Reducing Tobacco Use in Assisted Living: Obstacles and Opportunities

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Objectives: This research examined state laws and regulations that restrict tobacco use in assisted living residences, challenges in preventing tobacco use on the premises, and effective strategies to help address these obstacles. **Methods:** Data were obtained from a 50-state survey of state laws and regulations restricting tobacco use in assisted living settings and from semi-structured interviews with assisted living experts in 6 states where smoke-free assisted living policies were required by state law or local governments and providers. **Results:** Few state smoke-free laws or licensing regulations require assisted living residences to be smoke-free. Most providers adopt and enforce smoke-free policies on their own. Assisted living providers face several challenges in enforcing smoke-free restrictions, including the high prevalence of staff smoking, lack of affordable cessation aids, wide variability in staff training on nicotine addiction, and limited capacity to monitor smoking residents. **Conclusions:** Assisted living providers, state and local governments, and public housing authorities can reduce tobacco addiction and secondhand smoke exposure in assisted living settings by promoting staff cessation, prohibiting staff smoking with residents, providing tobacco cessation training and resources, encouraging integrated systems health care approaches, and increasing insurance coverage for cessation.

Key words: assisted living; adult foster care; smoking; regulation
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Driven by demographics and consumer preference, assisted living has emerged as a significant long-term housing option for at least 733,300 older Americans and those coping with a range of physical and cognitive disabilities and mental illnesses.[1] Despite devastating evidence of the high toll of tobacco-related disease on vulnerable populations – particularly those with behavioral health disorders[2] – assisted living settings are typically exempted from state smoke-free laws and clean indoor air acts. Although many assisted living providers adopt their own smoke-free or tobacco-free requirements, which are generally self-enforced, most state licensing regulations for assisted living (including adult foster care) settings do not require smoke-free premises. Little research has been done on the regulatory obstacles providers face in implementing tobacco control measures or on policies to reduce the adverse impact of tobacco use and secondhand smoke exposure on both residents and staff in assisted living environments.

Assisted living residences in most states also serve adults who suffer from some functional incapacity, including mental illness. Smoking among those with mental health disorders is a major and long-neglected tobacco disparities issue.[3] More than 1 in 3 (36%) adults with mental health disorders smoke cigarettes, compared to one in 5 adults (21%) in the general population.[4] There is a compelling need to understand the living environment that either promotes or discourages tobacco use by these vulnerable people.

Because no applicable federal statutes cover assisted living settings, states define their residential programs and services in a variety of ways.[1,5] Adding to the confusion is the broad range of licensing or certification categories among and within states, with some states using terms in a general sense, and others using them as new licensure categories. In this study, the term "assisted living" refers to residential

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assistance that provides mentally or physically impaired, elderly, or ailing adults around-the-clock support, including food, lodging, supervision, and household services. The term includes "adult foster care" − a type of assisted living generally provided in a private residence where either the owner or a paid caregiver lives with residents who receive personal care and other supportive services. The term "provider" refers to the administrative entity responsible for managing care in assisted living residences and facilities.

This study addresses 2 research questions: (1) What are the most significant challenges in adopting and implementing smoke-free policies in assisted living residences; and (2) What are the most effective strategies to help address these challenges? To address these questions, we examined state laws and regulations that restrict tobacco use in assisted living residences and interviewed assisted living experts about their experiences implementing and enforcing smoke-free policies in these settings.

METHODS

The research design was primarily analytic and descriptive, consisting of: (1) a 50-state mapping study of smoke-free laws and regulations in assisted living residences adopted at the state level; and (2) a series of qualitative semi-structured key informant interviews with assisted living experts in 6 geographically diverse states. We conducted the 50-state survey to determine the extent to which state law plays a role in the regulatory landscape of smoke-free policies in assisted living residences. We conducted the interviews: (1) to gain in-depth information from experts in the field about challenges in adopting, implementing, and enforcing smoke-free measures in assisted living settings; (2) to learn of tobacco cessation services or resources provided to residents and staff; and (3) to solicit insights from these assisted living experts on the most effective ways to address tobacco use among this vulnerable population.

