

Standard 2 is designed to respond to the needs of ECEC providers in two areas highlighted in online survey responses. First, nearly 60% of staff indicated that their knowledge and skills to support children and parents/caregivers in the promotion of breastfeeding were inadequate. Second, 70% of staff reported that their knowledge and skills regarding helping children to sleep restfully were inadequate. The standard is also designed to ensure that appropriate policies and practices are implemented to support healthy eating and movement behaviours, restful sleep, and reduced screen time, especially as young children may spend a considerable amount of their day (especially their waking hours) in ECEC settings.

Measurable criteria for Standard 2

Input	Process	Output
<p>The ECEC setting:</p> <p>2a. develops policies and practices to support and encourage movement behaviours and healthy eating and drinking;</p> <p>2b. develops policies and practices to support and encourage breastfeeding and appropriate complementary feeding;</p> <p>2c. where appropriate, provides adequate time, space (where possible) and environments for healthy and safe physical activity, meaningful sedentary behaviour (including sedentary screen time) and healthy sleep, rest and relaxation;</p> <p>2d. provides continuous professional development on how to provide inclusive and supportive environments for healthy eating, breastfeeding and movement behaviours. In settings where families/caregivers provide food, this includes empowering parents/caregivers by providing information on what foods and snacks are appropriate for their child, and how to prepare them. In settings where a third party has a contract to purchase food and prepare meals, this includes ensuring that menus from this party are nutritionally appropriate and food safety principles and practices are followed; and</p> <p>2e. ensures resources are available to provide an inclusive, culturally appropriate and safe environment that supports healthy eating, breastfeeding and movement behaviours.</p>	<p>The ECEC setting/staff:</p> <p>2f. create, where appropriate, a welcoming breastfeeding environment;</p> <p>2g. offer water that is clean and safe to drink, and make it available at all times for children, age appropriately;</p> <p>2h. provide appropriate spaces and opportunities to meet each child's need for sleep, rest and relaxation;</p> <p>2i. allow adequate time and space for children and staff to prepare and eat food together where possible, in a relaxed atmosphere without distractions;</p> <p>2j. create engaging and inclusive spaces and opportunities for children to actively play and learn indoors and outdoors;</p> <p>2k. actively engage with children during play, food preparation and meal times;</p> <p>2l. model appropriate healthy eating, physical activity and sedentary behaviour practices;</p> <p>2m. provide a menu that includes a variety of nutritious foods in portions that are appropriate to children's growth and developmental needs and that reflects relevant nutrition guidelines;</p> <p>2n. offer regular healthy meals and snacks and responsive feeding that builds the child's ability to self-regulate food intake based on their hunger and satiety;</p> <p>2o. limit prolonged sedentary behaviours (such as restrained sitting) and use of electronic screens in line with WHO recommendations where appropriate; and</p> <p>2p. provide opportunities for adult-led and child-led physical activity and meaningful sedentary activities (e.g. self-directed child play, storytelling and fine motor tasks, such as writing or cutting with scissors).</p>	<p>2q. Infants are breastfed by the mother, where possible, or with expressed breast milk.</p> <p>2r. Children display appropriate levels of physical activity and sedentary behaviour, in accordance with official guidelines (e.g. WHO Guidelines for physical activity, sedentary behaviour and sleep for children under 5 years of age (2)).</p> <p>2s. Children prepare and consume healthy foods at appropriate intervals throughout the day.</p> <p>2t. Children drink sufficient water throughout the day.</p> <p>2u. Children sleep, rest and relax when needed.</p>

The ten steps to breastfeeding-friendly child-care centers resource kit – how to promote breastfeeding, USA

While breastfeeding initiation rates are fairly high in the USA, duration rates fall quickly. As infants transition to ECEC settings, additional barriers can occur for breastfeeding families if ECEC providers are not trained properly on breastfeeding support, and if there are no policies in place to ensure adequate staff training and best-practice implementation.

Wisconsin Breastfeeding Coalition developed the Ten steps to breastfeeding-friendly child-care centers resource kit – a state-wide initiative to support implementation of the 10 steps within ECEC programmes. The initiative includes:

- training for ECEC providers on breastfeeding basics, supportive ECEC environments, and recommended best practices;
- technical assistance to help ECEC programmes evaluate their environments, and create action plans for improvements;
- policy development to ensure support is available for both breastfeeding employees and families/caregivers;
- resources, such as children's books, posters, and educational materials, to help ECEC programmes create supportive environments and to better communicate with families/caregivers;
- data collection and tracking using the evidence-based Nutrition and Physical Activity Self-Assessment for Child Care, Breastfeeding & Infant Feeding tool (Go NAP SACC); and
- recognition of ECEC programmes such as Breastfeeding-friendly child-care centres once they implement the 10 steps.

As a result of the resource kit, breastfeeding significantly increased across ECEC programmes participating in the initiative. Breastfeeding is now included as a focus for assessment and quality improvement in Wisconsin's child care quality rating and improvement system, and state and local-level partnerships have been established between ECEC providers, local health agencies, child care resource and referral agencies, and other organizations dedicated to supporting breastfeeding families.

Further information is available at www.wibreastfeeding.com/wi-initiatives/breastfeeding-friendly-childcare-project and at <https://gonapsacc.org>





STANDARD 3: Work with families/ caregivers

Engagement of ECEC providers with local communities and parents/primary caregivers about healthy eating and movement behaviours in the ECEC setting.

Rationale: It is critical that parents/primary caregivers are involved in decisions on their children's food habits, eating and movement behaviours while in ECEC settings. In some countries, standards are already in place to reinforce this (27). Staff in ECEC settings should encourage parent/caregiver involvement as this has been shown to significantly facilitate positive changes in physical activity and healthy eating (19, 28). Indeed, the more intentional the engagement with parents/caregivers, the greater the impact on healthy eating and physical activity (22). Effective approaches include providing education for parents/caregivers on healthy eating (29), and running workshops (including provision of activities that can be done in the home) on how to promote physical activity (30). Finding ways to incorporate this education so that it is easily accessible to parents/caregivers is also an important consideration (28).

