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The contribution of the latin american study of nutrition and health to the evidence on active transportation:a scoping review

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ADMINISTRATIVE INFORMATION**Support** - No support.**Review Stage at time of this submission** - Preliminary searches.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202690100**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 September 2026 and was last updated on 23 September 2026.**INTRODUCTION**

Review question / Objective In formulating the research question, the acronym PCC (Peters et al., 2020) was used, where P stands for population (people aged 15 to 65 participating in the ELANS study), C stands for concept (active transportation, walking, or cycling), and C stands for context (Latin America, the 8 countries included in the ELANS study). Finally, the research question is as follows: What are the main characteristics of the available scientific evidence on active transportation—whether walking or cycling—in studies using ELANS data, considering the study populations, the concepts and variables addressed, methodological approaches and designs, key findings, and identified gaps? The objective of this study is to map and synthesize the available scientific evidence on the contribution of ELANS to the study of active transportation—whether by bicycle or on foot—by identifying key characteristics of the literature, relevant concepts, methodological approaches, and existing research gaps.

Background Noncommunicable diseases (NCDs) arise from a combination of genetic, physiological, environmental, and behavioral factors (WHO, 2025). Furthermore, tobacco use, physical inactivity, excessive alcohol consumption, and an unhealthy diet, combined with air pollution, are risk factors for death from an NCD (WHO, 2025), and these are the leading causes of death (Freihat et al., 2025). Globally, 7.2% of all-cause deaths and 7.6% of deaths from cardiovascular diseases are attributable to physical inactivity (Katzmarzyk et al., 2022). In this context, it is important to explore methodologies, strategies, or interventions related to physical activity (PA) as a tool to help counteract the effects of physical inactivity and the modifiable risk factors associated with NCDs (Anderson & Durstine, 2019; Howlett et al., 2019). In this regard, active transportation can contribute to overall physical activity; consequently, because it leads to greater energy expenditure, it influences people's body weight (Wanner et al., 2012). Cycling and walking are proposed as ways to promote physical activity on the way to work (Oja et al., 1998). Likewise, it is suggested that active

commuting (Ogilvie, D et al., 2016), active transportation (Woodward & Wild, 2020), or active travel (Larrington-Spencer, 2024) are opportunities to promote PA among the general population. This approach to physical activity allows people to reach their destination—whether home, school, work, or elsewhere—by walking or cycling, positioning it as an innovative strategy to encourage daily physical activity without requiring specific time set aside for activities within this spectrum (Ferrari, 2019).

Rationale Active transportation is defined as traveling from one place to another by walking, cycling, or using a combination of public transportation (Lu et al., 2013; Wanjau et al., 2023). In this sense, active transportation can be incorporated into daily life, enabling physical activity and increasing physical activity levels among the population (Wanjau et al., 2023). The literature has shown that walking and cycling as modes of transportation have been linked to health indicators in both rural and urban settings (Carver et al., 2013; Pelletier et al., 2023; Wanjau et al., 2023); therefore, this study is relevant to public health and the epidemiology of physical activity. From this perspective, understanding patterns of active transportation—particularly in Latin America—is important because this region exhibits disparities in urbanization, as well as social, economic, and environmental inequalities among its member countries (Ferrari et al., 2021; Pineda-Mayuza, 2025).

In Latin American countries, evidence on active transportation is limited, and there are few comparable surveillance systems across countries. From this perspective, the Latin American Nutrition and Health Study (ELANS) (Fisberg et al., 2016)—a multicenter, cross-sectional study across eight countries focused on nutrition and health surveillance—examines variables related to transportation, travel, or movement, specifically how people use bicycles or walk to get from one place to another. While research on other topics has been conducted based on ELANS, active transportation has also been examined from different perspectives (Habinger et al., 2020), and physical activity has been analyzed from the perspective of movement (Ferrari et al., 2022). Furthermore, the use of bicycles and walking has been analyzed (Ferrari et al., 2020).

Although active transportation has been shown to have positive effects on indicators of people's health, research on this topic in Latin America has been limited, and regional evidence is also scarce, which, at the sociopolitical level, hinders the development of public policies based on local evidence (Ferrari et al., 2019). However, while

ELANS contributes to the analysis of various studies on physical activity and active transportation, the evidence is heterogeneous in terms of population, exposure variables, outcomes, and analytical approaches. This information gap becomes even more significant when sociodemographic factors such as sex, age, and socioeconomic status are taken into account, as these factors influence the population's engagement in active transportation and its contribution to meeting weekly physical activity recommendations (Del Duca et al., 2016).

