Effectiveness of interventions for tobacco control in low- and middle-income countries: Title registration for an evidence and gap map

Radhika AG, Anju Sinha, Deepika Singh Saraf, Denny John

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☐	Crime and Justice
☐	Education
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x	International Development
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Title of the review

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Background

Tobacco consumption and smoke exposure can have devastating health, social, economic and environmental consequences at both individual and global levels [1]. Although scientific evidence has routinely shown that exposure to tobacco smoke causes death, disease and disability [2], the tobacco epidemic continues to persist at the global level with a growing presence in low-and-middle income countries. In 2017, it was estimated that there were 1 billion smokers globally, with 80% of those living in low and middle-income countries [3]. Tobacco is contributing to approximately seven million deaths each year, with six million of those deaths directly attributable to tobacco use. Due to continuing tobacco consumption, low and middle-income countries continue to confront growing burdens of health risks. Without implementation and enforcement of proper tobacco control policies, global smoking prevalence could be as high as 22.0% in 2030, with the African region increasing from 15.8% in 2010 to 21.9% in 2030 [4]. The World Health Organization (WHO) predicts the annual death toll caused by tobacco to rise to eight million by the year 2030 without policy implementation, with over 80% of those deaths in low and middle-income countries [5].

India is the second largest consumer of tobacco in the world. Global Adult Tobacco Survey (GATS 2016-2017)[6]indicates that about 28.6% of adults in India use tobacco in some form. Tobacco use in males was twice that in women. On an average 39% of adults are exposed to second hand smoke (SHS) at home which is higher in rural compared to urban population. As per the WHO country-wise data on tobacco (smoked)use, the figures are as high as 64.9% and 54.8% among males in Indonesia and Bangladesh respectively. The figures for Myanmar are also high at 53.5% and 8.9% for males and females respectively [6] Tobacco metabolites nicotine and cotinine are associated with wide-ranging metabolic and reproductive ill-effects. Over the years, measures are underway to bring down tobacco use by way of a wide array of measures e.g. taxations, education, alternative livelihood support, ban on advertising etcby multiple agencies, there is the need for obtaining the objective evidence on the existing strategies and areas of deficiency which require to be strengthened. Specifically, the interventions relating to bringing about a reduction in demand for tobacco products including price and tax measures, regulation of the content and disclosures of tobacco products, education, communication & improving public awareness and measures focussing on tobacco dependence and cessation. Another important step i.e. the measures related to reduction of tobacco supply including regulations on illicit tobacco trade, sale of tobacco products to minors and provision of support for economically viable alternatives to workers involved in tobacco industry would also be addressed.

This evidence and gap map aims to find the evidence available on interventions and their impact on tobacco control in bringing about a reduction in tobacco use in LMICs.

Objectives

To identify and collate the evidence on the interventions and their effects on tobacco control in LMICs.

Existing evidence and gap maps

Our preliminary search did not show any EGM on the topic.

Systematic reviews:

Brathwaite, R., Addo, J., Smeeth, L., & Lock, K. (2015) A Systematic Review of Tobacco Smoking Prevalence and Description of Tobacco Control Strategies in Sub-Saharan African Countries; 2007 to 2014. PLoS ONE 10(7): e0132401. https://doi.org/10.1371/journal.pone.0132401

Faber, T., Kumar, A., Mackenbach, J.P., Millett, C., Basu, S., Sheikh, A., & Been, J.V. (2018). Effect of tobacco control policies on perinatal and child health: A systematic review and meta-analysis. The Lancet Public Health, Vol 2, Issue 9, e420-e437

Hoffman, S.J., & Tan, C. 2015. "Overview of systematic reviews on the health-related effects of government tobacco control policies." BMC Public Health 15 (1): 744. doi:10.1186/s12889-015-2041-6. http://dx.doi.org/10.1186/s12889-015-2041-6.

Hopkins, D. P., Razi, S., Leeks. D.K., Chattopadhyay, S., & Soler, R. (2009). Smokefree Policies to Reduce Tobacco Use. A Systematic Review. American journal of preventive medicine. 38. S275-89. 10.1016/j.amepre.2009.10.029.