Intent: Standard 3 highlights three important areas in working with families/caregivers. First, it stresses that parents/caregivers participate in the development, implementation and evaluation of policies and programmes in ECEC settings related to healthy eating, physical activity, sedentary behaviour and sleep. Second, it reinforces that parents/caregivers must be given information on appropriate healthy eating, physical activity and sedentary and sleep behaviours for their child. Third, it emphasizes that parents/caregivers should be given feedback on the healthy eating and movement behaviours of their child while attending an ECEC environment. ECEC settings have a responsibility to ensure that parents/caregivers are made aware of these opportunities and information.

ECEC providers should regularly carry out surveys of parents/caregivers to ensure participation in the development, implementation and evaluation of policies and programmes related to healthy eating and movement behaviours. Surveys help ECEC providers understand the expectations of parents/caregivers on current and proposed policies and programmes and their experiences in their provision. Including parents/caregivers in the governance structure of the ECEC setting can also facilitate greater understanding;

however, since only a small number can be involved in this capacity, soliciting this information from a broad cross-section of parents/caregivers is important. This can be achieved through informal conversations between staff and parents/caregivers, more formal focus groups, surveys, or parent/caregiver information events, all of which should be conducted regularly.

The ECEC setting should have a process to collect, interpret and respond to this information to improve its policies and programmes. An important aspect of this is for staff to provide regular feedback to parents/caregivers about their child's eating and movement behaviours during the day. This reinforces to parents the importance of these behaviours in the home environment and provides prompts for the areas where they may need extra support.

The stronger the partnership between ECEC providers and parents/caregivers in the healthy eating and movement behaviour education of a child, the greater the impact on a child's health outcomes. This was reinforced in the survey results, with one quarter of ECEC providers suggesting that support from families/caregivers would be the first or second most important factor in implementing the standards. Staff are trusted sources of information and have regular contact with parents/caregivers; if the information provided is evidence-based, it will help parents/caregivers make better decisions about their child's physical activity, screen time, sleep and healthy eating needs. Children also need to see consistency in the reinforcement of these behaviours across the ECEC and home environments (31).

It is important to note that for Standard 3 to be achieved, staff must be given the opportunity to receive appropriate training. Around 40% of staff surveyed indicated that guidance on working with families/caregivers to support healthy eating and physical activity would be their first or second training priority. In particular, staff reported a need for training on how to respond to resistance from families/caregivers, which nearly one third identified as one of the biggest barriers to implementing the standards. Furthermore, it is important to consider that some families/caregivers may find it difficult to engage with, or adhere to, the recommendations of the ECEC provider. Social or economic factors, such as family violence, poverty, unemployment, mental health problems, or being a target of discrimination may affect the capacity of parents/caregivers to provide nurturing care and engage in ECEC activities. Families/caregivers may benefit from additional support from social services or community-based groups and ECEC providers should know what resources are available and how to support families/caregivers in accessing these, as appropriate.

Measurable criteria for Standard 3

Input	Process	Output
<p>The ECEC setting:</p> <p>3a. partners with parents/caregivers and the community in programme and policy decision-making and accessing community resources;</p> <p>3b. provides continuous professional development for staff on how to establish effective communication with parents/caregivers around healthy eating and movement behaviours and related policy and practice decisions;</p> <p>3c. provides adequate time, space and information to involve parents/caregivers and the community effectively; and</p> <p>3d. gathers information from parents/caregivers about the child's food habits and needs, and their movement, play and sleep behaviours.</p>	<p>3e. Parents/caregivers and the community are given the opportunity to be involved in policy and programme decisions and activities.</p> <p>3f. Information and resources on healthy eating, sleep and movement behaviours and play are made available to parents/caregivers and the community (this includes any policies developed).</p> <p>3g. Reporting on the child's eating and movement behaviours is integrated into the ECEC provider's feedback to parents/caregivers.</p> <p>3h. Parents/caregivers have access to menus and programming for movement behaviours and, where relevant, these are posted consistently and visibly in the ECEC setting.</p> <p>3i. Parents/caregivers in need of additional services or support are connected to relevant resources in the community.</p>	<p>3j. Policy and programme decisions related to healthy eating, physical activity, sedentary behaviour and sleep are made in partnership with parents/caregivers and the community.</p> <p>3k. Parents/caregivers are aware of their child's eating and movement behaviours in the ECEC setting, as needed.</p> <p>3l. Parents/caregivers are invited to participate regularly in activities at the ECEC setting (e.g. cooking demonstrations, play-based activities).</p> <p>3m. Parents/caregivers are aware of appropriate healthy eating and movement behaviours for their child in their home environment.</p> <p>3n. Parents/caregivers affected by adversity receive the support or services needed.</p>

HENRY Approach – Healthy Start, Brighter Future. Working effectively with families/caregivers, United Kingdom

In the United Kingdom, 1 in 10 children are obese by the time they start school (32). HENRY (Healthy Start, Brighter Future) is a national not-for-profit charity established in the United Kingdom as a practical intervention to prevent obesity by intervening at the start of life, providing support for parents/caregivers of children aged 0–5 years. The HENRY approach is evidence-based and offers a range of holistic services, including programmes for family/caregivers and training for practitioners, which focus on building confidence and motivation to provide a healthy home lifestyle and a nurturing home environment. The HENRY approach is based on working in partnership with parents/caregivers to help them identify the goals for change that will work within their family environment, and the strategies to achieve them. Programme content incorporates messages about the risk and protective factors associated with childhood obesity, including parenting/caregiving, emotional well-being, family/caregiver eating and activity habits, breastfeeding, nutrition, physical activity and sleep.

To date, around 15 000 practitioners of health and early years have been trained on the HENRY approach and more than 14 000 parents/caregivers have attended the HENRY 8-week group programmes. Families/caregivers completing the programme make and sustain statistically significant improvements in parenting/caregiving efficacy; family/caregiver eating and activity habits; family functioning and well-being; and food consumption (i.e. increased consumption of fruit, vegetables and water, and decreased consumption of foods high in sugar and fat, and sugary drinks).

