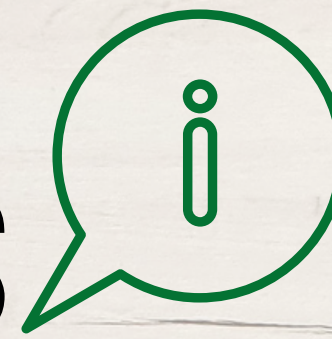


# Report on active and healthy schoolchildren and adolescents in Extremadura





# Abbreviations



- **AHKGA:** Active Healthy Kids Global Alliance
- **RR. SS:** SOCIAL NETWORKS
- **PHeSO:** Promoting a Healthy Society Research Group
- **inHEALTH:** Social Impact and Innovation in Health
- **HEME:** Health, Economy, Motricity and Education
- **ACAFyDE:** Behavioural Analysis of Physical Activity and Sport. University of Extremadura
- **DGD:** Directorate General for Sport
- **FJyD:** Youth and Sport Foundation
- **AFyCAV:** Physical Activity, Quality of Life and Health
- **HSBC:** Health Behaviour in School-aged Children
- **PAQ-A:** Physical Activity Questionnaire for Adolescents
- **ENSE:** National Health Survey
- **BMI:** Body Mass Index
- **JUDEX:** *Juegos Deportivos Extremeños*
- **JEDES:** *Juegos Extremeños del Deporte Especial*
- **INC:** Incomplete
- **WHO:** World Health Organisation
- **NGO:** Non-governmental organization



# Global Matrix 4.0

This report is based on the methodology proposed by the

## **Active Healthy Kids Global Alliance (AHKGA)**

a NPO made up of research staff, health professionals and actors working together to **promote physical activity in children and adolescents around the world.**



<https://www.activehealthykids.org/4-0/>





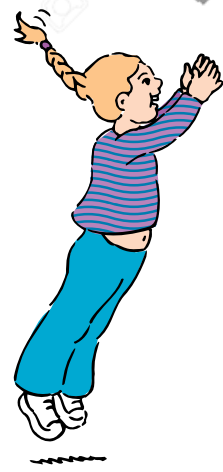
# A glimpse into the past...





# SCOPE OF THE REPORT

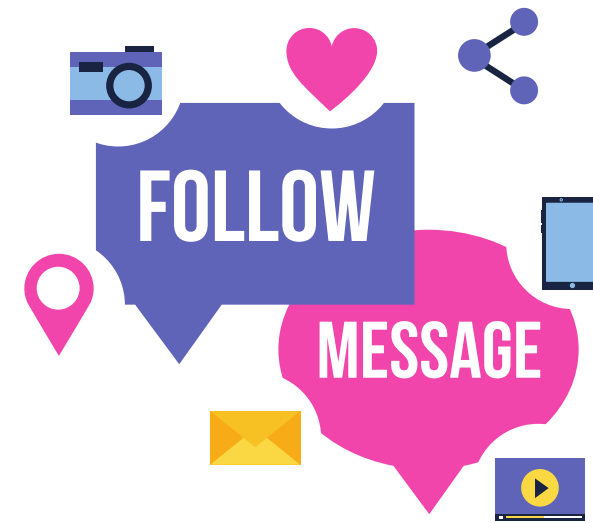
Target group: direct or indirect staff with influence in the field of physical activity



**LEISURE AND FREE TIME**



**EDUCATION**



**SOCIAL NETWORKS**



**SPORT**



**HEALTH ACTION**



**ACTIVE TRANSPORT**



**POLITICAL ACTION**



# WORKING GROUP

## Working Committee

### Promoting a Healthy Society Research Group (PHeSO)

José Carmelo Adsuar Sala  
María Mendoza Muñoz  
Raquel Pastor Cisneros  
Jorge Carlos Vivas  
Ángel Denche Zamorano

### Social Impact and Innovation in Health (inHEALTH)

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Sabina Barrios Fernández  
Angelina Prado Solano  
Rafael Gómez Galán  
Jorge Rojo Ramos

### Health, Economy, Motricity and Education (HEME)

Jorge Pérez Gómez  
Juan Manuel Franco García

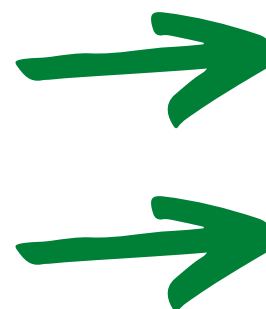
### Director of the AHKGA Communication Committee

