



# Global Matrix 4.0 on physical activity for children and adolescents

## What is the Global Matrix 4.0?



### Purpose

To learn more about the state of physical activity of children around the world and how to improve it.

### How?

For each participating country, a team of experts prepared a **Report Card on physical activity for children and adolescents** following a standardized development process to compile the best available evidence and grade (from A+ to F) 10 common physical activity indicators. This initiative allowed researchers to perform **global comparisons**.

## 10 Physical Activity Indicators

Overall Physical Activity	Physical Fitness
Organized Sport and Physical Activity	Family and Peers
Active Play	School
Active Transportation	Community and Environment
Sedentary Behaviours	Government

## 57 Participating Countries

Africa & the Middle East (n = 7)  
 Anglosphere (n = 10)  
 Asia-Pacific (n = 13)  
 Europe (n = 21)  
 Latin America (n = 6)



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physical activity leaders & experts

## What has the Global Matrix 4.0 shown?

**D** **Overall Physical Activity** is the indicator with the lowest average grade (D): only **27%–33%** of children and adolescents are estimated to meet the recommended amount of physical activity globally.



The challenges for assessing indicators highlighted the **need for the development of a physical activity measurement instrument/protocol** that would be globally accepted, harmonised, translated, utilised, and culturally adaptable.



Inequities in terms of grades and surveillance (difference in number of incomplete grades (INC)) across geo-cultural regions were observed, highlighting the persistence of **inequities between countries** for the surveillance and promotion of physical activity in children and adolescents. There is a **general lack of representativeness of some specific populations** (i.e., children: under 10 years, living in rural areas, with a disability, not attending school, indigenous, 2SLGBTQ+, and from other equity-seeking groups).



The **COVID-19 pandemic** adversely affected the physical activity indicator grades in most countries, their surveillance, and the research activity of physical activity experts. Sedentary Behaviour, followed by Organised Sport and Physical Activity, and Overall Physical Activity, were the indicators most frequently reported as affected negatively by the COVID-19 pandemic.



Report Card Leaders from **14% (n = 8)** of the countries participating in the Global Matrix 4.0 reported that **war/local conflict** was potentially affecting the physical activity of children and adolescents in their country.



Report Card Leaders from **30% (n = 17)** of the countries participating in the Global Matrix 4.0 considered that children and adolescents physical activity was currently affected by local **climate change/climate change mitigations**.



Report Card Leaders from **about half (n = 28)** of the countries participating in the Global Matrix 4.0 estimated that the physical activity of children and adolescents in their country was currently affected by **local economic changes/challenges**.



## Conclusions

The Global Matrix 4.0 represents the **largest compilation of children's and adolescents' physical activity characteristics to date**. While variation in the data informing the grades across countries was reported, this initiative highlighted that the global situation regarding the physical activity of children and adolescents remains a serious public health concern. The Global Matrix 4.0 provides an overview of the global situation in terms of surveillance, and prevalences are provided for the 10 common physical activity indicators. We offer concrete priority actions and examples from successful countries, to support the development of needed physical activity practices and policies internationally.

For more details or to read the global priorities themes reported by the Report Card Leaders (n = 83) to improve the grades in their country/jurisdiction for each indicator, consult the following open access publication: Aubert S et al. Global Matrix 4.0 Physical Activity Report Card Grades for Children and Adolescents: Results and Analyses from 57 Countries. *Journal of Physical Activity and Health*. 2022.



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