McKay, A.J., Patel, R.K.K., & Majeed, A. (2015) Strategies for Tobacco Control in India: A Systematic Review. PLoS ONE 10(4): e0122610. https://doi.org/10.1371/journal.pone.0122610

Moodie C, Stead M, Bauld L, McNeill A, Angus K, Hinds K, Kwan I, Thomas J, Hastings G, O'Mara-Eves A (2012) *Plain tobacco packaging: a systematic review.* London: Public Health Research Consortium

Moodie C, Angus K, Bauld L, McNeill A, Thomas J, Hastings G, Hinds K, O'Mara-Eves A, Kwan I, Purves RI, Bryce SL (2013) Is Consumer Response to Plain/Standardised Tobacco Packaging Consistent with Framework Convention on Tobacco Control Guidelines? A Systematic Review of Quantitative Studies. PLoS ONE 8(10):e75919.

Munabi-Babigumira S, Fretheim A, Øverland S. Interventions for tobacco control in low- and middle- income countries: Evidence from Randomised and Quasi-randomised Studies. Report from the Norwegian Knowledge Centre for the Health Services 03–2012. Oslo.

Stead, L.F., & Lancaster, T. (2000). A systematic review of interventions for preventing tobacco sales to minors. *Tobacco Control*;**9:**169-176

Intervention

The EGM will use the MPOWER framework (WHO 2003) to include interventions that: **M**onitor tobacco use and prevention policies. **P**rotect people from tobacco smoke. **O**ffer help to quit tobacco use. **W**arn about the dangers of tobacco. **E**nforce bans on tobacco advertising, promotion or sponsorship. **R**aise taxes on tobacco. Additionally, other interventions to reduce the supply of tobacco and cigarattes and interventions to prevent tobacco uptake in schools will also be included.

Table 1 lists the intervention sub-categories under each of these headings:

MPOWER Framework (Intervention Category)	Component (Intervention sub-category)	Examples
Monitor	Tobacco use	Licensing system for tobacco sales, cost implications of tobacco use
	Tobacco policies	Regular monitoring of enforcement of regulations related to tobacco
Protect people	Policies	Enforcing smoke-free environments in public places
Offer help to quit tobacco use	Cessation support	National Cessation Guidelines/Manuals on promoting tobacco cessation, Establishment of tobacco cessation centres and promote community cessation clinics, national toll free quit-lines and telephone help-lines, Integrate tobacco cessation program into primary care health centers, Training primary care health workers on tobacco cessation
Warn about dangers of tobacco	IEC	Posters and signs, AV advertisements, involvement of local/religious leaders and community-based organisations, activities focused on youth, street plays, participation of civil societies and private enterprises, graphic warnings on tobacco use, public funding and strengthening of mass media and social marketing approaches for raising physical activity awareness, awareness and strategies to reduce exposure to second hand smoke in households
Enforce bans	Tobacco advertising	Graphic warnings on tobacco products, Size of health warnings of packages, Ban

		of sponsorship by tobacco companies for sports and youth events
	Regulation	Reducing access of tobacco products to students, children and minors, Standard and testing facilities for regulating contents and emission from tobacco products
Raise taxes	Enforcement	Tobacco product disclosures, Any intervention intended to reduce tobacco use is eligible, including those aimed at implementing, enforcing, and updating tobacco control or reduction strategies and policies.

Both the smoke and smokeless form of tobacco would be included.

Population

The target population is both male and females, of any age group, who are at risk as potential users and current users of smoke and smokeless form of tobacco would be considered, residing in low and middle-income countries.

Population sub-groups of interest include: women, students, minors, adolescents, and youth.

Dimensions

Interventions (rows) and Outcomes (columns) would comprise the primary dimensions of this EGM, all evidences would be used to populate this framework.

In addition, the following dimensions would also be considered:

(1) Population sub-groups of interest include: age group (minors, adolescents and youth), women
(2) Study designs
(3) Region
(4) Country
(5) Type of tobacco product (Smoke and Smokeless)

In the hard copy of the EGM, multiple 2x2 representations of the EGM will be reported. A copy of the coding form will be included as an annex to the EGM report.