Javier Brazo Sayavera  
Lider de Uruguay

### AHKGA

John Reilly  
Lider de Escocia y Europa

Mentoring



# Experts Committee

### Directorate General For Sport ( DGD)

Dan de Sande Bayal

### Directorate General for Planning, Training, Health and Social and Health Quality

Vicente Caballero Pajares  
Susó del Barco Cordero

### Directorate General for Public Health

Eulalio Ruiz Muñoz

### Fundosalud. Scientific coordinator

Ana Martín Pero Duarte

### Youth and Sport Foundation (FJyD)

Sonia Bejarano Sánchez  
Miguel Pizarro Sánchez

### Behavioural Analysis of Physical Activity and Sport research group. University of Extremadura (ACAFyDE)

Pedro Antonio Sánchez Miguel  
David Sánchez Oliva  
Miguel Angel Tapia Serrano

### Directorate General for Educational Innovation and Inclusion

Juan Francisco Fuella Moreno

### Cáceres City Council

Paula Rodríguez Pallero  
Carlos Herencias Fernández  
Laura Borrega Hernández

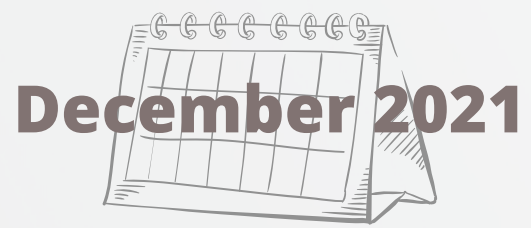
### Directorate General for Social Services and Childhood and Family Affairs

Carmen Nuñez Cumplido  
Guadalupe Llera Alonso

### Physical Activity, Quality of Life and Health Research Group (AFyCAV)

Narcís Gusi Fuertes  
Pedro R Olivares Sánchez Toledo  
Jose Alberto Parraça  
Miguel Ángel Perez Sousa  
Jesús Sánchez Gómez





December 2021

# PROCEDURE



13 May 2021

7

**FINAL REPORT**

**1 COMMITTEE OF EXPERTS MEETING AND WORKING GROUP**

6

**EXTERNAL AUDIT**

**2 Sending information to the working group WORKING GROUP**

5

**WORKING GROUP**

Preparation of

**RESULTS REPORT**



July 2021



May and June 2021

4

**Presentation of the results BY THE WORKING GROUP**

**AND assignment of a score for EACH INDICATOR**

**3 WORKING GROUP**

**Compilation, literature review and available information processing.**



8 July 2021

**COMMITTEE OF EXPERTS MEETING**



**PROCEDURE:**

6

**EXTERNAL AUDIT**



July 2021

**ACCEPTANCE OF THE REPORT BY THE ORGANISATION**

**DRAFT REPORT SUBMISSION**



November 2021

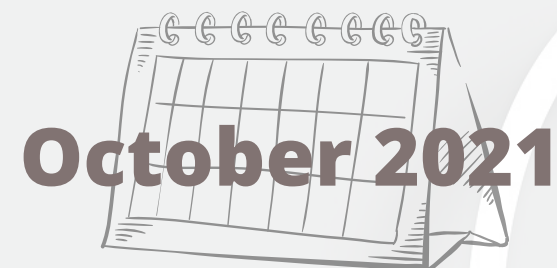
**FIRST FEEDBACK FROM THE ORGANISATION**

**THIRD FEEDBACK FROM THE ORGANISATION**



August 2021

**SECOND FEEDBACK FROM THE ORGANIZATION**



October 2021

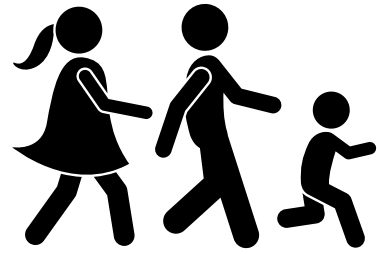


September 2021

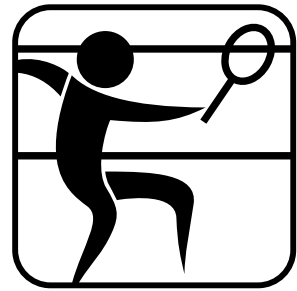




# INDICATORS



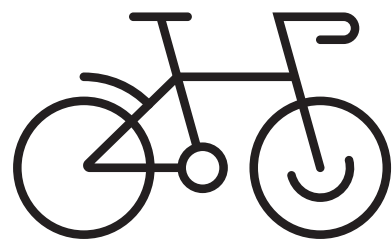
**1. Overall Physical Activity**



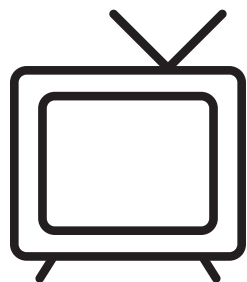
**2. Organized Sport and Physical Activity**



