

TABLE E1. Population characteristics of NHANES 2005-2006*

Demographic Characteristics	Weighted % (SE)[†]
Participant age	
1-17	24.3 (0.7)
18+	75.7 (0.7)
Gender	
Female	51.1 (0.6)
Male	48.9 (0.6)
Race/Ethnicity	
Other	10.1 (1.2)
Mexican American	9.4 (1.2)
Non-Hispanic White	68.1 (2.7)
Non-Hispanic Black	12.3 (1.9)
Family PIR	
Low (PIR \leq 1.3)	22.0 (1.5)
Medium (1.3 < PIR \leq 3.5)	40.7 (1.3)
High (PIR > 3.5)	37.3 (2.4)
Census region	
Northeast	14.5 (3.2)
Midwest	25.3 (7.3)
South	29.2 (3.4)
West	31.0 (7.6)
Level of urbanization[‡]	
Noncore	6.5 (6.5)
Micropolitan	14.9 (6.1)
Medium + small metro	27.9 (10.2)
Large metro, fringe	16.4 (8.1)
Large metro, central	34.4 (7.1)

* Participants with available dust data (N=6963).

[†] Weighted for the multi-stage sampling design of the NHANES.

[‡] The metropolitan counties are subdivided based on the population of their metropolitan statistical area (MSA): large (central, fringe), for MSA population of 1 million or more; medium, for MSA population of 250,000–999,999; and small, for MSA population below 250,000. Non-metropolitan counties not defined as micropolitan are considered to be noncore and are thought of as the most rural areas.

Table E2. Distributional characteristics of detectable allergens concentrations ($\mu\text{g/g}$) in NHANES 2005-2006

Allergen	N	\geq LLOD (%)	Min	P25	P50	P75	P90	Max	Geo Mean
Can f 1	5,486	86.7	0.013	0.106	0.842	12.937	50.216	1,216.406	1.130
Fel d 1	6,106	93.0	0.004	0.063	0.344	9.238	112.500	2,944.677	0.775
Der f 1	3,911	58.2	0.013	0.047	0.210	1.116	3.671	141.466	0.258
Der p 1	3,655	48.9	0.013	0.045	0.226	1.309	4.963	144.801	0.284
Alt a 1	1,477	25.5	0.004	0.005	0.007	0.013	0.019	0.258	0.009
Bla g 1*	2,527	33.3	0.220	0.628	1.135	1.960	3.964	272.440	1.426
Mus m 1	5,772	80.9	0.002	0.008	0.023	0.080	0.299	134.387	0.029
Rat n 1	1,897	30.3	0.004	0.006	0.009	0.015	0.023	83.867	0.011

*Unit of measurement is (U/g):
Unit of measurement is (μg):

Table E3. Odds ratios (OR) with 95% confidence intervals (CI) for bivariate associations between elevated allergen levels (NHANES 2005-2006)*†

	<u>Alt a 1</u> OR (95% CI)	<u>Bla g 1</u> OR (95% CI)	<u>Can f 1</u> OR (95% CI)	<u>Der f 1</u> OR (95% CI)	<u>Der p 1</u> OR (95% CI)	<u>Fel d 1</u> OR (95% CI)	<u>Mus m 1</u> OR (95% CI)	<u>Rat n 1</u> OR (95% CI)
Alt a 1	NA	1.68 (1.00-2.84)	1.39 (1.06-1.82)	1.51 (1.13-2.01)	1.48 (1.00-2.18)	4.34 (3.32-5.68)	0.55 (0.33-0.92)	35.7 (19.1-66.5)
Bla g 1		NA	0.67 (0.52-0.87)	0.97 (0.69-1.37)	1.84 (1.33-2.55)	0.53 (0.37-0.77)	1.89 (1.18-3.01)	1.58 (1.09-2.31)
Can f 1			NA	0.66 (0.48-0.90)	0.87 (0.63-1.19)	2.04 (1.60-2.61)	0.81 (0.40-1.64)	1.83 (1.19-2.81)
Der f 1				NA	3.72 (2.57-5.37)	1.02 (0.81-1.29)	0.70 (0.45-1.11)	1.67 (1.16-2.41)
Der p 1					NA	1.06 (0.78-1.45)	1.22 (0.73-2.04)	1.68 (1.20-2.35)
Fel d 1						NA	0.71 (0.44-1.13)	4.16 (3.00-5.77)
Mus m 1							NA	1.14 (0.73-1.80)
Rat n 1								NA

NA, Not applicable

* Allergen levels were dichotomized (elevated levels: yes vs no) to calculate unadjusted ORs. Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration >75 percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration > 90 percentile.

† Statistically significant associations ($P < 0.05$) are shown in boldface.

TABLE E4. Adjusted odds ratios for independent predictors of elevated allergen levels*

