Tobacco Vendor Density In Ranchi and Siliguri, India

Institute for Global Tobacco Control

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Disclosures

- Funding Source: The work was supported with funding from Bloomberg Philanthropies’ Bloomberg Initiative to Reduce Tobacco Use (www.bloomberg.org)

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- Dr. Kennedy has been an unpaid expert witness in litigation against the tobacco industry.

- Off label medication uses discussed: N/A
Tobacco Use in India

- India is the world’s 2nd leading consumer of tobacco
- Over 250 million adults currently use tobacco in some form
- The Cigarettes and Other Tobacco Products Act (COTPA) prohibits sale of tobacco products within a 100-yard radius of any educational institution
- In 2017, all State governments were advised by Ministry of Health and Family Welfare to enforce the provisions of COTPA in point-of-sale environments
What is already known?

• Tobacco is commonly sold in a variety of vendor locations including permanent structures, and mobile vendors like street cart.

• Studies show higher tobacco vendor density is associated with increased youth experimentation, and increased tobacco use.

• Tobacco retailers in proximity to schools is directly associated with youth tobacco use initiation.
Study Objectives

Little research has been done to understand tobacco vendor density in India.

The study aimed to:
1. Assess the number and location of tobacco vendors in two cities, Ranchi and Siliguri.
2. Identify tobacco vendors located within 100-yards of an educational institution.
METHODS
A domestic research firm provided IGTC with a complete list of wards within Ranchi and Siliguri, and noted specific features in each ward such as educational institutions, retail markets, parks, places of worship, and public transportation.
Methods: Walking Protocol

• Goal: To conduct a census of tobacco retailers in each ward
• Data collectors walked in pairs to cover every street within their assigned wards
• They used two mobile applications:
  ➢ **Google Maps**: To ensure they were conducting observations within the boundaries of the ward
  ➢ **MapMyWalk**: To help trace the path and ensure that each street was only covered once
Methods: Observation tool

• Once a tobacco vendor was identified, data collectors began the observation using **Epicollect** app on their phone.

• GPS locations of all tobacco retailers were recorded

• Based on their physical structure and permanence, tobacco vendors were classified as:
  • Independent store/supermarket
  • Permanent kiosk
  • Temporary kiosk
  • Street vendor
Types of Vendors

- Permanent kiosk
- Temporary kiosk
- Independent store/supermarket
- Street vendor

<table>
<thead>
<tr>
<th>Vendor-type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent shop/supermarket</td>
<td>Establishment that sells a limited variety of goods, including cigarettes, cleaning supplies, and food staples, including grocery/supermarkets</td>
</tr>
<tr>
<td>Kiosk, permanent</td>
<td>A small, permanent, enclosed structure, often freestanding, open on one side or with a window, used as a booth to sell cigarettes, bidis, paan products.</td>
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<td>Street vendor</td>
<td>Includes stands, tables, and pushcarts</td>
</tr>
</tbody>
</table>
Analysis

- Spatial analyses were conducted using QGIS (v3.10)
- The location of tobacco vendors and educational institutions were mapped using GIS; only tobacco vendors that were physically in one of the wards that were part of the study were included in the sample.
- Tobacco vendor density was calculated by dividing the number of vendors by the area of each ward (vendor/km²)
RESULTS
Ranchi - Tobacco Vendor Count

- Data collectors identified N=559 tobacco vendors across 3 wards Ranchi
- The most common vendor-type was independent shop/supermarket (58%)
Siliguri - Tobacco Vendor Count

- Data collectors identified \( N=367 \) tobacco vendors across 5 wards in Siliguri.
- The most common vendor-type was permanent kiosk (52%).
**Tobacco Vendor Density**

**Ranchi: 68 tobacco vendors/km²**

**Siliguri: 99 tobacco vendor/km²**
Ranchi: Tobacco Vendor Density Around Educational Institutions

- **19% tobacco vendors** observed across the 3 wards were within 100-yards of one or more schools

- Approximately 4 tobacco vendors within 100 yards of each educational institution
Siliguri: Tobacco Vendor Density Around Educational Institutions

• 23% tobacco vendors observed across the 5 wards were within 100-yards of one or more schools

• Approximately 3 tobacco vendors within 100 yards of each educational institution
CONCLUSION
Summary/Discussion

• There is high tobacco vendor density in both cities [Ranchi: 68/km²; Siliguri: 99/km²]. By comparison, New York City, one of the densest cities in the world, has approximately 16 tobacco vendors/km².

• Among different vendor types, 72% were brick-and-mortar, or semi-permanent kiosks (15%), and 15% were mobile vendors.

• About one-fifth of the tobacco vendors identified across the studied wards were located within 100-yards of one or more educational institution.
Recommendations

• Policy approaches used around the world to reduce the number/density of tobacco vendors include tobacco vendor-licensing

• Establishing tobacco vendor licensing can help support the implementation of COTPA, including tobacco advertising/promotion restrictions
Acknowledgement

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Thank you for listening!

Any questions?