

SUPPLEMENTAL MATERIAL

When Hotel Guests Complain about Tobacco, Electronic Cigarettes and Cannabis: Lessons for Implementing Smoking Bans

Table S1: Tobacco, electronic cigarette, and cannabis (TEC) search terms

Smoking terms	smoke, smoking, smoky, smokey, cigarette, nicotine, tobacco, pipe, fumes, hookah, ash, ashtray, vape, vaping, odor, marijuana, pot, joint, weed, ganja, cig, butts, cigarette, Cigarette, cigarete, smokers, cigar, cannabis, canabis, canabbis
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Table S2: Examples of TripAdvisor Guest Reviews

Secondhand Smoke

- This hotel is extremely clean, the only issue we had was our non smoking room (on a non smoking floor) had cigarette smoke coming through the bathroom vent when someone in another room smoked. Even though I reported the issue twice the staff did not correct the problem or even ask us about it.
- Also a nonsmoking motel. The room next to ours were a bunch of guys with lawn chairs smoking and drinking outside their room. The air conditioner from our room brought the smell of cigarettes into our room. We're supposed to stay another night but I'm thinking not. THE WORST traveling experience we've had in a long long time!
- There was a convention the weekend we were there and at any given time there were 50 to 100 smokers standing at the front entrance smoking. We complained numerous times to management about the haze we had to walk through to get into the hotel and were told "there is nothing they could do." Talked to security about the smoking issue and they told us it wasn't their responsibility.
- Really, the only issue that I had with staying at this hotel was the smoking. The area to smoke is right outside the entryway and there was no way to go into or out of the hotel without smelling the smoke.
- The lobby was neat and clean, however, the smoking area was too close to the entrances and smoke lingered in the hallways and in the elevator.
- Someone around me smoking (believe it is a smoke free property) but smoke smell engulfed by room and bathroom. Time to look for a new place.
- The hall of rooms where we were staying were supposed to be "smoke-free". They reeked of smoke from various parties going on.
- Nice outdoor seating area with fireplace off the lobby bar. The area is supposed to be non-smoking but cigar smokers are welcomed and served. We enjoyed being outside when no cigars.
- Other guests were smoking in their rooms so we had to sleep and wake to thick cigarette smell. One of the dirtiest hotels I've ever seen. I reported the cigarettes to the front desk and they said they were too short handed to do anything about it.
- We did run into an issue with our neighbour partying and smoking (non-smoking hotel). We mentioned it to the Front Desk clerk who did nothing about it. Our asthma was very bad by morning.
- Staff was aware of smoker in adjoining room and had done nothing to correct the problem, causing my family to become ill due to cigarette smoke in ventilation system. When bringing problem to their attention, they stated, "We know there's a gentleman whose been smoking up there. We'll have to talk to him about it again."

- I was in a “non-smoking” room, but I got just as much smoke odor from the surrounding smoking rooms. I was at end of hall with at least 5 smoking rooms beside and across hall. Hallways had strong smell of cigarette odor. Tried to put towels at bottom of room door. But didn’t help. Each time the bathroom exhaust fan, it would bring in more smoke odor. Area below the attic hatch had strong smoke odor. All of my clothes are contaminated with cigarette odor. Informed front desk of smoke odor, all they could do was to spray an odor control, but that was only temporary because the smoke odor kept coming back.
- Our room was a connected room but we didn’t know the people on the other side of the door, those people decided that smoking in their room was acceptable and apparently the Dearborn Inn thinks smoking in a non smoking room is ok too! We came back to our room after a long day at the conference and our room reeked of cigarette smoke, it was almost hazy. We could tell it was coming from our next door neighbors room because we could smell it strongly under the door between the rooms. We called the desk to report the problem, and they reported they would be right over to check that out. 30 or so minutes later we got a call that they would be sending someone over soon. By that time the smoke had cleared a bit because we had opened the window. We heard nothing about what they were doing or had done after that phone call. Later on in the evening after we had got back from dinner, the room once again started smelling very strongly like smoke and started getting hazy. Once again we called the desk, we were told that they had checked on the problem before and found nothing, but they would send someone over again. The smell was so bad that we both started coughing and our eyes were watering. Aprox. 10 min later we noticed a security person walk past our room and then walk away. We opened the door to ask her to come inside but she never came back by. Nothing more was done they never knocked on their door, called their room NOTHING!! So apparently If you’re a smoker, and you stay here, go right ahead and smoke in your room, they don’t have any problems with that. No apologies were given, nothing. For this very fact I will not be staying here ever again, and will not recommend anyone saying here. If they let people smoke in their non smoking rooms, what else do they let people do here? They apparently don’t care much about their hotel, or their customers.

