Smokeless Tobacco (SLT) Surveillance in India: Experiences & way forward

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Smokeless Tobacco

- SLT kills over half a million adults worldwide.
- $1/3$ of 1.10 billion tobacco users use SLT.
- Of the 180 Parties to the WHO FCTC, 138 countries define SLT in their statutes while only 34 have so far reported levying a tax on such products.
- Just 6 countries check and regulate the contents of SLT products.
- 41 mandate pictorial health warnings
- 16 countries have implemented a comprehensive ban on SLT tobacco advertisement
SLT in India

- India is the second largest consumer of tobacco.
- GATS-2 reports that 28.6% of the population consume tobacco in any form, 10.7% smoke, and 21.4% use SLT.
- Compared with GATS 2010, there has been a 6% decrease in the tobacco consumption recorded in GATS 2017 and also the NFHS-4 has shown decrease in the prevalence rate compared with NFHS-3.15.
- India has the largest number of SLT users in the world. Of the 356 million global consumers, SEAR alone has 82% million consumers.
SLT in India

- 29.6% of men, 12.8% of women and 21.4% (199.4 million) of all adults currently use smokeless tobacco.
- 42.4% of men, 14.2% of women and 28.6% (266.8 million) of all adults currently use tobacco (smoked and/or smokeless tobacco)
WHO-FCTC

- The status of implementation on the Convention was assessed on the basis of information contained in the Parties’ 2018 implementation reports. A total of 152 key indicators were taken into account across 16 substantive articles of the Convention.

- National tobacco surveillance systems established by more than 70% of the Parties.

- Advances in research, and the observation of patterns of tobacco consumption have contributed to the improved monitoring of progress towards both the implementation of the WHO FCTC, which is a target in the Sustainable Development Goals, and global targets for non-communicable diseases.

- Around one half of all Parties had relatively recent data, from the last five years, for both adult and youth smoking. However, only one third of all Parties had similar recent data on smokeless tobacco use.
WHO FCTC Global Knowledge Hub On Smokeless Tobacco

ICMR - National Institute of Cancer Prevention and Research in India is the designated WHO FCTC Secretariat's Knowledge Hub for problems related to smokeless tobacco use. This website provides information on negative health effects attributed to smokeless tobacco use, data and statistics on smokeless tobacco and policy recommendations to regulate and control smokeless tobacco use.
Average implementation rates (%) by Parties of substantive articles (n=180 in 2016; n=181 in 2018)

- Article 8: 88% (2018), 87% (2016)
- Article 11: 77% (2018), 64% (2016)
- Article 12: 71% (2018), 59% (2016)
- Article 16: 70% (2018), 59% (2016)
- Article 5: 66% (2018), 57% (2016)
- Article 6: 64% (2018), 56% (2016)
- Article 13: 61% (2018), 57% (2016)
- Article 15: 61% (2018), 50% (2016)
- Article 10: 57% (2018), 48% (2016)
- Article 14: 51% (2018), 42% (2016)
- Article 20: 51% (2018), 41% (2016)
- Article 9: 48% (2018), 40% (2016)
- Article 18*: 35% (2018), 35% (2016)
- Article 19: 28% (2018), 24% (2016)
- Article 17*: 13% (2018), 15% (2016)

*The average implementation rates for Articles 17 and 18 are calculated only among Parties which report tobacco growing in their jurisdiction in the reporting instrument (n=33 in 2016; n=27 in 2018).
Research & Surveillance

- Focus should be on:
  - Primordial and Primary prevention
  - Country specific needs driven
Research & Surveillance

Tobacco prevention and control program leaders may use a range of different data sources, including:

- **Surveys and questionnaires**
- **Focus groups and interviews**
- **Observations**: To record behaviors, situations, and events related to tobacco.
- **Documents**: To get information to understand the outcomes of the tobacco program.
- **Policies**: To track tobacco-related policies that are enacted or in development throughout the course of the program.
Global Surveillance vs Local surveillance

Global Tobacco Surveillance System (GTSS) includes the collection of data through four surveys:

- Global Youth Tobacco Survey (GYTS);
- Global School Personnel Survey (GSPS);
- Global Health Professions Student Survey (GHPSS) and
- Global Adult Tobacco Survey (GATS).

These surveys have been conducted in over 150 countries. However, it fails to capture key data on anti-SLT information, education and awareness with several Parties not including the SLT optional questions during their national surveys. So far, this information is only available for India and Bangladesh.
Global vs Local surveillance

- Nationally representative data on tobacco consumption in India are from National Sample Survey (NSS), National Family Health Surveys (NFHS), and Global Adult Tobacco Survey (GATS-1 and 2).

- National Sample Survey organised by National Sample Survey Organization (NSSO) in 1995-1996, was the first nationally representative household survey to collect data on tobacco consumption in the population. Threshold prevalence of tobacco consumption in population then was 51.3% for men and 10.35% for women aged 15 years and above.

The STEPwise approach to surveillance (STEPS) of the World Health Organization (WHO), based on conducting population surveys to collect information on the major modifiable NCD risk factors, has been used in many studies globally and was designed for use in low- and middle-income countries.

