Correlates of Smoke-Free Housing Policies and Interest in Implementing Policies among Multiunit Housing Owners in New York City

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ABSTRACT *Secondhand smoke exposure is a concern in multiunit housing, where smoke can migrate between apartments. In 2012, the New York City (NYC) Department of Health and Mental Hygiene conducted a cross-sectional mail and phone survey among a random sample of low-income and market-rate multiunit housing owners and managers in NYC. The study compared experiences and attitudes regarding smoke-free policies between owners/managers (owners) with and without low-income units. Logistic regression analysis was used to assess the correlates of smoke-free residential unit rules and interest in adopting new smoke-free rules. Perceived benefits and challenges of implementing smoke-free rules were also examined. Overall, one-third of owners prohibited smoking in individual units. Among owners, nearly one-third owned or managed buildings with designated certified low-income units. Owners with low-income units were less likely than those without to have a smoke-free unit policy (26 vs. 36 %, $p<0.01$) or be aware that owners can legally adopt smoke-free building policies (60 vs. 70 %, $p<0.01$). In the final model, owners who believed that owners could legally adopt smoke-free policies were more likely to have a smoke-free unit policy, while current smokers and owners of larger buildings were less likely to have a policy. Nearly three quarters of owners without smoke-free units were interested in prohibiting smoking in all of their building/units (73 %). Among owners, correlates of interest in prohibiting smoking included awareness that secondhand smoke is a health issue and knowledge of their legal rights to prohibit smoking in their buildings. Current smokers were less likely to be interested in future smoke-free policies. Educational programs promoting awareness of owners' legal right to adopt smoke-free policies in residential buildings may improve the availability of smoke-free multiunit housing.*

KEYWORDS *Secondhand smoke, Housing, Urban, Disparities*

INTRODUCTION

The 2002 New York City (NYC) Smoke-Free Air Act (SFAA) decreased secondhand smoke (SHS) exposure by making workplaces, including bars and restaurants, smoke-free.^{1,2} In 2011, public parks, beaches, and pedestrian plazas were also designated smoke-free. Although the smoke-free air laws have reduced SHS exposure, home-based SHS exposure remains a significant problem, particularly

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among children and low-income populations.³⁻⁵ With the small air volume and lack of ventilation in apartments, low concentrations of SHS exposure can result in chronic, long-term exposure.⁶⁻⁸ Taken over time, these exposures can lead to adverse health effects.³ Exposure to environmental tobacco smoke, including exposure at home, is associated with SHS-attributable mortality and disease, including lung cancer, respiratory illness, and cardiovascular disease.³ SHS exposure is of particular concern within multiunit housing (MUH) because smoke migrates between apartments through walls, vents, cracks in walls or floors, hallways, and porches and patios.⁹⁻¹²

In addition to the burden of disease attributable to SHS, there are financial costs associated with smoking-related damage inside apartments.¹³ Compared to apartments with smoke-free rules, units where smoking is permitted have higher turnover and maintenance costs, and buildings which permit smoking may not be eligible for property insurance discounts available in some states.¹⁴⁻¹⁷ Outreach and education efforts are needed to increase the availability of smoke-free housing, particularly in urban areas where population impact would be greater.

Extant research indicates that residential SHS exposure disproportionately affects low-income populations living in MUH.^{4,5} A study of US adults found that residents of government-subsidized housing were more likely to report smoke incursions into individual units and buildings.⁵ Another study conducted among children found that those living in apartments had overall higher levels of cotinine, a biomarker of SHS exposure than those in detached homes.⁴ As a result, the Centers for Disease Control and Prevention and the US Department of Housing and Urban Development (HUD) have strongly encouraged smoke-free MUH.¹⁸ Increasing the availability of smoke-free housing, particularly in low-income areas or in government-subsidized MUH, may reduce SHS exposure at home.

In NYC, 70 % of the housing is classified as multiunit in comparison to 26 % nationwide.¹⁹⁻²¹ Thus, the city provides a useful environment in which to assess MUH owners' experiences and attitudes regarding residential smoke-free policies. Given the large number of government-subsidized housing units in NYC, identifying the behaviors and attitudes related to residential smoking rules among owners and managers of MUH designated for low-income tenants is also of particular interest.¹⁹ Using a survey of market-rate and low-income MUH owners/managers (defined throughout as "owners") in NYC, our objectives were fourfold: (1) to compare the experiences, attitudes, knowledge, and opinions regarding smoke-free unit policies between owners with and without units restricted to certified low-income tenants, (2) to assess the prevalence and correlates of smoke-free unit policies, (3) to determine the prevalence and correlates of interest in smoke-free policies among owners lacking a policy, and (4) to describe the perceived benefits and challenges of implementing smoke-free policies among owners with and without such policies.

