Mexico's 2018 Report Card on Physical Activity for Children and Youth: Full report

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ABSTRACT

Objectives. Mexico's 2018 Report Card evaluates the opportunities available for Mexican children and youth to reach healthy levels of physical activity, sleep, and sedentary behavior.

Methods. The Report Card is a surveillance system that gathers data from national surveys, censuses, government documents, websites, grey literature, and published studies to evaluate 16 indicators in four categories: Daily Behaviors; Physical Fitness; Settings and Sources of Influence; and Strategies and Investments. Data were compared to established benchmarks. Each indicator was assigned a grade from 1 – 10 (< 6 is a failing grade) or "incomplete" if data was insufficient/unavailable.

Results. Daily Behavior grades were: Overall Physical Activity, 4; Organized Sport Participation, 5; Active Play, 3; Active Transportation, 5; Sleep, 7; and Sedentary Behavior, 3. Physical Fitness, received a 7. Settings and Sources of Influence grades were: Family and Peers, incomplete; School, 3; and Community and Environment, 4. Strategies and Investments were: Government Strategies, 6; and Non-Government Organizations, 2.

Conclusion. Low grades in 11 of the 16 indicators indicate that schools, families, communities, and government need to work together to improve physical activity opportunities for children and youth in Mexico.

Keywords: Physical fitness; child health; youth sports; health behavior; public health surveillance; health promotion; Mexico.

Movement behaviors, namely physical activity, sleep, active play, and sedentary behavior are strong independent factors influencing children's health (1). Evidence-based guidelines recommend children 5 – 17 years of age accumulate 60 minutes of moderate to vigorous physical activity (MVPA) every day (2), spend no more than 2 hours per day in recreational screen time, sleep 8 – 11 hours per night, and spend several hours engaged in a variety of structured and unstructured light

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physical activities (1). More than 40% of Mexican children do not meet these recommendations, and this shortfall may contribute to the rising prevalence of obesity and cardio-metabolic disorders observed in this population (3). Since adequate levels of physical activity, sleep, and sedentary behavior are associated with lower adiposity and better cardio-metabolic health (4), implementing strategies to improve these behaviors in Mexico is imperative.

Mexico's Report Card on Physical Activity for Children and Youth aims to evaluate opportunities available for the country's children and youth to engage in health-enhancing movement behaviors. It is framed on an ecological perspective that considers how sociocultural and physical environmental factors and their interactions affect an individual's behavior (5). The Report Card is part of the Global Matrix 3.0, a global surveillance system across 49 countries, including Mexico (6). An abstract summarizing Mexico's grades for 11 indicators reported in the Global Matrix 3.0 has been published elsewhere (7). The purpose of this paper is to provide a full report of the 16 indicators in Mexico's 2018 Report Card—11 Global Matrix indicators and five additional indicators. This full report identifies potential strategies to improve physical activity opportunities for Mexican children and youth.

MATERIALS AND METHODS

The Report Card is a surveillance system that uses secondary data to monitor physical activity levels in and opportunities for children. The study was conducted through three main steps: (i) identify data sources for each indicator; (ii) compare the data to established benchmarks; and (iii) assign a grade to every indicator. Grades are assigned by a panel of researchers, government and health care practitioners, and public health experts.

Mexico's 2018 Report Card has 16 indicators grouped into four categories: I. Daily Behaviors (Overall Physical Activity, Organized Sports and Physical Activity Participation, Active Play, Active Transportation, Sedentary Behavior, and Sleep); II. Physical Fitness (Cardiorespiratory Fitness, Body Composition, Flexibility, Muscle Fitness, and Muscle Strength); III. Settings and Sources of Influence (Family and Peers, School, Community, and Environment); and IV. Strategies and Investments (Government and Non-Government Organizations).

The main sources of information consulted were the National Health and Nutrition Survey 2016 (ENSANUT), national census, and reports (3, 8 – 11). Information was also obtained from websites, grey literature, and studies published in 2013 – 2017 that reported data on children and youth from 1 – 17 years of age. These were identified in Academic Search Complete, EBSCO host, Web of Science, Medline, SCIELO, Cochrane México, and Biblioteca Virtual en Salud databases (Table 1). Grades were assigned according to the proportion of children and youth meeting the established benchmarks developed for the Global Matrix (6). The criteria for grade assignment are shown in Table 2. Grades < 6 represent failing grades. An "incomplete" grade was assigned when data was insufficient/unavailable for the indicator. For grade assignment, national data took precedence over regional data—to better capture how the country was doing as a whole. Objectively-measured data took precedence over self-reported data, and age and gender disparities were considered.