In addition, the HENRY training is shown to have a lasting impact on the skill and confidence of practitioners in supporting families/caregivers with lifestyle and weight issues, and leads to healthier nutrition and improved practice in child-care settings.

Further information is available at www.henry.org.uk/henryapproach

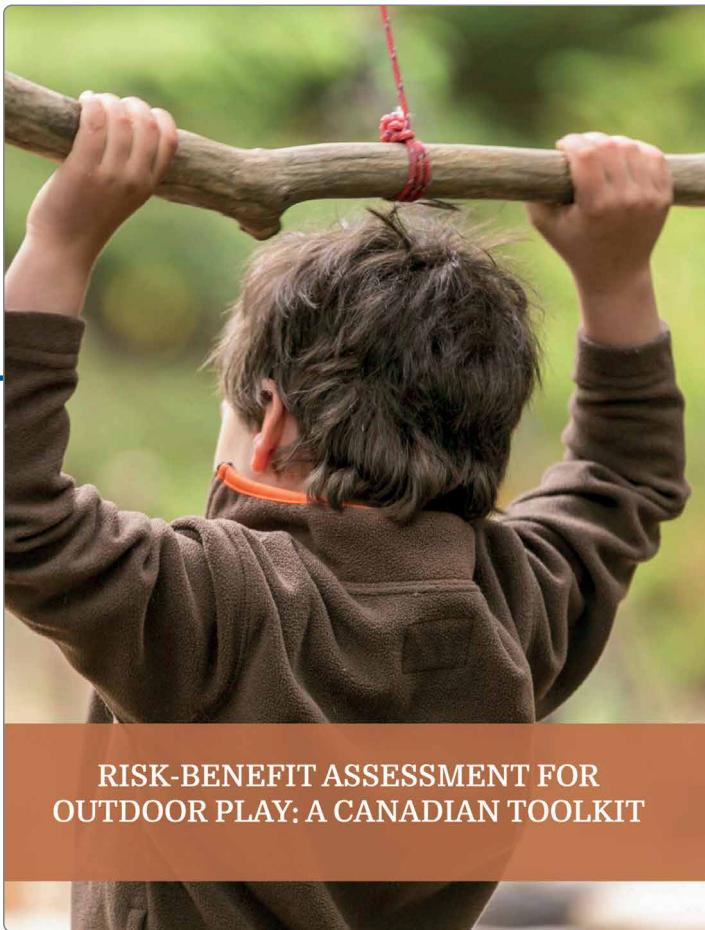
CASE STUDY

Forest School Canada – appropriate management of risk-taking

Children in ECEC settings in Canada spend little time outdoors, and are increasingly engaged in structured, programmed activities with little opportunity to engage in free play, including developmentally appropriate risk-taking. This may have an adverse effect on their health and well-being. To mitigate this, the Child and Nature Alliance works with early childhood educators across Canada to support nature-based early learning through Forest School Canada, a national programme available to early childhood facilities across the country.

The Child and Nature Alliance programme offers professional learning that is place-based to help educators deepen their knowledge of, and confidence in, being with children, facilitating their play, and playing alongside children outdoors. A range of topics is covered, including play pedagogy and theory, skills to practice, operations, and a balanced approach to managing risk through the implementation of the Risk Benefit Assessment Toolkit for Outdoor Play.

When educators were offered professional learning, positive developmental outcomes emerged in children, ranging from overall physical health, learning outcomes, engagement, and social and emotional literacy. Through professional learning, early childhood educators demonstrated competencies in supporting child-directed and play-based learning, as well as increased confidence in providing and advocating for a balanced approach to risk in children's play. There has also been an improvement in the relationships between educators and children.



Further information on the Child and Nature Alliance is available at www.childnature.ca

Information on the Risk Benefit Assessment Toolkit for Outdoor Play is available at www.outdoorplaycanada.ca/portfolio_page/risk-benefit-assessment-for-outdoor-play-a-canadian-toolkit





STANDARD 4: Ensure safety

The ECEC setting ensures children's safety through appropriate sleep, food hygiene and handling practices, and the provision of access to safe, inclusive and culturally appropriate active play and learning opportunities that build competence and support exploration.

Rationale: In providing an environment where children's healthy eating and movement behaviours are supported, it is imperative that safety and hygiene are at the forefront of staff practices and procedures. This includes safe food-handling practices (including breast milk where relevant), which are promoted through training staff; effective handwashing; avoiding foods that could pose health risks (e.g. undercooked meat); and clean facilities (33). As for physical activity (active play and movement behaviours), providing access to safe environments (outdoor and indoor) and safe recreational/play equipment is essential. Staff can be trained to customize physical activity to suit the environment around them (34), but must first determine that facilities are appropriate for use, aligning with comprehensive safety standards. Children are supported to take appropriate risks in their active play and recreation. Further, staff must be able to ensure safe sleeping practices, particularly for infants, who should be placed to sleep on their back or side (35).

Intent: Standard 4 emphasizes two important areas of safety for healthy eating and movement behaviours. The first is the implementation of safe food handling practices (including breast milk where relevant); and the second is the provision of access to safe and appropriate environments for physical activity/active play, sedentary behaviour and sleep. Promoting healthy eating and movement behaviours must be underpinned by a commitment to ensuring that children can do this in a safe and developmentally appropriate way, with appropriate management of risk taking.

Parents/primary caregivers trust ECEC centres to provide a safe environment for their child. This extends beyond child protection policies to ensuring children have the right to actively play and sleep in a safe environment. It is expected that ECEC settings will provide food and drinks that are not only healthy but are safe for the child (and staff) to consume. There should also be measures in place to ensure parent/caregiver-provided food (taken from home to the ECEC setting) is also safe. Expressed breast milk provided by parents/caregivers must be appropriately stored, labelled, handled and used. Food service staff have an important role to play in the implementation of this standard and buy-in from parents/caregivers should be encouraged (see Standard 3). Professional development of staff is essential, as aspects of the indoor and outdoor environments previously considered safe for young children (and ones that staff may have participated in during their own childhood) may need to be modified to ensure they meet current standards.



