

Results From Ecuador's 2018 Report Card on Physical Activity for Children and Youth

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Introduction

International initiatives like the Active Healthy Kids Global Alliance (AHKGA) have emerged to support monitoring and surveillance of physical activity, physical fitness, sedentary behavior and its social and environmental influences among children and adolescents.^{1,2} The standardized methodology proposed by AHKGA focuses on the development of a Report Card, allows the compilation of knowledge gaps and highlights the most urgent needs and problems that should be considered by policy makers to promote an active healthy lifestyle among children and youth within each country.² This paper summarizes the first results of the Ecuadorian 2018 Report Card (Figure 1) based on the AHKGA methodology.

Methods

A literature review was performed to identify possible sources of information and experts in the field of physical activity and active lifestyle in Ecuador. For this purpose, the following databases were searched: Scopus, Taylor & Francis, SpringerLink, ScienceDirect, Scielo, and Google Scholar. The search included all the documents published from 2007 to 2017 using the following keywords “children”, “physical activity”, “fitness”, “active play”, “leisure time”, “sport”, “sedentary behaviors”, “family”, “community”, “environment”, and “policies”. Additionally, governmental web pages (Education, Health, Sport and Economic & social inclusion Ministries, SENPLADES, INEC) were reviewed to identify policies reports, databases, strategies and programs designed to promote physical activity and active lifestyles among children and adolescents. A matrix was built to compile the exact reference, author information (names and contact information), data available (i.e. physical activity, screen time, etc.) and related policies and programs (when applies). A group of experts was identified and invited to join the Ecuadorian Researchers Working Group (RWG), which included seven experts (5 from academia and 2 from government organizations). The governmental representatives participated partially on the development of the Report Card

due to time constraints. The RWG meetings were set up to review the relevance of the data sources, to propose additional data sources and to grade the indicators (following the recommended AHKGA grading scheme).

National surveys³⁻⁶ were the main data sources used to compute the Report card grades. In addition, local studies from Quito⁷ and Cuenca⁸ as well as online governmental reports were relied on to assign grades to the indicators.



Figure 1 — Ecuador's 2018 Report Card cover.

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Table 1 Grades and rationales for Ecuador's 2018 Report Card

Indicator	Grade	Rationale
Overall Physical Activity	D	32.6% (N = 10910) of 10-17 years-old children reported being physically active at least 60 minutes per day at least four days per week (national sample).
Organized Sport Participation	INC*	42.4% (N = 5254) of 9-17 years-old children reported participation in organized sport (local study from capital Quito).
Active Play	INC*	29.5% (N = 6633) of 9-17 years-old children reported more than 60 minutes engaged in some active play (local study from capital Quito).
Active Transportation	C-	42.7% (N = 7652) of 5-17 years-old children reported walking (n = 11582) or biking (n = 224) to school or work (national sample).
Sedentary Behaviours	C	55.4% (N = 14622) of 5-17 years-old children reported no more than two hours/day of TV and/or video-games in the last week. Since the national survey did not include other sedentary pursuits like computer use the grade was set at C instead of C+.
Physical Fitness	INC*	Cardiorespiratory fitness, muscular strength and endurance, agility and flexibility components were evaluated on a nationally representative sample (N = 10257 children 5-17 year). The databases were not accessible, and the available literature do not report physical fitness data stratified by gender. Cardiorespiratory fitness measured by the Leger test ranged from 46.6 to 47.6 mlO ₂ /kg/min among 5 to 17-year-old. The flexibility measured by sit-and-reach test ranged from 6.2 to 9.4 cm among 5 to 17-year-olds. Strength (measured by longitudinal or vertical jump), muscular endurance (measured by well test) and agility (measured by speed shuttle run) data were insufficiently reported or used a test that varies from the AHKGA methodology.
Family and Peers	F	11.6% (N = 13511) of adults with 5-17 years old children living in the same house meet the recommendation of 150 minutes of moderate to vigorous physical activity per week (national sample).
School	INC*	The data available to calculate this indicator do not comply with the current governmental regulation. Additionally, data are not available on the percentage of PE specialists per school.
Community and Environment	D+	37.4%(N = 68828) of the adult population (>18 year) scored their neighborhood as safe or very safe (national sample).
Government	INC*	There is evidence of a commitment to promote physical activity as this issue has been included in the National Constitution and in the National governmental plan (2013-2017). Additionally, to guarantee implementation of the national plan, the Ministry of Sport was created with assigned funds to promote sports and to decrease sedentary behaviors of the population. Unfortunately, there is no evidence about the evaluation of the impact of these policies, and most of the strategies are focused on sports (formative sport, elite sports and organizations).

*INC: incomplete, insufficient or originate from inadequate information

Results and Discussion

Half of the indicators are incomplete (eg, for the School indicator, the data available do not allow an evaluation of the current governmental regulation), insufficient (eg, available data on Organized Sport Participation and Active Play have been collected in local surveys only) or originate from inadequate information (eg, data sources for the Physical Fitness and Government indicators either have methodological constraints, report outcomes inadequately or are unavailable) (see Table 1). These gaps of knowledge and limitations must be addressed by national studies with standardized methodologies.

Although indicators such as Overall Physical Activity, Active Transportation, Sedentary Behaviors, Family and Peers and Community and Environment have been assessed in national surveys, the questionnaires used are not always valid. Therefore, there is a need for more comprehensive evaluations by using international tools like Canadian Physical Activity Levels Among Youth Survey, Opportunities for Physical Activity at School Survey or Canadian Health Measures Survey^{9,10} in order to have a complete understanding of indicator's status.

In the light of the available data, Ecuadorian indicators need urgent interventions in order to reverse their unfavorable status. Ecuadorian policy-makers should encourage a healthy active life through two main strategies: i) reinforce programs aiming to: promote active transportation/physical activity, and to prevent sedentary behaviors among children, and ii) scale-up successful programs in promoting physical activity by means of-friendly

communities and environments. Finally, the objectives as well as detailed information about costs and effectiveness of governmental programs and strategies must be public available.

Conclusion

Ecuadorian children and adolescents are insufficiently active; therefore, preventive strategies are urgently needed to warrant a healthy and friendly environment in order to promote physical activity as well as to prevent sedentary behaviors among children. Available evidence has several limitations; future surveys must include more comprehensive tools to support monitoring and surveillance.

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