Model predictors – Demographic and Housing Characteristics	Can f 1 (N=6613)		Fel d 1 (N=6526)		Der f 1 (N=6369)		Der p 1 (N=6504)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Participant age								0.002
1-17							1.28 (1.09-1.49)	
18+							1.00 (ref)	
Gender				0.002				
Female			1.37 (1.13-1.66)					
Male			1.00 (ref)					
Race/Ethnicity		<.001		<.001		0.002		
Other	2.38 (1.28-4.44)		2.25 (1.16-4.37)		2.36 (1.45-3.82)			
Mexican American	2.08 (1.16-3.74)		1.99 (1.13-3.50)		1.30 (0.81-2.10)			
Non-Hispanic White	4.31 (2.72-6.83)		3.15 (2.16-4.61)		1.29 (0.98-1.69)			
Non-Hispanic Black	1.00 (ref)		1.00 (ref)		1.00 (ref)			
Family PIR				<.001		<.001		0.003
Low (PIR ≤ 1.3)			0.60 (0.44-0.81)		1.16 (0.86-1.58)		1.67 (1.07-2.61)	
Medium (1.3 < PIR ≤ 3.5)			0.51 (0.40-0.64)		1.46 (1.09-1.97)		1.17 (0.84-1.64)	
High (PIR > 3.5)			1.00 (ref)		1.00 (ref)		1.00 (ref)	
Census region						<.001		0.013
Northeast					17.41 (6.17-49.16)		3.93 (1.16-13.39)	
Midwest					7.68 (2.70-21.88)		1.45 (0.63-3.32)	
South					10.58 (3.82-29.31)		2.95 (1.26-6.89)	
West					1.00 (ref)		1.00 (ref)	
Level of urbanization[†]		<.001		<.001		<.001		<.001
Noncore	0.29 (0.21-0.40)		2.03 (1.40-2.95)		2.73 (1.77-4.23)		3.81 (1.83-7.95)	
Micropolitan	0.50 (0.32-0.78)		1.05 (0.48-2.28)		1.26 (0.76-2.11)		2.09 (0.94-4.66)	
Medium + small metro	0.98 (0.65-1.48)		1.13 (0.64-1.98)		1.34 (0.84-2.13)		2.00 (0.93-4.27)	
Large metro, fringe	0.94 (0.67-1.34)		1.24 (0.87-1.75)		0.86 (0.56-1.32)		0.98 (0.48-2.00)	
Large metro, central	1.00 (ref)		1.00 (ref)		1.00 (ref)		1.00 (ref)	
Type of home								<.001
Mobile home or trailer							2.93 (1.85-4.64)	
Single family – detached							1.59 (1.18-2.13)	
Multi-family housing							1.00 (ref)	
Building year								<.001
Missing							2.04 (1.45-2.86)	
Before 1978							1.86 (1.31-2.63)	
1978-present							1.00 (ref)	
Tenure								0.002
Rented or other arrangement							1.88 (1.25-2.82)	
Owned or being bought							1.00 (ref)	
Residence time						<.001		<.001
Up to 2 years					0.57 (0.45-0.73)		0.40 (0.28-0.58)	
3-5 years					0.66 (0.42-1.03)		0.56 (0.39-0.81)	
6+ years					1.00 (ref)		1.00 (ref)	
Number of people in the household		<.001						
1-2	3.17 (2.09-4.80)							
3-4	2.24 (1.48-3.39)							
5+	1.00 (ref)							
Presence of cat(s)				<.001				
Yes			94.34 (66.29-134.27)					
No			1.00 (ref)					
Presence of dog(s)		<.001				<.001		
Yes	59.28 (40.23-87.36)				0.68 (0.57-0.80)			
No	1.00 (ref)				1.00 (ref)			
Presence of cockroaches								0.023
Yes							1.53 (1.06-2.20)	
No							1.00 (ref)	
Presence of mildew/musty smell								0.012
Yes							1.52 (1.10-2.10)	
No							1.00 (ref)	
Presence of children						0.035		
Child aged 1-5					0.72 (0.55-0.93)			
Child aged 6-17					0.78 (0.55-1.09)			
No children					1.00 (ref)			
Removal/avoidance of pets						0.009		
Yes					0.63 (0.45-0.89)			
No					1.00 (ref)			

TABLE E4. Continued*

Model predictors – Demographic and Housing Characteristics	Can f 1 (N=6613)		Fel d 1 (N=6526)		Der f 1 (N=6369)		Der p 1 (N=6504)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Floor covering		0.032				<.001		
Carpeting or rug	1.77 (1.05-2.98)				2.49 (1.84-3.39)			
Smooth floor	1.00 (ref)				1.00 (ref)			
Room humidity								0.003
≥ 70%							2.03 (1.19-3.46)	
60-69%							1.48 (0.87-2.52)	
50-59%							1.41 (0.94-2.11)	
40-49%							1.03 (0.57-1.87)	
< 40%							1.00 (ref)	
Room temperature								0.009
>82 F							0.97 (0.44-2.12)	
75-82 F							1.07 (0.79-1.45)	
< 67 F							1.98 (1.28-3.05)	
67-74 F							1.00 (ref)	

Model predictors – Demographic and Housing Characteristics	Alt a 1 (N=6770)		Bla g 1 (N=6768)		Mus m 1 (N=6496)		Rat n 1 (N=6612)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Participant age						0.002		
1-17					1.44 (1.14-1.82)			
18+					1.00 (ref)			
Gender		0.047						
Female	1.27 (1.00-1.62)							
Male	1.00 (ref)							
Race/Ethnicity		<.001		<.001				
Other	2.61 (1.28-5.33)		0.60 (0.32-1.13)					
Mexican American	1.37 (0.91-2.04)		0.87 (0.63-1.19)					
Non-Hispanic White	3.26 (2.11-5.02)		0.51 (0.37-0.71)					
Non-Hispanic Black	1.00 (ref)		1.00 (ref)					
Family PIR						<.001		
Low (PIR ≤ 1.3)					4.64 (2.82-7.64)			
Medium (1.3 < PIR ≤ 3.5)					2.75 (1.67-4.53)			
High (PIR > 3.5)					1.00 (ref)			
Type of home								0.004
Mobile home or trailer							1.72 (0.87-3.43)	
Single family - detached							0.86 (0.56-1.33)	
Multi-family housing							1.00 (ref)	
Tenure				<.001				
Rented or other arrangement			1.57 (1.22-2.02)					
Owned or being bought			1.00 (ref)					
Presence of cat(s)		<.001						<.001
Yes	2.79 (2.04-3.82)						3.18 (2.15-4.70)	
No	1.00 (ref)						1.00 (ref)	
Presence of dog(s)								0.011
Yes							1.61 (1.12-2.33)	
No							1.00 (ref)	
Presence of cockroaches				<.001				<.001
Yes			4.31 (3.03-6.14)				2.03 (1.34-3.07)	
No			1.00 (ref)				1.00 (ref)	
Presence of mattress cover						0.046		
No					1.48 (1.01-2.18)			
Yes					1.00 (ref)			
Floor covering								0.033
Carpeting or rug							1.68 (1.04-2.70)	
Smooth floor							1.00 (ref)	

* Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration >75 percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration > 90 percentile. Unadjusted prevalences are weighted for the multi-stage sampling design of the NHANES. The Wald statistic was used to test significance of each variable in the model (*P*-value). All odds ratios (OR) are adjusted for each variable in the final prediction model.

† The metropolitan counties are subdivided based on the population of their metropolitan statistical area (MSA): large (central, fringe), for MSA population of 1 million or more; medium, for MSA population of 250,000–999,999; and small, for MSA population below 250,000. Non-metropolitan counties not defined as micropolitan are considered to be noncore and are thought of as the most rural areas.