TABLE 1. Benchmarks and source of information for each indicator assessed in the Mexico 2018 Report Card on Physical Activity for Children and Youth

Indicator	Benchmark(s)	Source
Overall Physical Activity	% of children/youth achieving at least 60 minutes of MVPA[a] per day	ENSANUT 2016 (3)
Organized Sport Participation	% of children/youth in sports or organized physical activity	ENSANUT 2016 (3)
Active Play	% of children/youth who engage in unstructured, self-directed active play for several hours a day	Published studies
Active Transportation	% of children/youth who use active transportation to get to/from places	INEGI Survey 2015 (8)
Sedentary Behavior	% of children/youth that spend less than 2 hours per day on a screen	ENSANUT 2016 (3)
Sleep	% of children 5 – 13 years of age getting 9 – 11 hours of uninterrupted sleep per night % of youth 14 – 17 years of age getting 8 – 10 hours of uninterrupted sleep per night	ENSANUT 2016 (3)
Body Composition	% of children/youth whose values of z-scores of Body Mass Index for age are from -2 SD to +1 SD	ENSANUT 2016 (3)
Family and Peers	% of parents that facilitate and encourage physical activity for their children, % of parents that meet 150 minutes per week of MVPA and are physically active	Published studies
School	% of students that are offered at least 60 minutes of physical education per week % of schools with physical activity programs or policies	Report by the Ministry of Education (11) and INEGI (28)
Community and the Built Environment	% of communities with infrastructure that promotes physical activity	National reports of infrastructure and urban environment (9) and ENVIPE (10)
Government Strategies	Evidence of funds, resources, programs, leadership, and/or commitment to promoting physical activity	National reports and strategies 2014 – 2018 (33 – 35)
Non-Government Strategies		Grey literature, reports, websites

[a] Moderate to vigorous intensity physical activity.
Note: ENSANUT = *Encuesta Nacional de Salud y Nutrición* (National Health and Nutrition Survey); ENVIPE = *Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública* (National Victimization and Perceived Public Safety Survey); INEGI = *Instituto Nacional de Estadística y Geografía* (National Institute on Statistics and Geography).
Source: Prepared by the authors from study data.

RESULTS

Grades for the 2018 Report Card and for previous years are presented in Table 2.

I. Daily Behaviors

Overall Physical Activity: 4. According to ENSANUT 2016 (12), although 60.5% of youth (15 – 19 years of age) accumulate the recommended 60 minutes of MVPA per day, only 17.2% of children 10 – 14 years of age (an age category included for the first time) do the same. ENSANUT also reveals a higher prevalence of physical activity in 10 – 14-year-old boys (21.8%) than girls (12.7%), and in 15 – 19-year-old boys (69.9%) than girls (51.2%). National data for children less than 10 years of

TABLE 2. Grades[a] by physical activity indicator, on Mexico's 2012, 2014, 2016, and 2018 Report Cards on Physical Activity for Children and Youth

Indicator	2012	2014	2016	2018
Overall Physical Activity	5	6	6	4
Organized Sports Participation	—	4	4	5
Active Play	—	Incomplete	3	3
Active Transportation	Incomplete	6	5	5
Sedentary Behavior	5	4	4	3
Sleep	—	—	—	7
Body Composition	—	—	—	7
Family and Peers	Incomplete	Incomplete	Incomplete	Incomplete
School	3	4	3	3
Community and the Built Environment	Incomplete	1	4	4
Government Strategies	7	6	6	6
Non-Government Strategies	—	—	2	2

[a] Grading scale:
10 (A+) = Succeeding with 94% − 100% of children & youth
9.5 (A) = 83% − 93%   (< 6 = failing)
9.0 (A-) = 80% − 86%   6.0 (C-) = 40% − 46%
8.5 (B+) = 74% −79%   5.5 (D+) = 34% − 39%
8.0 (B) = 67% − 73%   5.0 (D) = 27% − 33%
7.5 (B-) = 60% − 66%   4.5 (D-) = 20% − 26%
7.0 (C+) = 54% − 59%   ≤ 4 (F) = ≤ 20%
6.5 (C) = 47% − 53%
Source: Prepared by the authors from study data.

age were not available. Only regional accelerometry (13) and questionnaire data (14) were found, both showing low levels of physical activity for those less than 10 years of age. Considering this, a grade of 4 was assigned to this indicator.