Thirdhand Smoke

- Upon entering our room, we were overwhelmed with the smell of smoke. The front desk offered us a deodorizer. We were forced to buy an air purifier just to make it through the night. All kids woke up with a sore throat. We will never stay there again.
- Walked into our “non-smoking” room and the place REEKED of smoke! Big fail. Unfortunately it was after midnight and no other rooms available. Place is decent but non smoking is supposed to be non smoking. We are stuck for the night in a room that stinks.
- I reserved a NON Smoking room on the 4th floor. As soon as I got off the elevator, the nauseating odor of stale smoke hit me. I checked out my room, which had a non smoking symbol on the door. The inside of the room smelled like stale cigarette smoke.
- Smells like smoke in the hallways from people smoking in the rooms despite being smoke free.
- The non-smoking section is a joke. The bed, sheets, furniture and curtains had a strong smoke odor. When I complained they said take it or leave it .
- Even though the hotel is smoke free our room had a strong tobacco remnant smoke smell.
- ‘After walking down the hall, we arrived at our room. We walked in and were overwhelmed with the smell of cigarette smoke. I honestly couldn’t tell you much more about the room as I started to be unable to breathe and had to leave. I returned to the front desk to find Rod once again at a table in back on the computer. I told him how bad the room was and we had to change rooms. He apologized and claimed that the hotel was smoke free.
- The staff were friendly and efficient and the room was a good size but noticeably smelled of stale smoke. We had booked a non-smoking room. Because the hotel was fully booked we could not change. They offered to “fix” it which meant adding a Fabreeze type deodorizer, twice, to cover up the cigarette smell but, of course, that just made the room smell of perfumed smoke.

- We pre-booked the room, non smoking of course, and upon our arrival we were told that the hotel is so booked we had to be put on a smoking floor, however our room was non smoking. I went to check the room and it absolutely REEKED of smoke. When I went back down to the front desk, I told her there was no way I could sleep with that rancid smell with my family and two small children. There was no apology whatsoever. The only thing they could do was use an ionizer to try to remove the smell. After waiting an hour in the lobby with all of our luggage, tired and hungry, no offer of any food or drink while we wait... We got to the room finally only to find another rancid smell of whatever the ionizer did
- I am allergic to smoke and the entire place reaked of it. Every single guest area on the first level except the lobby smelled like old smoke. I have to admit that the guest room itself did not smell of smoke but the hallway outside, even though it was clearly labeled non smoking, did.
- We had two “deluxe”rooms. One extraordinarily small. The other spacious but smelled strongly of smoke. We reported the smoke smell but staff seemed unmoved. The hotel is nonsmoking but a prior guest apparently violated the rules.
- Sent an employee up to stay at their hotel and they are supposed to be “smoke free” and the rooms smelled so bad the employee had to drive back and forth (2 hours each way twice) to his training because they were not smoke free and he could not breathe it was so bad.
- And the room had the smell like grandma must have smoked a few packs of Marlboro’s a day. It’s the kind of smoker’s smell that you can only get rid of if you tore the room down to its studs and started completely over again.
- hotel has signage stating NO SMOKING, but our first room assignment had STRONG smoke smell and very strong animal smell. They attempted to mask odors with very strong chemical smell.
- Never mind the fact that it’s supposed to be a non smoking room and it reeked of cigarette smoke. There were cigarette burns on all of the surfaces and blankets.
- Now the negatives - you get what you pay for. The room smelled of smoke from the minute we walked in, even though it was supposed to be non-smoking. We told the night front desk girl and she didn’t seem surprised. The carpet was dirty. The towels were stained. The bed sheet had a cigarette burn in it.
- Room: when reserving a non-smoking room, you expect a non-smoking room. Plain and simple. In fact, the entire hotel smelled of cigarettes. Honestly, would be better off making it a smoking only hotel. Needless to say, I booked a 3 night stay and could only bare 1 night. Checked out early and got a room at the Radisson down the street.
- I was offered the one non-smoking room they had left for a slightly higher price. I had little choice so I took it. It had ashtrays and reeked of cigarette smoke. I had to leave the loud heater on all night and keep a window open to make it tolerable. I tried to call the front desk and the phone didn’t work.