A systematic review of the available evidence is essential, and a scoping review is the most appropriate methodology for identifying which aspects have been studied, which outcomes have been evaluated, and which populations have been included (Peters et al., 2020). From this perspective and based on the above, the possibility of obtaining a comprehensive view is limited by what has been researched and which variables related to active transportation have been studied in the Latin American population. For this reason, a scoping review would allow for the systematic mapping of.

METHODS

Strategy of data synthesis Three databases (Public Medline [PubMed], Scopus, and Web of Science [WoS]) were used to search for information. In addition, the following keywords and Boolean operators were used in the databases listed above: ("Active transport" OR "Active transportation" OR "Active commuting" OR "Active travel" OR "Active travelling" OR "Cycling" OR "walking") AND ("Latin American Study of Nutrition and Health" OR "Estudio Latinoamericano de Nutrición y Salud" OR "ELANS" OR "ELANS Study")

PubMed: (("Active transport"[Title/Abstract] OR "Active transportation"[Title/Abstract] OR "Active commuting"[Title/Abstract] OR "Active travel"[Title/Abstract] OR "Active travelling"[Title/Abstract] OR "Cycling"[Title/Abstract] OR "walking"[Title/Abstract])) AND (("Latin American Study of Nutrition and Health"[Title/Abstract] OR "Estudio Latinoamericano de Nutrición y Salud"[Title/Abstract] OR "ELANS"[Title/Abstract] OR "ELANS Study"[Title/Abstract]))

Scopus: (TITLE-ABS-KEY (("Active transport" OR "Active transportation" OR "Active commuting" OR "Active travel" OR "Active travelling" OR "Cycling" OR "walking")) AND TITLE-ABS-KEY (("Latin American Study of Nutrition and Health" OR "Estudio Latinoamericano de Nutrición y Salud" OR "ELANS" OR "ELANS Study")))

WoS: (TS=(("Active transport" OR "Active transportation" OR "Active commuting" OR "Active travel" OR "Active travelling" OR "Cycling" OR "walking"))) AND TS=(("Latin American Study of Nutrition and Health" OR "Estudio Latinoamericano de Nutrición y Salud" OR "ELANS" OR "ELANS Study")).

Eligibility criteria The included studies will be as follows: a) ELANS participants aged 15 to 65; b) ELANS studies investigating active transportation, walking, or bicycling, in English or Spanish; c) Studies conducted in any of the ELANS participating countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Peru, and Venezuela); d) Original observational, quantitative, and analytical studies, as well as other study designs that use ELANS data.

The excluded studies will be as follows:

a) Studies conducted in countries other than the 8 that make up ELANS; b) ELANS studies that address other variables and those that do not mention active transportation or similar concepts; c) Research protocols, editorials, letters to the editor, comments, opinions, conference abstracts, theses, systematic reviews, narrative reviews, bibliometric reviews, or scoping reviews.

Source of evidence screening and selection

Two researchers, working independently, will export the retrieved records to an Excel® spreadsheet and proceed with the following steps: 1) Removal of duplicate records from the database; 2) screening of titles and abstracts; 3) evaluation of the full text and determination of eligibility criteria; 4) reasons for exclusion of the articles evaluated in full text; 5) recording of the aforementioned steps in the PRISMA-ScR flowchart. In the event of a discrepancy in the information, a third researcher will participate in the decision to include or exclude the article in question.

Data management The following information will be included in an Excel® spreadsheet: authors, year, title, journal, country, objective, sample size, age, sex, study design, mode of active transportation, definition of active transportation, measurement instrument, variables studied, main results, limitations, and research gaps. In addition, the inclusion of emerging categories or variables will be considered during the review of the articles when they are relevant to the research question.

Reporting results / Analysis of the evidence

Given the expected heterogeneity of results across studies in terms of population, variables, definition of active travel, measurement instruments, and

other factors, the results will be synthesized using a descriptive and narrative approach.

Presentation of the results The results will be presented using a flowchart, descriptive tables, and a narrative synthesis of the identified evidence.

Language restriction Articles written in English and Spanish will be included.

Country(ies) involved Chile.

Keywords ELANS; Active transport; Walking, Cycling.

Contributions of each author

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