

Compliance with tobacco control policy and visibility of cigarette retailers around educational facilities in Riyadh, Saudi Arabia

Hala AlJishi¹, Dian Kusuma², Alaa AlQurashi³, Ali AlFaiz¹, Abdulaziz AlSaad⁴, Maha Aljishi⁵
Research Center, King Fahad Medical City - Riyadh (Saudi Arabia)

Background

In Saudi Arabia, cardiovascular diseases are among the top causes of death and disability, and smoking is one of the leading risk factors, particularly among males. Our study aims to evaluate the compliance with the anti-smoking law among cigarette retailers and examine the visibility of cigarette retailers around educational facilities in Saudi Arabia.

Methods

We conducted a mapping survey and geospatial analysis of cigarette retailers around educational facilities from February to March 2020 (before the COVID-19 restriction) in Al-Olaya municipality in Riyadh city as a pilot study. Data analyses in ArcMap 10.6 compared the visibility within 250 and 500 meters from educational facilities.

Results

We found many retailers were not compliant with the tobacco control regulation: 57.1% of minimarkets sell cigarettes, 15.8% of cigarette retailers display the products openly, and 12.5% of cigarette retailers sold cigarettes by the stick. Moreover, 71% of the total cigarette retailers were within 500m from schools, and 62% of all schools had at least one cigarette retailer within 500m buffer (5-minute walking or 2-3-minute driving distance).

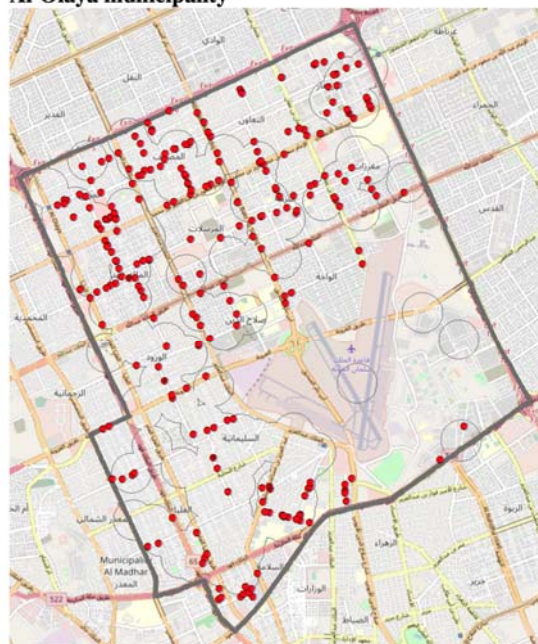
Conclusion

There is non-compliance with the anti-smoking law among cigarette retailers and high visibility of cigarette retailers around educational facilities in Saudi Arabia. Monitoring is needed for the effective implementation of tobacco control policies.

Translational Potential

To restrict tobacco selling around school and therefore decrease the chances of teenage school kids smoking.

Retailers, cigarette retailers, and 500-m school buffer in Al-Olaya municipality



Note: Red dots show retailers (including those selling cigarettes). The grey lines show 500-m dissolved buffers around schools.

Cigarette retailers within buffer and schools with at least one cigarette retailers in Al-Olaya municipality, Riyadh city

(a) Number of cigarette retailers within dissolved school buffer

	Total retailers	<250 m		<500 m	
		n	% of total	n	% of total
All schools	152	36	24%	108	71%
Government schools	152	6	4%	47	31%
Private schools	152	32	21%	82	54%

(b) Number of schools with at least one cigarette retailer within school buffer

	Total schools	<250 m		<500 m	
		n	% of total	n	% of total
All schools	164	36	22%	101	62%
Government schools	40	7	18%	26	65%
Private schools	124	29	23%	75	60%

Note: n=sample, m=meter. Calculations were conducted in ArcMap 6.10.