Cannabis

- The room was somewhat clean. The entire second floor smelled of marijuana (retired cop, I know what it smells like) the entire floor was no smoking. The shower was moldy, the hot tub water was gross and the carpets were very dirty. I am not sure I would ever stay again. I have called to voice my complaints and so far no one with authority has bothered to call me back.
- The room, halls, elevator and lobby are filthy and, in my opinion, disgusting! Our room is on a non-smoking floor, the minute we stepped off the elevator we were accosted by the smell of marijuana. Last night the smell was only in the hall, today it has seeped into our room also.... I knew the hotel wasn't 5 star but how it earned 1 let alone 2 I am astounded.
- The front desk clerk Andrea lied to us about the rate. Then she never told us that there really was only stairs to the 2nd floor. Upon getting to the second floor there were beer bottles, and prescription pills along with the overwhelming smell of marijuana. It was an awful experience. I tried to talk to the general manager about it and he told me it was my problem. I will never stay with them again.
- Very rarely do I give a bad review. But hopefully someone won't make the mistake we made until they improve. It says Wyndham property. Wow if it is... very dirty, mildew, everything old, service was at best ok. (stayed there 2 nights - park and fly)The entire property was just unkept. It was if the owners or managers ok with it, even the hallway carpets were not vacuumed. To top it off it says 'No Marijuana' Big sign at the front counter, but the first thing you smell after leaving the lobby is marijuana.
- I requested the non-smoking section. As soon as I opened the side entrance to the building, the air was of thick marijuana smell. When I complained to the gal at the front desk, she simply said I'm sorry, I told her that the property had signs posted at all entrances saying "No Marijuana" and said you aren't enforcing that. She says, we do try. I told her that I probably would not choose this hotel on my next trip to Portland, her response was, "I'm sorry!" How totally disrespectful to those who don't smoke anything, and indeed, wanted the no smoking section of the hotel! Apparently, there isn't such a section at this hotel and no empathy from those that work there!
- Night 2 extreme marijuana smell in corridor had to put towel under door to keep it out of room. Mentioned problem to staff and situation not resolved.
- The pool was so crowded last Saturday and Sunday -it was ridiculous. There were so many people that it was hard to get in and get out of the pool. There were plenty of trashy 20 somethings yelling and carrying on, spraying champagne, and smoking weed. Music blasted all day on the weekends and each time we got up to go to the room, we were asked by security if we were leaving.
- My girlfriend and I have stayed here a couple times. the first time was good and the second time was terrible. Our shower didn't drain very well. The tiles in the shower were broken and the shower rod was upside down so the shower curtain couldn't close properly. The hallways smell like marijuana and we told the front desk and they didn't do anything about it. In addition, it's very old and dated and the restaurant was completely dead.
- There were ants in the room; we got locked out a day early. Building was a no smoking area yet there were guest smoking cigarettes and marijuana across the hall. Swimming pool was green with algae, yuk. And to top it off, our rental van was hit while in the parking lot. The later is no fault of the establishment; but was the final straw. Do not plan to return to this establishment.
- Room smelled terrible of smoke/marijuana, and God knows what. Front desk doesn't answer the phone, watched him turn down the ringer as I waited to check in while another customer complained of smoking in their hallway.
- Reasonable price, just needed a place for about 8 hours to sleep . Food / drinks are within walking distance. Glasses on counter were dirty with lip gloss marks on them, glad I still had plastic cup from earlier drink to reuse. No smoking rooms however hallway and our room at times smelled very strongly of marijuana.
- The room was nice enough to, but it did have a strong smell so we bought some air freshener. Signs were posted all over saying no marijuana but that didn't stop people from smoking it, and making the

hallways smell. For what we paid for it was decent, we really only stayed in the room to sleep and the rest of the time we were out and about.

- The first few nights in The Hollywood Roosevelt were lovely, however, on the last night of our stay the whole hotel floor where our room was situated STUNK of weed and our room was heavily embedded with the smell. At 11pm all the management could offer us was a poolside room on the other side of the hotel and this was not appealing considering we were leaving at 7am and would require packing the room up! It was also not appealing to move to a poolside room where earlier in the day I had witnessed weed and other drugs being sold to guests. Whilst it may be legal to smoke weed in California, it is certainly not legal to smoke it on a non-smoking floor where families are staying with their children!
- Room was clean and well kept, great location for getting out and about. Staff were absolutely lovely and helpful, the only real downside was the strong whiff of weed during the evening and through the night. Pool parties and the club noise was non existent where I stayed, I had a room facing the back (hollywood high school)