Organized Sports and Physical Activity Participation: 5. Data from ENSANUT 2016 (12) show 48.6% of children (10 – 14 years of age) participated in one or more organized sports during the previous 12 months. The National Index of Youth Participation shows a similar proportion of youth (15 – 19 years of age) engaging in sports, a higher proportion still in rural areas (15). This index also shows that sports participation was 4th among activities to perform in spare time (15). Reports from the National Commission on Physical Culture and Sports (16, 17) show a decrease in sports participation by children and youth from 2016 – 2017. Thus, a grade of 5 was assigned to this indicator.

Active Play: 3. Because national data on active play is lacking, to obtain a grade for this indicator, published studies reporting regional data were reviewed. A study conducted in Tlaltizapan, Morelos, of 236 children from 9 – 12 years of age found that average, self-reported time spent on active play was 1.8 – 2.3 hours per day (18). A study in Mexico City (19) reported that children from 2 – 5 years of age spend 3.9 hours per day in active play. A study in Chihuahua, Mexico (20), found that among Tarahumara indigenous groups (n = 50), 45% of schoolchildren from 6 – 14 years of age spend 4 or more hours in active play per week, and among the Mestizo (n = 61), 27%. A multi-city study of 1 509 children from 6 – 11 years of age reported that 76% engage in outdoor play on at least one day per week (21).

Collectively, these studies indicate that Mexican children spend few hours per day engaging in active play (between 2 – 4 hours/day), earning this indicator a grade of 3.

Active Transportation: 5. Mexico's National Institute of Statistics and Geography reports that 54.8% of children over 3 years of age walk to school, while 1.5% ride a bicycle (8). According to ENSANUT 2016 (12), among children 10 – 14 years of age, 69% have an active commute to/from school. In a study of 213 children 10 – 14 years of age in Mexico City (22), 54.5% of girls and 69.1% of boys use inactive transportation to school. Since only one-half of Mexican children are active in their commute to/from school, this indicator received a grade of 5.

Sedentary Behavior: 3. Data from ENSANUT 2016 (3) show that 22.7% of children (10 – 14 years) and 21.4% of youth (15 – 19 years) spend 2 hours or less per day in front of a screen (3). Among the children, more girls (24.4%) than boys (21.0%) met the screen time recommendation, while among the youth, more boys (25.3%) than girls (17.4%) met it. ENSANUT shows more screen time in urban areas than in rural ones, and in children with obesity than in those with normal weight. Higher screen time was also seen in northern parts of Mexico and among children of higher socioeconomic groups (3). Hence, a grade of 3 was assigned.

Regarding other age groups, a study of 365 mothers in a northern city (23) reported that 75% of their children (8 months – 5 years of age) watch television for 1.9 – 2.5 hours per day (23). Other studies found that children 6 – 12 years of age (n = 60) spend an average of 1.6 hours (24) and 10-year-olds spend 2.7 hours per day watching television (25). Among 881 undergraduate students (17 – 19 years of age), a study found that 46.8% spend 2 hours or less in front of a screen (26). Only one study used accelerometers (27); it found that girls at a private school in Mexico City spent 73.4% of their time awake engaged in sedentary activities (27).

Sleep: 7. Data from ENSANUT 2016 (3) show that 91% of children from 10 – 14 years of age slept 9 hours or more per night. More girls (95%) than boys (87%) met the sleep recommendation for this age group. Girls slept an average of 10.1 hours, and boys, an average of 9.6 hours/night. Among 15 – 17-year-olds, 65% were sleeping at least 8 hours/night. More girls (68%) than boys (62%) met the sleep recommendations. In this age group, girls slept 7.5 hours/night on average, and boys, 7.4 hours (3). Based on these national data, this indicator received a grade of 7.

II. Physical Fitness

Four indicators in this group--Cardiorespiratory Fitness, Flexibility, Muscle Fitness, and Muscle Strength—were not assigned a grade (see Discussion).

Body Composition: 7. ENSANUT 2016 (3) data show that 66.8% of 5 – 11-year-olds have a healthy Body Mass Index (BMI) for their age; the proportion was similar for boys (66.3%) and girls (67.2%). Among those 12 – 19 years of age, 63.7% have a healthy BMI for their age, with more boys (66.5%) than girls (60.8%) falling in the normal category (3). Based on this, a grade of 7 was assigned to this indicator.

