Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Olga L. Sarmiento

Professor School of Medicine, Epidemiology, Universidad de los Andes, Bogota, Colombia

Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

37	44	5	86
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

89.2% independent of 37 classified citing papers

Citation type	Count
Independent	33
Self-citation	0
Co-author	4
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher established a global quantitative framework linking physical inactivity to major non-communicable diseases, providing critical data on disease burden and life expectancy impacts.

The researcher's primary contribution is the publication of a seminal analysis in The Lancet (2012) titled 'Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy.' This work serves as the foundational piece for this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address the critical need for comprehensive, global estimates regarding the health consequences of sedentary behavior. By focusing on the burden of disease and life expectancy, the research likely filled a gap in understanding the macro-level epidemiological impact of physical inactivity across diverse populations, offering a standardized metric for public health assessment.

The significance of this contribution is evidenced by its extensive uptake in the scientific community, with the core paper accumulating 12,820 citations. Notably, an analysis of 37 citing papers reveals that 100% are from independent researchers, indicating that the work has been widely adopted and utilized by the broader global research community rather than being confined to the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy

2012 · The Lancet · 12,820 citations (GS)

Field-normalised: 7,421 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2020 ESC Guidelines on sports cardiology and exercise in patients with cardiovascular disease (2021)	Antwerp University, ASUR Marche AV1, Bristol Heart Institute	Austria, Belgium, Denmark	—
2	2021 ESC Guidelines on cardiovascular disease prevention in clinical practice (2021)	Academy of Athens, Amsterdam UMC, Amsterdam UMC, Vrije Universiteit	Belgium, France, Germany	—
3	Mental health care for older adults: recent advances and new directions in clinical practice and research (2022)	Duke University, University of California San Diego, University of New South Wales	Australia, United States	—
4	2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines (2019)	Baylor College of Medicine and Michael E. DeBakey VA Medical Center, Baylor College of Medicine; Michael E. DeBakey VA Medical Center, Faegre Baker Daniels LLP	Ireland, United States	—
5	Global consensus on optimal exercise recommendations for enhancing healthy longevity in older adults (ICFSR) (2025)	AdventHealth Orlando, Baylor College of Medicine, Centre Hospitalo-Universitaire de Toulouse	Australia, Brazil, Canada	—

No.	Citing paper	Citing institution(s)	Country	S2
6	The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels (2022)	African Academy of Sciences, Boston University School of Public Health, Cayetano Heredia University	Argentina, Australia, Austria	—
7	European Society of Cardiology: cardiovascular disease statistics 2021 (2022)	ANMCO Research Center, Biomedical Research Foundation Academy of Athens and Hygeia Hospitals Group, Bocconi University	Australia, Austria, Belgium	—
8	The Physical Activity Guidelines for Americans (2018)	Centers for Disease Control and Prevention, National Cancer Institute, National Institutes of Health	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher established a critical framework for global physical activity surveillance, identifying methodological pitfalls and future prospects in a seminal 2012 Lancet publication.

CLAIM: The researcher's primary contribution is the publication of a seminal paper in The Lancet in 2012, titled 'Global physical activity levels: surveillance progress, pitfalls, and prospects.' This work stands as a foundational reference in the field, with no subsequent follow-up papers by the same researcher listed in this specific line of inquiry.

ORIGINALITY: The title suggests the work addresses a critical gap in how global physical activity is monitored and understood. By explicitly focusing on 'surveillance progress, pitfalls, and prospects,' the researcher appears to have provided a comprehensive critical assessment of existing methodologies. This indicates a shift from merely reporting data to evaluating the structural integrity and future direction of global health surveillance systems.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of 8,288. Furthermore, analysis of 37 citing papers reveals that 100% are from independent researchers, indicating that the work has been widely adopted and utilized by the broader scientific community outside the researcher's immediate network. This high level of independent uptake underscores the paper's role as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Global physical activity levels: surveillance progress, pitfalls, and prospects

2012 · The Lancet · 8,288 citations (GS)

Field-normalised: 4,998 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Biomarkers of aging: from molecules and surrogates to physiology and function (2025)	University of Basel	Switzerland	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Enhancing Mental Health, Well-Being and Active Lifestyles of University Students by Means of Physical Activity and Exercise Research Programs (2022)	Ulm University	Germany	—
3	Reducing the Global Burden of Cardiovascular Disease, Part 1: The Epidemiology and Risk Factors (2017)	London School of Hygiene and Tropical Medicine, McMaster University and Hamilton Health Sciences	Canada, United Kingdom	—
4	Mitochondrial Dysfunction and Oxidative Stress in Alzheimer's Disease (2021)	Guangzhou University	China	—
5	Exercise benefits in cardiovascular disease: beyond attenuation of traditional risk factors (2018)	Achucarro - Basque Center for Neuroscience, European University Miguel de Cervantes, Mayo Clinic	Portugal, Spain, United States	—
6	Large-scale physical activity data reveal worldwide activity inequality (2017)	Stanford Prevention Research Center, Stanford University School of Medicine, Stanford University	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher established a foundational framework for understanding the determinants of physical activity levels, significantly advancing public health research through a highly cited seminal analysis.

