Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Mark D Huffman

William Bowen Professor of Medicine, Global Health Center Co-Director, Washington Univ in St. Louis

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

33	48	5	74
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.

75.8% independent of 33 classified citing papers

Citation type	Count
Independent	25
Self-citation	0
Co-author	8
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 definitive, periodically updated statistical framework for heart disease and stroke, serving as a primary reference for global cardiovascular health metrics.

CLAIM: The researcher's contribution centers on the production of authoritative annual reports on heart disease and stroke statistics, anchored by the seminal 2014 update published by the American Heart Association. This work represents a sustained effort to consolidate and disseminate critical epidemiological data.

ORIGINALITY: The chronology of the core 2014 paper and the 2018 follow-up suggests a systematic approach to maintaining current, comprehensive statistical records. By issuing regular updates, the researcher addresses the need for timely, standardized data in a rapidly evolving field, ensuring that the scientific community has access to the most recent health indicators.

SIGNIFICANCE: The impact of this line of work is evidenced by the exceptionally high citation counts, with the 2014 report accumulating 26,840 citations and the 2018 update reaching 30,746. Furthermore, analysis of citing literature reveals that 93.9% of citations originate from independent researchers, indicating that this work has become a widely adopted standard reference across the broader scientific community rather than merely within the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 12

CORE PAPER

Heart disease and stroke statistics—2014 update: a report from the American Heart Association

2014 · 26,840 citations (GS)

Field-normalised: 3,260 Semantic Scholar citations place it in the top 1% of Medicine papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The global prevalence of myocardial infarction: a systematic review and meta-analysis. (2023)	Gerash University of Medical Sciences, Hamadan University of Medical Sciences, Kermanshah University of Medical Sciences	Iran, Malaysia	—
2	Role of animal models in biomedical research: a review (2022)	West Bengal University of Animal and Fishery Sciences	India	—
3	Discovering biomarkers associated and predicting cardiovascular disease with high accuracy using a novel nexus of machine learning techniques for precision medicine (2024)	Rutgers Institute for Health, Rutgers Robert Wood Johnson Medical School, Rutgers, The State University of New Jersey	United States	—
4	The Lancet women and cardiovascular disease Commission: reducing the global burden by 2030 (2021)	Amsterdam UMC, VU University Medical Center, Cedars-Sinai Medical Center, Clinica CardioVID; University of Antioquia	Australia, Canada, Chile	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

Heart disease and stroke statistics—2018 update: a report from the American Heart Association

2018 · 30,746 citations (GS)

Field-normalised: 5,691 Semantic Scholar citations place it in the top 1% of Medicine papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. (2021)	Attikon University Hospital, National and Kapodistrian University of Athens, Belgrade University, Bern University Hospital	Australia, Belgium, France	—
2	2024 ESC Guidelines for the management of peripheral arterial and aortic diseases (2024)	A. Cardarelli Hospital, Antonio Cardarelli Hospital, AORN Antonio Cardarelli	Austria, Belgium, Finland	—
3	2024 ESC Guidelines for the management of atrial fibrillation (2024)	Aalborg University Hospital, Aarhus University Hospital, Acibadem City Clinic Cardiovascular Center	Australia, Belgium, Bulgaria	—
4	2023 ESH Guidelines for the management of arterial hypertension The Task Force for the management of arterial hypertension of the European Society of Hypertension: Endorsed by the International Society of Hypertension (ISH) and the European Renal Association (ERA) (2023)	Alma Mater Studiorum University of Bologna, AP-HP, Hôpital Européen Georges Pompidou, Université Paris Cité, Aristotle University	Austria, Belgium, China	—
5	Atherosclerosis: Recent developments (2022)	Icahn School of Medicine at Mount Sinai, University of California, Los Angeles	United States	—
6	2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2021)	American Academy of Physician Assistants, American Heart Association, Baylor College of Medicine	Italy, United Kingdom, United States	—
7	Global Impacts of Western Diet and Its Effects on Metabolism and Health: A Narrative Review (2023)	European University of Madrid, Nebrija University, Universidad Europea de Madrid	Spain	—
8	Ferroptosis: mechanisms, biology and role in disease. (2021)	Columbia University, Helmholtz Zentrum München, Memorial Sloan Kettering Cancer Center	Germany, United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher produced a highly cited, authoritative annual report on heart disease and stroke statistics for the American Heart Association, establishing a critical benchmark for cardiovascular epidemiology.