TABLE E5. Adjusted odds ratios for independent predictors of allergen burden*

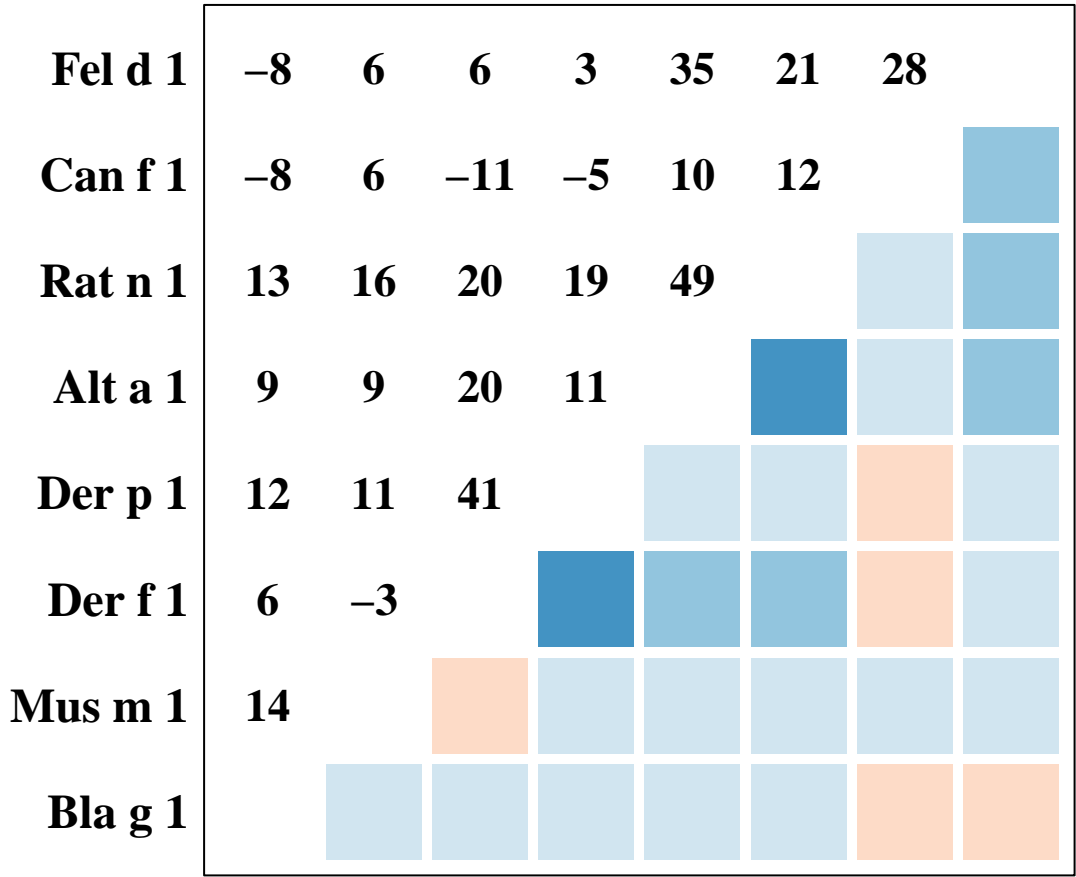
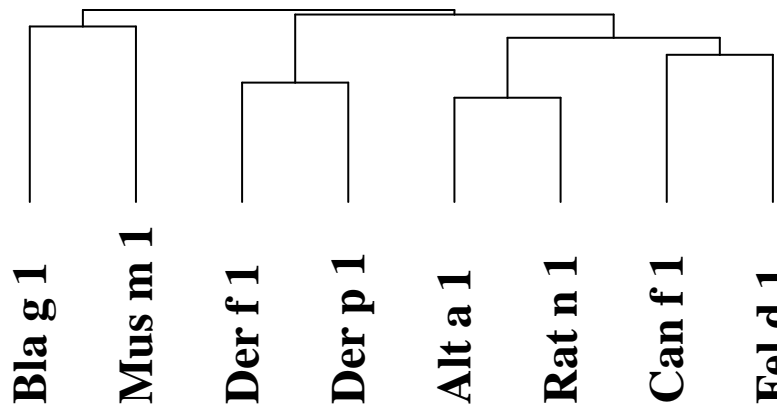
Model predictors – Demographic and Housing Characteristics	Multiple Elevated Exposures (N=6768)		Multiple Detectable Exposures (N=6597)		No Elevated Exposures (N=6597)		Low Exposure (N=6761)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Participant age						<.001		<.001
1-17					0.76 (0.65-0.88)		0.43 (0.34-0.54)	
18+					1.00 (ref)		1.00 (ref)	
Gender				0.030				
Female			1.19 (1.02-1.40)					
Male			1.00 (ref)					
Race/Ethnicity				<.001		0.007		<.001
Other			2.61 (1.51-4.53)		0.62 (0.43-0.90)		0.50 (0.28-0.86)	
Mexican American			1.83 (1.30-2.58)		0.55 (0.39-0.77)		0.42 (0.25-0.71)	
Non-Hispanic White			2.48 (1.73-3.55)		0.63 (0.43-0.91)		0.34 (0.26-0.44)	
Non-Hispanic Black			1.00 (ref)		1.00 (ref)		1.00 (ref)	
Census region				0.008		<.001		0.018
Northeast			1.72 (0.66-4.47)		0.60 (0.34-1.08)		0.75 (0.32-1.78)	
Midwest			3.07 (1.57-6.01)		1.01 (0.76-1.35)		1.67 (1.05-2.65)	
South			2.49 (1.21-5.14)		0.59 (0.44-0.78)		1.50 (0.92-2.44)	
West			1.00 (ref)		1.00 (ref)		1.00 (ref)	
Level of urbanization[†]		<.001				<.001		<.001
Noncore	3.25 (2.16-4.90)				0.26 (0.19-0.36)		0.49 (0.37-0.65)	
Micropolitan	2.78 (1.67-4.61)				0.83 (0.44-1.58)		0.46 (0.31-0.67)	
Medium + small metro	2.17 (1.36-3.45)				0.88 (0.72-1.08)		1.41 (1.03-1.91)	
Large metro, fringe	1.52 (1.01-2.27)				0.83 (0.59-1.17)		0.82 (0.54-1.25)	
Large metro, central	1.00 (ref)				1.00 (ref)		1.00 (ref)	
Type of home		0.031				0.031		0.011
Mobile home or trailer	1.86 (1.17-2.97)				0.63 (0.38-1.05)		0.38 (0.21-0.72)	
Single family – detached	1.21 (0.84-1.75)				0.98 (0.69-1.40)		0.86 (0.58-1.28)	
Multi-family housing	1.00 (ref)				1.00 (ref)		1.00 (ref)	
Building year		0.006				<.001		0.001
Missing	1.06 (0.73-1.52)				0.46 (0.32-0.67)		0.41 (0.25-0.67)	
Before 1978	1.76 (1.23-2.52)				0.53 (0.43-0.67)		0.71 (0.49-1.04)	
1978-present	1.00 (ref)				1.00 (ref)		1.00 (ref)	
Tenure		0.042						
Rented or other arrangement	1.37 (1.01-1.84)							
Owned or being bought	1.00 (ref)							
Residence time								<.001
Up to 2 years							0.69 (0.45-1.05)	
3-5 years							1.21 (0.70-2.09)	
6+ years							1.00 (ref)	
Number of people in the household						0.050		0.048
1-2					0.70 (0.53-0.93)		2.22 (1.16-4.27)	
3-4					0.72 (0.50-1.04)		1.48 (0.70-3.16)	
5+					1.00 (ref)		1.00 (ref)	
Presence of cat(s)		<.001		<.001		<.001		<.001
Yes	4.25 (3.31-5.46)		2.36 (1.71-3.25)		0.10 (0.06-0.16)		0.13 (0.07-0.22)	
No	1.00 (ref)		1.00 (ref)		1.00 (ref)		1.00 (ref)	
Presence of dog(s)		<.001				<.001		0.003
Yes	2.33 (1.67-3.26)				0.27 (0.18-0.42)		0.41 (0.23-0.74)	
No	1.00 (ref)				1.00 (ref)		1.00 (ref)	
Presence of cockroaches		<.001		<.001		0.006		0.002
Yes	2.57 (1.87-3.53)		2.14 (1.77-2.59)		0.63 (0.45-0.88)		0.41 (0.23-0.73)	
No	1.00 (ref)		1.00 (ref)		1.00 (ref)		1.00 (ref)	
Presence of mildew/musty smell				0.021				
Yes			1.43 (1.05-1.93)					
No			1.00 (ref)					
Presence of children								<.001
Child aged 1-5							2.02 (1.22-3.34)	
Child aged 6-17							0.94 (0.56-1.56)	
No children							1.00 (ref)	
Floor covering				0.040		<.001		
Carpeting or rug			1.47 (1.02-2.14)		0.43 (0.28-0.68)			
Smooth floor			1.00 (ref)		1.00 (ref)			