To our knowledge, this study is the first to examine correlates of smoke-free housing policies and interest in implementing smoke-free policies among a large urban sample of MUH owners. Results can be used to inform outreach and education efforts aimed at increasing smoke-free building policies in urban areas.

METHODS

Data Collection

During the first half of 2012, the NYC Department of Health and Mental Hygiene (DOHMH) conducted a cross-sectional mail and phone-based survey of a random

sample of owners of multiunit market-rate and rent-regulated NYC residential housing. The sample of key decision-makers was drawn from a list of 165,000 NYC owners of properties with three or more residential units obtained from the NYC Department of Housing Preservation and Development's (HPD) database of registered owners. HPD requires all NYC owners to be registered. A random sample of 6000 owners of three or more residential units, proportionally stratified by borough, was selected and sent a paper survey. All owners who did not respond to the mail survey were re-contacted via phone and invited to participate. After obtaining informed consent, interviewers administered the phone survey in English or Spanish. Participants received \$30 in compensation for completion.

A total of 1007 owners completed the survey, including 383 mail and 624 phone respondents, for a 22 % response rate and a 43 % cooperation rate. Rates were calculated using the American Association for Public Opinion Research's third definition.²² Briefly, the response rate is the number of survey participants divided by the number of individuals in the sample who were contacted and eligible, as well as those never contacted and with unknown eligibility. The cooperation rate is the number of survey participants divided by the number of individuals in the sample who were contacted and eligible. Exclusion criteria included not being the key decision-maker for the property and not owning or managing three or more units.

The study was approved by the DOHMH Institutional Review Board.

Measures

Questions were based on an unpublished national survey developed by Roswell Park Cancer Institute. Smoking policies were assessed through the following questions: "Do you have a policy prohibiting smoking in residential units?" Those who answered "yes" (defined throughout as "any smoke-free residential unit policy") were categorized as having either a "100 % smoke-free residential unit policy" or "partial smoke-free residential unit policy" based on the answer to the question, "Is smoking prohibited in all of the units within any of your buildings?".

Interest in prohibiting smoking in residential units was assessed among owners lacking a policy: "How interested are you in prohibiting smoking in all of your buildings and/or units?" Response options included "very interested," "somewhat interested," "a little interested," and "not very interested at all."

Owners also indicated the number of buildings and units they managed and the number, if any, of units designated for tenants with certified low-income (i.e., HUD subsidy status). In addition, owners were asked about SHS-related complaints from tenants and perceived tenant favorability toward smoke-free policies. Other items assessed owners' smoking-related knowledge and attitudes, including whether or not SHS moving into an apartment from elsewhere on the premises is a health issue for tenants and whether or not MUH owners can legally adopt policies that prohibit smoking on their properties, including in all residential units.

Since previous findings indicated that current smoking status is associated with differing SHS-related attitudes and policies, smoking was assessed among all owners through two questions based on DOHMH's NYC Community Health Survey: "Have you smoked at least 100 cigarettes in your entire life?" and "Do you now smoke cigarettes every day, some days or not at all?"²³⁻²⁶

Owners with smoke-free units were asked to choose the single most important benefit of prohibiting smoking in any of their buildings and/or units from the following response options: "attracted a different type of tenant, lowered maintenance costs, lowered turnover costs, received less complaints, increased rental

prices, improved health of tenants and/or community, and other.” Responses to the three most common benefits are presented, with the remainder combined into the “other” category. Owners with smoke-free units were also asked if the policy is included in tenant leases and if and how it is enforced and the penalties if the policy is violated. Additional items for smoke-free unit owners assessed changes in tenant turnover in response to offering smoke-free buildings/units, whether or not owners publicly advertise smoke-free units and whether or not the smoke-free policy led to complaints from tenants and ease or difficulty in renting units in which smoking is prohibited.

Owners without smoke-free units were asked similar questions to assess their perceived concerns with prohibiting smoking and how likely they would be to designate smoke-free units in the future. Questions included, “What are the two most important concerns you have about prohibiting smoking in any of your buildings or units?”, with the following prompted response options: “higher vacancy rate, higher turnover, resources for enforcement, tenant resistance or complaints, legal risks, and other”.