Measurable criteria for Standard 4

Input	Process	Output
<p>The ECEC setting:</p> <p>4a. develops policies and practices on safe sleeping, food hygiene and food handling; and provides access to and engagement with safe and inclusive play areas, especially outdoor environments;</p> <p>4b. provides continuous professional development on safe sleeping, food hygiene and food handling, and engagement with safe, culturally appropriate and inclusive physical activity, play and learning, including appropriate management of risk-taking by the child; and</p> <p>4c. provides adequate resources to ensure children's safety through appropriate sleep and food hygiene and handling practices, and the provision of safe and inclusive play and learning.</p>	<p>4d. adhere to safe sleep and food hygiene and handling practices, in alignment with relevant guidelines and policies;</p> <p>4e. provide access to safe, culturally relevant and inclusive active play and learning opportunities that are appropriate for the climate, and that include, where possible, outdoor environments, in alignment with relevant guidelines; and</p> <p>4f. provide adequate supervision and support for children to explore and take appropriate risks.</p>	<p>4g. Children are provided with food that is safe.</p> <p>4h. Children play and learn in areas that are safe and inclusive and in line with relevant guidelines.</p> <p>4i. Children explore and demonstrate appropriate risk-taking, fostering competence and exploration.</p>

CASE STUDY

Sleep and rest policy and proportion of appropriate sleep practices, Australia

An inquest into the death of a child aged 5 months in an ECEC setting due to Sudden Infant Death Syndrome (SIDS) in Australia recommended that changes be made to the National Quality Framework, so that all services are required to have policies and procedures on sleep and rest for children and infants. The Australian Children's Education & Care Quality Authority (ACECQA) supported the recommendation that the National Regulations include a requirement to have a sleep and rest policy, and committed to supporting the decision to develop guidance on SIDS for approved providers, and nominated supervisors and educators. The change came into effect on 1 October 2017. As part of this commitment, ACECQA provides the following for approved providers, educators and families/caregivers on their website:¹

- information on the principles that may inform sleep and rest policies and procedures for education and care services;
- current recommended evidence-based practices in relation to safe sleep and rest for children;
- recommendations for safe sleeping environments and equipment (including cots and mattresses);
- recommendations for meeting children's sleep, rest and relaxation needs; and
- a short video endorsing the Red Nose safe sleeping² recommendations.

As a result of this, all Australian services are now required to comply with Regulation 168 in the Education and Care National Regulations³ to have a policy and procedures in relation to sleep and rest for children. Educators, approved providers and families/caregivers have access to best-practice recommendations for children's safe sleep and rest, and ECEC services, supported by all state governments, have opportunities to provide up-to-date information to inform educators, caregivers and families about safe sleeping practices to improve health and well-being outcomes for children.

¹ See: www.acecqa.gov.au/resources/supporting-materials/infosheet/safe-sleep-and-rest-practices

² See: <https://rednose.org.au/section/safe-sleeping>

³ See: http://classic.austlii.edu.au/au/legis/nsw/consol_reg/eacsnr422/s168.html

The Cotlands programme – opportunities for children to be active where resources and/or physical space is limited, South Africa

Access to quality, play-based early learning opportunities, including opportunities to be adequately active, are almost non-existent in rural parts of South Africa for children aged under 6 years. To address this, a national non-profit organization developed the Cotlands model, which increases access to play-based early learning opportunities, including physical activity, via a toy library and playgroup. The toy library becomes a community resource that provides the play materials, books and resources needed to implement a play-based programme where children have opportunities to be active. The Cotlands model aims at the holistic development of young children, giving them the opportunity to participate in a range of activities to promote their gross motor skills, such as:

- playing games: hopscotch, skipping, follow-the-leader, throwing bean bags or handmade balls;
- navigating an obstacle course constructed from boxes, chairs or tables;
- making movements while listening to music or to a story (e.g. if the story contains animals, children are encouraged to move like the animals); and
- drawing, or playing with clay which develop fine motor skills.

The Cotlands toy library and playgroup model reached 66 446 beneficiaries from July 2018 to June 2019. A total of 427 playgroups were held, and 42 new toy libraries were opened. The programme reached 24 088 parents/caregivers and practitioners through capacity-building workshops relating to early care and play-based early learning, with all barriers to access removed. Cotlands is designed to maximize the possible opportunities for early learning by minimizing geographical barriers caused by distance and limited infrastructure.