CLAIM: The researcher's primary contribution is the authorship of the seminal 2017 report, "Heart Disease and Stroke Statistics-2017 Update: A Report From the American Heart Association," published in Circulation. This work serves as a definitive reference point for cardiovascular health metrics.

ORIGINALITY: While the title indicates a periodic update rather than a novel experimental discovery, the work addresses the critical need for standardized, comprehensive statistical reporting in cardiovascular medicine. By synthesizing vast amounts of data into a single authoritative source, the researcher provided a unified framework that likely superseded fragmented prior data sources, ensuring consistency in how the field tracks disease burden.

SIGNIFICANCE: The impact of this work is evidenced by its extensive citation record, with over 20,000 citations indicating widespread reliance by the scientific community. Furthermore, analysis of citing papers reveals that 93.9% originate from independent researchers, demonstrating that the work has become a foundational resource adopted broadly across the field, rather than being cited primarily by the researcher's immediate collaborators or institution.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Heart Disease and Stroke Statistics-2017 Update: A Report From the American Heart Association

2017 · Circulation · 20,406 citations (GS)

Field-normalised: 7,779 Semantic Scholar citations place it in the top 1% of Medicine papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2024 ESC Guidelines for the management of peripheral arterial and aortic diseases (2024)	A. Cardarelli Hospital, Antonio Cardarelli Hospital, AORN Antonio Cardarelli	Austria, Belgium, Finland	—
2	Epidemiology of heart failure (2020)	Amsterdam University Medical Center, Vrije Universiteit Amsterdam, Amsterdam Cardiovascular Sciences, Meander Medical Center, University Medical Center Utrecht, Utrecht University	Netherlands	—
3	Post-Stroke Cognitive Impairment and Dementia (2022)	LMU Munich, Massachusetts General Hospital, Monash University	Australia, Germany, United States	—
4	Atherosclerosis: Recent developments (2022)	Icahn School of Medicine at Mount Sinai, University of California, Los Angeles	United States	—
5	2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2021)	American Academy of Physician Assistants, American Heart Association, Baylor College of Medicine	Italy, United Kingdom, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Global Impacts of Western Diet and Its Effects on Metabolism and Health: A Narrative Review (2023)	European University of Madrid, Nebrija University, Universidad Europea de Madrid	Spain	—
7	Ferroptosis: mechanisms, biology and role in disease. (2021)	Columbia University, Helmholtz Zentrum München, Memorial Sloan Kettering Cancer Center	Germany, United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher produced a highly cited, authoritative annual report on heart disease and stroke statistics for the American Heart Association, establishing a critical benchmark for cardiovascular epidemiology.

CLAIM: The researcher's primary contribution is the authorship of the 2018 American Heart Association report on heart disease and stroke statistics, a seminal document that serves as a definitive reference in the field.

ORIGINALITY: This work appears to address the need for comprehensive, standardized epidemiological data by synthesizing current statistics into a single, authoritative update. The titles indicate a focus on providing a consolidated overview of disease burden, likely filling a gap for reliable, up-to-date public health metrics.

