

IARC HANDBOOK VOLUME 19: EVALUATION OF THE EVIDENCE ON PRIMARY PREVENTION APPROACHES FOR ORAL CANCER

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International Agency
for Research on Cancer



On behalf of the Working Group of IARC Handbook Volume 19

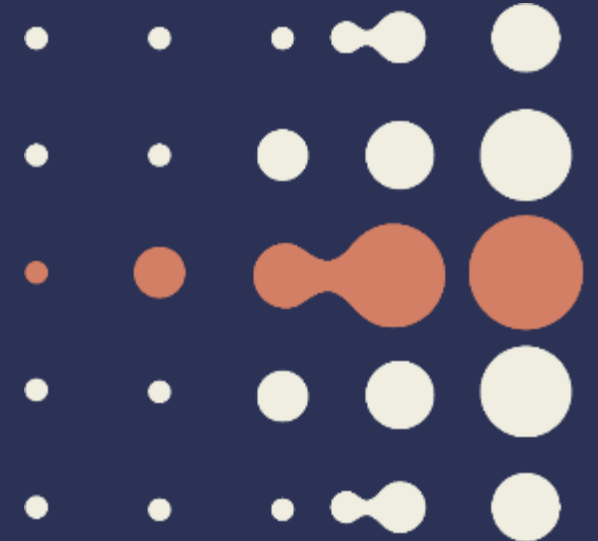


INTRODUCTION

Scope of the IARC Handbooks

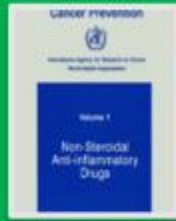
- The *IARC Handbooks of Cancer Prevention* evaluate **interventions and strategies** that aim to reduce cancer incidence or mortality.
- We convene a Working Group of international independent scientists with different expertise.
- The Working Group performs **comprehensive reviews and consensus evaluations** of the interventions.
- National and international health agencies use the evaluations to develop **evidence-based interventions** or **policy recommendations** for reducing cancer risk at the population level.

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INTRODUCTION

Topics covered by the IARC Handbooks



Primary prevention

Chemo-prevention
Personal actions



Primary prevention

Interventions
at individual or
population level



Secondary prevention

Screening
Early diagnosis

INTRODUCTION

IARC Handbook 19

- Oral cancer – highest burden in South-East Asia & the Western Pacific.
- Main risk factors: tobacco (smoked & smokeless), alcohol, areca nut (with and without tobacco).
- First-time evaluation of primary and secondary prevention of oral cancer in HB-19.



HANDBOOK 19 OUTLINE

Section 1: Oral Cancer & Potentially Malignant Disorders (OPMDs)

Section 2: Primary Prevention approaches
(reducing oral cancer/OPMDs incidence & mortality)

Impact of quitting exposure to:

- Smoked tobacco (SLT)
- Alcohol
- Smokeless tobacco
- Areca nut (AN)

(with and without tobacco)