**3. Active play**



**4. Active transport**



**5. Sedentary behaviours**



**6. Physical fitness**



**7. Family and peers**



**8. School**



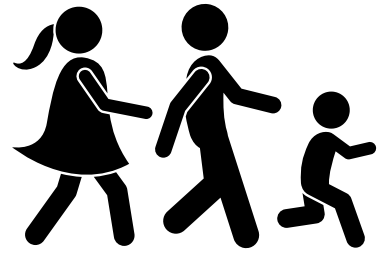
**9. Community and environment**



**10. Government**



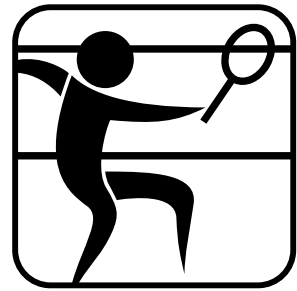
# DEFINITION OF INDICATORS



## 1. Overall Physical Activity



Any movement produced by skeletal muscles that requires energy expenditure



## 2. Organized Sport and Physical Activity



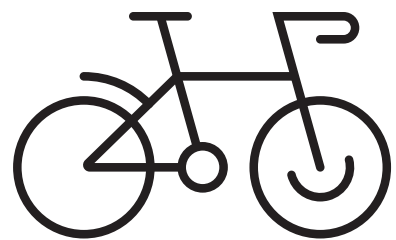
A subset of structured, goal-oriented, competitive and contest-based physical activity.



## 3. Active play



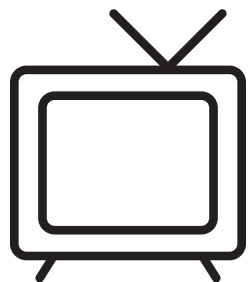
Active play may involve symbolic activities or games with or without clearly defined rules; the activity may be unstructured/unorganized, social or solitary, but the distinguishing features are a playful context, combined with activity that is significantly above the resting metabolic rate. Active play tends to occur sporadically, with frequent rest periods, making it difficult to record.



## 4. Active transportation



Active transport refers to any form of human-powered transport: walking, cycling, wheelchair use, in-line skating or skateboarding.



## 5. Sedentary behaviours



Any behaviour characterised by energy expenditure  $\leq 1.5$  metabolic equivalents, in a sitting, reclining or lying posture.



# DEFINITION OF INDICATORS



## 6. Physical fitness



Characteristics that enable good performance of a given physical task in a given physical, social and psychological environment.



## 7. Family and peers



Any family member who can control or influence children and young people's opportunities for physical activity and participation in this environment.



## 8. School



Any policy, organisational or student factors in the school environment that may influence the opportunities for physical activity and participation of children and young people in this environment.



## 9. Community and environment



Any policy or organisational factors in the municipal environment that may influence the physical activity opportunities and participation of children and young people in this environment.



## 10. Government



Any government body with the authority to influence physical activity opportunities or participation of children and young people through policy, law or regulation.