Further information is available at www.cotlands.org

Cotlands

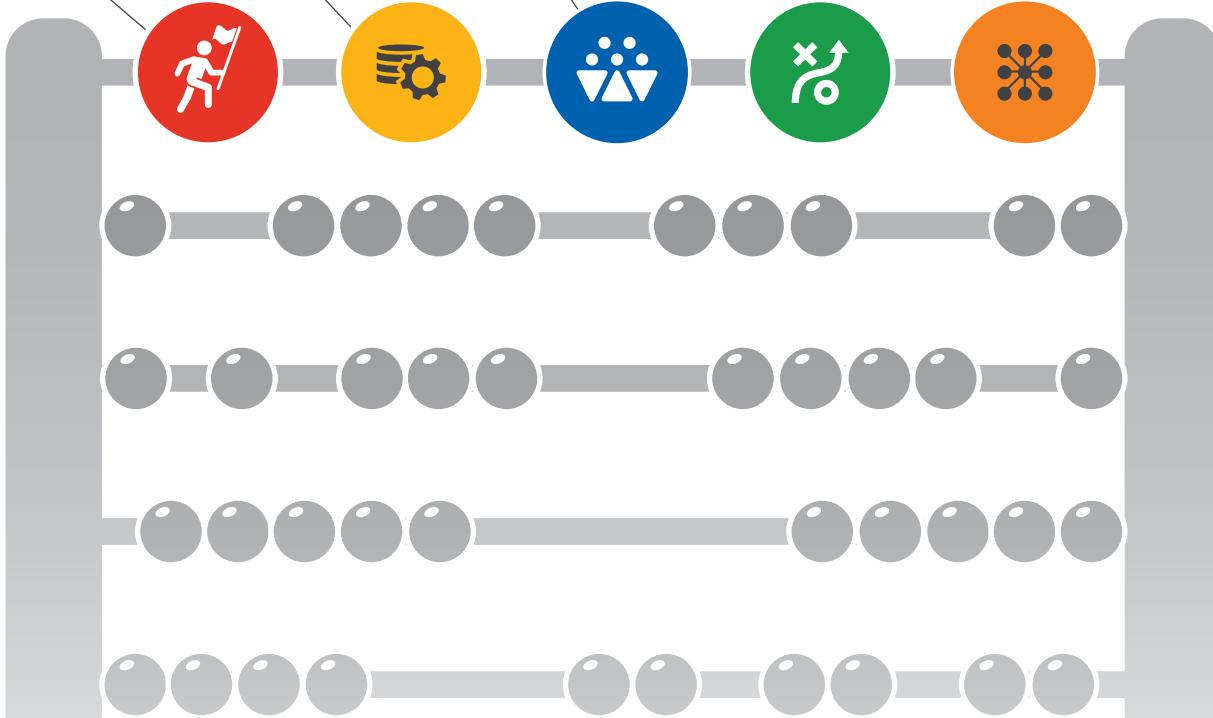


SECTION THREE: HOW TO PLAN AND IMPLEMENT THE STANDARDS

This section provides guidance on best practice and should be used by national or subnational policy-makers, or by ECEC providers wishing to promote and enable healthy eating and movement behaviours in their settings. Ideally, countries should exercise national or subnational leadership to support implementation across the ECEC sector, but in the absence of an overarching leadership, ECEC services can engage in implementation through local-level actions.

The following enabling factors and actions are designed to strengthen the building blocks of a quality nutrition and movement behaviour environment in ECEC:

Leadership – policies and procedures should be in place that promote ample opportunities for children to engage in appropriate healthy eating and movement behaviours.	Resourcing/financing – new and existing resources should be allocated to support the promotion of healthy eating and movement behaviours for children in ECEC settings.	Building workforce capability – ECEC providers should have opportunities and the necessary competencies to implement the standards in this toolkit.	Using evidence to inform policy and practice – implementation of the standards should be measured, consistent, and continue to meet the needs of children attending ECEC settings.	Partnerships – ECEC providers should work, as needed, with the community and partners in other sectors to implement the standards.
--	---	--	---	---



ENABLING FACTORS AND ACTIONS AT THE NATIONAL/SUBNATIONAL LEVEL



Leadership

Identify lead organization

1. Identify a lead organization to drive implementation of the standards.
2. Identify and contact relevant players within that organization who can lead the implementation process.

Analyse existing standards and guidelines where they exist, and keep or supplement them as necessary

3. Identify any existing standards and guidelines for healthy eating or movement behaviours in the country/region and map your standards against these.
4. On the basis of the analysis of existing standards:
 - i) adopt them as they are; or ii) integrate them with new standards, making modifications to suit the country/region's national/subnational context.
5. If existing national/subnational standards change, inform all relevant stakeholders.
6. Develop guidance for monitoring, promoting and evaluating (measuring) the standards adopted at a national/subnational level and provide these to all relevant organizations.

Communicate new/updated standards to those managing ECEC, and request action

7. Communicate standards adopted to key organizations and encourage the development of local implementation plans.
8. Inform organizations and providers about monitoring and reporting requirements, timelines and mechanisms.
9. Request that organizations and providers develop and distribute materials¹ to promote the equitable provision of healthy eating and movement behaviours for ECEC settings.

10. Inform organizations that the guiding principles (inclusivity, equity, participation and diversity) for healthy eating and movement behaviours should be made available (such as through a poster or other visual display) in ECEC services.
11. Inform organizations and providers of the standards that should be made available to parents/caregivers, through, for example written materials or information meetings.

Ensure that national/subnational reports on children's healthy eating and movement behaviours include data on children in ECEC environments

12. Ensure that national/subnational reports on healthy eating and movement behaviours among children include a component on ECEC settings.

Incentivize ownership and "buy-in" from key organizations

13. Use certification and levels of achievement to support and encourage ECEC services to implement the standards.
14. Communicate the importance of healthy eating and movement behaviours in the overall development of the child; and the role of these behaviours in the provision of a high-quality ECEC environment.
15. Communicate the need to engage in partnerships with parents/caregivers and key community groups to increase support for promoting healthy eating and movement behaviours in ECEC settings.
16. Communicate the importance of regular ECEC-level assessment of the quality of the healthy eating and movement behaviour environments.

¹ Such as posters, brochures, display boards (or equivalent, including, where possible, interactive experiences such as quizzes).



Partnerships

Develop multisectoral partnerships/alliances with all key stakeholders (e.g. ministries of health, education, sport, recreation, nongovernmental organizations, universities, parents/caregivers and other professional organizations (e.g. medical, cultural, sport), charities and social care, evaluation organizations and other regulatory authorities) to ensure support for core policies.

1. Identify key organizations and relevant people within those organizations that could partner to improve healthy eating and movement behaviours in ECEC settings.
2. Bring together key organizations and people.
3. Assess the current situation regarding core policies to support healthy eating and movement behaviours in ECEC settings. This process should aim to identify all existing policies within the education and other sectors.
4. Establish a clear and accountable coordinating mechanism for developing partnerships and alliances with all key stakeholders.
5. Consider using a systems approach¹ to develop these partnerships and subsequent actions.
6. Provide guidance to ECEC services on how to develop partnerships around the promotion of healthy eating and movement behaviours.
7. Ensure that ongoing monitoring is built into the implementation plans of key stakeholders.