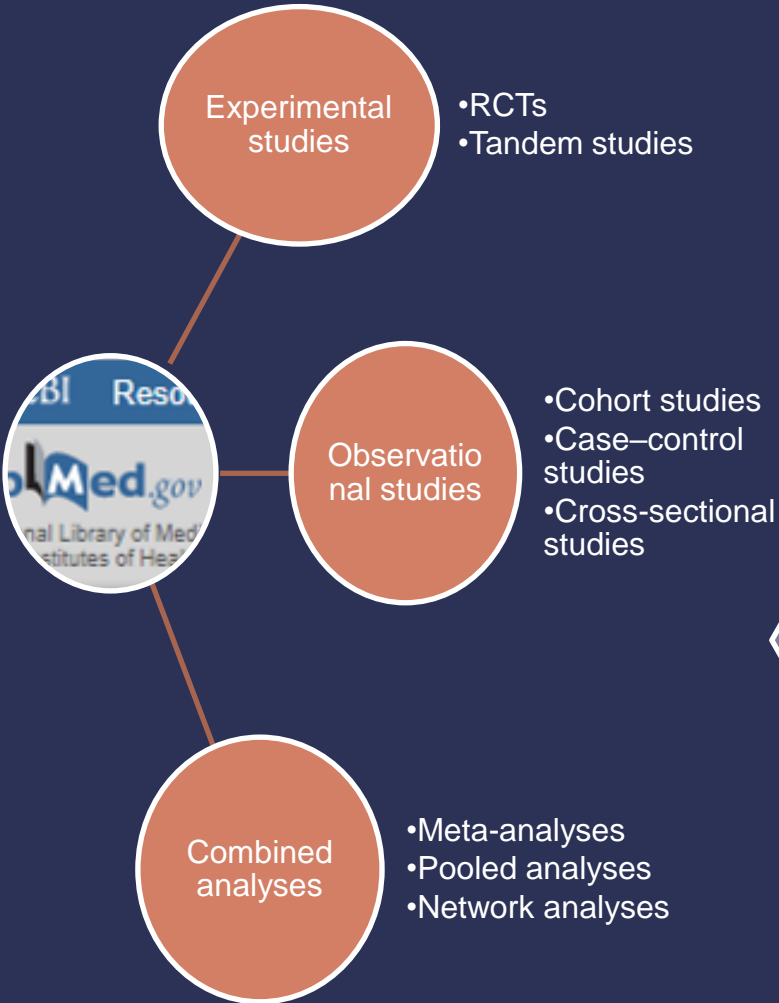
Section 3: Primary Prevention approaches
(to quit SLT/AN consumption)

- **Interventions to quit SLT/AN consumption**
- **Policies & their impact**

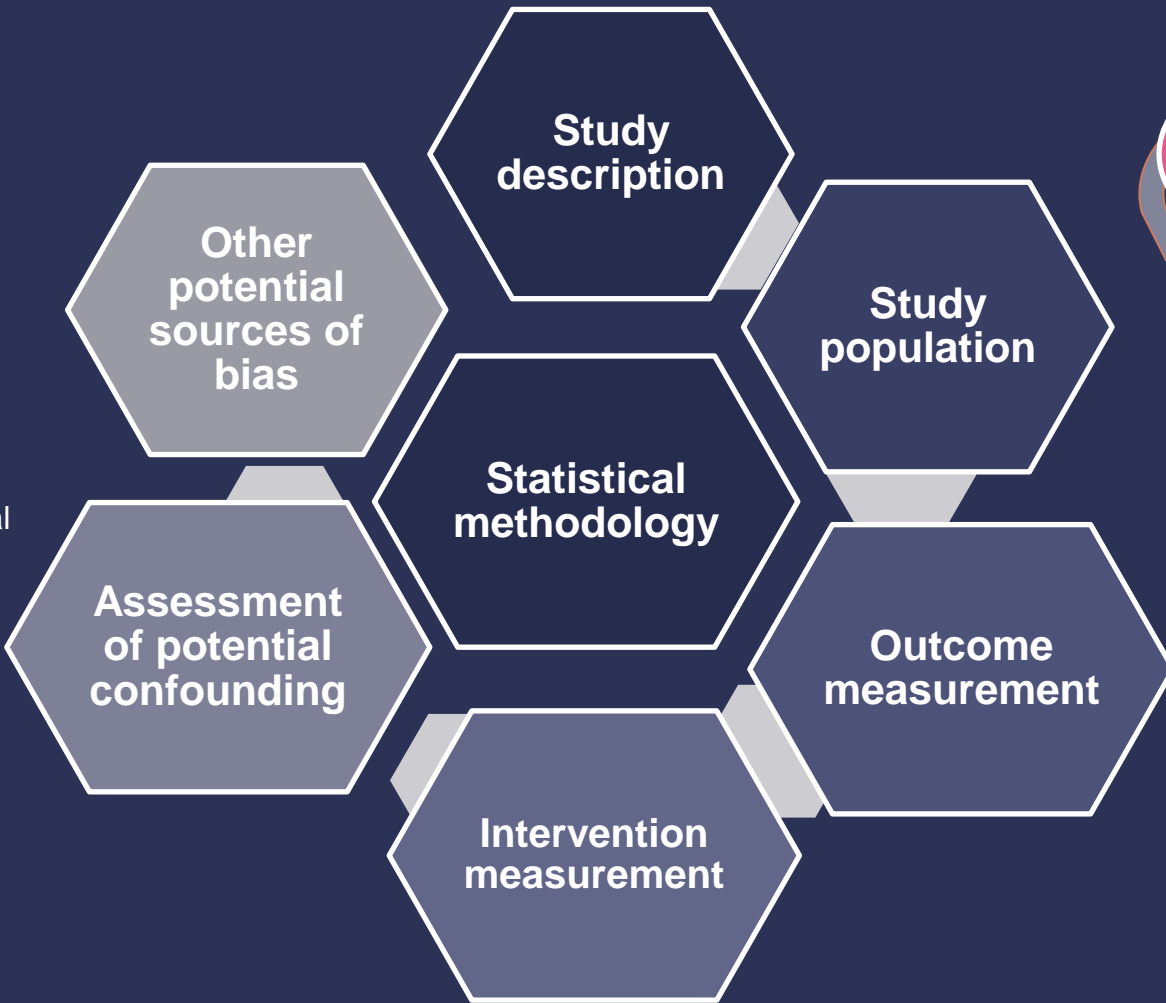
Section 4: Secondary Prevention approaches
(screening & early diagnosis)