Analysis

Frequencies, proportions, and 95 % confidence intervals were calculated for all variables of interest. Results were also stratified by the income requirements of their unit(s): owners reporting any certified low-income units vs. no certified low-income units. Pearson χ^2 tests were used to identify differences, and significant chi-squares were followed up with pairwise comparisons using *t* tests.

Two multivariable logistic regression models were developed to assess correlates of: (1) having a policy prohibiting smoking in residential units and (2) interest in prohibiting smoking in all buildings/units among owners who lacked a smoke-free policy. Variables were selected on the basis of a priori knowledge and included current smoking status, total quantity of units owned, any certified low-income units owned, and knowledge related to health hazards of SHS moving into apartments and the legality of MUH owners implementing residential smoke-free policies. As exploratory analyses identified significant differences in responses between phone and mail surveys, this variable was also included in the analysis. Bivariate differences were tested with the Pearson χ^2 test. Odds ratios (ORs), 95 % confidence intervals (CIs), and *p* values were derived from the final models. Analyses were performed in SAS 9.2. All differences highlighted in the text are statistically significant ($p < .05$) unless otherwise indicated.

RESULTS

Overall, one third (33 %) of owners had a policy prohibiting smoking in individual units, with 83 % of those prohibiting smoking within all the units of a building (100 % smoke-free policy) (Table 1). More than half of owners had just one building and 65 % owned a total of three to ten units. One quarter (26 %) of owners had ever received tenant complaints about cigarette smoke entering their home, but most of these complaints never led to the threat of a lawsuit. About three quarters (74 %) of owners said that there is an interest in smoke-free housing among their tenants or agreed that SHS moving into an apartment from elsewhere on the premises is a tenant health issue (77 %). The majority of owners (67 %) were aware that they can legally prohibit smoking on their properties, including in all residential units.

TABLE 1 Characteristics, experiences, knowledge and opinions among NYC owners and managers of multiunit housing in 2012 by income level of units

	Overall		Any certified low-income units	No certified low-income units	Chi-square <i>p</i> Value
	(n=1007)		(n=280)	(n=664)	
	%	95 % CI	%	%	
Building characteristics					
Any smoke-free residential unit policy	33	(30, 36)	26	36	<0.01
100 % Smoke-free residential unit policy	83	(78, 87)	81	83	0.64
Partial smoke-free residential unit policy	17	(13, 22)	19	17	
Number of buildings owned/managed					
1	58	(55, 61)	50	62 ^a	<0.01
2	15	(13, 17)	15	15	
3+	27	(24, 29)	35	23 ^a	
Total number of units owned/managed					
3–10	65	(62, 68)	53	72	<0.01
>10	35	(32, 38)	47	28	
Experiences with tenants					
Ever received tenant complaints about cigarette smoke entering living space	26	(23, 28)	30	24	0.09
Tenant complaints about secondhand smoke (SHS) exposure ever led to threat of law suit against owner/company	7	(4, 11)	12	6	0.07
Interest among renters in smoke-free housing	74	(71, 77)	65	79	<0.01
Knowledge and opinions					
SHS moving into apartment from elsewhere on the premises is health issue for tenants	77	(74, 79)	74	78	0.14
Believe multiunit housing owners can legally adopt policies that prohibit smoking, including in all residential units	67	(64, 70)	60	70	<0.01
Respondent characteristics					
Current smoker	9	(7, 11)	11	8	0.27
Former smoker	26	(23, 28)	23	27	

Presence of low-income units determined by the following survey question: “How many of the units that you manage/own are restricted to tenants with certified low income?”

^aSignificant difference between having any low-income units and having no low-income units among owners with one building and owners with three or more buildings

Nearly one third (30 %) of owners had buildings with units for certified low-income tenants. Owners with low-income units were less likely than those without to have a smoke-free unit policy (26 vs. 36 %, $p<0.01$) (Table 1). Owners with low-income units were also less likely to report an interest in smoke-free housing among renters (65 vs. 79 %, $p<0.01$) though the majority was still interested. Owners with

low-income units were also less likely to believe that owners can legally prohibit smoking in apartments (60 vs. 70 %, $p<0.01$).