Resourcing/financing

Ensure allocation of resources from national/subnational budgets towards the promotion of healthy eating and movement behaviours in ECEC settings

1. Work with the treasury/ministry of finance so that budget allocations are adequate to ensure the promotion of healthy eating and movement behaviours in ECEC settings. This includes developing a costing model to determine the resources needed and a projection of necessary over time.
2. Collect evidence, to develop an investment case for ensuring children's right to an active, healthy environment that is equitable and inclusive.

Allocate resources for continuous professional development activities

3. Allocate resources to ensure regular professional development activities in healthy eating and movement behaviours at all levels.
4. Allocate resources for development of online, paper and other dissemination of tools for delivery of these developmental activities.

Allocate resources for the production of ECEC information, educational materials, and other equipment, and for the evaluation of these resources

5. Communicate with stakeholders (e.g. staff, parents/caregivers) to identify their resource needs, and allocate sufficient funds for their development.
6. Ensure that the resources used in ECEC are non-commercial/not branded and have clear guidelines around who can fund them.
7. Ensure sufficient funding for development of tools and resources for monitoring of implementation.

¹ Effective national action to improve healthy eating, breastfeeding and movement behaviours requires a common set of objectives and partners working together towards a common purpose, or "systems-based" approach. In other words, a strategic combination of "upstream" policy actions aimed at improving the social, cultural, economic and environmental factors that support healthy eating, breastfeeding and movement behaviours, combined with "downstream", individually focused (educational and informational) approaches.



Building workforce capability

Where relevant, include expertise in healthy eating and movement behaviours in job descriptions

1. Include, where relevant, core competencies in healthy eating and movement behaviours in job descriptions and ensure that purpose statements, major accountabilities and responsibilities, reporting relationships, and selection criteria within job descriptions include healthy eating and movement behaviours.

Define core healthy eating and movement behaviour competencies for the ECEC workforce; develop and implement competency-based training programmes, both pre-service and for continuous professional development, in the areas of healthy eating and movement behaviours.

2. Define the core competencies required by the ECEC workforce in the areas of healthy eating and movement behaviours.
3. Establish a system for continuous professional development in healthy eating and movement behaviours including both traditional approaches and those utilizing technology.
4. Develop, implement and evaluate competency-based training programmes in healthy eating and movement behaviours at the pre-service level and as part of continuing professional development for staff.
5. Request that ECEC providers regularly identify training needs in healthy eating and movement behaviours and conduct competency-based, in-service professional development.
6. Ensure that training and orientation materials on healthy eating and movement behaviours are available.

7. Ensure that training and orientation on data collection and analysis to inform quality assurance actions to promote healthy eating and movement behaviours are available.
8. In instances where offsite professional development is not possible, encourage team reflection and review of practices onsite to improve healthy eating and movement behaviour outcomes for children and families/caregivers.

Ensure appropriate mentoring for ECEC sector staff, including mentoring in developing systems and quality assurance

9. Establish a system for appropriate mentoring in healthy eating and movement behaviours (including peer, director/service leader, and external mentoring) and emphasize a strengths-based approach.
10. Ensure mentoring is linked to performance management (as part of the quality assurance cycle), and that feedback is provided at the ECEC level.
11. Ensure this system of mentoring is extended to food service staff and others involved in the provision of healthy eating and movement behaviours to children.
12. Examine ways to provide cover for staff attending training in promoting healthy eating and movement behaviours so that the cost is minimized.
13. Provide positive messages to staff that promoting healthy eating and movement behaviours in their settings will also improve their own health and well-being.





Using evidence to inform policy and practice

Monitor and evaluate relevant activities and report findings at a local level. This includes the scaling up of effective policies and practice

1. Bring together key stakeholders who are interested in developing a framework for monitoring and evaluating relevant healthy eating and movement behaviour activities.
2. Determine which stakeholder(s) will lead the development of the framework.
3. Consider how the framework will be resourced and ensure long-term commitment.
4. Pilot the framework and make modifications based on the findings.
5. Consider an online repository of policies and practices that have been shown to be effective.

6. Consider a feedback mechanism where findings can be reported at a local level. This could be through professional organizations, national quality assurance agencies, ECEC providers or a combination of these.
7. Provide opportunities for ECEC services to share good practice and to learn from those who have successfully implemented policies and practices.
8. Develop tools that staff can use to monitor implementation, and the use of evidence for influencing policy and practice. This should include the input, process, and outcome criteria for each standard, and what support/resourcing can be provided to capture any data on the outcome criteria for standards that may be costly and require expertise from outside ECEC settings.





ENABLING FACTORS AND ACTIONS TO BE TAKEN AT THE ECEC LEVEL



Leadership

Map existing ECEC policies, procedures and standards for healthy eating and movement behaviours against the standards

1. Directors/service leaders should conduct a self-assessment using the assessment tool (see the Web Annex) to identify alignment with the standards.
2. Develop an action plan for bringing the policies and practices of the ECEC into line with the standards.
3. Communicate to staff and families/caregivers any changes that result from the self-assessment.
4. Make available copies of the standards and any modifications to these relevant to their setting.

Ensure that ECEC reports for parents/caregivers and key stakeholders include information on children's healthy eating and movement behaviours

5. Determine, in consultation with stakeholders, what information on healthy eating and movement behaviours should be provided in ECEC reports and how this will be done.



Partnerships

Partner with families/caregivers and the community to provide information about healthy eating and movement behaviours

6. Ask parents/caregivers to complete the parent/caregiver questionnaire (see the Web Annex).
7. Based on the results from the parent/caregiver questionnaire, map ways in which the ECEC can more effectively partner with families/caregivers.
8. Consider ways in which information can be shared and discussed in partnership with families/caregivers (e.g. information sessions, a shared recipe book, emailed newsletters, infographics/posters in the ECEC service), including emphasis on practical activities where possible (e.g. simple cooking classes, matching or sorting fruit or vegetables, building a community garden).
9. For those ECEC services where parents/caregivers provide food for children, inform parents/caregivers about which foods are appropriate for children to bring.