TABLE E5. Continued*

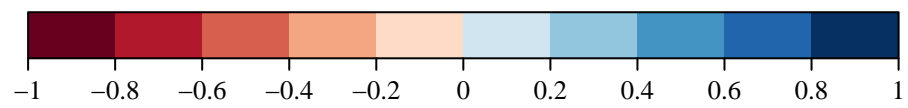
Model predictors – Demographic and Housing Characteristics	Multiple Elevated Exposures (N=6768)		Multiple Detectable Exposures (N=6597)		No Elevated Exposures (N=6597)		Low Exposure (N=6761)	
	OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>
Room humidity						<.001		0.003
≥ 70%					0.68 (0.46-0.99)		0.63 (0.32-1.25)	
60-69%					0.50 (0.38-0.67)		0.43 (0.26-0.70)	
50-59%					0.65 (0.52-0.82)		0.39 (0.20-0.75)	
40-49%					0.88 (0.65-1.19)		0.65 (0.35-1.23)	
< 40%					1.00 (ref)		1.00 (ref)	

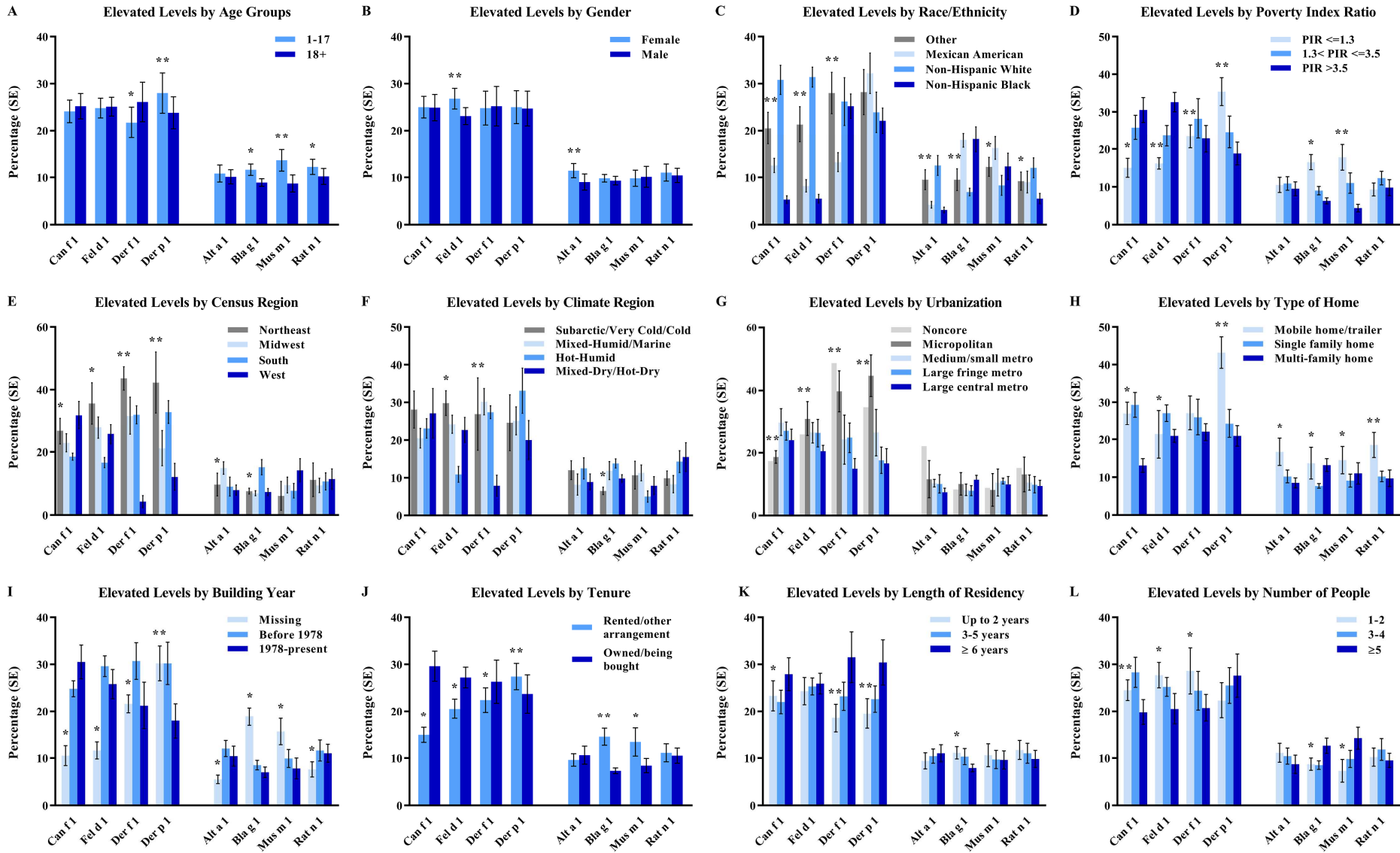
* Allergen Burden Outcomes: Multiple Elevated Exposures (≥ 3 allergens at elevated levels) and Multiple Detectable Exposures (≥ 7 allergens $>$ LOD, ≥ 1 allergens at elevated levels) represent high allergen burden. No Elevated Exposures (0 allergens at elevated levels) and Low Exposure (≤ 2 allergens $>$ LOD, 0 allergens at elevated levels) represent low to medium allergen burden. Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration $>$ 75 percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration $>$ 90 percentile. The Wald statistic was used to test significance of each variable in the model (*P*-value). All odds ratios (OR) are adjusted for each variable in the final prediction model.