Results of bivariate and multivariable analyses of having any smoke-free residential unit policy among all owners are presented in Table 2. In bivariate analysis, knowledge that SHS posed a health issue for tenants and that MUH owners could legally prohibit smoking was associated with greater likelihood of having a smoke-free policy. Owners who were current smokers, managed more than ten units, or managed any low-income units were significantly less likely to have smoke-free residential policies. In multivariable analysis, owners who believed that MUH owners can legally adopt policies that prohibit smoking in all residential units were more likely to have a smoke-free unit policy (adjusted OR [AOR]=5.85). Owners who were current smokers themselves (AOR=0.40) or managed more than ten units (AOR=0.43) were less likely to have a smoke-free policy.

In Table 3, bivariate and multivariable correlates of interest in prohibiting smoking in all buildings/units among owners lacking a smoke-free policy are presented. In the adjusted model, current smokers were less likely to report interest in adopting a smoke-free policy (AOR=0.20), while knowledge that SHS poses a health issue for tenants (AOR=3.79) and believing that MUH owners can legally prohibit smoking in units (AOR=2.35) was associated with a greater likelihood of interest in adopting a smoke-free policy.

TABLE 2 Correlates of having any smoke-free residential unit policy among NYC owners and managers of multiunit housing, 2012

	Total sample (<i>n</i> =1007)	Smoke-free residential unit policy (<i>n</i> =316)		Logistic regression model	
	% (95% CI)	% (95% CI)	<i>p</i> value	A O R (95 % CI)	<i>p</i> value
Respondent smoking status					
Former/never smoker	91 (89, 93)	34 (31, 37)	<0.01	1.00	<0.01
Current smoker	9 (7, 11)	16 (9, 24)	0.40 (0.20, 0.76)		
Total quantity of units owned/managed					
3–10	65 (62, 68)	41 (37, 45)	<0.01	1.00	<0.01
>10	35 (32, 38)	17 (13, 22)	0.43 (0.30, 0.64)		
Certified low-income units owned/managed					
None	70 (67, 73)	36 (32, 40)	<0.01	1.00	0.7
Any	30 (27, 33)	26 (21, 32)	0.93 (0.65, 1.34)		
SHS moving into apartment is health issue for tenants					
No	23 (21, 26)	24 (18, 29)	<0.01	1.00	0.59
Yes	77 (74, 79)	35 (31, 38)	1.12 (0.73, 1.72)		
Believe multiunit housing owners can legally adopt policies that prohibit smoking, including in all residential units					
No	33 (30, 36)	10 (7, 14)	<0.01	1.00	<0.01
Yes	67 (64, 70)	44 (40, 48)	5.85 (3.72, 9.20)		
Survey mode					
Paper	38 (35, 41)	37 (32, 42)	0.03	1.00	0.14
Phone	62 (59, 65)	30 (27, 34)	0.78 (0.56, 1.09)		

AOR adjusted odds ratio

TABLE 3 Correlates of interest in adopting residential smoke-free unit policy among NYC owners and managers of multiunit housing without a current smoke-free policy, 2012

	Respondents without a current smoke-free policy (<i>n</i> =653) % (95% CI)	Interest in smoke-free residential unit policy (<i>n</i> =385) % (95% CI)	<i>p</i> value	Logistic regression model AOR (95 % CI)	<i>p</i> value
Very/somewhat interested in prohibiting smoking in all buildings or units	73 (69, 76)				
Respondent smoking status					
Former/never smoker	89 (87, 92)	76 (72, 80)	<0.01	1.00	<0.01
Current smoker	11 (8, 13)	42 (28, 55)	0.20 (0.10, 0.42)		
Total quantity of units owned/managed					
3–10	57 (53, 61)	73 (68, 78)	0.8	1.00	0.82
>10	43 (39, 47)	72 (66, 78)	0.94 (0.56, 1.60)		
Certified low-income units owned/managed					
None	67 (63, 71)	72 (67, 77)	0.96	1.00	0.84
Any	33 (29, 37)	72 (65, 79)	0.95 (0.56, 1.60)		
SHS moving into apartment is health issue for tenants					
No	26 (23, 30)	47 (37, 56)	<0.01	1.00	<0.01
Yes	74 (70, 77)	80 (76, 84)	3.79 (2.25, 6.37)		
Believe MUH owners can legally adopt policies that prohibit smoking, including in all residential units					
No	45 (41, 49)	57 (50, 64)	<0.01	1.00	<0.01
Yes	55 (51, 59)	80 (76, 85)	2.35 (1.45, 3.81)		
Survey mode					
Paper	34 (31, 38)	58 (52, 65)	<0.01	1.00	<0.01
Phone	66 (62, 69)	83 (79, 87)	3.03 (1.85, 4.98)		