METHODOLOGY: EVALUATION METHODS

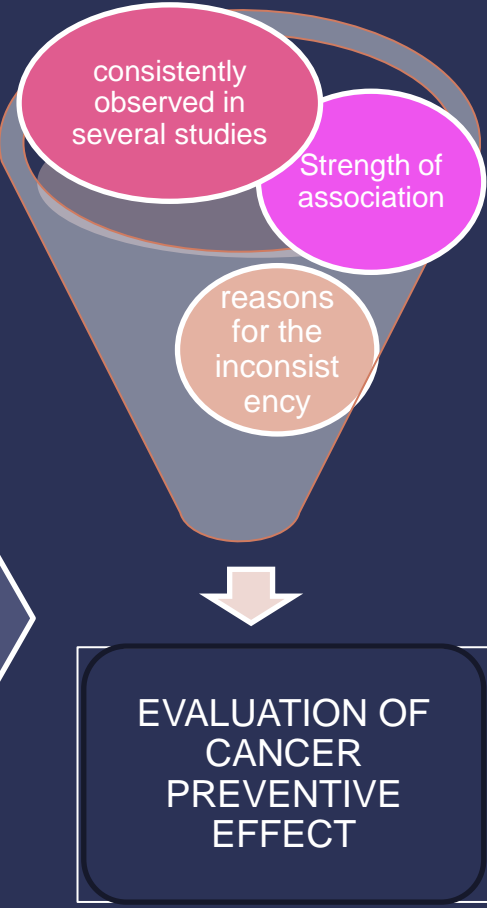
Types of studies considered



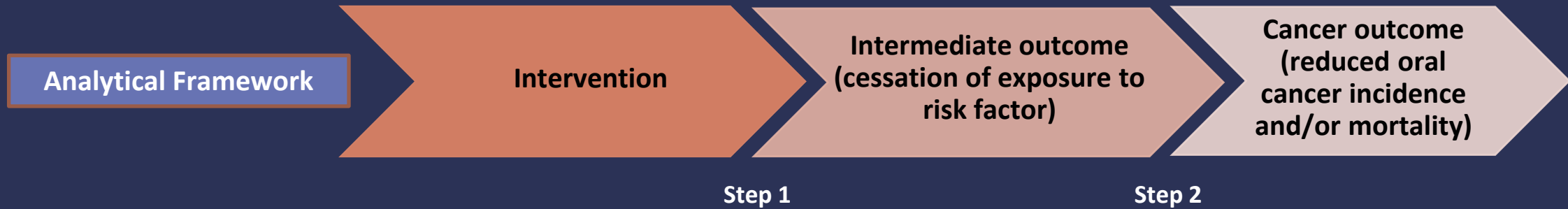
Study quality & informativeness



Considerations in assessing the body of evidence



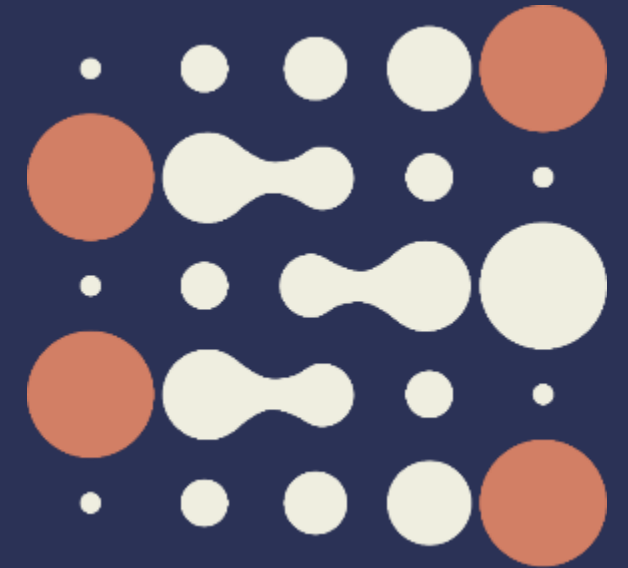
METHODOLOGY: PRIMARY PREVENTION



Strength of Evidence in Humans

- Sufficient evidence**
Cancer-preventive association between the intervention & oral cancer is **established**.
- Limited evidence**
Cancer-preventive association between the intervention & oral cancer is **plausible**.
- Inadequate evidence**
No conclusion can be drawn about a cancer-preventive association between the intervention & oral cancer.
- Lack of Cancer Prevention**
Evidence suggesting **lack of effect**.

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RESULTS & CONCLUSION

Primary prevention – Impact of quitting exposure to risk factor on risk of oral cancer

 <p>Tobacco smoking</p>	 <p>Smokeless tobacco</p>	 <p>Areca nut (including betel quid) with or without tobacco</p>	 <p>Alcohol consumption</p>
<p>Sufficient</p>	<p>Inadequate</p>	<p>Sufficient</p>	<p>Sufficient</p>
<p>The elevated risk due to tobacco smoking decreases with increasing time since quitting smoking. Studies suggest that the risk of leukoplakia also decreases after quitting smoking.</p>	<p>The Working Group noted the paucity of studies, particularly the absence of studies with highest use of smokeless tobacco, and of studies of smokeless tobacco products other than moist snuff.</p>	<p>In addition to the risk of oral cancer, the elevated risk of oral potentially malignant disorders (OPMDs) due to use of areca nut products (including betel quid) with or without tobacco also decreases after quitting.</p>	<p>The elevated risk due to alcohol consumption decreases with increasing time since quitting alcohol consumption. The reduction in risk becomes more apparent after 10 years of quitting and is greater in former heavy drinkers (≥ 3 drinks per day).</p>