State Mapping Survey

One senior research attorney and 2 legal research assistants conducted the state mapping survey, searching online search engines on state government websites to compile relevant news and journal articles, commentary, and other background information on assisted living residences across the United States (US). Using legal databases such as WestLaw and Lexis Nexis, as well as online and print information resources, we conducted a 50-state search of all relevant statutes and state-level regulations, administrative rules, policies, and procedures regulating tobacco use in each state's assisted living and related adult foster care settings. Search terms included "adult foster care" and "assisted living" (and variants, given jurisdiction-specific terminology), as well as "smoking" and "tobacco." Often tobacco-related rules, regulations, and policies for these settings were buried in administrative codes or manuals not readily accessible on government websites. Laws and policies compiled were all in effect as of January 1, 2016.

Researchers then categorized and analyzed state-level tobacco-related laws, rules, and policies for each state's assisted living residences. They collected the following information: state definitions of "assisted living residence" and/or "adult foster care"; whether smoking was prohibited in assisted living residences under a state smoke-free / clean indoor air law or other statewide requirement; the administrative body regulating assisted living residences; and additional useful data. The result provided a landscape view of the prevalence of smoke-free policies and, to a lesser extent, tobacco cessation interventions at the state level in assisted living settings.

Key Informant Interviews

The state mapping survey identified at least 7 states where smoke-free assisted living residence policies were required by state law (Massachusetts, Michigan, and Montana) or more generally adopted by local governments or independent providers (Alaska, Minnesota, New Jersey, and Oregon) (Table 1). An advisory panel of 6 experts in tobacco control and assisted living provided input about prospective key informants in 6 of these designated states. Using a purposeful snowball sampling plan, researchers obtained referrals from informants and other experts, and identified a total of 12 individuals knowledgeable about tobacco policies in assisted living and adult foster care settings in these 6 states, and with first-hand experience in the implementation of these policies (1 from Montana; 2 each from Alaska, Minnesota, New Jersey, and Oregon; and 3

Table 1
Examples of State Smoke-free Laws that Include Assisted Living/Adult Foster Care Residences

State	State Smoke-free Law	Notes
Massachusetts	State law prohibits smoking in all indoor areas of workplaces. Workplace is defined as an indoor area, structure or facility or a portion thereof, at which one or more employees perform a service for compensation for the employer. "Assisted living" or "adult foster" homes" are not included in the definition of "lodging homes" or "residences," which are exempted from the smoke-free law. Mass. Gen. Laws Ch. 270, § 22 (2004).	The state's assisted living consumer guide recommends that consumers review their Residency Agreements and possible rules that might make prospective residents uncomfortable, such as restrictions on smoking in their room, in designated areas, or not at all. Commonwealth of Massachusetts Executive Office of Elder Affairs, Assisted Living in Massachusetts: A Consumer's Guide
Michigan	Smoking is prohibited in public places, the definition of which includes *state and local government owned or operated or privately owned or operated homes for the aged*, nursing homes, county medical care facilities, hospices and hospital long-term care units. Smoking is also prohibited in places of employment defined as an enclosed indoor area that contains one or more work areas for one or more persons employed by a public or private employer. (Emphasis added.) Mich. Comp. Laws §§ 333.12601 to 333.12615 (2010).	The Michigan Attorney General concluded that the state prohibits smoking inside homes for the aged and inside adult foster care homes when staff is employed within the facility. Memo from Adult Foster Care and Home for the Aged Licensing Bureau of Children and Adult Licensing to Adult Foster Care and home for the Aged Licensing Staff (April 30, 2010) (summarizing Michigan Attorney General opinion).
Montana	Smoking is prohibited in all enclosed public places, which includes home-based health care facilities. Smoking is not allowed in private residences that are licensed and used as a family day-care home, group day-care home, *adult foster care home* or a health care facility. (Emphasis added.) Mont. Code Ann. §§ 50-40-101 et seq. (2011).	The state licenses *assisted living facilities* for frail, elderly or disabled persons and provides supportive health and service coordination to maintain their privacy, independence, individuality, and dignity. The state also licenses *adult foster homes*, which are private homes that offer light personal care, custodial care and supervision to aged or disabled adults who require assistance in meeting their basic needs.

from Michigan). The key informants were all experienced in working with vulnerable adults – specifically those with behavioral health disorders and intellectual and physical disabilities. Informants included social service workers and administrators, licensors, compliance officers, attorneys, and case managers. Most had more than 10 years of experience in adult foster care and assisted living and one individual (a state manager) had played a key role in the regulation, inspection, and investigation of adult foster care homes in Michigan for 40 years. These diverse key informant experiences provided a range of perspectives on tobacco addiction among this population, including views of those who had personal, as well as professional, experiences with tobacco use and assisted living.