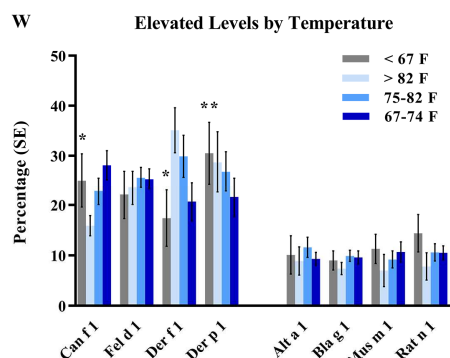
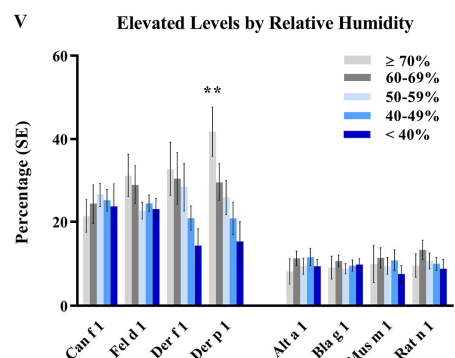
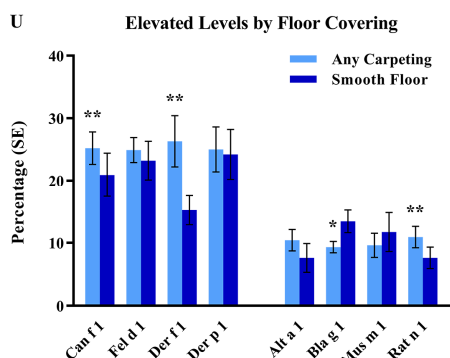
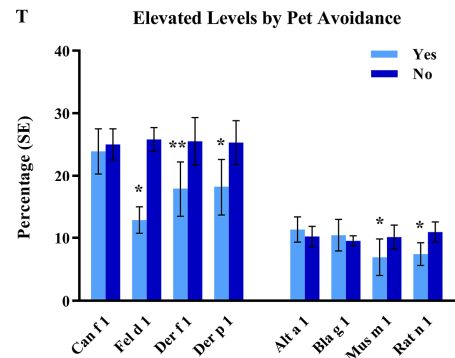
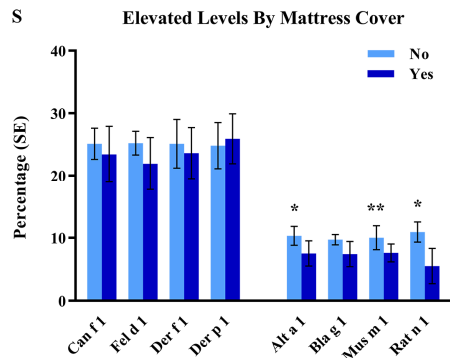
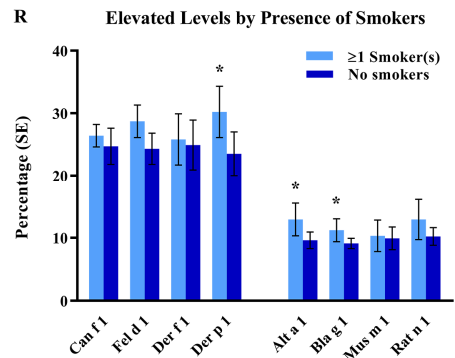
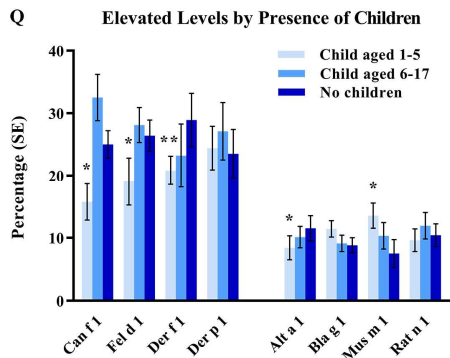
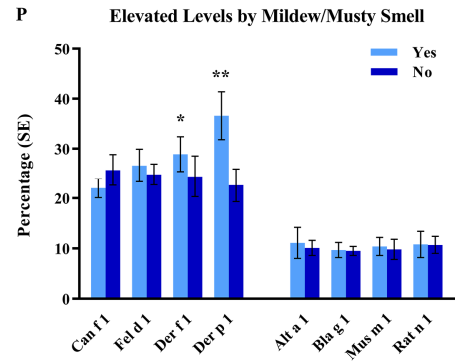
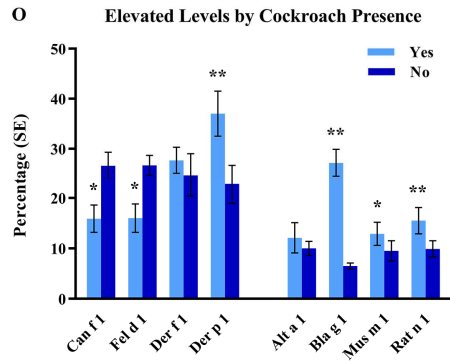
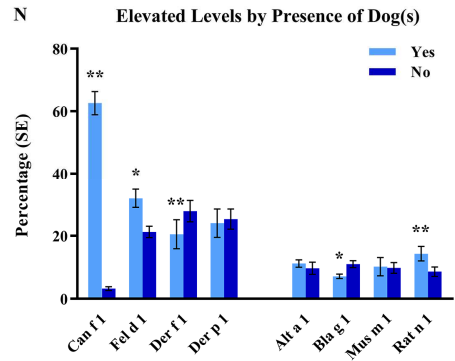
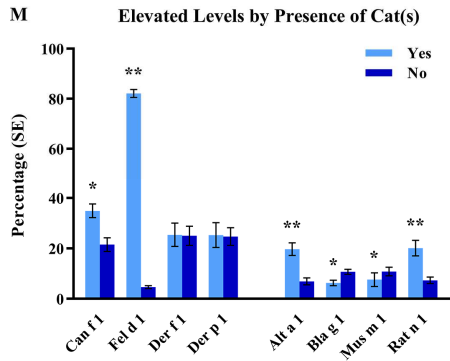
† The metropolitan counties are subdivided based on the population of their metropolitan statistical area (MSA): large (central, fringe), for MSA population of 1 million or more; medium, for MSA population of 250,000–999,999; and small, for MSA population below 250,000. Non-metropolitan counties not defined as micropolitan are considered to be noncore and are thought of as the most rural areas.



