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Supplemental Material

The Intersection of Immigrant and Environmental Health: A Scoping Review of Observational Population Exposure and Epidemiologic Studies

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Table S1: Reviewed Studies' Exposure of Interest by Region, Disparity Focus, and Year Published

	Exposure of Interest		
	Endogenous Factors	*Air Pollution*	*Other*
Region			
Asia	1	0	0
Canada	7	5	0
Central America	1	0	0
Europe	2	0	2
Middle East	0	0	1
USA	12	12	7
Disparity Focus			
Exposure	22	11	5
Exposure and Health	1	4	0
Health	0	2	5
Year Published			
1984	0	0	1
1999	1	0	0
2002	1	0	0
2007	1	0	0
2011	3	0	0
2012	1	0	0
2014	2	0	1
2015	1	2	0
2016	1	0	1
2017	2	3	3
2018	3	0	1
2019	5	5	0
2020	0	3	2
2021	2	4	1

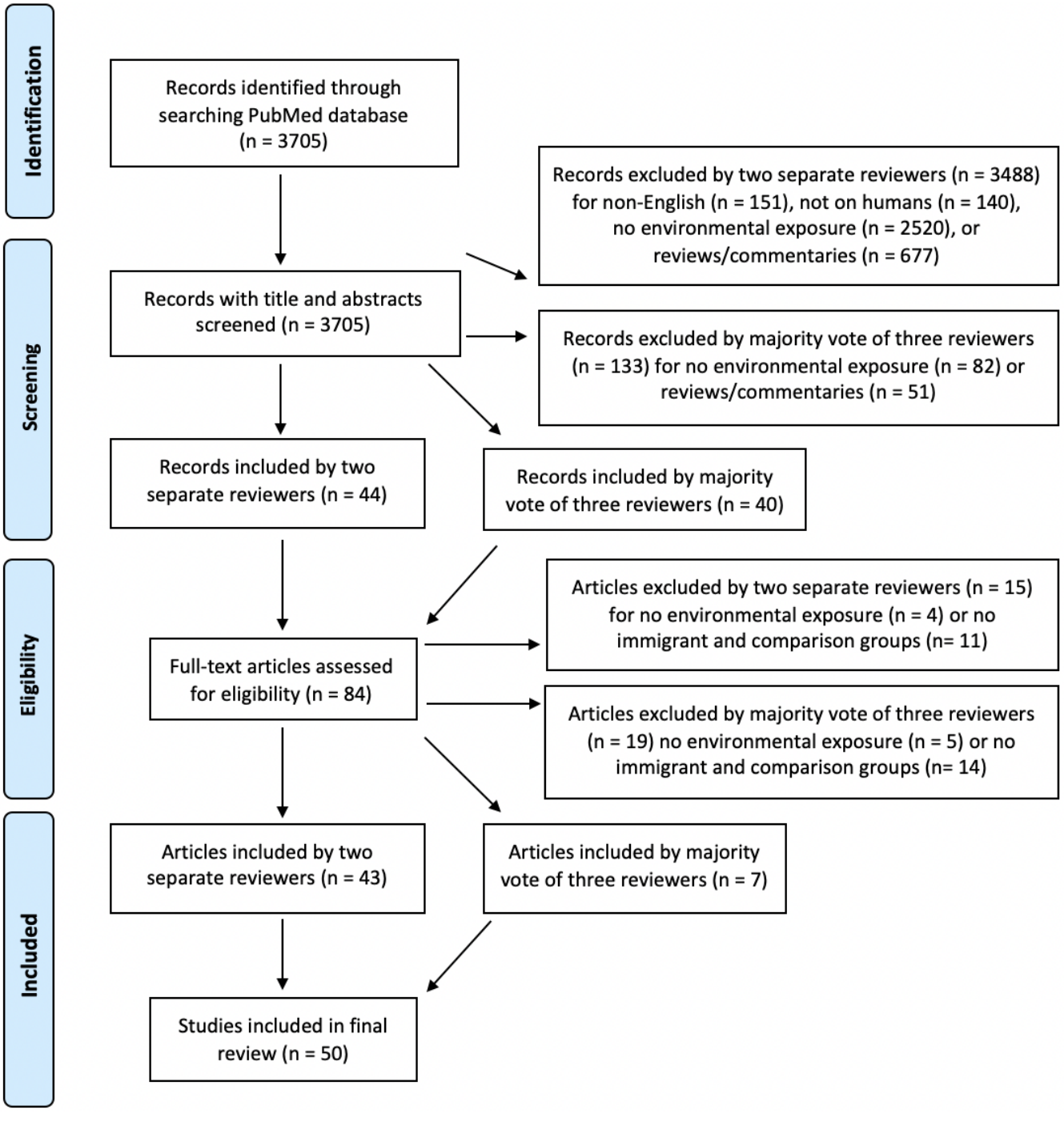

Figure S1:
Identification and Screening of Literature. Figure modeled after the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)* Guidelines.[32] For inclusion, a study had to explore environmental exposure or environmental exposure health effect disparities between immigrants vs. non-immigrants in a non-randomized setting (*i.e.*, cohort study, case-control study, cross-sectional study, ecologic study, time-series).

PICOS Worksheet and Search Strategy

1. Define your question using PICOS by identifying:

PICOS	Description
Patient / Problem	Humans – differential risks by immigrant status (foreign-born)
Intervention (exposure)	Air pollution, heat, chemical, and other environmental exposures
Comparison	N/A
Outcome	Mortality and any Morbidities
Setting	Non-randomized observational studies (i.e., cohort study, case-control study, cross-sectional study, ecologic study, time-series)

Write out your question:
Do immigrants (foreign-born) experience differential health risks from environmental exposures such as air pollution and heat compared to the native-born?

2. Type of question/problem: **Circle one:** Therapy/Prevention, Diagnosis, Etiology, Prognosis

3. Type of study (Publication Type) to include in the search: **Check all that apply:**

□ Meta-Analysis □ Systematic Review □ Randomized Controlled Trial
■ Cohort Study ■ Case Control Study □ Case series or Case Report
□ Animal Research □ In Vitro/Lab Research □ Editorials, Letters, Opinions

4. List main topics and alternate terms from your PICOS question that can be used for your search

Environmental exposures, pollution, air pollution, temperature, heat, weather,
Immigrant, foreign born, migrant
Health disparities

5. List your inclusion criteria
Age: all ages
Year of publication: up to September 2021
Language: English

List irrelevant terms that you may want to exclude in your search

6. List where you plan to search, i.e.,
MEDLINE/PubMed

PICOS inclusion and exclusion criteria

Parameter	Inclusion criteria	Exclusion criteria
Patients	any	
Intervention	Environmental exposures	Studies not performed in human populations. Studies without consideration for immigrant status / foreign-born / migrant status / nativity. Occupational exposures
Comparison	Environmental exposure effects in immigrants vs. non-immigrants	Studies with no comparison groups
Outcomes	any	
Study design	Non-randomized observational studies (i.e., cohort study, case-control study, cross-sectional study, ecologic study, time-series)	Not a population-based (epidemiology) study such as human exposure studies, toxicology, or ecology. Review/commentary/news articles.

Search strategy and criteria

("environmental exposure" OR "environment" OR "exposure" OR "air pollution" OR "pollution" OR "heat" OR "temperature" OR "weather")
AND
("immigrant" OR "foreign born" OR "nativity" OR "migrant" OR "native born" OR "US born")

Data extraction variables
Title, Study Population, Location and Time, Comparison Groups (if applicable), Exposure, Outcome, Statistical Methods, Results / Estimates of Effect, Conclusion

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