The 12 interviews, conducted between November 2014 and December 2015, were semi-structured and ranged from 30 to 60 minutes. Eleven were by phone, one was in person, and all were tape-recorded. Most interviews were one-on-one, although one follow-up interview resulted in a conference call with 6 members of a mental health and case management services group that was in the process of transitioning into integrated primary care and was formulating tobacco-related policies and procedures for assisted living residences. (This follow-up interview was in addition to the initial 12 interviews and was arranged by that state's interviewees to enable us to obtain additional perspectives on tobacco use in assisted living facilities in their jurisdiction.) In each interview, researchers

Table 2
Questions Asked in Open-ended Key Informant Interviews

Describe your job and experience working in assisted living/adult foster care.
How do assisted living/adult foster care residences regulate tobacco use in your state?
How prevalent is smoking among residents / staff at your facilities?
Could you give me some background about the smoke-free policy?
When did it take effect? Who promoted it?
Was there initially much resistance to the policy? What concerns were raised? By whom? How were these concerns addressed?
How is the smoke-free policy regulated and enforced? What are the penalties for violations?
Are any tobacco cessation services, resources or referrals provided for residents? Staff?
How do residents typically procure tobacco products?
Do many residents use e-cigarettes or similar nicotine-delivery devices? Staff?
If smoking is allowed in outdoor premises, have any problems arisen as a result? What are they?
Have residents and staff complied with the policy in general? If not, what problems have occurred? How have they been addressed?
What are the critical barriers to adopting, implementing and enforcing smoke-free policies in assisted living settings in your state?
What are the most effective interventions or approaches to reduce exposure to secondhand smoke and tobacco use in assisted living residences in your state?
What advice would you give to a jurisdiction or facility considering adopting a smoke-free assisted living policy?

used a protocol of open-ended questions to solicit background information about the jurisdiction's assisted living/adult foster care services, enforcement agency, and tobacco- or smoke-free policy; prevalence of smoking among staff and residents (to the best of informant's knowledge); obstacles to adopting a policy that prohibited tobacco use on the premises and barriers to providing cessation resources or information; and finally, lessons the informant may have learned about the most effective methods of implementing tobacco control measures in these settings (Table 2).

All interviews were transcribed. Two reviewers (the senior researcher and a legal research assistant) read all transcripts independently to identify challenges, regulatory experiences, lessons learned, and recommendations from each informant. Initially, challenges were identified based on those frequently cited by informants. The reviewers then met to discuss and reach consensus regarding challenges and recommendations. This included sorting each challenge into one of 3 categories (most significant, somewhat significant, and least significant) based on the impact they purportedly had on the ability of assisted living residences in various jurisdictions to transition smoothly to a smoke-free environment. This last category, least significant, included anticipated challenges that were not borne out by experience. This categorizing process was necessary to ensure that identified challenges reflected importance rather than only the frequency with which informants mentioned the challenges (Table 3). Next the 2 reviewers discussed and came to a consensus regarding recommendations. The senior researcher then synthesized data to compare and contrast lessons learned, based on regulatory experiences, and to identify recommendations that informants most often flagged as promising policy options for reducing tobacco use and secondhand smoke exposure in assisted living settings.

