

Secondhand Smoke Exposure in Airports across Europe and the U.S.

An Observation-based Study

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Background

- Flight attendants and travelers have been protected from secondhand smoke (SHS) exposure on board airplanes since 2000
- Most airports in Europe and the U.S. now have restrictive smoking policies but little is known about compliance and enforcement
- Individuals experience more exposure to SHS in airports with less restrictive smoking policies, such as those that allow smoking near entrances and indoor designated smoking rooms (DSRs)

Methods

- We conducted a cross-sectional observational study from March-May 2014
- Twenty-one large and mid-sized airports in the U.S. and Europe were selected on a convenience basis
- Following a standardized protocol, we observed smoking (including e-cigarettes), signage and compliance related to airport smoking policies
- We defined evidence of smoking as observing any of the following: ≥ 1 smoker, presence of cigarette butts or used ashtrays and smell of tobacco smoke
- We divided airports into four distinct areas for observation: departures (outdoor and indoor), arrivals (outdoor and indoor), pre-security (indoor) and post-security (indoor)

Results

- 52 percent of airports (11) contained DSRs, of which several had doors propped open and ventilation malfunctions
- 10 percent of airports (2) observed (Philadelphia and Istanbul) had someone smoking indoors who was not in a DSR
- 48 percent of airports (10) had visible smoking policy signage in ≥ 2 of the four observed areas
- 71 percent of airports (15) contained evidence of smoking in ≥ 1 of the four observed areas
- Outdoor evidence of smoking was widespread at all airports, even those with smoking zones clearly marked on the pavement
- Indoor evidence of smoking was mostly attributable to observation of butts, used ashtrays and smelling smoke, with very few directly observed smokers

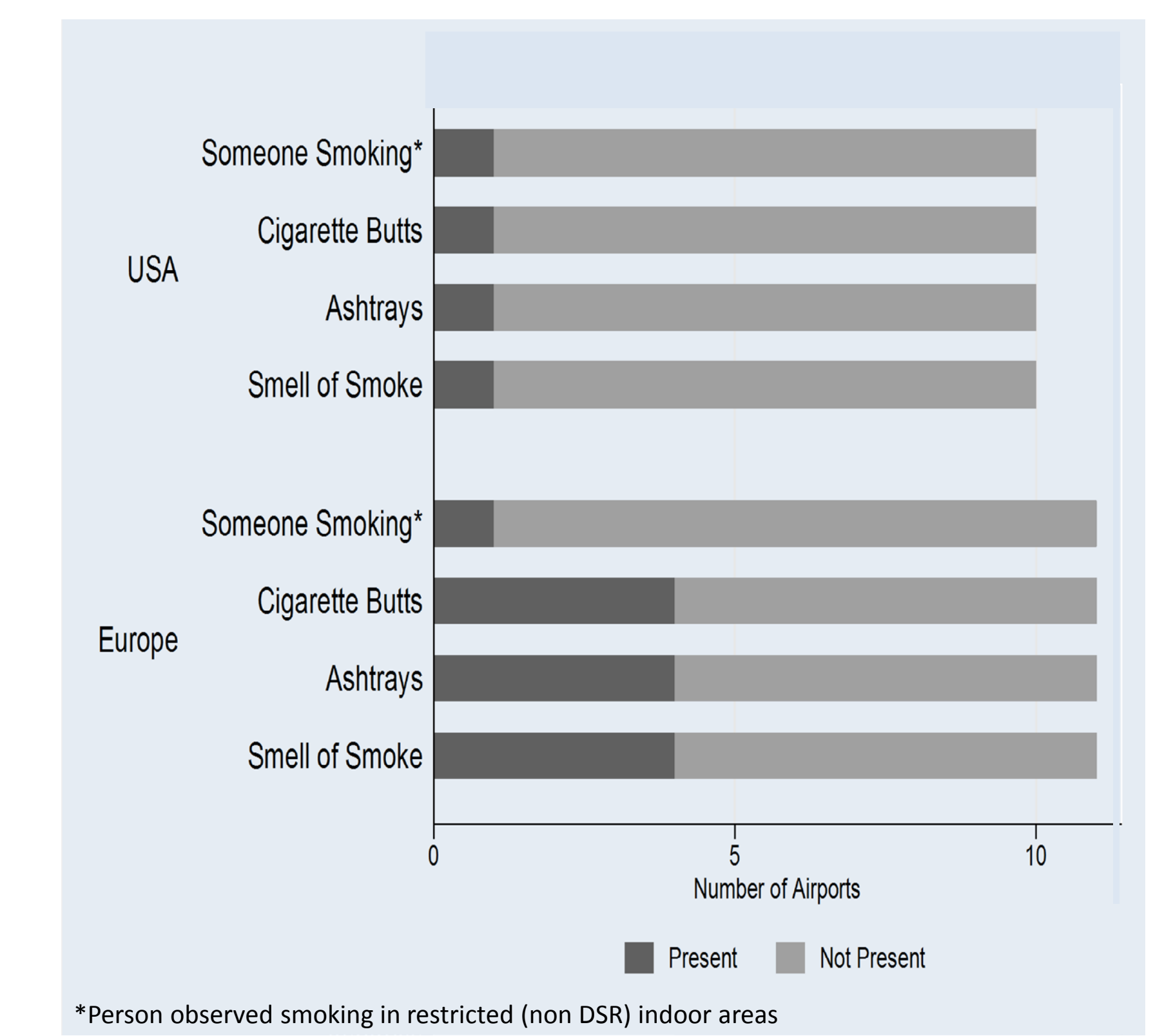
Figure 1. Visual of methods, airports studied and highlighted observations



Table 1. Airports observed, presence of DSRs and evidence of smoking

	Location (airport code)	DSRs present	Evidence of smoking observed	
			Indoor	Outdoor
US	Atlanta, GA (ATL)	Yes	Yes	Yes
	Boston, MA (BOS)	No	Yes	Yes
	Charlotte, NC (CLT)	No	Yes	Yes
	Newark, NJ (EWR)	No	No	Yes
	Dulles, VA (IAD)	Yes	Yes	Yes
	Houston, TX (IAH)	No	No	Yes
	New York, NY (JFK)	No	Yes	Yes
	Las Vegas, NV (LAS)	Yes	No	Yes
	Chicago, IL (ORD)	No	No	Yes
	Philadelphia, PA (PHL)	No	No	Yes
Europe	Amsterdam, Nether. (AMS)	Yes	Yes	Yes
	Brussels, Belgium (BRU)	Yes	Yes	Yes
	Paris, France (CDG)	Yes	No	Yes
	Dublin, Ireland (DUB)	No	Yes	Yes
	Frankfurt, Germany (FRA)	Yes	Yes	Yes
	Rome, Italy (FCO)	Yes	Yes	Yes
	Istanbul, Turkey (IST)	Yes	Yes	Yes
	London, UK (LHR)	No	No	Yes
	Madrid, Spain (MAD)	No	Yes	Yes
	Munich, Germany (MUC)	Yes	Yes	Yes
	Moscow, Russia (SVO)	Yes	Yes	Yes

Figure 2. Indoor smoking events observed in airports, by region



Conclusions

- The presence of tobacco smoking remains a problem in major airports around the U.S. and Europe
- These findings may suggest an occupational health risk for people that are required to spend extensive amounts of time in airports, such as frequent travelers, flight attendants and airport personnel
- Airports should be 100 percent smoke-free indoors with DSRs removed

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