



Global Matrix 4.0

Indicators and Benchmarks

Indicator	Definition	Benchmark
Overall Physical Activity	Any bodily movement produced by skeletal muscles that requires energy expenditure.	<p>% of children and youth who meet the Global Recommendations on Physical Activity for Health, which recommend that children and youth accumulate at least 60 min of moderate- to vigorous-intensity physical activity per day on average.</p> <p>Or % of children and youth meeting the guidelines on at least 4 d a week (when an average cannot be estimated).</p>
Organized Sport and Physical Activity	A subset of physical activity that is structured, goal-oriented, competitive and contest-based.	% of children and youth who participate in organized sport and/or physical activity programs.
Active Play	Active play may involve symbolic activity or games with or without clearly defined rules; the activity may be unstructured/unorganized, social or solitary, but the distinguishing features are a playful context, combined with activity that is significantly above resting metabolic rate. Active play tends to occur sporadically, with frequent rest periods, which makes it difficult to record.	<p>% of children and youth who engage in unstructured/unorganized active play at any intensity for more than 2 h a day.</p> <p>% of children and youth who report being outdoors for more than 2 h a day.</p>

Active Transportation	Active transportation refers to any form of human-powered transportation – walking, cycling, using a wheelchair, in-line skating or skateboarding.	% of children and youth who use active transportation to get to and from places (e.g., school, park, mall, friend's house).
Sedentary Behaviors	Any waking behaviour characterized by an energy expenditure ≤ 1.5 metabolic equivalents, while in a sitting, reclining or lying posture.	% of children and youth who meet the Canadian Sedentary Behaviour Guidelines (5- to 17-y-olds: no more than 2 h of recreational screen time per day). Note: the Guidelines currently provide a time limit recommendation for screen-related pursuits, but not for nonscreen-related pursuits.
Physical Fitness	Characteristics that permit a good performance of a given physical task in a specified physical, social, and psychological environment.	Average percentile achieved on certain physical fitness indicators based on the normative values published by Tomkinson et al. ¹
Family and Peers	Any member within the family who can control or influence the physical activity opportunities and participation of children and youth in this environment.	<p>% of family members (e.g., parents, guardians) who facilitate physical activity and sport opportunities for their children (e.g., volunteering, coaching, driving, paying for membership fees and equipment).</p> <p>% of parents who meet the Global Recommendations on Physical Activity for Health, which recommend that adults accumulate at least 150 min of moderate-intensity aerobic physical activity throughout the week or do at least 75 min of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity physical activity.</p> <p>% of family members (e.g., parents, guardians) who are physically active with their kids.</p>

¹ Tomkinson, G. R., Carver, K. D., Atkinson, F., Daniell, N. D., Lewis, L. K., Fitzgerald, J. S., Lang, J. J., & Ortega, F. B. (2018). European normative values for physical fitness in children and adolescents aged 9-17 years: results from 2 779 165 Eurofit performances representing 30 countries. *British journal of sports medicine*, 52(22), 1445–14563. <https://doi.org/10.1136/bjsports-2017-098253>

		<p>% of children and youth with friends and peers who encourage and support them to be physically active.</p> <p>% of children and youth who encourage and support their friends and peers to be physically active.</p>
School	Any policies, organizational factors (e.g., infrastructure, accountability for policy implementation) or student factors (e.g., physical activity options based on age, gender or ethnicity) in the school environment that can influence the physical activity opportunities and participation of children and youth in this environment.	<p>% of schools with active school policies (e.g., daily physical education (PE), daily physical activity, recess, “everyone plays” approach, bike racks at school, traffic calming on school property, outdoor time).</p> <p>% of schools where the majority (≥80%) of students are taught by a PE specialist.</p> <p>% of schools where the majority (≥80%) of students are offered the mandated amount of PE (for the given state/territory/region/country).</p> <p>% of schools that offer physical activity opportunities (excluding PE) to the majority (>80%) of their students.</p> <p>% of parents who report their children and youth have access to physical activity opportunities at school in addition to PE classes.</p> <p>% of schools with students who have regular access to facilities and equipment that support physical activity (e.g., gymnasium, outdoor playgrounds, sporting fields, multipurpose space for physical activity, equipment in good condition).</p>
Community and Environment	Any policies or organizational factors (e.g., infrastructure, accountability for policy implementation) in the municipal environment that can influence the physical activity opportunities and participation of	<p>% of children or parents who perceive their community/municipality is doing a good job at promoting physical activity (e.g., variety, location, cost, quality).</p> <p>% of communities/municipalities that report they have policies promoting physical activity.</p>

	children and youth in this environment.	<p>% of communities/municipalities that report they have infrastructure (e.g., sidewalks, trails, paths, bike lanes) specifically geared toward promoting physical activity.</p> <p>% of children or parents who report having facilities, programs, parks, and playgrounds available to them in their community.</p> <p>% of children or parents who report living in a safe neighborhood where they can be physically active.</p> <p>% of children or parents who report having well-maintained facilities, parks, and playgrounds in their community that are safe to use.</p>
Government	Any governmental body with authority to influence physical activity opportunities or participation of children and youth through policy, legislation or regulation.	<p>Evidence of leadership and commitment in providing physical activity opportunities for all children and youth.</p> <p>Allocated funds and resources for the implementation of physical activity promotion strategies and initiatives for all children and youth. Demonstrated progress through the key stages of public policy making (i.e., policy agenda, policy formation, policy implementation, policy evaluation and decisions about the future).</p> <p>HEPA PAT v2 and the scoring rubric published by Ward et al.²</p>

Global Matrix 4.0 participants are welcome to include any other relevant indicators/analyses in addition to the required common indicators listed above.

² Ward, M. R., Tyler, R., Edwards, L. C., Miller, M. C., Williams, S., & Stratton, G. (2020). The AHK-Wales Report Card 2018: Policy Measures - is it possible to 'score' qualitative data?. Health promotion international, daaa118. Advance online publication. <https://doi.org/10.1093/heapro/daaa118>

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Grading Rubric

Grade	Interpretation	Corresponding number for analysis
A+	94%–100%	15
A	We are succeeding with a large majority of children and youth (87%–93%)	14
A-	80%–86%	13
B+	74%–79%	12
B	We are succeeding with well over half of children and youth (67%–73%)	11
B-	60%–66%	10
C+	54%–59%	9
C	We are succeeding with about half of children and youth (47%–53%)	8
C-	40%–46%	7
D+	34%–39%	6
D	We are succeeding with less than half but some children and youth (27%–33%)	5
D-	20%–26%	4
F	We are succeeding with very few children and youth (<20%)	2
INC	Incomplete—insufficient or inadequate information to assign a grade	No grade

Note: WHEN SUBMITTING YOUR GRADES FOR AUDIT BY THE AHKGA, please add a “*” to your grade if it is based on mixed data: device-measured and self-reported (e.g. C* for Sedentary Behaviour Indicator); and add “**” to your grade if it is based on device-measured data exclusively (e.g. B+** for Overall Physical Activity).