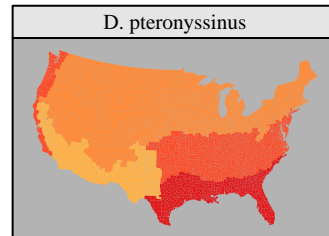
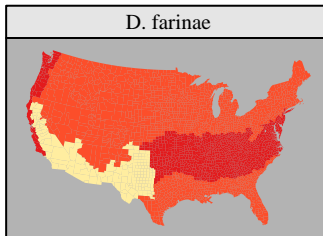
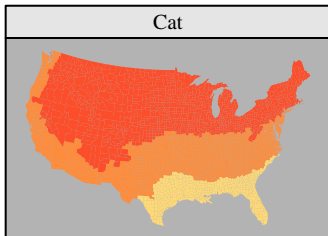
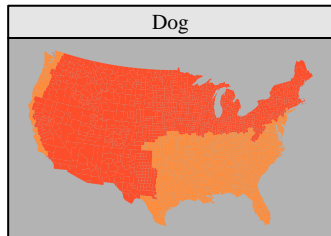
Weighted Pearson Correlation



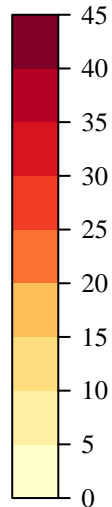
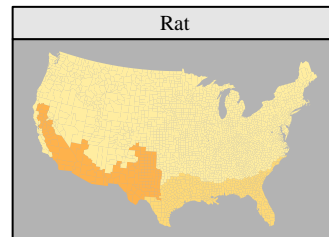
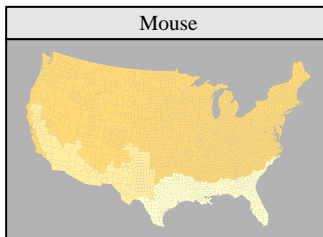
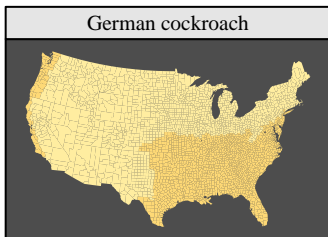
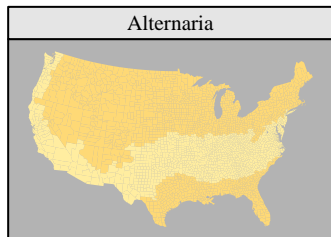


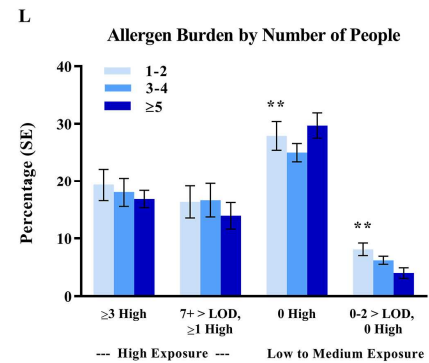
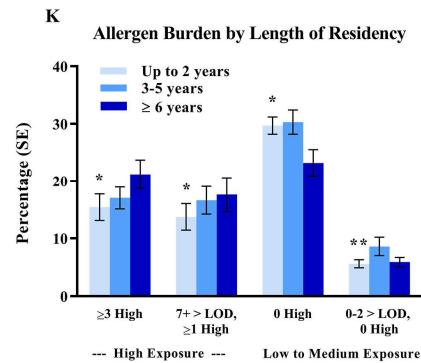
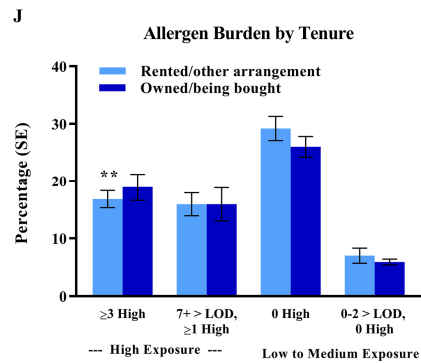
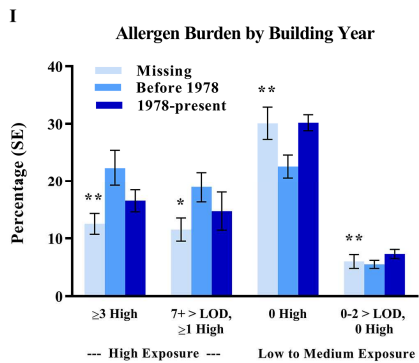
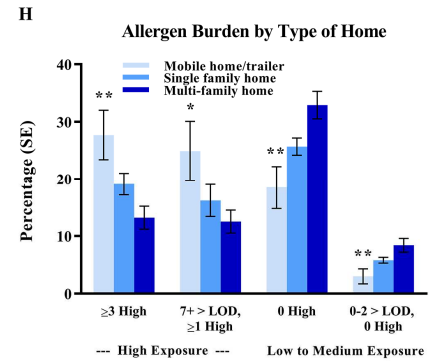
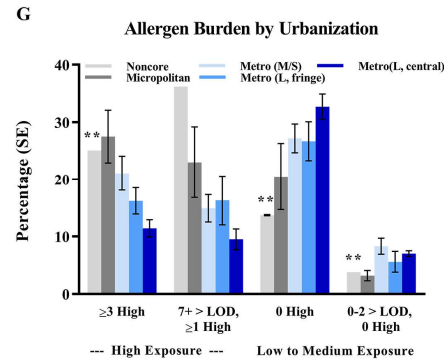
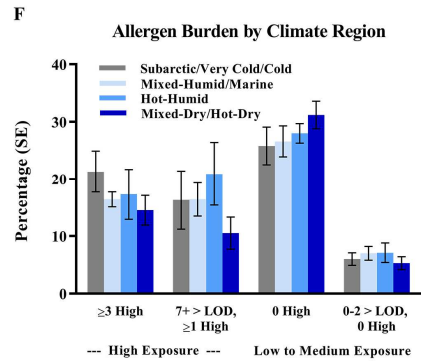
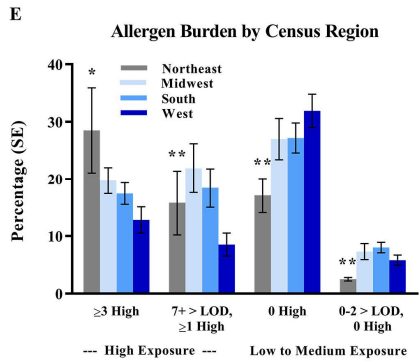
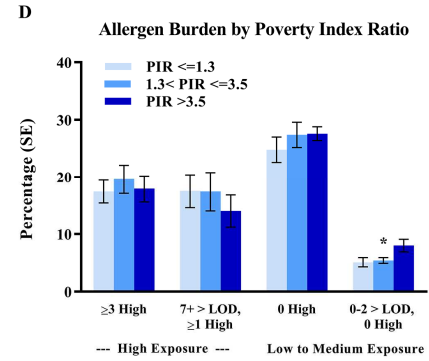
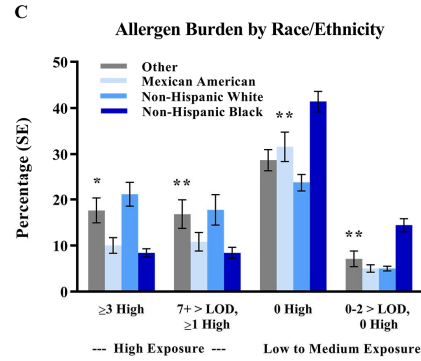
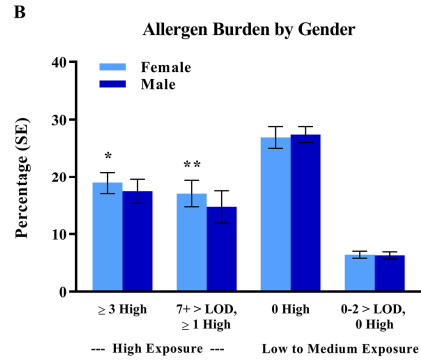
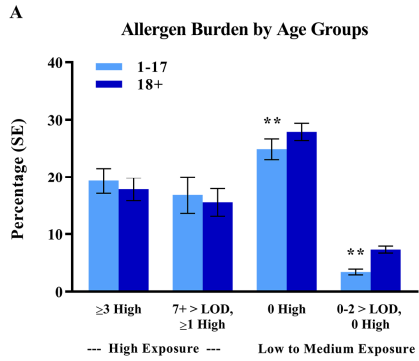