III. Sources of Influence

Family and Peers: Incomplete. Data on the influence of family and peers on the physical activity of Mexican children and youth are lacking. Hence, an "incomplete" grade was assigned.

School: 3. A report by the Ministry of Education shows 36.3% of school-aged children in public schools receive 1 hour of physical education (PE) per week (11). Data from the 2013 Basic Education Census (28) by the National Institute of Geography showed that there were 96 000 PE teachers at the country's 207 682 public schools (preschool through high school). Based on the shortfall of PE classes and PE teachers, a grade of 3 was assigned to this indicator.

Community and the Built Environment: 4. Data from the National Institute of Statistics and Geography show (9) that one-third of neighborhoods with more than 5 000 residents have paved streets and trees, and 45% have public lighting. The National Registry of Sports Infrastructure (29) reported that in 2015 there were 45 497 sports facilities across 32 Mexican states, but data on usage and accessibility are lacking. The 2017 National Victimization Survey (10) found that nearly 75% of parents stopped allowing their children to go outside due to neighborhood safety concerns. The Ministry of Agriculture, Land, and Urban Development reported that by 2017, new infrastructure developments and/or renovations had improved 1 163 public spaces (30); however, green space in Mexico is insufficient, with just 3.8 m^2 per inhabitant (31). Regarding infrastructure for active transportation, bikeability, and walkability, improvements have been made in large cities, i.e., Mexico City, Guadalajara, and León (32). Urban mobility programs, such as Bus Rapid Transit, were also launched in many cities to enhance sustainable mobility, but information on fund allocations for these initiatives is lacking. A grade of 4 was assigned to this indicator.

IV. Strategies and Investments

Government Strategies: 6. According to a 2017 Government National Report (33), the National Sports Infrastructure program received $ 5 867.5 million Mexican pesos in 2013 – 2017. During this period, 382 new physical activity-related facilities were developed, 397 were renovated, and 103 were expanded, plus equipment was delivered for several initiatives across the country (34). However, there is no information on the extent to which these resources reached children and youth.

In 2017, Mexico introduced the National Physical Culture and Sports Week. Several activities were promoted through this campaign (e.g., sports, recreational activities) across the country and in a variety of settings (e.g., schools, workplaces). It reached 3 035 776 people, but how many of these were children and youth is unknown.

In addition, four national initiatives to promote physical activity were identified. *México Incluyente* reached 4.3 million people through physical education and physical activity in community settings (33). *México con Educación de Calidad* was directed at enhancing the quality of education through strategies such as professional teacher training and improvements to sports infrastructure and programs in schools (35). *Ponte al 100* offered functional capacity assessments for children and adults, along with individual improvement plans at 2 828 centers across the country (36). Finally, *Muévete en 30* promoted physical activity as a means to prevent obesity, and reached 4 million children and youth (37). The impact and degree to which these initiatives have been implemented is unknown; therefore, a grade of 6 was assigned to this indicator.

Non-Government Strategies: 2. National data on programs and investments by Non-Government Organizations (NGOs) to promote physical activity are lacking. There have been several small initiatives implemented in various parts of the country. Most of these were funded by the food industry, focused on promoting competitive sports, and were small-scale and of short duration. Data on their reach and impact was limited. For this reason, this indicator was assigned a grade of 2.

The most prominent initiative was the *Ponte al 100* program developed by the *Fundación Movimiento es Salud* in partnership with the federal government, and funded by The Coca-Cola Company (38). Another national initiative was *Play 60 Character Camp*, sponsored by PepsiCo Incorporated and focused on promoting physical activity in 50 schools; it reached 23 000 students (39). Other initiatives funded by the food industry promoted competitive sports participation, e.g., *Torneo Futbolito Bimbo* and *Paly 60 Character Champ*. Small initiatives introduced by private foundations were also found. These promoted physical activity promotion, equity, and sports participation, e.g., *Fundación Real Madrid* and *Fundación Mexicanos Activos*.

DISCUSSION

Mexico's 2018 Report Card provides the most comprehensive evaluation of the opportunities available for children and youth to reach adequate levels of physical activity and sleep, and to reduce sedentary behavior. This evaluation shows that movement behaviors are below recommended levels among Mexican children and youth. It also demonstrates that initiatives undertaken by schools, communities, and the government have not achieved sufficient improvements. Gaps remain in monitoring physical activity and behavior in children less than 10 years of age, and on the efforts made by Mexican families to get their children and youth moving.