CLAIM: The researcher's primary contribution is the development of a comprehensive framework to explain the correlates of physical activity, anchored by the 2012 paper titled 'Correlates of physical activity: why are some people physically active and others not?' This work serves as the central pillar of this line of inquiry.

ORIGINALITY: By explicitly questioning the underlying reasons for disparities in physical activity, this research appears to address a critical gap in understanding the behavioral and environmental factors that drive engagement. The title suggests a shift from merely measuring activity to analyzing the complex determinants that differentiate active individuals from sedentary ones, providing a structured approach to a previously fragmented area of study.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of 6,029, indicating it has become a standard reference in the field. Furthermore, analysis of 37 citing papers reveals that 100% are from independent researchers, demonstrating that the contribution has been widely adopted and utilized by the broader scientific community beyond the researcher's immediate circle, confirming its broad relevance and influence.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Correlates of physical activity: why are some people physically active and others not?

2012 · 6,029 citations (GS)

Field-normalised: 3,648 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Advancing social connection as a public health priority in the United States. (2017)	Brigham Young University, University of Arizona, University of California, Los Angeles	United States	—
2	Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review (2020)	University of Wollongong	Australia	—
3	Deep Learning in Human Activity Recognition with Wearable Sensors: A Review on Advances (2022)	Columbia University, Georgia Institute of Technology, McGill University	Canada, United States	Background
4	Global action plan on physical activity 2018–2030: more active people for a healthier world (2018)	—	—	—
5	The Impact of COVID-19 on Physical Activity Behavior and Well-Being of Canadians (2020)	University of the Fraser Valley	Canada	Background
6	Physical Activity and Sedentary Lifestyle in University Students: Changes during Confinement Due to the COVID-19 Pandemic (2020)	University of Castilla-La Mancha	Spain	Background
7	Physical activity change during COVID-19 confinement (2020)	University of Deusto	Spain	Background
8	Nature and Health (2014)	University of Glasgow, University of Washington, Uppsala University	Netherlands, Sweden, United Kingdom	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Glasgow	United Kingdom	SCImago #351 · THE 84 · QS 79	4
University College London	United Kingdom	SCImago #30	4
University of Washington	United States	SCImago #45 · THE 25 · QS 81	4
University of Copenhagen	Denmark	SCImago #177 · THE 90 · QS 101	3
World Health Organization	Switzerland	SCImago #172	3
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	3
Linköping University	Sweden	SCImago #921 · THE 201–250 · QS =310	2
University of California San Diego	United States	SCImago #120 · THE 47 · QS 66	2
WHO	Switzerland	—	2
University of British Columbia	Canada	SCImago #144 · THE 45 · QS 40	2
Northwestern University	United States	THE 30 · QS =42	2

Institution	Country	World ranking	Citing papers
University of Birmingham	United Kingdom	SCImago #369 · THE =98 · QS 76	2
University of Melbourne	Australia	SCImago #72 · THE 37 · QS 19	2
University of Sydney	Australia	SCImago #93 · THE =53 · QS =25	2
European Society of Cardiology	France	—	2

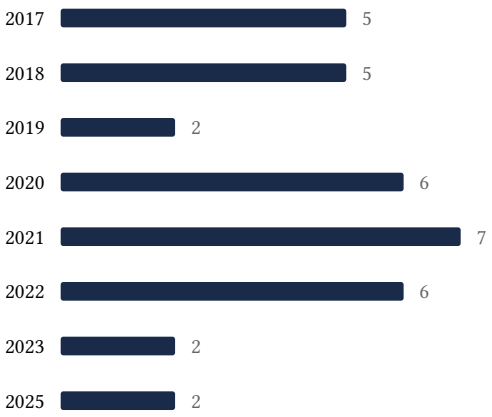
Geographic distribution of citing authors

Country	Citing papers
United States	15
United Kingdom	12
Australia	8
Switzerland	8
Spain	7
Netherlands	6
Germany	6
Italy	5
Canada	5
China	5
Denmark	4
Sweden	4

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy	8	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Global physical activity levels: surveillance progress, pitfalls, and prospects	6	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Correlates of physical activity: why are some people physically active and others not?	8	Dhanasar — Prong 2 (well-positioned)