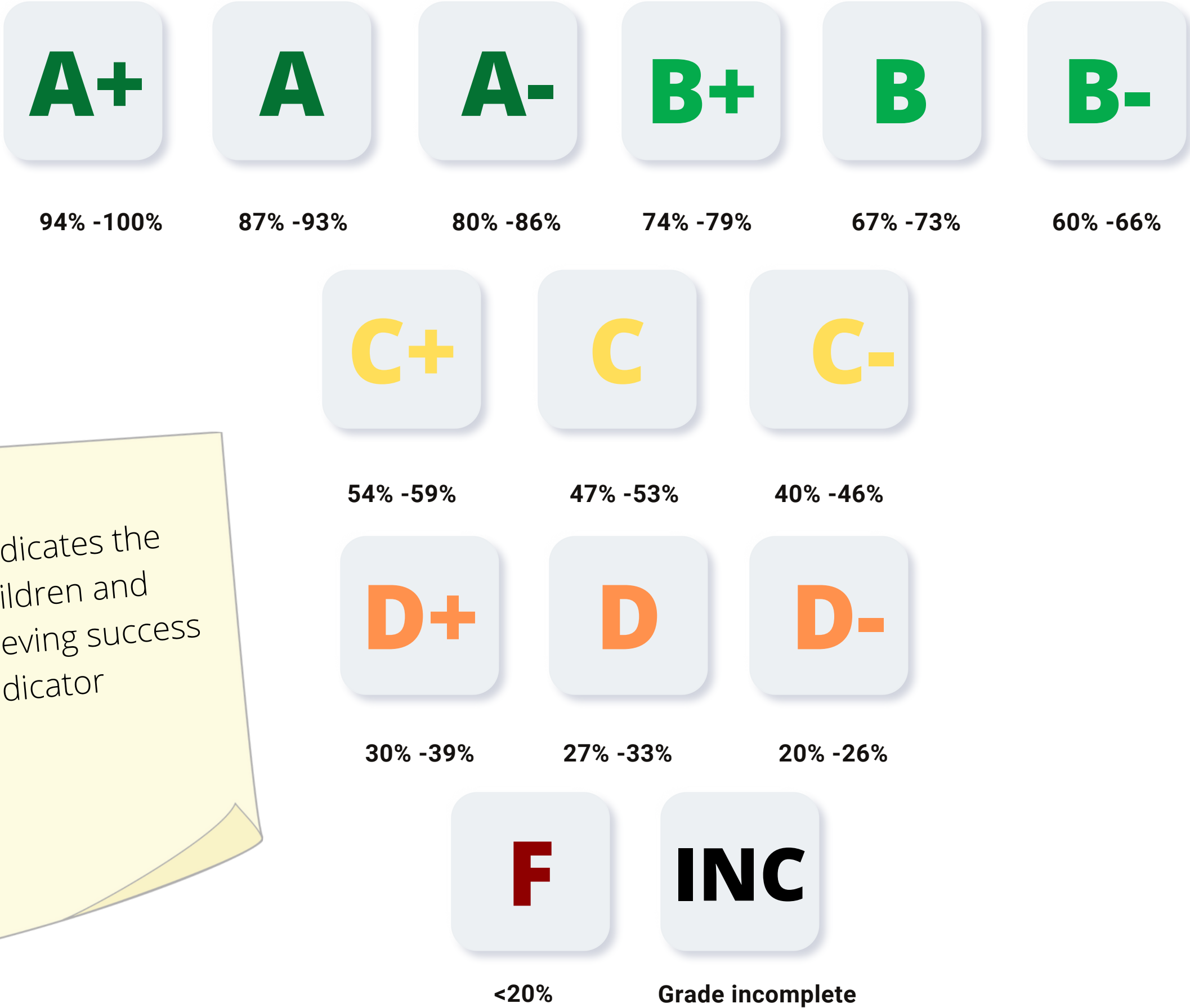


# GRADES OF ASSESSMENT



The corresponding rating was assigned to each indicator based on the following scale proposed by the AHKGA

\*Percentage indicates the number of children and adolescents achieving success on that indicator





# INDICATORS

**WITH DATA**

1. Overall Physical Activity

2. Organized Sport and Physical Activity

5. Sedentary behaviours

6. Physical fitness

7. Family and peers

8. School

9. Community and environment

10. Government

**WITHOUT DATA**

3. Active play

4. Active transportation

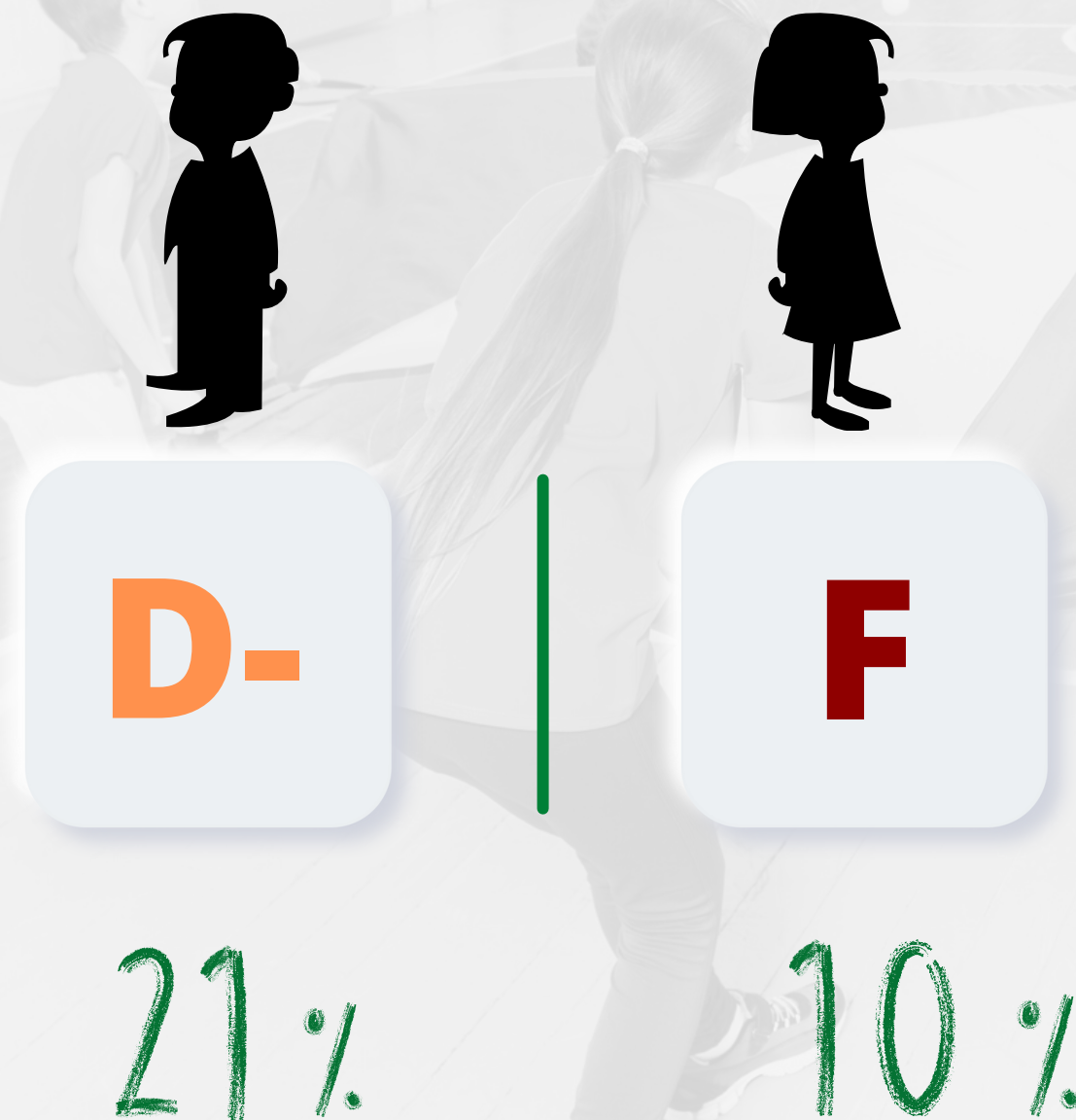
General information: One of the main limitations of this report was the lack of information on school age, as for most indicators the data refer to adolescents. Therefore, there is a particular need for future reports to collect data for ages below 11 years and for the indicators "active play" and "active transport"