Develop partnerships with key stakeholders (NGOs, community stakeholders) who can enhance provision of healthy eating and movement behaviours to children in the ECEC setting

10. Identify key organizations and people who can enhance service provision in their ECEC service and incorporate into the action plan how to engage with them (for example, primary schools, faith-based organizations, universities, sporting organizations).



Resourcing/financing

Allocate staff time and ECEC resources for professional development

1. Ask staff to complete the educator self-assessment tool (see the Web Annex).
2. Based on data from the educator self-assessments, map the professional development needs of each ECEC staff member.
3. Determine the resources required to meet these needs, including the costs of cover staff where appropriate.
4. Where appropriate, inform management of the ECEC setting's professional development needs.

Allocate ECEC resources for the development and provision of healthy menus, and equipment/facilities for physical activity, breastfeeding and sleep

5. Prioritize the resource needs identified in the action plan.
6. Inform management of the resources needed to provide healthy menus and equipment/facilities for physical activity, breastfeeding and sleep, in line with the standards.





Building workforce capability

Support ECEC providers to undertake continuous professional development in early childhood healthy eating and movement behaviours, in managing change, and in continuous quality improvement

1. Plan for staff, including directors/service leaders, to undertake professional development in areas of need, as identified from the self-assessments and career development plans.
2. Provide orientation to staff on using the standards and incorporate into staff meetings time to discuss enablers and barriers to implementation.
3. Help staff build knowledge and skills in relation to their own health and well-being.

Develop professional communities within and across settings

4. Work with staff to create a professional community committed to promoting quality healthy eating and movement behaviours within their ECEC setting.
5. Look to cooperate across settings to develop templates and share professional development opportunities and resources.
6. Link with indigenous peoples where possible and appropriate to provide insight into traditional customs.

Request competencies in healthy eating and movement behaviours in job descriptions

7. Include expertise in early childhood healthy eating and/or movement behaviours as a desirable competency for all new job positions.



Using evidence to inform policy and practice

Monitor and evaluate relevant activities to ensure appropriate implementation of the standards in ECEC. This includes the input, process, and outcome criteria for each standard, although it should be acknowledged that capturing data on the outcome criteria for some standards may be costly and require expertise from outside ECEC settings

1. Check with national/subnational agencies to see if a template has been developed to help this process. Also, check if resources are available to support the capturing of data on some of the outcome criteria of the standards that may be costly and require external expertise.



REFERENCES

1. Guidelines on physical activity and sedentary behaviour. Geneva: World Health Organization; 2020.
2. Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age. Geneva: World Health Organization; 2019.
3. Nuturing care for early childhood development: A framework for helping children survive and thrive to transform health and human potential. Geneva: World Health Organization; 2018.
4. Transforming our world: The 2030 agenda for sustainable development. New York: United Nations; 2015.
5. The United Nations Convention on the Rights of the Child. New York: United Nations; 1989.
6. Commission on Ending Childhood Obesity. Report of the commission on ending childhood obesity. Geneva: World Health Organization; 2016.
7. Global action plan on physical activity 2018–2030: More active people for a healthier world. Geneva: World Health Organization; 2018.
8. ACTIVE: A technical package for increasing physical activity. Geneva: World Health Organization; 2018.
9. Guiding principles for complementary feeding of the breastfed child. Washington, D.C.: Pan American Health Organization and World Health Organization; 2003.
10. Guiding principles for feeding non-breastfed children 6–24 months of age. Geneva: World Health Organization; 2005.
11. Black MM, Walker SP, Fernald LCH, Andersen CT, DiGirolamo AM, Lu C et al. Early childhood development coming of age: Science through the life course. Lancet. 2017;389(10064):77–90.
12. Zhou YE, Emerson JS, Levine RS, Kihlberg CJ, Hull PC. Childhood obesity prevention interventions in childcare settings: Systematic review of randomized and nonrandomized controlled trials. Am J Health Promot. 2014;28(4):e92–e103.
13. Fitzgibbon ML, Stolley MR, Schiffer L, Horn L, KauferChristoffel K, Dyer A. Hip-hop to health jr. for Latino preschool children. *Obesity*. 2006;14(9):1616–25.
14. Fitzgibbon ML, Stolley MR, Schiffer L, Van Horn L, KauferChristoffel K, Dyer A. Two-year follow-up results for hip-hop to health jr.: A randomized controlled trial for overweight prevention in preschool minority children. *J Pediatr*. 2005;146(5):618–25.
15. Fitzgibbon ML, Stolley MR, Schiffer LA, Braunschweig CL, Gomez SL, Horn L et al. Hip-hop to health jr. Obesity prevention effectiveness trial: Postintervention results. *Obesity*. 2011;19(5):994–1003.
16. Ward S, Belanger M, Donovan D, Carrier N. Systematic review of the relationship between childcare educators' practices and preschoolers'physical activity and eating behaviours. *Obes Rev*. 2015;16(12):1055–70.
17. Bohana I, Davis EL, Corr L, Priest N, Tan H. Family day care in Australia: A systematic review of research (1996–2010). *Aust J Early Child*. 2012;37:138–46.
18. Downing KL, Hnatiuk JA, Hinkley T, Salmon J, Hesketh KD. Interventions to reduce sedentary behaviour in 0–5-year-olds: A systematic review and meta-analysis of randomised controlled trials. *Br J Sports Med*. 2018;52(5):314–21.
19. Okley T, Trost SG, Flood V, Cliff D, Kelly B, Jones R et al. Outcomes and their measurement in playgroup programs: An evidence check rapid review brokered by the Sax Institute. New South Wales Office of Preventative Health; 2013.
20. Gordon ES, Tucker P, Burke SM, Carron AV. Effectiveness of physical activity interventions for preschoolers: A meta-analysis. *Res Q Exerc Sport*. 2013;84(3):287–94.
21. Sisson SB, Krampe M, Anundson K, Castle S. Obesity prevention and obesogenic behavior interventions in child care: A systematic review. *Prev Med*. 2016;87:57–69.