RESULTS

Because jurisdictions vary so widely in the terms they use to describe assisted living arrangements, the populations they serve, services they provide, and ways they are regulated, certified or licensed, our 50-state survey was restricted to smoke-free laws and regulations at the state level only. Our research revealed that only a few states regulate smoking in assisted living residences. Smoke-free laws or clean indoor air acts in 3 states (Massachusetts,[6] Michi-

Table 3
Challenges in Enforcing Smoke-free Assisted Living Residence Policies Identified in Interviews with Assisted Living Experts (N12) in 6 States

Most significant challenges
Cultural norm of tobacco use, including the high prevalence of staff smoking
Lack of access to free or affordable cessation treatment, including cessation medication
Moderately significant challenges
Inadequate staff training on health risks of tobacco use, nicotine addiction and cessation treatment
Low priority issue for staff/administration & social service providers
Staff resistance
Limited capacity to monitor smoking residents
Least significant challenges
Initial resident resistance
Inconsistent or inequitable enforcement
Confusion regarding use of e-cigarettes and similar nicotine-delivery devices
Uncertainty regarding boundaries of designated smoking areas

gan,[7] and Montana[8]) specifically prohibit smoking in assisted living/adult foster care residences (Table 1). In at least 5 states (Hawaii, Illinois, Iowa, North Carolina, and Oregon), the smoke-free law can be interpreted broadly as applying to these settings, given state definitions of workplace or public place environments.[5] Most state smoke-free laws exempt private residences from "workplace" or "public place" smoke-free requirements; typically, "private residences" include "assisted living" and "adult foster care" settings. Although only a handful of states include these settings in their smoke-free laws, many local providers adopt their own smoke-free or tobacco-free requirements, which they enforce on their own.

Our state mapping survey provided us with basic information about smoke-free regulatory policies in assisted living residences at the state level that helped inform our interviews with assisted living experts. A compilation of these policies, along with links to the relevant laws and regulations, is available online.[5] Our main finding from this background research was an appreciation of the wide variability of assisted living residences and facilities in the US and the limited role the state plays in regulating tobacco use in these environments.

Our interviews with key informants in 6 states that restrict smoking in assisted living residences identified numerous challenges in, and suggested recommendations for, adopting and implementing tobacco control measures in these settings. Although the challenges and recommendations varied among informants in different jurisdictions, researchers found no important differences between informants located in states with state smoke-free laws that covered assisted living residences (Michigan and Montana) and informants located in states with local or provider smoke-free regulations (Alaska, Minnesota, New Jersey, and Oregon).

Most Significant Challenges

Two challenges were identified as most significant. First, we identified a need to address the permissive culture of tobacco use in assisted living homes and facilities, including the high rates of tobacco use by staff. All 12 informants estimated that at least one-third of their assisted living staff (attendants, caregivers, other direct care employees, and administrators) smoked, regardless of whether smoke-free policies were in place. Informants pointed out that both residents and staff use smoking when socializing with each other and as a common way to deal with stress, anxiety, and boredom, and that some residents report using tobacco products to deal with medication side effects.

Several informants described settings where staff commonly take smoke breaks with residents – at the same time and in the same location. One informant painted a grim picture of these settings:

"A larger number of the staff smoke than the residents, honestly. You always see staff out there smoking but sometimes there are no clients.…"

Informants also reported situations where staff either buy tobacco products for residents or drive residents to stores where they can purchase tobacco products. Comments from a social worker reveal guilt at the complicity involved:

"We know this isn't good for clients. Here we are coming around, giving them a cigarette every hour on the hour, and we think we're doing them a service by rationing them so they don't smoke them all at once, but it's not a service, because we're supporting a habit, and then we see how sick they are, coughing and hacking, and the only time they go indoors is when they need a break from smoking. It's all backwards."

Staff that reside in the same building as residents frequently smoke in their rooms when they are off-duty. In one state, adult foster care providers expressed strong concern that adopting a smoke-free policy would pose more of a challenge for the staff than it would for the residents. Employees on extended 24-hour shifts who could not smoke within the premises would regularly go outside to smoke and would return to the residence smelling of tobacco smoke, which would frustrate residents who wanted to smoke and were unable to leave the premises.

Informants had a variety of reactions to a tolerant culture that many saw as a systemic problem. One administrator put it this way:

"We have this attitude that we shouldn't have to ask the smokers to go outside and smoke in the rain, because that's just mean. Because we just think our weather is so terrible and so much worse than anyplace else.…Basically, [our attitude is that] the most vulnerable adults should have the right to smoke and we need to protect that right to take care of them.…It's this crazy attitude that, what will those poor people do if they can't get outside far enough away from the doorway, or if they're so sick, they can't go somewhere where it's allowed? It's not fair to them."

