



TOBACCO SMOKE INCURSIONS REPORTED BY RESIDENTS OF MULTI-UNIT HOUSING



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BACKGROUND

- Many US residents live in multi-unit housing (MUH); few have smoking restrictions.
- Tobacco smoke diffuses between units, potentially affecting non-smoking residents.

OBJECTIVE

To describe tobacco smoke incursions in MUH.

METHODS

- We recruited US residents 18+ years living in MUH from a nationally representative online panel that includes both listed and unlisted numbers, those without a landline telephone, does not accept self-selected volunteers and provides sample coverage for 99% of U.S. households.
- The response rate was 88%.
- Variables included demographics, building characteristics, smoking restrictions and frequency of smelling smoke in their unit.
- Analyses were limited to respondents with no smoking in their units in the prior 3 months.
- Chi-square and logistic regression models were done using SAS v9.3 on data weighted to adjust for design effects.

UNIVARIATE RESULTS

- Data from 2507 participants were analyzed.
- 51% were female, 15% were African American, 21% Hispanic, and 53% white, and 28% reported children in the home.
- Overall, 23% of respondents reported incursions in their apartments; 19% daily, and 31% weekly.
- Of those with incursions, 58% were bothered a lot by the smoke, and 22% bothered somewhat.
- Half (54%) closed windows to avoid smoke, and 19% complained to their property manager.
- Of those with incursions who didn't complain, 38% did not want to upset neighbors, and 30% were concerned about retaliation.

Table 1. Demographic Characteristics (n=2507)

	n (%)
Gender	
Male	1238 (49.4)
Female	1270 (50.6)
Race	
White	1326 (52.8)
Black	379 (15.1)
Hispanic	527 (21.0)
Other	277 (11.0)
Age	
18-29	660 (26.3)
30-44	741 (29.5)
45-59	547 (21.8)
60+	561 (22.4)
Educational level	
Less than high school	271 (10.8)
High school	708 (28.2)
Some college	671 (26.8)
≥Bachelor's degree	858 (34.2)
Child in the home (n=2469)	
Yes	687 (27.5)
No	1783 (72.2)
Current smoking status (n=2494)	
Every day	142 (5.7)
Some days	135 (5.4)
Not at all	2218 (88.9)

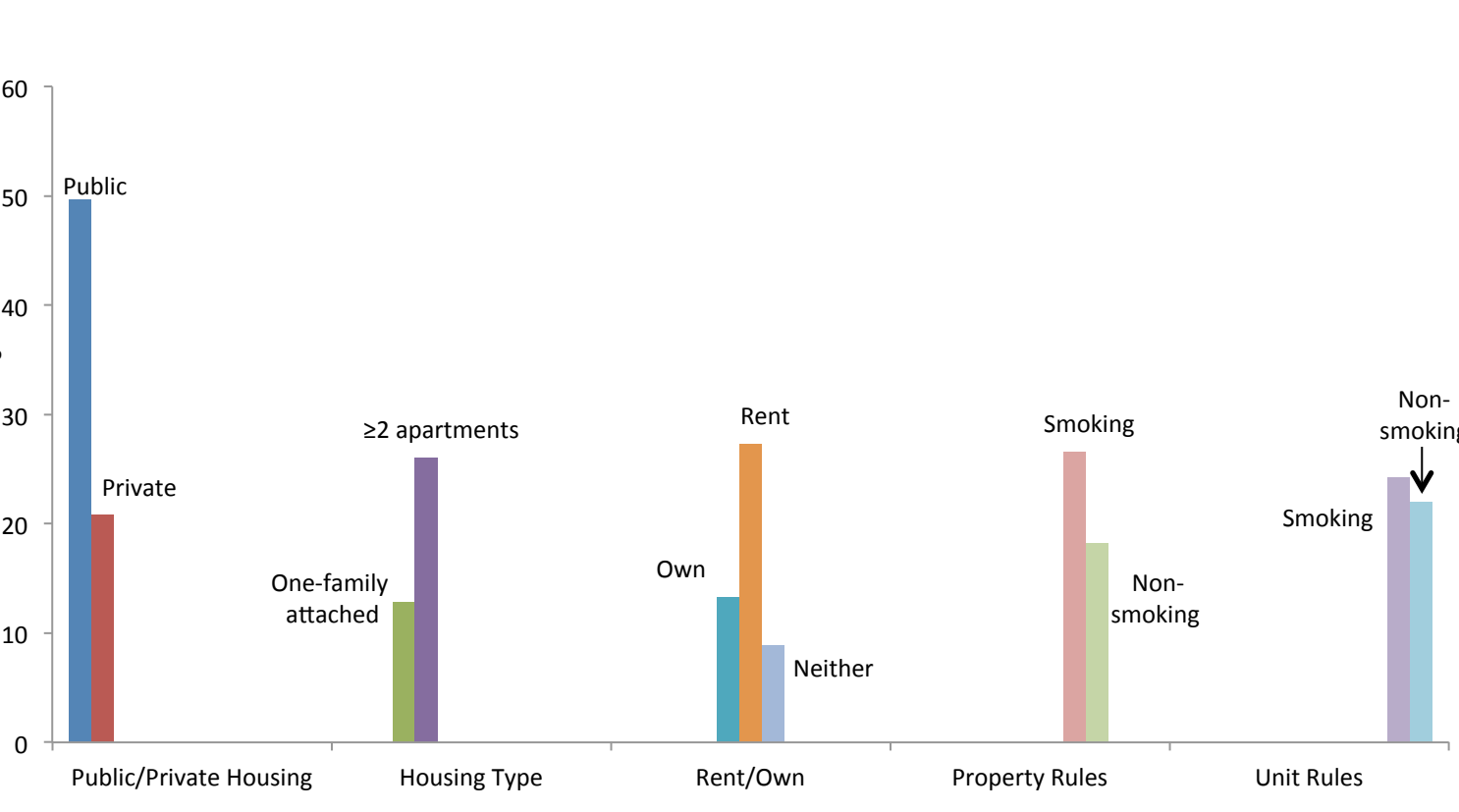
Table 2. Housing Characteristics (n=2507)