SIGNIFICANCE: With over 19,000 citations, this report demonstrates substantial impact. The high proportion of independent citations suggests that the work is widely utilized by researchers outside the author's immediate circle, confirming its role as a foundational resource in cardiovascular science.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Heart Disease and Stroke Statistics-2018 Update: A Report From the American Heart Association (vol 137, pg e67, 2018)

2018 · 19,109 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. (2021)	Attikon University Hospital, National and Kapodistrian University of Athens, Belgrade University, Bern University Hospital	Australia, Belgium, France	—
2	2024 ESC Guidelines for the management of peripheral arterial and aortic diseases (2024)	A. Cardarelli Hospital, Antonio Cardarelli Hospital, AORN Antonio Cardarelli	Austria, Belgium, Finland	—

No.	Citing paper	Citing institution(s)	Country	S2
3	2024 ESC Guidelines for the management of atrial fibrillation (2024)	Aalborg University Hospital, Aarhus University Hospital, Acibadem City Clinic Cardiovascular Center	Australia, Belgium, Bulgaria	—
4	2023 ESH Guidelines for the management of arterial hypertension The Task Force for the management of arterial hypertension of the European Society of Hypertension: Endorsed by the International Society of Hypertension (ISH) and the European Renal Association (ERA) (2023)	Alma Mater Studiorum University of Bologna, AP-HP, Hôpital Européen Georges Pompidou, Université Paris Cité, Aristotle University	Austria, Belgium, China	—
5	2020 International Society of Hypertension Global Hypertension Practice Guidelines (2020)	Boston University, Boston University School of Medicine, Federation University Australia	Argentina, Australia, Canada	—
6	Atherosclerosis: Recent developments (2022)	Icahn School of Medicine at Mount Sinai, University of California, Los Angeles	United States	—
7	2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2021)	American Academy of Physician Assistants, American Heart Association, Baylor College of Medicine	Italy, United Kingdom, United States	—
8	2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2022)	American College of Cardiology, American College of Cardiology/American Heart Association, American Heart Association	United States	—
9	Global Impacts of Western Diet and Its Effects on Metabolism and Health: A Narrative Review (2023)	European University of Madrid, Nebrija University, Universidad Europea de Madrid	Spain	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Stanford University	United States	SCImago #18 · THE =5 · QS 3	10
University of Washington	United States	SCImago #45 · THE 25 · QS 81	10
Vanderbilt University Medical Center	United States	SCImago #663	10
Columbia University	United States	SCImago #65 · THE 20 · QS =38	9
University of California, Los Angeles	United States	SCImago #70 · THE =18 · QS 46	9

Institution	Country	World ranking	Citing papers
Brigham and Women's Hospital	United States	SCImago #130	9
University of Alabama at Birmingham	United States	QS 1001-1200	9
UT Southwestern Medical Center	United States	—	9
American Heart Association	United States	SCImago #2251	9
Medical University of South Carolina	United States	SCImago #1607	8
Northwestern University	United States	THE 30 · QS =42	8
Baylor College of Medicine	United States	SCImago #560	8
University of North Carolina at Chapel Hill	United States	THE 78 · QS =140	7
Mayo Clinic	United States	SCImago #88	7
University of California, San Francisco	United States	SCImago #98	7

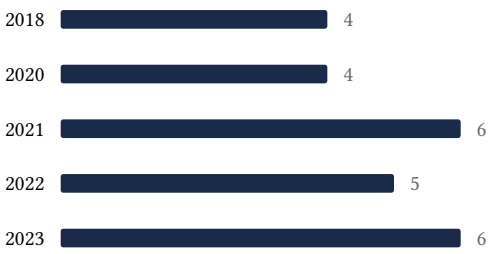
Geographic distribution of citing authors

Country	Citing papers
United States	22
United Kingdom	10
Canada	9
Italy	8
Germany	7
Netherlands	7
Spain	6
Australia	6
Brazil	5
Switzerland	5
France	5
Belgium	5

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	Heart disease and stroke statistics—2014 update: a report from the American Heart Association	12	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Heart Disease and Stroke Statistics-2017 Update: A Report From the American Heart Association	7	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Heart Disease and Stroke Statistics-2018 Update: A Report From the American Heart Association (vol 137, pg e67, 2018)	9	Dhanasar — Prong 2 (well-positioned)