The second significant challenge was limited access to affordable cessation treatment, resources, or referrals. One informant expressed repeated frustration at the cost issue – a concern many informants shared:

"We can pay for some very initial use, but it's expensive on a daily basis for a lot of people, and then we need to get people paying for it themselves with the money they would have used buying cigarettes.… We need to figure out a plan upfront for how to make these smoking cessation tools (nicotine gum, whatever) affordable and available.…I'd think that a Medicaid agency or a state public health agency through some grant or something could find money to cover those items as a Medicaid cost or provide them through some public health entity, to make this as easy as possible for people who are willing to quit smoking to do that."

Moderately Significant Challenges

Several moderately significant challenges also were identified. Informants often reported that smoke-free requirements posed additional obligations on assisted living providers, many of whom were short of funding and qualified staff. Inadequate, inconsistent or, at times, nonexistent tobacco cessation training for provider staff and residents was flagged as a drawback to effective implementation of smoke-free policies.

"[There's] a wide variation in the level of sophistication, staff training, and staff levels. A group of homes might be owned by a relatively prosperous corporate or nonprofit organization so there's a core of support training from this corporate/non-profit entity, while others might be just a single, stand-alone mom and pop operation, with just not the same level of sophistication or resources or staffing to deal with these changes. So I think that's a big challenge – just the wide variety."

Some informants acknowledged that smoking is a relatively low priority issue for the staff and other service providers in their facilities:

"[These] ADF (adult foster care) homes are inspected…but those visits aren't frequent at all,

probably once every 2 years, unless there's a complaint. They do a good job, but there's not much oversight or frequency of drop-in visits to see that any of the policies, let alone smoking policies, are being consistently followed. Big challenge."

Also, informants mentioned that some providers might be lax in rigorously enforcing policies that required them to monitor residents who smoke, to escort them outside to smoke, and to ensure that resident elopements (unauthorized departures) do not occur when staff are preoccupied. Others expressed concern about the logistics of overseeing smoking residents:

"The practical issue is that if you're a provider and you have one resident who wants to go so many feet from the residence to smoke and that person needs assistance lighting the cigarette or supervising it so they don't drop it on their lap, how is the staff person outside, maybe 100 feet from the door, overseeing the other residents – 2, 3, 4 others – leaving them unattended inside? Those were the types of health and safety issues we worked very hard on, making sure we didn't compromise the health and safety of anyone in the home. And providers sometimes needed to add staff or figure out how to balance things."

One informant mentioned that, rather than assuming the responsibility of hiring additional staff to escort disabled smokers outside and monitor their safety, some providers in her state simply adopted comprehensive tobacco-free policies that covered outdoor grounds.

In addition, some providers worried that enabling residents who are old and frail, and may use walkers, wheelchairs, and oxygen tanks, to take regular smoke breaks outside – often at night and in inclement weather – might increase the likelihood of accidents, for which the provider would be legally liable. One informant spoke with feeling of the dilemma that staff often face in balancing public safety with personal autonomy when it came to resident smoking:

"We've had fires related to smoking by residents… horrific incidents. This is a big concern. We need to uphold their rights as adults to make some decisions but at the same time, other residents have the right not to be caught in a fire."

Least Significant Challenges

In the interviews, informants indicated that a few challenges, while present, ended up posing little to no impediment to the implementation of smoke-free assisted living residence policies, especially when steps were taken to address them. For example, initial concerns about adopting a smoke-free policy included anticipated resistance by residents and the strain on staff resources to oversee (or "police") compliance. Informants stated that most of these preliminary concerns did not impede eventual compliance with the policy. They reported that once a policy took effect, the administration generally established staffing assignments to address logistical issues and to ensure, for example, when and how physically impaired or mentally challenged smoking residents were escorted outside. In general, informants claimed that residents appeared to adapt well to indoor smoke-free policies, providing the policy was disclosed and discussed openly beforehand, and residents had sufficient time to prepare for and adjust to the transition. The occasional residents who repeatedly violated a smoke-free policy were reprimanded, as were staff members, but no informant reported further sanctions or disciplinary actions, such as resident evictions or staff terminations. Moreover, no informants reported instances in which licensed providers that violated the policy were sanctioned for noncompliance. When occasional confusion over smoke-free boundaries arose (such as whether garages or outdoor "smoking sheds" fell within the smoke-free purview), policy definitions were clarified and communicated to the staff and residents.

