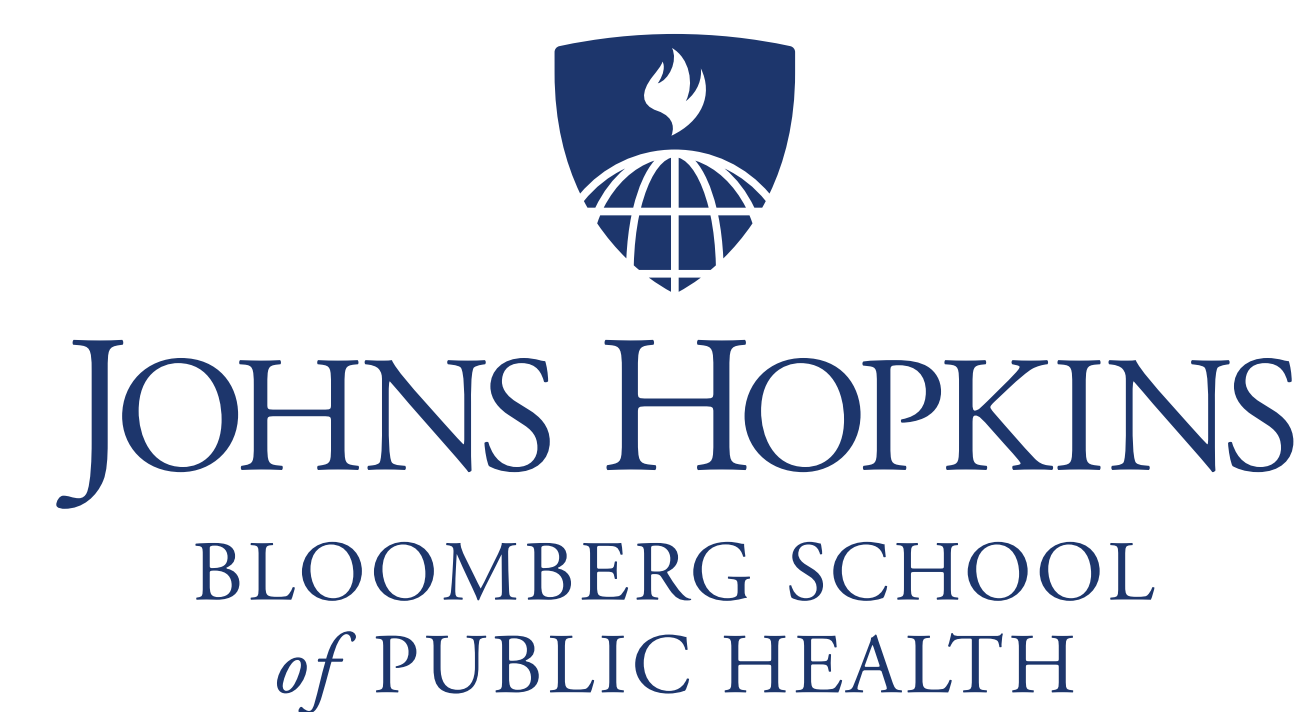


Accessibility of tobacco by youth in India: An observational study of compliance with the Cigarettes and Other Tobacco Products Act (COTPA)



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Background

- In India, 4% of youth (age 13-15) smoke cigarettes and 12% use other types of tobacco.¹
- To prevent tobacco use by youth, the Framework Convention on Tobacco Control recommends the prohibition of tobacco sales to and by youth.²
- The Cigarettes and Other Tobacco Products (COTPA) Act, 2003, restricts youth (<18) access to tobacco at **vendors** and **schools** by:
 - Prohibiting tobacco sales by youth at **vendors**
 - Requiring **vendors** not to display tobacco products within easy access to youth
 - Prohibiting tobacco sales within 100 yards of **schools**
 - Requiring signage stating No Sales to Minors at **vendors** and No Sales Near Schools at **schools**

Objective

- To examine the extent of tobacco vendors' and schools' compliance with COTPA provisions related to youth access to tobacco product.
- To determine factors associated with compliance.

Methods

- Setting:** 26 urban and rural towns in five Indian states—Bihar, Karnataka, Kerala, Maharashtra, Rajasthan
- Sample:** 595 vendors and 289 schools
- Analysis:** Multilevel logistic regression models to identify factors associated with compliance, adjusting for a city-level random intercept and state-level robust variance estimate.

References:

- Campaign for Tobacco-Free Kids (2013). Global epidemic: India. Retrieved from http://global.tobaccofreekids.org/en/global_epidemic/india/.
- World Health Organization. (2003). WHO framework convention on tobacco control. Geneva: World Health Organization. Retrieved from <http://whqlibdoc.who.int/publications/2003/9241591013.pdf>.

Results

Table 1. Characteristics of tobacco vendors and schools, N (%)

	Vendors	Schools
Total	595	289
States		
Bihar	177 (29.7)	58 (20.0)
Karnataka	72 (12.1)	49 (17.0)
Kerala	175 (29.4)	69 (23.9)
Maharashtra	88 (14.8)	54 (18.7)
Rajasthan	83 (14.0)	59 (20.4)
Size of City/Town		
Rural (reference group)	135 (22.7)	99 (34.3)
Tier 3 (<half million)	143 (24.0)	58 (20.0)
Tier 2 (half mill to >1.9 mill)	175 (29.4)	72 (24.9)
Tier 1 (≥2 mill)	142 (23.9)	60 (20.8)

Vendor compliance

- Only 5 of the vendors were fully compliant with all 3 provisions.
- 40% were moderately or highly compliant (with ≥2 provisions).
- The odds of vendor compliance did not change as a function of town size or vendor type.



Table 2. Multilevel logistic regression of odds of moderate/high compliance among tobacco product vendors (N=595)

	Odds Ratio (OR)	95% Confidence Interval (CI)	p-value
City size	0.95	0.57, 1.58	0.851
Type of vendor¹	0.84	0.59, 1.18	0.309

¹ Vendor types included: convenience, kirana, and general retailers (n=246); tobacco product retailers (n=50); retail shops with no interior (n=278); and mobile retailers (n=21)

School compliance

- Vendors sold tobacco within 100 yards of 67% of schools.
- The odds of compliance with the ban on sales near schools was lower in moderately sized than rural towns and higher in secondary than primary schools.
- Only 6% (n=18) of schools displayed required signage, and none in rural towns.



Table 3. Multilevel logistic regression of odds of compliance with ban on sales near schools (N=289)

	OR	95% CI	p-value
City size			
Rural	REF	--	--
Tier 3	0.14	0.01, 1.45	0.100
Tier 2	0.04	0.01, 0.21	<0.001
Tier 1	0.18	0.02, 1.31	0.090
Educational level			
Primary	REF	--	--
Secondary	1.92	1.29, 2.86	0.001
College	1.59	0.60, 4.20	0.351
Public vs. private	0.69	0.24, 1.02	0.499

Conclusions

- Compliance with COTPA provisions regarding the sale and display of tobacco products and signage is low in these five states.
- Compliance was similar by city size, therefore programs to enhance compliance must apply equally throughout the state.
- Governmental and non-governmental agencies need to intensify efforts to educate vendors and school administrators and enforce the law to reduce the accessibility of tobacco products by youth.