In the online version, the additional dimensions will be possible to use as a filter. The online version will include references to included studies and brief summaries of each study based on the abstract (for primary studies) or plain language summary (for systematic reviews) provided for it.

Outcomes

The EGM will include studies which address the following outcomes:
- Reduction in tobacco use
- Improvement in awareness and publicity resulting in reduction in demand and supply
- Reduction in morbidities
- Improvement in financial status
- Reproductive outcomes
- Tobacco cessation
- Alternative profession assignment to the tobacco producers

Study designs

The EGM will include primary studies (randomised controlled trials (RCTs), non-randomised controlled trials, and observational studies including qualitative and mixed method studies) and systematic reviews of effects of interventions.

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Studies. Report from the Norwegian Knowledge Centre for the Health Services 03–2012. Oslo.

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15. World Health Organization WHO Report on the Global Tobacco Epidemic, 2008—The MPOWER Package. 2008. [(accessed on 21 July 2015)]. Available online:http://www.who.int/tobacco/mpower/2008/en/

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Review authors

Lead review author: The lead author is the person who develops and co-ordinates the review team, discusses and assigns roles for individual members of the review team, liaises with the editorial base and takes responsibility for the on-going updates of the review.

Name:	Radhika A.G.
Title:	Dr
Affiliation:	University Collage of Medical Sciences & Guru Teg Bahadur Hospital
Address:	Department of Obstetrics & Gynaecology
City, State, Province or County:	Delhi, India
Post code:	1100095
Country:	India
Phone:	09868399726
Email:	raradhikaag@gmail.com

Co-author(s):

Name:	Anju Pradhan

Title:	Dr
Affiliation:	Indian Council for Medical Research
Address:	Indian Council for Medical Research
City, State, Province or County:	Delhi
Post code:	110029
Country:	India
Phone:	+919811422241
Email:	apradhandr@gmail.com

Name:	Deepika Singh Saraf
Title:	Dr.
Affiliation:	Indian Council of Medical Research
Address:	Ramalingaswami Bhawan,Ansari Nagar,New Delhi
City, State, Province or County:	NewDelhi,Delhi
Post code:	110029
Country:	India
Phone:	9910954455
Email:	drdeepika.aiims@gmail.com

Name:	Denny John
Title:	Evidence Synthesis Specialist
Affiliation:	Campbell Collaboration
Address:	2nd Floor, West Wing, ISID Complex, 4, Vasant Kunj Institutional Area
City, State, Province or County:	New Delhi, Delhi
Post code:	110070
Country:	India
Phone:	+919987021553
Email:	djohn@campbellcollaboration.org

Roles and responsibilities

All authors are experienced systematic reviewers, which means they are proficient in carrying out the various processes in an EGM, such as eligibility screening, quality assessment and coding. The team will receive targeted support on an as-needed-basis from the SEARO Regional Advisor Dr Jagdish Kaur.

Dr Radhika who is the lead author shall co-ordinate the activities of the team members and ensure that the project adheres to the timeframe.

Dr Anju Sinha works as Senior Scientist at the Indian Council of Medical Research (ICMR), Delhi. With her years of experience in systematic reviews she would be help in literature search as well as the filtering of the relevant literature.

Dr Deepika works as scientist in the Non-communicable Diseases division of ICMR. Her current responsibilities include addressing the various aspects of tobacco control activities in India. She too, would be assisting with the literature search and retrieval of articles. Mr.

Denny John, who works as Evidence Synthesis Specialist, Campbell Collaboration, will support the team to conduct this EGM. He has over seven years' experience in evidence synthesis including skills in using GRADE, AMSTAR, Cochrane Risk of Bias, Ottawa Newcastle Quality Assessment Score, CASP, and PRISMA

- *EGM methods expertise:*

Denny John has EGM expertise and will provide support to the team.

- *Information retrieval expertise:*

Denny John has information retrieval expertise and will provide search strategy support to the team.

Funding

The EGM will be self-funded.

Potential conflicts of interest

No conflicts of interest

Preliminary timeframe

- Date you plan to submit a draft protocol: June 2018
- Date you plan to submit a draft review: December 2018