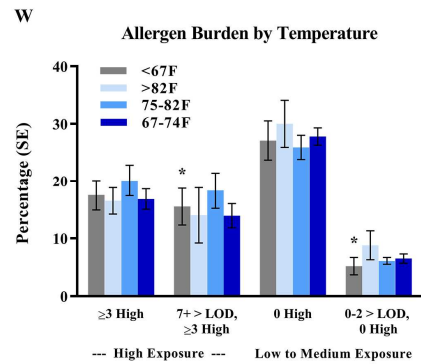
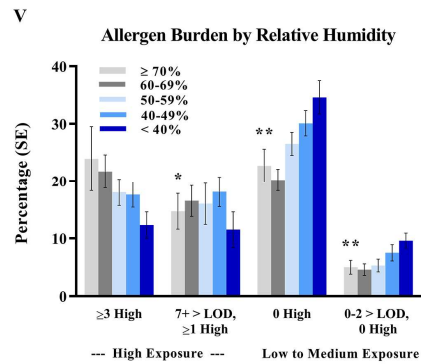
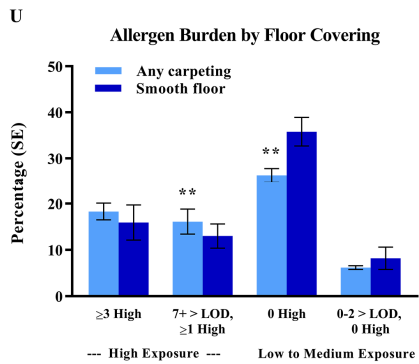
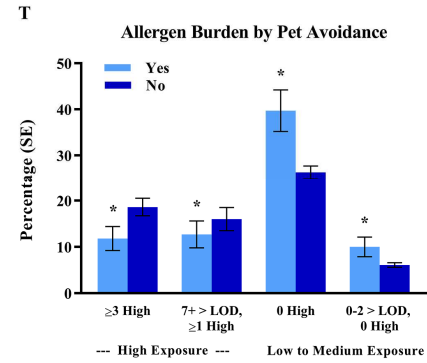
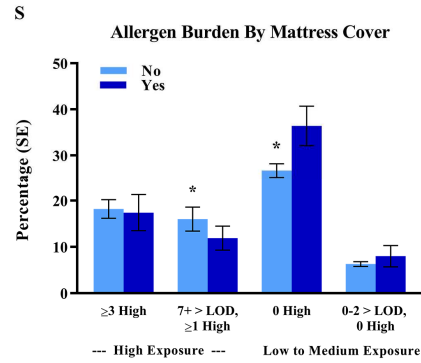
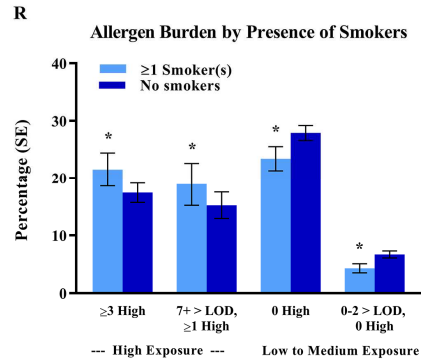
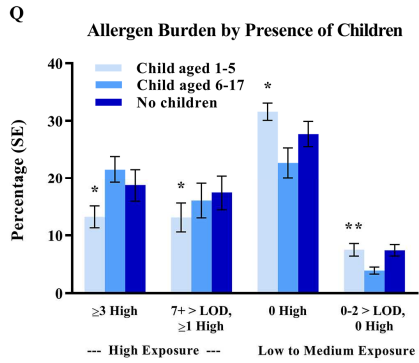
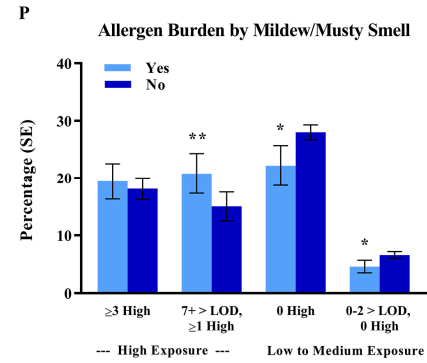
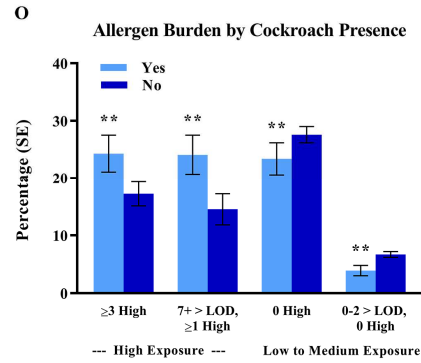
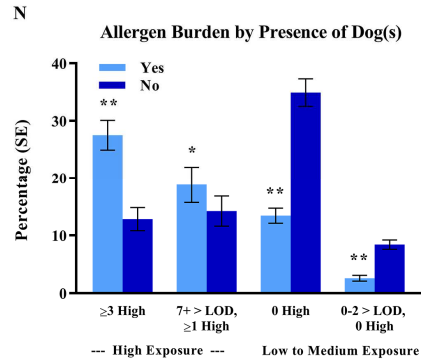
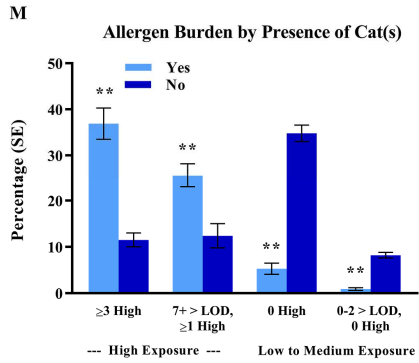
75th Percentile