AOR adjusted odds ratio

Perceived benefits and challenges of implementing smoke-free residential unit policies are shown in Table 4. Among smoke-free unit owners, over half (58 %) reported that the most important benefit of prohibiting smoking was that it was healthier for tenants and the community. Over two thirds (68 %) of smoke-free owners included the policy in their tenants' leases, and most (82 %) enforced the policy through a clause in the lease, penalized violators with fines, or employed other enforcement methods. The vast majority of smoke-free owners (89 %) indicated that turnover rates remained the same following implementation of smoke-free rules. One in five smoke-free owners publicly advertised the policy, and almost all (91 %) found it very/somewhat easy to rent units in which smoking was prohibited.

Among owners lacking policies against smoking, tenant resistance or complaints (38 %) and legal risks (29 %) were top concerns about going smoke-free. Most owners without smoke-free units said that they were somewhat/very likely to designate smoke-free units in the future if studies showed that it would improve

TABLE 4 Experiences with and attitudes about smoke-free residential units among owners and managers of multiunit housing in NYC, 2012

	Percent	95 % CI
Any smoke-free residential unit policy (<i>n</i> =316)		
Single most important benefit of prohibiting smoking in any building/unit		
Healthier for tenants/community	58	(52, 63)
Fewer complaints from tenants	9	(6, 12)
Lowered maintenance costs	8	(5, 11)
Other ^a	20	(16, 25)
No benefit	5	(2, 7)
Policy prohibiting smoking in individual units is included in tenants' leases	68	(63, 74)
Enforce policy prohibiting smoking in individual units	82	(77, 86)
Enforce with clause in lease	58	(52, 65)
Enforce and penalize with fines	5	(2, 7)
Other	37	(31, 43)
Smoke-free policy led to complaints from tenants	7	(4, 10)
Tenant turnover in response to offering smoke-free buildings/units		
Increased	4	(1, 6)
Decreased	7	(4, 10)
Stayed the same	89	(86, 93)
Publicly advertise smoke-free units	20	(15, 24)
Ease or difficulty in renting units in which smoking is prohibited		
Very/somewhat easy	91	(88, 94)
Somewhat/very difficult	9	(6, 12)
Lacks smoke-free residential unit policy (<i>n</i> =653)		
Common concerns about prohibiting smoking in buildings/units		
Tenant resistance or complaints	38	(34, 41)
Legal risks	29	(25, 32)
Resources for enforcement	21	(18, 24)
Somewhat/very likely to designate smoke-free units in the future if:		
Studies showed improved health	81	(78, 84)
Studies showed high demand	65	(62, 69)
Other owners were implementing smoke-free policies	61	(57, 65)
Tenants requested it	61	(57, 65)
Insurance costs reduced	59	(55, 63)
Turnover costs reduced	53	(49, 57)

^aIncludes following response options: attracted a different type of tenant, lowered turnover costs, increased rental prices, and other

health (81 %). Over half of owners also reported that they were somewhat/very likely to designate smoke-free units if: studies show high demand (65 %), other apartment owners implemented it (61 %), tenants requested it (61 %), it reduced insurance rates (59 %), or it reduced turnover cost (53 %).

DISCUSSION

One-third of NYC building owners surveyed currently have smoke-free unit rules, and knowledge that MUH owners can legally adopt smoke-free policies was associated with having smoke-free rules. Other MUH owner studies have found combined smoke-free unit and/or building prevalence ranging from 26 to 54 %, putting NYC within the

range of smoke-free housing availability rates.^{14,27} Since the majority of NYC's housing is multiunit, most of the city's residents are at an elevated risk of SHS exposure at home compared to residents of single-family dwellings.^{19,20}

Among owners lacking smoke-free rules, interest in implementing rules was high at 73 %. Knowledge that owners have a legal right to prohibit smoking was independently associated with interest. With the exception of rent-stabilized apartments, which account for 45 % of the rental market in NYC and have special regulations on changing existing leases, managers and owners are permitted to create smoke-free rules in residential buildings.^{19,28} While local regulations must be considered before creating smoke-free rules, HUD supports inclusion of smoking limitations in leases.^{28,29} Public health agencies in urban areas can build on the efforts of previous education and awareness efforts targeting MUH operators and implement interventions and awareness efforts which include a strong focus on MUH owners' legal rights.^{18,30-33}