# 1. OVERALL PHYSICAL ACTIVITY



The assignment of grades in this indicator was based on the HBSC study (1), updated in 2018, containing data from schoolchildren and adolescents in Extremadura. This data indicate **the frequency in which children and adolescents engage in physical activity during their free time until they become sweaty or out of breath.**

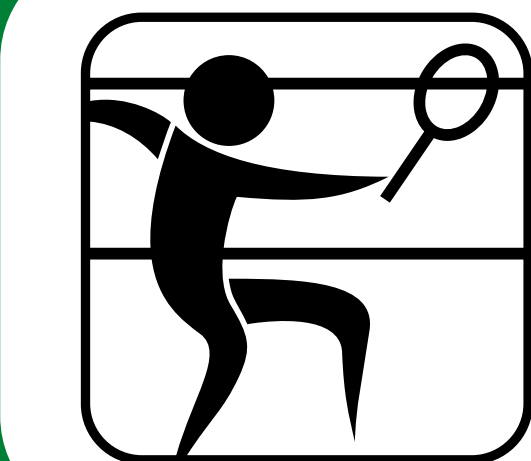


Additional information for the HBSC study:  
Size: 2303 (1138 boys and 1164 girls) children aged 11-18 years  
Location: Educational centres in Extremadura  
Year of data collection: 2018

- \* Data collected for this indicator cannot be considered representative of the Autonomous Community of Extremadura, so their interpretation should be taken with caution.
- \* In addition, these data were reinforced by the study provided by the ACAFYDE Group which, through the PAQ-A questionnaire, reaffirmed <20% of active children



## 2. ORGANIZED SPORT AND PHYSICAL ACTIVITY



The assignment of grades in this indicator was based on the data provided by the Regional Sports Council (2) from schoolchildren and adolescents in Extremadura. This data indicate **the percentage of children and adolescents enrolled in some sport modality in 2017-18.**



C

D

D+

47%

30%

34%

Additional information:

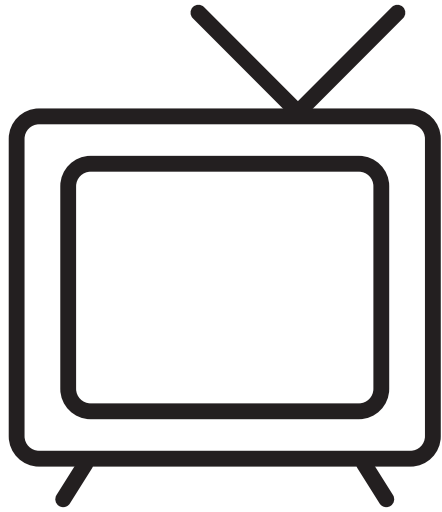
- Size : 46527 children (32844 boys and 13683 girls) aged 6-18 years

- Location: Extremadura

- Year of data collection: 2017-2018.



## 5. SEDENTARY BEHAVIOUR



The assignment of grades in this indicator was based on the National Health Survey ENSE (3) conducted in Spain in 2017, taking data about Physical Activity, Resting and Leisure sections. This data refer to **the number of children and adolescents who spend practically all of their free time in sedentary behaviors.**



D

D

D

32 %

27 %

29 %

Additional information:  
- Size: 6106 children aged 0-14 years.  
- Location: Spain  
- Year of data collection: 2017.