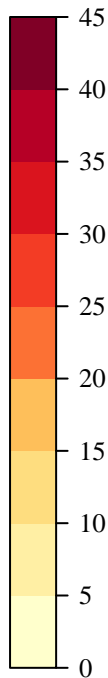
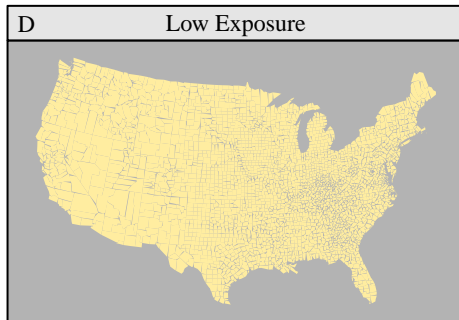
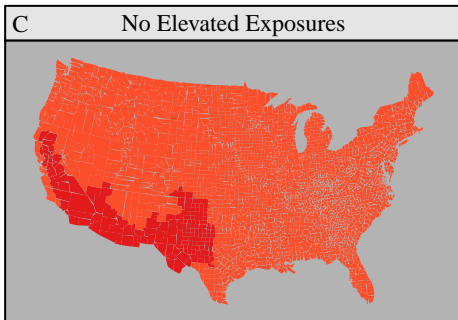
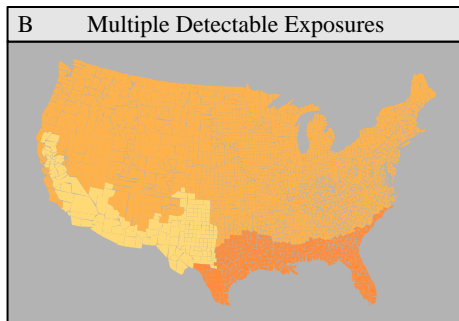
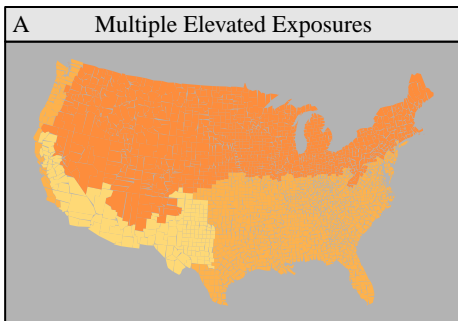


90th Percentile









Online Repository

Bedroom allergen exposures in US households

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Online Repository - Figure Legends

Figure E1. Clustering of allergens in NHANES 2005-2006. The dendrogram (top) employs hierarchical clustering to group similar allergens based on the log-transformed correlation matrix (below).

Figure E2. Prevalence of elevated allergen concentrations by participant and housing characteristics (NHANES 2005-2006). Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration >75th percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration > 90th percentile. Asterisks indicate whether the variable was included in predictor modeling based upon the relationship observed in bivariate analyses (*; $P < 0.25$) and remained an independent predictor in the final model (**; $P < 0.05$). The Wald statistic was used to test differences across levels of the characteristic. The reference group in each bar graph group is shown in dark blue (i.e., the rightmost bar).

Figure E3. Prevalence of elevated allergen levels by climate region. Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration >75th percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration > 90th percentile. The dark background color in the map indicates statistically significant differences ($P < 0.05$) across four climate regions in the United States (Subarctic/Very Cold/Cold; Mixed-Humid/Marine; Hot-Humid; and Mixed-Dry/Hot Dry).

Figure E4. Prevalence of allergen burden by participant and housing characteristics (NHANES 2005-2006). Exposure burden was classified as high when 1) ≥ 3 allergens exceeded elevated levels (Can f 1, Fel d 1, Der f 1, or Der p 1 concentrations >75th percentile; Alt a 1, Bla g 1, Mus m 1 or Rat n 1 concentrations >90th percentile), or 2) ≥ 7 allergens were above detection limits (>LOD) and ≥ 1 allergens exceeded elevated levels. Exposure burden was low to medium when none of the allergens exceeded elevated levels

(irrespective of how many allergens were detected); and low when ≤ 2 allergens were detected and none of the allergens exceeded elevated levels. Asterisks indicate whether the variable was included in predictor modeling (*; $P < 0.25$) and remained an independent predictor in the final model (**; $P < 0.05$). The Wald statistic was used to test differences across levels of the characteristic. The reference group in each bar graph group is shown in dark blue (i.e., the rightmost bar).

Figure E5. Prevalence of allergen burden by four climate regions in the United States (Subarctic/Very Cold/Cold; Mixed-Humid/Marine; Hot-Humid; and Mixed-Dry/Hot Dry). Allergen Burden Outcomes: Multiple Elevated Exposures (≥ 3 allergens at elevated levels); Multiple Detectable Exposures (≥ 7 allergens $> \text{LOD}$, ≥ 1 allergens at elevated levels); No Elevated Exposures (0 allergens at elevated levels); Low Exposure (≤ 2 allergens $> \text{LOD}$, 0 allergens at elevated levels). Can f 1, Fel d 1, Der f 1, and Der p 1 levels were elevated if allergen concentration > 75 percentile; Alt a 1, Bla g 1, Mus m 1 and Rat n 1 levels were elevated if allergen concentration > 90 percentile.