

INPLASY PROTOCOL

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**Review Stage at time of this
submission:** Preliminary
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Conflicts of interest:
None declared.

Prevalence of meeting 24-Hour Movement Guidelines in general adults aged 18 – 64 years: a meta- analysis

Lopez-Gil, JF¹; Garcia-Hermoso, A²; Chen, ST³; Memon, AR⁴;
Zhang, YJ⁵.

Review question / Objective: How many generally healthy
adults (18 – 64 years) in the world meet the 24-hour movement
guidelines?

Condition being studied: Inclusion criteria for identified
studies were consistent with the following criteria: 1)
population: generally healthy adults of 18 – 64 years; 2) study
design: observational study; 3) outcome: meeting the entire
24-Hour Movement Guidelines.

INPLASY registration number: This protocol was registered with
the International Platform of Registered Systematic Review and
Meta-Analysis Protocols (INPLASY) on 03 May 2023 and was last
updated on 03 May 2023 (registration number
INPLASY202350012).

outcome: meeting the entire 24-Hour
Movement Guidelines.

METHODS

Participant or population: Generally health
adult.

Intervention: None.

Comparator: None.

INTRODUCTION

Review question / Objective: How many
generally healthy adults (18 – 64 years) in
the world meet the 24-hour movement
guidelines?

Condition being studied: Inclusion criteria
for identified studies were consistent with
the following criteria: 1) population:
generally healthy adults of 18 – 64 years; 2)
study design: observational study; 3)

Study designs to be included: Observational studies.

Eligibility criteria: Inclusion criteria for identified studies were consistent with the following criteria: 1) population: generally healthy adults of 18 – 64 years; 2) study design: observational study; 3) outcome: meeting the entire 24-Hour Movement Guidelines.

Information sources: Electronic databases including the PubMed, Scopus, Web of Science, and the Cochrane Library as well as personal library were used.

Main outcome(s): The main outcome of this meta-analysis was the prevalence of meeting the entire 24-hour movement guidelines.

Data management: Data management will be conducted by Endnote, Microsoft Excel and STATA.

Quality assessment / Risk of bias analysis: The Quality Assessment Tool for Observational Cohort and Cross-sectional Studies was used. This checklist was comprised of 14 items for longitudinal studies, of which 11 could be applied to observational and cross-sectional studies (except Items 7, 10, and 13). This tool consists of 14 items that measure the following elements: (a) research question; (b and c) study population; (d) groups recruited from the same population and uniform eligibility criteria; (e) sample size justification; (f) exposure assessed prior to outcome measurement; (g) sufficient timeframe to see an effect; (h) different levels of the exposure of interest; (i) exposure measures and assessment; (j) repeated exposure assessment; (k) outcome measures; (l) blinding of outcome assessors; (m) follow-up rate; and (n) statistical analyses.

Strategy of data synthesis: The Quality Assessment Tool for Observational Cohort and Cross-sectional Studies was used. This checklist was comprised of 14 items for longitudinal studies, of which 11 could be applied to observational and cross-

sectional studies (except Items 7, 10, and 13). This tool consists of 14 items that measure the following elements: (a) research question; (b and c) study population; (d) groups recruited from the same population and uniform eligibility criteria; (e) sample size justification; (f) exposure assessed prior to outcome measurement; (g) sufficient timeframe to see an effect; (h) different levels of the exposure of interest; (i) exposure measures and assessment; (j) repeated exposure assessment; (k) outcome measures; (l) blinding of outcome assessors; (m) follow-up rate; and (n) statistical analyses.

Subgroup analysis: Subgroup analysis will be performed if possible.

Sensitivity analysis: Sensitivity analysis will be performed if possible.

Language restriction: English.

Country(ies) involved: Australia, China and Spain.

Keywords: 24-hour movement guidelines; prevalence; adults; general population; global surveillance.

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