\* The rating corresponds to the population of Extremadura, although the report does not indicate the exact sample assessed in this community.

## 6. PHYSICAL FITNESS



The assignment of grades in this indicator was based on the database generated from the Observatory of Childhood Obesity, Motricity and Well-being by the HEME, PHeSo and inHEALTH research groups (4). This data refer to the mean percentile of the results obtained by adolescents based on their sex and age in the Course Navette and long jump tests. The percentiles established as a reference were those published by Tonkinson et al (5).



C-



D+

C+

39,96%

Additional information:

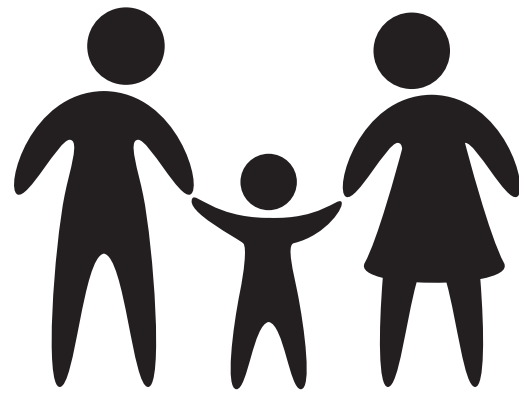
- Size: 225 children aged 12-17 years.
- Location: 4 Educational Centres in Extremadura.
- Year of data collection: 2019.



Limitation: the score only corresponds to the adolescent population of Extremadura. In addition, the score is only based on two physical fitness tests, one related to strength and the other to cardiorespiratory endurance. It should also be noted that there is another study in adolescents in which it was not possible to obtain the indicator score as the percentiles where each participant were not available (Adherence to the Mediterranean diet, and importance in physical activity and screen time in secondary school adolescents in Extremadura (Spain)).

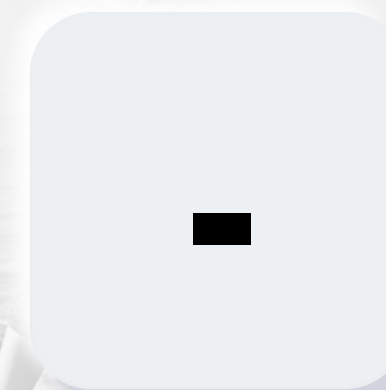
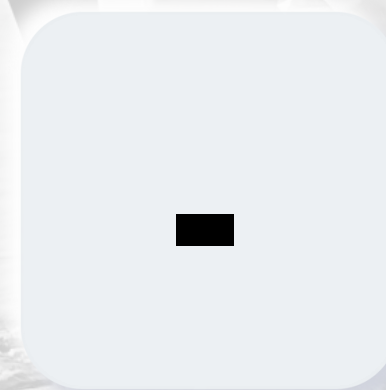


# 7. FAMILY AND PEERS



The assignment of grades in this indicator was based on the study "Importance of the family role in the practice of physical activity and BMI of adolescent schoolchildren" (6). This data refer to the number of children and adolescents who are encouraged by their family and friends to engage in physical activity.

-Información adicional:  
Size: 2217 children and adolescents aged 10-16 years (1236 boys and 989 girls)  
-Venue: 23 schools in Extremadura .  
- Year of data collection: 2019.



88%



The data collected for the assessment of this indicator cannot be considered representative of the Autonomous Community of Extremadura, therefore they should be treated with caution.



## 8. SCHOOL



The assignment of scores on this indicator has been based on:

**1. Physical education at school.** All schools respect the physical education timetable established by the Regional Ministry of Education and Employment of Extremadura (from 3 hours per week in primary to 2 hours per week in secondary)(7,8); Overall Rating A+ (100%).

**2. Physical education programmes at school.** Participation of schools in the programme "Health Education Activity against Child and Youth Obesity" in 2019 (9): 151 out of 639 (23.63%); Overall Rating D- (24%).

**3. Other physical education programmes at school.** PROADES is a programme of the General Directorate of Sports in collaboration with the different sports federations of Extremadura focused on the educational development of students, which aims at the acquisition of healthy lifestyle habits, active participation and sports recreation. In the 2018-19 academic year

Since part "1" corresponds to compulsory physical education and part "2" and "3" to other school policies and practices, a combination of part "2" and "3" has been considered prior to the combination with part "1". Therefore, the grade assigned to this indicator is C+

C+



## 9. COMMUNITY AND ENVIRONMENT



The assignment of grades in this indicator was based on the HBSC study (1) updated in 2018, whose data pertain to children and adolescents in Extremadura. The number of children and adolescents who consider that they feel safe in the area where they are living (70%) and who consider it safe for younger children to play outside during the day (68%), facilitates to be physically active.