Grades for Daily Behavior indicators were low, with some grades improving or worsening against the 2016 Report Card. The grade for Physical Activity dropped from 6 in 2016 (40) to 4 in 2018. This was due to low physical activity levels found in the new age group included in ENSANUT 2016 (12): only 17.2% of 10 – 14-year-olds met the physical activity recommendations. The grade for the Sports Participation indicator increased from 4 in 2016 to 5 in 2018 because the proportion of children and youth participating in Organized Physical Activity or Sports rose from 41.4% to 48.6%, according to ENSNAUT (12). Sedentary Behavior grades have been steadily declining in every edition of the Report Card, from 5 in 2012 when 50% of children had less than 2 hours of daily screen time (41), to 3 in 2018 when close to 80% exceeded the recommended limit.

Other Daily Behaviors did not change or were included for the first time in this evaluation. Sleep, included for the first time, received an encouraging grade of 7, setting a precedent for future monitoring of this behavior. As with other Daily Behaviors reported in national surveys, there is no sleep data on children less than 10 years of age. The grades for Active Play and Active Transportation remain the same because the data

used for the first Report Card has not be updated for subsequent Report Cards. New national data are needed to determine if these indicators are changing.

For the first time, Physical Fitness was added to the Report Card, but national data on cardiorespiratory fitness, muscular strength, and flexibility of Mexican children and youth were not found. We could only assess the Body Composition indicator and found that 1 in 3 Mexican children and youth have high BMI for their age (3). Since unhealthy body weight puts children at risk of developing diabetes, cardiovascular disease, and having a shorter lifespan, effective strategies to promote healthy weight in Mexican children and youth are imperative.

The grades for Settings and Sources of Influence indicate physical activity opportunities remain insufficient or are inadequate. As on the 2016 Report Card (40), the grade for the School indicator was 3, given the insufficient PE lessons and PE teachers in public schools (11, 28).

The Community and Built Environment indicator received a grade of 4 in the present Report Card, the same as in 2016 (40). More investment is needed to boost the development and recovery of parks and public spaces, as well as to build infrastructure that promotes walking, bike riding, and public transportation use. As in all editions of the Report Card, data are still needed to evaluate efforts that Mexican families are making to encourage physical activity among their children.

The grades for Strategies and Investments suggest insufficient effort to promote physical activity among Mexican children and youth. For the Government indicator, the grade remains at 6 since it was based on programs and initiatives implemented by the same government administration assessed in the 2016 Report Card (40). The degree to which the physical activity strategies were implemented, the proportion of the population reached, and the impact on children and youth are unknown. The level of coordination among the various, relevant government agencies is also unclear. The grade for NGOs remains at 2, reflecting the lack of information on the reach and impact of their initiatives. Overall, most of these initiatives were funded by the food industry and focused on promoting competitive sports. They were small-scale and of short duration. NGO initiatives should be objectively evaluated to determine their impact and potential, and results should be shared transparently.

Mexico's 2018 Report Card is part of the Global Matrix 3.0, a global initiative aimed at evaluating and comparing standardized scores of physical activity behaviors and opportunities for children and youth. When compared with the 48 participating countries, Mexico ranked 33rd in Overall Physical Activity, 40th in Sources of Influence, and 24th in Daily Behaviors (6). Countries that ranked in first place in Overall Physical Activity and Sources of Influence had a strong and widespread sports culture, infrastructure and policies for active transport, and evidence of existing support from government, schools, and parents. Countries that ranked in first place in Daily Behaviors were those where active transportation is more common than automobile transportation and where access to screen-based recreation is limited (6).

There are numerous opportunities to improve Mexico's global ranking and overall physical activity grades. We offer the following main recommendations:

1. Provide quality physical education to all children in Mexico: this entails training competent PE teachers, providing adequate facilities and equipment, having an inclusive curriculum for all genders and backgrounds, creation of community alliances, and establishing monitoring and evaluation mechanisms.
2. Establish a surveillance system for all movement behaviors and include children from 1 – 18 years of age.
3. Evaluate the impact of existing national policies and programs aimed at promoting physical activity in children and youth, and determine whether each should be continued, modified, or discontinued.

Limitations. This report has certain limitations. Grades were based on national data and do not capture regional variation. Data on movement behaviors come from self-reports, often prone to overestimation. Screen time was used as a proxy indicator of sedentary time, and results were not stratified by type (i.e., watching television, playing video games, or other forms). There are no national data from children less than 10 years of age for any movement behavior; therefore, behaviors in this population could not be assessed. Definitions and measures of Active Play varied, suggesting there is currently no consensus for operationalizing and measuring this behavior. Additionally, the lack of data on family support continues to be a limitation. Lastly, we may have missed sources of information that were not available and/or accessible at the time of this evaluation.