22. Finch M, Jones J, Yoong S, Wiggers J, Wolfenden L. Effectiveness of centre-based childcare interventions in increasing child physical activity: A systematic review and meta-analysis for policymakers and practitioners. *Obes Rev.* 2016;17(5):412–28.
23. Larson N, Ward DS, Neelon SB, Story M. What role can child-care settings play in obesity prevention? A review of the evidence and call for research efforts. *J Am Diet Assoc.* 2011;111(9):1343–62.
24. Ward DS, Vaughn A, McWilliams C, Hales D. Physical activity at child care settings: Review and research recommendations. *Am J Lifestyle Med.* 2009;3:474–88.
25. Määttä S, Nuutinen T, Ray C, Eriksson JG, Weiderpass E, Roos E. Validity of self-reported out-of-school physical activity among Finnish 11-year-old children. *Arch Public Health.* 2016;74:11.
26. Tonge KL, Jones RA, Hagenbuchner M, Nguyen TV, Okely AD. Educator engagement and interaction and children's physical activity in early childhood education and care settings: An observational study protocol. *BMJ Open.* 2017;7(2):e014423.
27. Policy outputs of early childhood education and care: Access, participation intensity and curriculum frameworks. In: OECD, editor. *Starting strong 2017: Key OECD indicators on early childhood education and care.* Paris: Organisation for Economic Cooperation and Development Publishing; 2017.
28. Morris H, Skouteris H, Edwards S, Rutherford L. Obesity prevention interventions in early childhood education and care settings with parental involvement: A systematic review. *Early Child Development and Care.* 2015;185(8):1283–313.
29. Bell LK, Golley RK. Interventions for improving young children's dietary intake through early childhood settings: A systematic review. *Int J Child Health N.* 2015;4(1):14–32.
30. Ling JY, Robbins LB, Wen FJ, Peng W. Interventions to increase physical activity in children aged 2–5 years: A systematic review. *Pediatr Exerc Sci.* 2015;27(3):314–33.
31. Denman S, Moon A, Parsons C, Stears D. *The health promoting school: Policy, research and practice.* London: Routledge; 2003.
32. National Child Measurement Programme [website]. NHS Digital; 2018 (<https://digital.nhs.uk/services/national-child-measurement-programme/>, accessed 2 May 2021).
33. Enike AA, Briley ME, Curtis SR, Greninger SA, Staskel DM. Quality management procedures influence the food safety practices in childcare centres. *Early Childhood Education Journal.* 2007;35:75–81.
34. Mehtälä MAK, Sääkslahti AK, Inkinen ME, Poskiparta MEH. A socio-ecological approach to physical activity interventions in childcare: A systematic review. *Int J Behav Nutr Phys Act.* 2014;11.
35. Co sleeping and SIDS – a guide for health professionals. UNICEF; 2019 (<https://www.unicef.org/babyfriendly/baby-friendly-resources/sleep-and-night-time-resources/co-sleeping-and-sids/>, accessed 2 May 2021).
36. Shea BJ, Grimshaw JM, Wells GA, Boers M, Andersson N, Hamel C et al. Development of amstar: A measurement tool to assess the methodological quality of systematic reviews. *BMC Med Res Methodol.* 2007;7:10.



ANNEX:

TECHNICAL EXPERT GROUP

Dr Nicolas Aguilar

Assistant Professor
Departamento de Educación Física,
Deportes y Recreación
Universidad de la Frontera
Temuco
Chile

Dr Yuri Belfali

Head of Division, Early Childhood and Schools
Organisation for Economic Co-operation
and Development (OECD)
Paris
France

Dr Pia Rebello Britto

Chief and Senior Advisor
Early Childhood Development
United Nations Children's Emergency Fund (UNICEF)
New York
USA

Professor Greet Cardon

Department of Movement and Sports Sciences
Faculty of Medicine and Health Sciences
Ghent University
Ghent
Belgium

Dr Christine Chen

Education Specialist and Vice Chair
Asia Pacific Regional Network for Early Childhood
Singapore
Singapore

Dr Catherine Draper

MRC/Wits Developmental Pathways
for Health Research Unit
University of the Witwatersrand
Johannesburg
South Africa

Dr Fan Jiang

Department of Developmental-Behavioral Pediatrics
Shanghai Jiao Tong University
Shanghai
China

Ms Rhonda Livingstone

General Manager
National Education Leader
Australian Children's Education & Care Quality Authority
(ACECQA)
Sydney
Australia

Ms Zorica Trikic

Senior Program Manager
International Step by Step Association (ISSA)
Kinderrechtenhuis / Child Rights Home
Leiden
The Netherlands

Dr Alejandra Jáuregui de la Mota

*Chair of the Department of Physical Activity and
Healthy Lifestyles*
Center for Nutrition and Health Research
National Institute of Public Health
Mexico City
Mexico

Ms Paula Klenner Fortes

United Nations Educational, Scientific and Cultural Organization (UNESCO)
Regional Bureau for Education in Latin America and the Caribbean
Santiago
Chile

Professor Tony Okely

Early Start Centre
University of Wollongong
Wollongong
Australia

Mr Matías Portela

Department of Health Promotion and Community Engagement
Ministry of Health
Santiago
Chile

Ms Liz Prosser

*Senior Policy and Programme Officer-Child Health,
Manager Healthy Early Years London, Health Team
Greater London Authority
London
United Kingdom*

Professor Nirmala Rao

Division of Learning, Development and Diversity
Faculty of Education
University of Hong Kong
China, Hong Kong SAR

Dr Muneera Rasheed

Department of Pediatrics and Child Health
Aga Khan University Hospital
Karachi City
Pakistan

Professor Dianne Stanton Ward

Department of Nutrition
Gillings School of Global Public Health
University of North Carolina
Chapel Hill, NC
USA





Active



World Health
Organization

ISBN 978-92-4-003225-5

9789240032255



9 789240 032255