Table S3: Dirtiness and noise search terms

Dirtiness Terms	particles, dirt, dirty, filthy, unclean, soiled, grimy, sullied, unhygienic, and unsanitary, odor, smell, smelly, smelled, stinks, gross, disgusting, roach, roaches, urine, rust, stench, pee, litter, trash, hair, blood, mildew, stale, poop, smelt, stained, dust, mud, vomit, puke, black, musty, mopping, bugs, flea, condom, housekeeping, crusty, debris, mold, moldy, scum, nasty, ants, dingy, grunge, stunk, crud, spills, fungus, stain, stains, residue, green, stifling, garbage, lack cleanliness, funky, stench, sticky, greasy, filth, slime, dusty, moldy, cockroach, mouse, dirtiest, unclean, uncleanliness, dirtiest, germs, germ, germy, not clean, insects, hairy, silverfish, spider, cobweb, cockroaches, dirtiest
Noise Terms	blaring, boisterous, cacophony, deaf, deafening, noise, noisy, riotous, loud, yelling, screaming, sound, thin (walls), barking, slam, yapping, hear, rattle, clang, racket, yipping, bang, rowdy, raucous, raucus, traffic, party, clatter, blare, ruckus, alarm, stomp, squeak, heard, soundproofing, pounding, noisy. Squeak, loudest, noisiest, woken up, woke up

Table S4: Negative binomial regression model of TEC-related complaints in hotels per 100 reviews with all explanatory variables.

Overall model fit: $\chi^2(28) = 397.31$ $p < .001$; Pseudo $R^2=0.21$; $N=477$. Variables with asterisk were deleted for the final model discussed in the results section.

Hotel location and state smoking prevalence were collinear and could not be included in the same model. A separate model was estimated replacing hotel location with state smoking prevalence. Different from hotel location, state smoking prevalence was not significantly associated with TEC-related complaints ($p=0.191$) and dropped from all subsequent models.

TEC-Related Complaints per 100 Review	IRR	Std. err.	z	P>z	95% conf. interval	
					LB	UB
Review interval* (years)	0.995	0.013	-0.36	0.719	0.971	1.021
Stars (Ref: ≤ 2)						
2.5	0.586	0.079	-3.97	0.000	0.450	0.762
3.0	0.419	0.068	-5.34	0.000	0.305	0.577
3.5	0.531	0.126	-2.67	0.008	0.333	0.845
4.0	0.367	0.109	-3.37	0.001	0.205	0.658
5.0	0.585	0.229	-1.37	0.171	0.271	1.261
Room cost (\$)	0.993	0.002	-3.41	0.001	0.989	0.997
Hotel capacity* (# rooms)	1.000	0.000	0.28	0.783	0.999	1.001
Sm Status TripAdv* (Ref: 100% nonsmoking)						
Smoking	1.070	0.299	0.24	0.810	0.618	1.850
NS Rooms Available	0.631	0.318	-0.91	0.360	0.235	1.694
Guest Reviews per 100 Rooms	0.988	0.002	-6.08	0.000	0.984	0.992
Sm Status Hotel (Ref: 100% nonsmoking)						
Smoking	1.315	0.199	1.81	0.070	0.978	1.769
No information	1.272	0.149	2.05	0.040	1.011	1.599
Hotel Brand (Ref: Marriott)						
Hilton	1.069	0.256	0.28	0.781	0.668	1.710
InterContinental	1.471	0.321	1.77	0.077	0.959	2.256
Independent	2.443	0.501	4.35	0.000	1.634	3.652
Other Brands	2.526	0.528	4.43	0.000	1.676	3.806
Choice	3.423	0.713	5.91	0.000	2.275	5.148
Wyndham	3.703	0.837	5.79	0.000	2.377	5.766
Location (Ref: Salt Lake City)						
Birmingham, AL	1.567	0.312	2.26	0.024	1.062	2.314
Detroit, MI	1.727	0.354	2.67	0.008	1.156	2.579
Houston, TX	1.108	0.234	0.49	0.626	0.733	1.675
Little Rock, AK	1.167	0.234	0.77	0.441	0.788	1.730
Los Angeles, CA	1.880	0.467	2.54	0.011	1.156	3.058
Louisville, KY	1.452	0.295	1.84	0.066	0.976	2.162
New York, NY	1.670	0.587	1.46	0.144	0.839	3.326
Omaha, NE	1.039	0.216	0.18	0.855	0.691	1.563
Portland, OR	1.342	0.266	1.48	0.138	0.910	1.978

Table S5: Predicted mean TEC-related complaints per 100 reviews for hotel brands for model reported in Table 3 of the manuscript.

	Adjusted Mean TEC-Related Complaints per 100 Reviews	95% CI LB UB	
Hotel Brand			
Marriott	0.935	0.625	1.246
Hilton	0.978	0.615	1.341
InterContinental	1.369	0.983	1.754
Independent	2.252	1.736	2.768
Other Brands	2.341	1.844	2.838
Choice	3.141	2.469	3.813
Wyndham	3.361	2.552	4.171

Table S6: Predicted mean TEC-related complaints per 100 reviews for hotel star ratings for model reported in Table 3 of the manuscript.