RESULTS & CONCLUSION

SMOKELESS TOBACCO

- Various tobacco-containing products that are consumed by chewing, keeping in the mouth, or sniffing, rather than smoking.
- 273.9 million SLT users (aged 15 years and older) globally in 2019.
- 228.2 million SLT users (highest prevalence) in 2019 & greatest diversity of products, in south Asia.
- Studies on the implementation of 9 policies mostly from India.







ARECA NUT

- Seed of the fruit of the *Areca catechu* palm tree.
- An estimated 600 million users globally, majority in South & South-East Asia & the Western Pacific regions.
- Information on the implementation of 9 policies mostly from Taiwan, Myanmar, India.



RESULTS & CONCLUSION

Primary prevention – Impact of intervention on quitting consumption of products that contain smokeless tobacco or areca nut

 Behavioural intervention – adults	 Behavioural intervention – youth	 Pharmacological intervention	 Combined intervention
Sufficient	Limited	Limited	Limited
The evaluation applies to quitting use of smokeless tobacco.	The evaluation applies to quitting use of smokeless tobacco.	The evaluation applies to interventions with nicotine replacement therapy or antidepressants in quitting use of smokeless tobacco and areca nut with tobacco.	The evaluation applies to quitting use of smokeless tobacco.



The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL REPORT

The IARC Perspective on Prevention of Oral Cancer

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