**B**

69%

### Additional information:

- Size: 839 children (400 boys and 439 girls) aged between 11 and 18.
  - Location: Educational centres in Extremadura.
  - Year of data collection: 2018.
- (1) Health Behaviour in School-aged Children Study (HBSC). 2018 Extremadura.

\* The data collected for the assessment of this indicator refer to a perception variable, so their interpretation should be taken with caution.



## 8. GOVERNMENT



The assignment of grades in this indicator has been based on the data provided by the Regional Sports Council (2) carried out in 2020, where the report states that a total of 4,045,000 euros were paid to sports federations, of which 45% were allocated to school sport (Judex - Jedes), including the following programmes:

1. The **JUDEX** programme revolves around the consideration of sport at school age as a formative and educational element, not like a competition design. It is manifested in the commitment of all those involved in the programme to respect fair play, sportsmanship and the educational values of sport.
2. The **JEDES** are offered to everyone from Extremadura who are registered in a sports club or physical-sports activity entity formally constituted in Extremadura, if they have some kind of functional diversity, whether intellectual, physical and/or cerebral palsy or sensory. They are characterized by a marked social aspect, where sport appears as an important instrument for the acquisition of confidence, participation, integration and personal improvement of the group.
3. The **PROADES** programme of the General Sports Council is in collaboration with the different sports federations of Extremadura, focused on the educational development of students, which aims at the acquisition of healthy life habits, active participation and sports recreation through the development and practice of physical-sports activities, where the competition factor can appear as a means to improve the motivation of the participants and not as an end in itself.

Additional information:  
-Size: 46527 children (32844 boys and 13683 girls) aged 6-18 years.  
- Location: Extremadura;  
- Year of data collection: 2017-2018.  
(2) Regional Ministry of Culture, Tourism and Sport and Directorate General of Sports. Regional Government of Extremadura. Regional Sports Council Report, 27 January 2020.

C-

45%



**3. ACTIVE PLAY**

**4. ACTIVE TRANSPORT**



**INC**



**INC**



The assignment of grades on these indicators was not possible due to insufficient data as well as bibliographic resource sources.



# SUMMARY OF EVALUATION GRADES

**F**

**1. Overall Physical Activity**

**6. Physical fitness**

**C+**

**D+**

**2. Organized Sport and Physical Activity**

**7. Family and peers**

**A**

**INC**

**3. Active play**

**8. School**

**C+**

**INC**

**4. Active transportation**

**9. Community and built environment**

**B**

**D**

**5. Sedentary behaviours**

**10. Government**

**C-**





# SUMMARY OF EVALUATION GRADES



**D-**

**1. Overall physical activity**

**F**

**C**

**2. Organized Sport and Physical Activity**

**D**

**INC**

**3. Active play**

**INC**

**INC**

**4. Active transportation**

**INC**

**D**

**5. Sedentary behaviours**

**D**





## SUMMARY OF EVALUATION GRADES



**C-**

**6. Physical fitness**

**D+**

-

**7. Family and peers**

-

-

**8. School**

-

-

**9. Community and environment**

-

-

**10. Government**

-



# DATA SOURCE



Fuente	1. Actividad Física General	2. Participación en deporte organizado	3. Juego activo	4. Transporte activo	5. Sedentarismo	6. Aptitud física	7. Entorno familiar y amigos	8. Escuela	9. Comunidad y ambiente construido	10. Políticas públicas
(1) HBSC 2018 Extremadura.										
(2) Consejo Regional de Deportes, 27 de enero 2020.										
(3) Encuesta Nacional de Salud. España, 2017.										
(4) Observatorio de Obesidad, Motricidad y Bienestar Infantil (Grupos de investigación HEME, PHESO e INHEALTH).										
(5) European normative values for physical fitness in children and adolescents aged 9–17 years: results from 2 779 165 Eurofit performances representing 30 countries.										
(6) Importance of the family role in the practice of physical activity and BMI of adolescent schoolchildren.										
(7) Decreto 103/2014, de 10 de junio, por el que se establece el currículo de Educación Primaria para la Comunidad Autónoma de Extremadura.										
(8) Decreto 98/2016, de 5 de julio, por el que se establecen la ordenación y el currículo de la Educación Secundaria Obligatoria y del Bachillerato para la Comunidad Autónoma de Extremadura.										
(9) Unidad de Educación para la Salud de la D. Gral. de Salud Pública del Servicio Extremeño de Salud.										
(10) Adherence to the Mediterranean diet, and importance in the physical activity and screen time in High School adolescents from Extremadura (Spain).										
(11) Influence of Body Composition on Physical Literacy in Spanish Children.										
(12) Base de datos propia del Ayto. Cáceres.										
(13) Estudio piloto sobre barreras para el desplazamiento activo.										
(14) Physical activity of parents and their adolescents' kids: a cross-sectional study.										
(15) Presupuestos generales de la comunidad autónoma de Extremadura.										