This approach has Tobacco surveillance integral to it.
Past surveys on non-communicable disease risk factors including tobacco

- Population Council’s Youth in India Survey, 2006–08
- Tobacco Use in Karnataka and Uttar Pradesh, 2001
- Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis Phases 1 & 2, 2002-2009
- Indian Council of Medical Research Risk Factor Surveillance, 2003-2006
- Cardiovascular Disease Surveillance in Industrial Settings 2002-2003
- Coronary Heart Disease Risk Factors in Northern India, 1995-2000
- States Risk Factor Studies (e.g. Kerala, 2003–04)
- Cancer screening studies
- Cancer registries
- TCP 2011-2016
Tobacco Control Project (TCP) India Survey (2011-2016)

- 4733 adult SLT users in 4 Indian states
- It followed a stratified multistage cluster sampling design.
- The average length of the survey interview was 96 min at Wave 1 and 101 min at Wave 2.
- At the end of the interview, respondents were debriefed, remunerated with a gift equivalent to $3.00 USD

**Definitions: Matter a lot….

- A SLT user was defined as use of any smokeless tobacco products at least once a month.
- Difference between User and Addict."
Usual variables to measure

- Demographic variables including sex, age, education, and income
- Smokeless tobacco use habits including frequency
- Quit intentions
- Usual smokeless tobacco product used
- Reasons for use (price/quality/health effect/other)
- Mixed use
- Perception of harm about smokeless tobacco products
- Attitudes and beliefs about smokeless tobacco
GATS variables

- Background characteristics
- Tobacco smoking; second hand smoke
- Smokeless tobacco: Qns about pattern of use, past usage, products used, time to first use, attempt to quit, products w/o tobacco.
- Cessation
- Economics
- Media
- Knowledge, Attitude and Perceptions: Beliefs About Health Effects of Smokeless Tobacco Use
- Gender across states/UTs.
GATS: Questionnaire programming

- Handheld devices (tablets) Android 4.4.2, Quad core 1.2 GHz processor with 1.5 GB RAM
- General Survey Software (GSS) by RTI international used
- The GATS India questionnaire was translated into 18 different regional languages
- The main steps involved in quality control checks were: version control/verification for household and individual questionnaires; date and time verification; verification of skip patterns; and validation checks.
- Each handheld device was remotely connected to the central cloud server using the sync software.
Manuals used

- Field Interviewer’s Manual
- Question-by-Question Specifications
- Field Supervisor’s Manual
- Mapping and Listing Manual
- Training Manual for senior staff
Training programme

- Mapping and house-listing
- Training of interviewers and supervisors
- Training of IT Managers
Field Work

- Each field data collection team comprised two male interviewers, two female interviewers and one supervisor.
- For assuring quality data, Tata Institute of Social Sciences (TISS), Mumbai, assigned one Research Officer to every state/ UT, who supervised the mapping and listing of households, and data collection work.
COTPA, NTCC & NTCP

- Cigarettes and Other Tobacco Products Acts (COTPA) 2003: prohibit advertisement of, and to provide for the regulation of trade and commerce in, and production, supply and distribution of cigarettes and other tobacco products in India.

- The National Tobacco Control Cell (NTCC) at the MoHFW: responsible for overall policy formulation, planning, implementation, monitoring and evaluation of the different activities envisaged under the National Tobacco Control Programme (NTCP).

- The National Cell functions under the direct supervision of the programme in-charge from the MoHFW i.e. Joint Secretary/Director.

- The technical assistance: by the identified officers in the DGHS.

- The NTCC: supported by consultants in specific areas of tobacco control like Policy, National Coordination, Legal, IEC etc.
Activities under NTCC/NTCP

- Training of health and social workers, NGOs, school teachers, enforcement officers etc.
- Information, Education and Communication (IEC) activities.
- School Programmes.
- Monitoring tobacco control laws.
- Co-ordination with Panchayati Raj Institutions for village level activities.
- Setting-up and strengthening of cessation facilities including provision of pharmacological treatment facilities at district level.

**NEED:** To align the surveillance according to the National and local need & NTCP activities.
Tobacco consumption in Youth

- The Global Youth Tobacco Survey reports use of smoked tobacco and other tobacco products amongst students in grades 8, 9 and 10 aged from 13 to 15.
- For India, it reported that 16.2% of boys and 7.2% of girls used other forms of tobacco. (World Health Organization (WHO), 2003)
- Additionally, a study examining age of initiation in Noida, India reported an average age of initiation of 12.4 years. (Narain, Sardana, Gupta, & Sehgal, 2011)
Challenges to SLT surveillance

- Funding
- Training field researchers in a cross-cultural context
- Country specific priorities to be taken for surveillance
- Local studies which focus on the etiology especially mixed method surveys to identify the reason behind facts and the complexities which emerge from the large surveys.
- Lack of understanding from field leaders and/or teammates as to why research is necessary
- Issues of confidentiality
- Safety issues
- Issues related to dissemination of the data
- Developing a research mentality among team members
- Dealing with an inflated or inaccurate picture of the data
- Deciding who owns the data and who has access to it
Challenges to SLT surveillance

- Perceptions, beliefs & will
  - Of interviewer
  - Of interviewee
  - Of stakeholders and leaders

- Connectivity: Both psychological and physical

- Social desirability bias

- Time/ manpower/ cost/ training constraints

- Mixed consumption of Smoking and SLT
Way forward

- Ideally, the risk factors including SLT to be monitored in a country should be titrated with the its needs and capacity.
- Measuring the core indicators should be feasible in large-scale national household surveys in India.
- Quantitative and Qualitative mixed surveys.
- Blood/Urine/Saliva samples as needful may also be taken. This will raise the cost of these surveys, but the benefits would be far-reaching and would amply justify the expenditure. (NFHS already taking blood samples)
- Additional STEPS indicators specifically relevant for India could also be considered. The data from NCD comprehensive surveys and tobacco (ST & SLT) surveys can be pooled.
References


Thank you