	n (%)
Public housing (n=2483)	
Yes	209 (8.3)
No	2274 (90.7)
Housing type	
One-family attached	664 (26.5)
≥2 apartments	1844 (73.5)
Rent/Own (n=2502)	
Own	700 (28.0)
Rent	1692 (67.6)
Neither	110 (4.4)
Property smoking rule (n=2443)	
Smoking allowed	1743 (71.3)
Smoking not allowed	700 (28.7)
Unit smoking rule (n=2442)	
Smoking allowed	1322 (54.2)
Smoking not allowed	1119 (45.8)

Table 3. Smoke Incursions (n=2507)

	n (%)
Smoke incursions (n=2493)	
Yes	564 (22.6)
No	1929 (77.4)
Frequency of smoke incursions (n=562)	
Daily	109 (19.4)
Weekly	172 (30.6)
Monthly	82 (14.6)
Rarely	192 (34.2)
Never	7 (1.2)
Bothered by tobacco smoke in unit	
A lot	329 (58.3)
Somewhat	122 (21.6)
A little	81 (14.3)
Not at all	32 (5.7)
Closed window in past 30 days to avoid SHS?	
Yes	306 (54.2)
No	258 (45.8)
Complained to landlord about SHS in unit?	
Yes	107 (19.0)
No	456 (81.0)
Reasons for not complaining	
Did not want to upset neighbor (n=439)	166 (38.0)
Concerned about retaliation (n=443)	132 (29.8)

Graph 1. Self-Reported MUH Unit Smoke Incursions by Housing Characteristics



•Reported unit incursions were significantly higher for residents of public housing (50% vs. 21%; p<.0001), who rent rather than own (27% vs. 13%; p<.0001), who lived in an apartment building rather than a one-family attached home (26% vs. 13%; p<.0001), and who lived in a building where smoking was allowed on the property (27% vs. 18%; p<.0001).

MULTIVARIATE RESULTS

- In a multivariate model, incursions were positively associated with:
 - Smoking being allowed on MUH property (OR 1.6; 95% CI 1.3-2.1)
 - Living in public housing (OR 2.1; 95% CI 1.3-3.3)
 - Living in apartments vs. attached single family homes (OR 1.4; 95% CI 1.0-1.9)
 - Renting vs. owning a home (OR 1.9; 95% CI 1.4-2.5)
 - Income <\$20K per year (OR 1.9; 95% CI 1.4-2.6)
- Models were adjusted for age group, race, education, household income, public vs private housing type, receiving government assistance for housing, geographic region, current smoking status, renting vs owning, number of units in building, smoking rules on the property and in the MUH units.

LIMITATIONS

- Study results rely on self-reported smoke incursions rather than an objective measure of exposure.
- Online panel survey method of recruitment was used.

CONCLUSIONS

- Many residents of MUH experience tobacco smoke incursions into their private homes.
- Most are bothered by these exposures, and some fail to speak up for fear of retaliation.
- Incursions were more common in public housing, for residents who rent rather than own and who were in the lowest income bracket.
- Smoke incursions in MUH appear to disproportionately impact residents with low socioeconomic status; a vulnerable population with limited options for avoidance.
- Smoke-free housing should be available to all.