CONCLUSIONS

Mexico's 2018 Report Card shows children and youth are far from meeting recommended levels of physical activity, sleep, and sedentary behavior. The Report Card also shows that school, community, and government initiatives have been insufficient or inadequate for improving these behaviors. Given the obesity and cardio-metabolic disease epidemic that Mexico is facing, efforts should be directed at promoting health-enhancing physical activity and sleep levels, and combating sedentary behaviors among children and youth. This Report Card can inform school, community, and government strategies to promote active lifestyles for children and youth, so they may become healthy, productive adults who contribute to the development of Mexico.

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Boletín sobre actividad física en la población infantil y joven en México, 2018: informe completo

RESUMEN

Objetivos. El boletín de notas de México correspondiente al 2018 evalúa las oportunidades a disposición de la población infantil y joven mexicana para que puedan desarrollar niveles adecuados de actividad física y sueño, y disminuyan el sedentarismo.

Métodos. El boletín es un sistema de vigilancia que recopila los datos obtenidos en las encuestas nacionales, censos, documentos gubernamentales, sitios web, literatura gris y estudios publicados con respecto al análisis de 16 indicadores en 4 categorías: comportamientos diarios, estado físico, entornos y fuentes influyentes, y estrategias e inversión. Los datos fueron cotejados con los puntos de referencia establecidos. A cada indicador se le asignó una calificación entre 1 y 10 (< 6 significa reprobado) o fue marcado como "incompleto" si los datos eran nulos o insuficientes.

Resultados. Las calificaciones obtenidas para los comportamientos diarios fueron: actividad física en general: 4; participación en actividades deportivas organizadas: 5; juego activo: 3; modalidades de transporte activas: 5; sueño: 7; y sedentarismo: 3. El estado físico obtuvo un 7. Las calificaciones para los entornos y fuentes influyentes fueron: familiares y pares: "incompleto"; escuela: 3; comunidad y entorno: 4. Para las estrategias e inversión: estrategias gubernamentales: 6; entidades no gubernamentales: 2.

Conclusiones. Las bajas calificaciones obtenidas en 11 de los 16 indicadores demuestran que las escuelas, las familias, las comunidades y el gobierno tienen que aunar esfuerzos para mejorar las oportunidades que tiene la población infantil y joven en México para desarrollar niveles de actividad física satisfactorios.

Palabras clave   Aptitud física; salud del niño; deportes juveniles; conductas relacionadas con la salud; vigilancia en salud pública; promoción de la salud; México.

Atividade física entre crianças e jovens no México em 2018: relatório completo

RESUMO

Objetivos. O Report Card de 2018 para o México avalia as oportunidades disponíveis para que crianças e jovens mexicanos atinjam níveis adequados de atividade física, sono e comportamento sedentário.

Métodos. O Report Card é um sistema de vigilância que reúne dados de pesquisas nacionais, censos, documentos governamentais, websites, literatura cinzenta e estudos publicados para avaliar 16 indicadores em quatro categorias: Comportamentos Diários, Forma Física, Ambientes e Influências, e Estratégias e Investimentos. Os dados foram comparados com indicadores de referência estabelecidos. A cada indicador foi atribuída uma pontuação de 1 a 10 (pontuações abaixo de 6 indicam reprovação) ou "incompleta" se os dados fossem insuficientes/indisponíveis.

Resultados. As pontuações para o Comportamento Diário foram as seguintes: atividade física geral: 4; participação em esportes organizados: 5; brincadeiras ativas: 3; transporte ativo: 5; sono: 7; comportamento sedentário: 3. A pontuação para a Forma Física foi de 7. As pontuações para Ambientes e Influências foram: família e amigos, incompleta; escola: 3; comunidade e ambiente: 4. As pontuações para Estratégias e Investimentos foram: estratégias governamentais: 6; organizações não-governamentais: 2.

Conclusão. As pontuações baixas em 11 dos 16 indicadores indicam que as escolas, famílias, comunidades e o governo precisam trabalhar juntos para oferecer mais oportunidades de atividade física às crianças e jovens no México.

Palavras-chave Aptidão física; saúde da criança; esportes juvenis; comportamentos relacionados com a saúde; vigilância em saúde pública; promoção da saúde; México.