Several informants mentioned that residents with mental illness or other disabilities often face special challenges in quitting smoking and need counseling, as well as access to a combination of nicotine reduction therapies, many of which were not readily available. In this context, one manager spoke of the inadvertent role that visitors play in undermining cessation efforts and the sense of loss felt by many assisted living residents – especially those with mental illness.

"Sometimes family members will bring cigarettes to them as a reward because they believe it mitigates aggressive symptoms. They're actually sabotaging the person, but it's very, very difficult to set their own behavior. It's very difficult. Then there's the hopelessness of so many people with mental illness. So many things have been taken away from them; it's like their last vestige of control. They honestly feel like, yeah, sure I might get cancer, but that's the least of my problems right now. I gotta find a home. I gotta get a job. I gotta get my kids back. It falls to the bottom of the priority list."

In one state, the transition to a smoke-free environment caused initial anxiety among many of the residents who smoke – particularly those who had behavioral health issues – because the administration had not had enough time to prepare residents and staff adequately for the change. A case manager described the unintended consequences such abrupt policy shifts have had on the residents:

"We do see situations when there are restrictions or a total ban on smoking and unrealistic expectations that a person in an adult foster care situation will suddenly magically stop smoking and there won't be repercussions.... Where people have been aggressive and lashing out with behaviors and they may end up in some abuse situation, where they either have an altercation with a staff member or another resident and might end up with a stay in a psych unit in an attempt to mitigate their behavior. The whole thing is very predictable. It could have been handled in a more person-centered way.... The control and command approach is responsible for a lot of these secondary problems."

Informants were unaware of any smoke-free requirement adversely impacting the recruitment and retention of assisted living staff, residents, or home providers. In only one of the jurisdictions we studied was any impact on provider retention noted following the announcement of a smoke-free policy. A few private adult foster care homes chose to leave the program around that time, but the smoke-free requirement was only one of several reasons they gave for their decision to pull out of the program. In addition, 3 informants stressed that providers who adopt smoke-free policies need to be able to strike a balance between providing residents a relative degree of independence and staff a relative degree of autonomy, and in protecting the right of cohabitants, employees, and assisted living providers not to be exposed to secondhand smoke.

Recommendations

Informants offered several recommendations for states, local community leaders, and providers considering adopting a smoke- or tobacco-free requirement for assisted living residences. First, state and local community leaders might want to collaborate with mental health, primary care, and social service providers in integrating tobacco cessation treatment into assisted living programs. They might also consider promoting comprehensive insurance coverage for cessation treatment and taking other measures to make nicotine reduction therapy products and services available and easily affordable for both residents and staff.

Second, it might be politically feasible to expand smoke-free laws to cover assisted living or residential care homes or facilities. However, opening these laws to amendment could backfire as well, and potentially weaken them. Moreover, definitions of assisted living settings vary from state to state, and often within each state, as do their regulatory agents, making this type of amendment difficult and challenging to enact. A more feasible option for state leaders might be to consider smoke- (or tobacco-) free licensing requirements for assisted living providers.

Third, informants offered several recommendations for assisted living providers considering adopting a smoke- (tobacco-) free regulation on their premises. Providers should plan carefully and allow sufficient time before rolling out any policy, anticipate likely reactions of residents and staff, and be prepared to address their concerns and needs. Policies should be disclosed in preadmission screening, house rules and regulations, employee interviews, and policy manuals. Moreover, each resident's tobacco addiction should be included in individual case plans, so measures can be taken to assist with cessation, if possible. Providers should conduct staff training so employees are familiar with the public health rationale for the regulation and the nicotine treatment process, and if possible,

providers should consider providing tobacco cessation assistance to their staff as a job-related service, and make cessation resources and referral information available to residents. Also, providers should ensure that all residents, staff, and visitors comply with tobacco use policies, and that the policies are enforced fairly and equitably. Several informants mentioned the importance of No Smoking or Tobacco-Free signage posted conspicuously throughout the premises.