	Adjusted Mean TEC-Related Complaints per 100 Reviews	95% CI LB UB	
Hotel Star Rating			
2.0	3.401	2.685	4.118
2.5	2.023	1.728	2.317
3.0	1.451	1.144	1.757
3.5	1.873	1.225	2.520
4.0	1.307	0.681	1.933
5.0	2.120	0.685	3.555

Table S8: Predicted mean TEC-related complaints per 100 reviews for hotel smoking policies based on hotel website information for model reported in Table 3 of the manuscript.

Hotel Website Smoking Status	Adjusted Mean TEC-Related Complaints per 100 Reviews	95% CI LB UB	
No smoking	1.913	1.652	2.174
Smoking	2.574	1.949	3.199
No Information	2.435	1.994	2.876

Table S8: Predicted mean TEC-related complaints per 100 reviews for hotel locations for model reported in Table 3 of the manuscript.

	Adjusted Mean TEC-Related Complaints per 100 Reviews	95% CI	
		LB	UB
Salt Lake City, UT	1.641	1.164	2.118
Omaha, NE	1.712	1.214	2.211
Houston, TX	1.823	1.279	2.367
Little Rock, AK	1.916	1.406	2.426
Portland, OR	2.184	1.622	2.746
Louisville, KY	2.401	1.725	3.077
Birmingham, AL	2.535	1.859	3.211
New York, NY	2.811	1.147	4.475
Detroit, MI	2.840	2.085	3.595
Los Angeles, CA	3.106	1.973	4.239

Figure S1: Predicted mean TEC-related complaints per 100 reviews for hotel brands and their 95% confidence intervals.

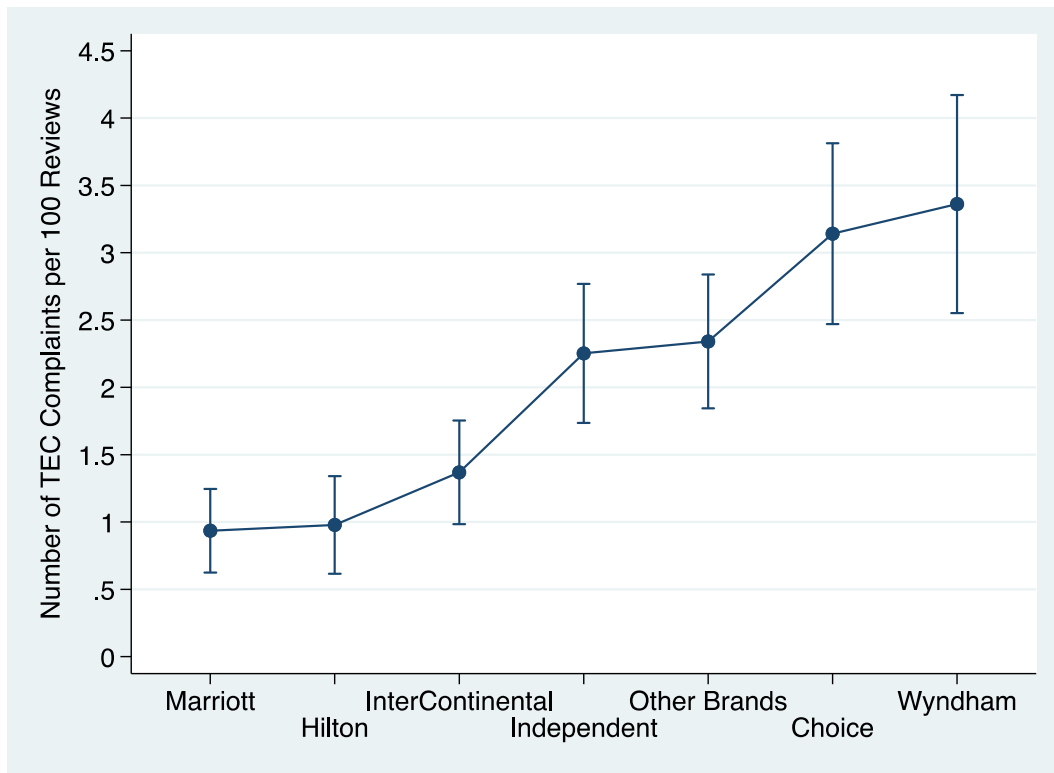


Figure S2: Predicted mean TEC-related complaints per 100 reviews for hotel star ratings and their 95% confidence intervals.