The following table show all the studies considered for the assessment of the indicators. In blue you can see the studies on the basis of which the indicators have been assessed. In grey you can see the studies that were taken into account but were not used for the assessment.





**LIST OF PHYSICAL ACTIVITY  
RECOMMENDATIONS FOR  
CHILDREN AND YOUTHS**

ACCORDING TO WHO  
RECOMMENDATIONS.

**60 MINUTES OF  
PHYSICAL  
ACTIVITY**

MODERATE TO VIGOROUS

AEROBICS



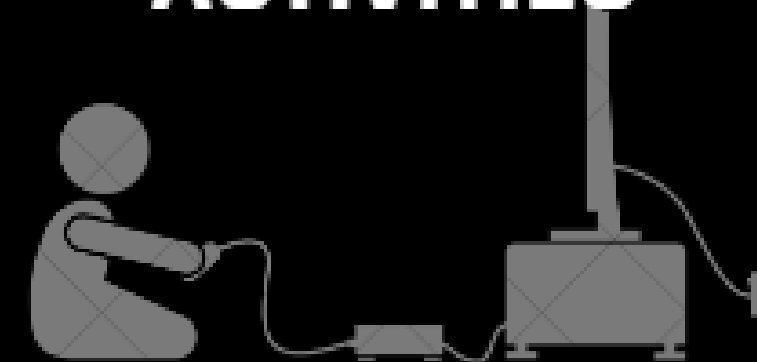
**3 DAYS A WEEK**

VIGOROUS PHYSICAL ACTIVITY

MUSCLE STRENGTH AND BONE  
STRENGTHENING



**REDUCING THE  
TIME SPENT ON  
SEDENTARY  
ACTIVITIES**





# DATA SOURCE

- (1) Health Behaviour in School-aged Children (HBSC) Study. 2018 Extremadura.
- (2) Regional Ministry of Culture, Tourism and Sport and Directorate General of Sports. Regional Government of Extremadura. Memoria Consejo Regional de Deportes, 27 January 2020.
- (3) Ministry of Health, Consumer Affairs and Social Welfare. Government of Spain. National Health Survey. Spain, 2017.
- (4) Observatorio de Obesidad, Motricidad y Bienestar Infantil (University of Extremadura research groups HEME, PHESO and INHEALTH).
- (5) Tomkinson, G. R., Carver, K. D., Atkinson, F., Daniell, N. D., Lewis, L. K., Fitzgerald, J. S., ... & 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), 1445-1456.
- (6) Vaquero Solís, M., Tapia Serrano, M. Á., Cerro Herrero, D., & Sánchez Miguel, P. A. (2019). Importance of the family role in the practice of physical activity and BMI in adolescent schoolchildren.
- (7) Decree 103/2014, of 10 June, establishing the Primary Education curriculum for the Autonomous Community of Extremadura.
- (8) Decree 98/2016, of 5 July, establishing the organisation and curriculum of Compulsory Secondary Education and the Baccalaureate for the Autonomous Community of Extremadura.
- (9) Health Education Unit database. General Directorate of Public Health. Extremadura Health Service.
- (10) Tapia-Serrano, M. Á., Vaquero-Solís, M., López-Gajardo, M. A., & Sánchez-Miguel, P. A. (2021). Adherence to the Mediterranean diet, and importance in the physical activity and screen time in High School adolescents from Extremadura (Spain). *Nutricion hospitalaria*, 38(2), 236-244.
- (11) Mendoza-Muñoz, M., Barrios-Fernández, S., Adsuar, J. C., Pastor-Cisneros, R., Risco-Gil, M., García-Gordillo, M. Á., & Carlos-Vivas, J. (2021). Influence of body composition on physical literacy in Spanish children. *Biology*, 10(6), 482.
- (12) Cáceres City Council own database.
- (13) Cerro-Herrero, D. , Vaquero-Solís, M., Prieto, J., Sánchez-Miguel, P. A., & Tapia-Serrano, M. Á. (2020). Why are young people from Cáceres not more active when travelling to school? A pilot study on barriers to active travel. *Cuadernos de Investigación en Juventud*, (8), 22-35.
- (14) Vaquero-Solís, M., Mirabel, M., Sánchez-Miguel, P. A., & Gallego, D. (2020). Physical activity of parents and their adolescents' kids: a cross-sectional study. *Retos: nuevas tendencias en educación física, deporte y recreación*, (37), 505-508.
- (15) Regional Government of Extremadura. Presupuestos generales de la comunidad autónoma de Extremadura 2021.