Other less common recommendations included public safety measures, such as the use of "fire aprons" for cognitively or otherwise impaired smokers, smoke detectors that could not be easily disabled, non-combustible ashtrays, precautions regarding the use of lighters, matches, and tobacco products in the vicinity of oxygen tanks, and additional fire safety training for staff. Informants did not propose more comprehensive measures such as requiring separate outdoor smoking areas for staff and employees or hiring only non-smoking employees. Given the national shortage and high annual turnover of assisted living staff, some informants may have believed that such restrictive measures might affect staff recruitment or retention.[9] No informants, however, expressed such a concern in our interviews.

DISCUSSION

Despite growing recognition of the need to address health disparities in the behavioral health population, research has tended to focus on patients in mental health facilities and similar institutional environments. Moreover, as our 50-state survey revealed, most state smoke-free laws do not include residential care facilities. Our study focused on barriers to, and considerations for, adopting tobacco control measures in these settings (assisted living, including adult foster homes), where a large number of vulnerable individuals, many of whom struggle with behavioral health issues and other disabilities, smoke or are exposed to secondhand smoke from fellow residents, support staff, and caregivers.

Although the key informants in the 6 states examined had diverse occupations in a variety of assisted living settings, they identified many of the same regulatory and administrative obstacles to tobacco control measures for residents and staff. Informant recommendations varied, although one striking similarity emerged. All 12 informants expressed concern about the high prevalence of staff smoking and acknowledged the need to motivate staff to quit tobacco use – particularly in settings with residents.

Our study has several limitations. First, in our 50-state survey, because of the variability among assisted living residences throughout the US, we relied on definitions of "adult foster care" and "assisted living" found in online state statutes or administrative rules. As a result, given the broad spectrum of assisted living residences across the US, we might have missed off-line legislation that could have been uncovered had a more comprehensive survey been conducted. Second, in our interviews, we targeted key informants in only 6 states, a small and select sample size that could potentially affect the generalizability of the study findings. A third drawback was our inability to identify any robust data on the prevalence of smoking in these residences, either before or after a smoke-free policy was adopted. This deficit in the literature should be addressed in future research. Such quantitative information, were it available, would have helped inform our findings. Nevertheless, our interviews suggest high rates of smoking by patients and staff in assisted living residences in these 6 states.

IMPLICATIONS FOR TOBACCO REGULATION

This study highlights the pervasive tobacco use by a long-overlooked vulnerable population – residents in assisted living – and the parallel existence of their nicotine co-dependent caregivers and attendants. At a time of rapid growth in smoke- and tobacco-free environments, including public places, workplaces, multi-unit apartment buildings, and affordable housing, state and local governments cannot overlook assisted living settings – another rapidly growing environment – where many of the most vulnerable members of society live and where a disproportionate number of nicotine-dependent residents (and staff) will end up suffering and dying due to tobacco-related illnesses.

Rapidly emerging issues today, such as the proliferation of e-cigarettes and the spread of legalized marijuana (both medicinal and recreational), are causing assisted living providers anxiety, even

as they struggle to reduce the smoking of combustible cigarettes. Another significant development will affect numerous assisted living residents who reside in public housing. On February 3, 2017, the US Department of Housing and Urban Development's (HUD) smoke-free rule took effect. Under the HUD rule, after an 18-month lead-in period, more than 3100 public housing agencies across the US will prohibit lit tobacco products in all living units, indoor common areas, administrative offices, and outdoor areas within 25 feet of housing and administrative office buildings.[10] As a result, many assisted living residents in HUD housing will be legally required to adapt to a smoke-free environment by July 30, 2018. By pooling expertise and experience, local and national tobacco control partners, cessation experts, social service agencies, behavioral health professionals, and housing authorities can help ease the transition to smoke-free living for a vulnerable population whose health for years has been affected disproportionately by tobacco addiction.

Human Subjects Statement

This work was exempt from review of human subjects.

Conflict of Interest Statement

The author has no conflict to disclose.

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