Only about half of owners without a smoke-free policy believed that owners could legally prohibit smoking in apartments. Results from the adjusted model found that, in addition to knowing that owners have the legal right to prohibit smoking, owners who believed that SHS poses a health issue for tenants were more likely to be interested in designating smoke-free buildings. However, as the knowledge about the health risks of SHS among owners without a policy is already high (74 %), concerns about legal risks should instead be the primary focus of outreach efforts. These concerns could be addressed by educating MUH owners about the legality of designating smoke-free buildings.

Overall, about one-third of owners reported having low-income units. Compared to owners with no low-income units, these owners were less likely to have a smoke-free unit policy or believe that owners can legally adopt smoke-free policies. Many government-subsidized housing authorities have implemented smoke-free policies, and studies have shown high MUH tenant preferences for smoke-free housing, including low-income tenants.^{9,34,34} At the time of writing, over 200 Public Housing Authorities in the USA have policies to prohibit smoking.³⁶ California, Minnesota, and Rhode Island are among the states with the largest numbers of smoke-free housing authorities, while in New York State, 11 counties have smoke-free Public Housing Authorities, including five that are 100 % smoke-free.³⁴ California, a longtime leader in the tobacco control movement, is the only state in which jurisdictions have required smoke-free MUH in both the market-rate and public housing sectors. Other states should consider a similar approach, as smoke-free MUH has proven health and economic benefits.^{3,14} The results from this survey could be particularly useful in terms of informing the development of additional smoke-free laws for both market-rate and public MUH in urban areas.

Consistent with previous surveys of MUH owners, no change in turnover rates or ease in renting units were reported among owners with smoke-free policies.^{27,34} Among NYC owners who lacked a smoke-free policy, about three quarters were interested in prohibiting smoking in all of their buildings or units, which is consistent with results from a study among MUH owners in New York State.⁹ While tenant resistance or complaints and legal risks were top concerns about going smoke-free, these concerns are not supported by the data: Owners reported minimal complaints (7 %) following implementation of smoke-free policies. These positive experiences could be beneficial in motivating owners to adopt smoke-free policies.

This study has a number of strengths and limitations. Strengths include the large sample of market-rate and low-income owners in an urban area. A limitation of this

study is the exclusion of duplexes and single-family attached units from our definition of MUH. The NYC housing market includes 60 % more two-unit residences than multiunit residences with three or more units. To ensure adequate representation of larger multiunit residences, we restricted the sample to buildings with three or more units. Additional limitations include possible non-response bias evidenced by a low response rate, also attributable to the mail survey study design and the use of administrative data used to contact owners, which commonly contains missing or incorrect information. Given the low-response rate, these results may also only be representative of the survey respondents and not NYC owners in general. Other surveys using landlord mail and phone surveys had better response rates, possibly due to having a smaller universe of owners or more complete contact information for owners.^{27,35} However, a 2012 NYC resident phone survey found that 33 % reported living in smoke-free buildings, aligning with these owner survey results (DOHMH, unpublished data, 2012). Residents do tend to over-report living in an owner-designated smoke-free building; thus, the prevalence may be overestimated.³⁵ Finally, these results may not be generalizable to other MUH markets given the unique urban environment of NYC. However, since more than half of owners had just one building and 65 % managed ten or fewer units, these data may be useful to inform outreach and educational efforts in smaller cities as well.

CONCLUSION

In conclusion, we found that knowledge of the legality of adopting smoke-free housing rules was associated with both having smoke-free unit rules and interest in implementing such rules in the future. While many MUH owners have already reduced tenant exposure and others show high levels of interest, education, and awareness efforts are still needed. Educating more owners on their legal rights could improve the adoption of smoke-free housing policies, particularly if the focus is on owners of large buildings and affordable housing. Countering the concerns of owners who have not yet adopted smoke-free rules with the positive experiences reported by those with current policies in place, particularly around legal and financial issues, could also improve adoption of smoke-free policies. Public health agencies involved in promoting smoke-free housing in urban areas can use these results to enhance existing educational and outreach efforts as well as to inform the development of new smoke-free MUH policies, both in market-rate and public housing sectors.

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