

# WHO work on smokeless tobacco

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# **WHO provides technical assistance to Member States on SLT policies and programs:**

- MPOWER package ( key demand reduction measures under FCTC)
- Tobacco surveillance including GTCR
- Tobacco product regulation
- Tobacco control economics
- Cessation services ( brief advice, toll free quit line, mCessation )

# Smokeless tobacco monitoring at WHO: what and how

1. Policy data (sale bans, package warnings, taxes)
2. Prevalence data from country surveys

# 1. The WHO report on the global tobacco epidemic (overview)



**Six reports published since 2008 contain data and analysis of tobacco use and policies in WHO Member States.**

**Data on smokeless tobacco are collected and analysed by WHO staff every two years.**

# 1. The WHO report on the global tobacco epidemic (data on smokeless tobacco collected for all WHO Member States)

- Prevalence of smokeless tobacco use from the latest survey results (youth smokeless use and adult smokeless use);
- Ban on sale of smokeless tobacco (18 countries);
- Health warnings required on smokeless tobacco (analysis of the legislation for 25 data sets);
- Bans on advertising, promotion and sponsorship (analysis of the legislation for 26 data sets);
- Taxes on the most sold brand of smokeless tobacco product (9 data set).

All data are available in the report and online appendices

[http://www.who.int/tobacco/global\\_report/en/](http://www.who.int/tobacco/global_report/en/)

or in country profiles

[http://www.who.int/tobacco/surveillance/policy/country\\_profile/en/](http://www.who.int/tobacco/surveillance/policy/country_profile/en/)

# 1. The WHO report on the global tobacco epidemic (pictorial warnings on cigarettes vs/on smokeless tobacco)

- 39 countries require pictorial warnings of same size for all tobacco products (smoked and smokeless).  
7 AFRO, 12 AMRO, 7 EMRO, 3 EURO, 5 SEARO, 5 WPRO
- 40 countries require pictorial warnings for cigarettes but only textual warnings for smokeless tobacco.  
2 AFRO, 4 AMRO, 1 EMRO, 26 EURO, 0 SEARO, 7 WPRO
- 10 countries require pictorial warnings for cigarettes but no warnings for smokeless tobacco.  
2 AFRO, 2 AMRO, 2 EMRO, 3 EURO, 0 SEARO, 1 WPRO

# 1. The WHO report on the global tobacco epidemic (textual warnings on cigarettes vs/on smokeless tobacco)

- 53 countries require textual warnings for all tobacco products (smoked and smokeless).  
80% of them require same size, 20% require bigger size for cigarettes.  
22 AFRO, 6 AMRO, 7 EMRO, 9 EURO, 2 SEARO, 7 WPRO
- 8 countries require textual warnings for cigarettes and no warnings for smokeless tobacco.  
2 AFRO, 3 AMRO, 0 EMRO, 2 EURO, 0 SEARO, 1 WPRO

## 2. Prevalence monitoring

### Prevalence among adults

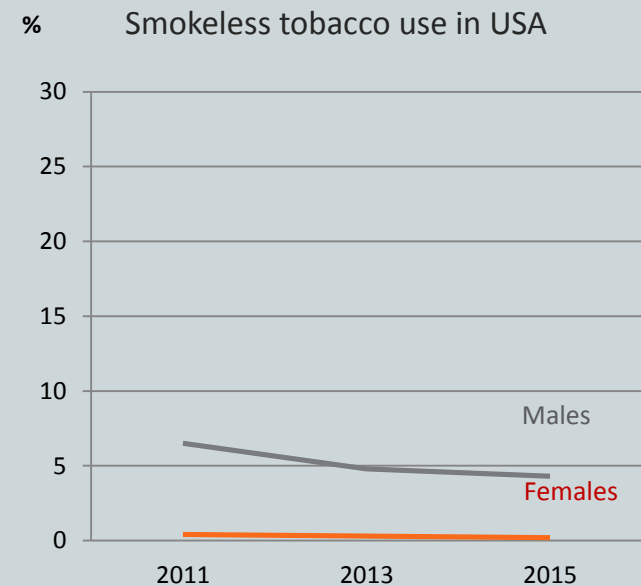
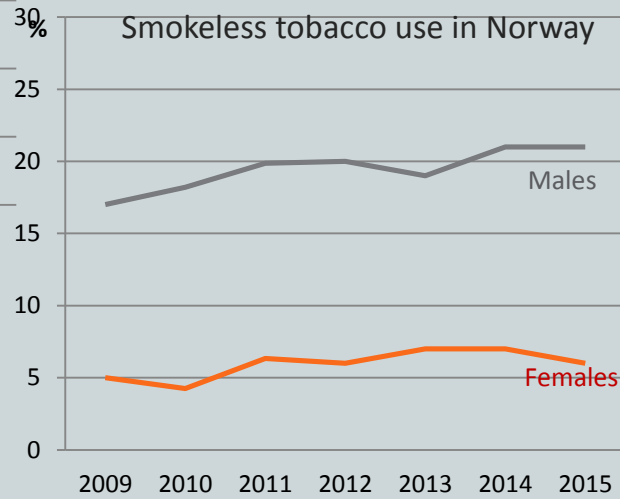
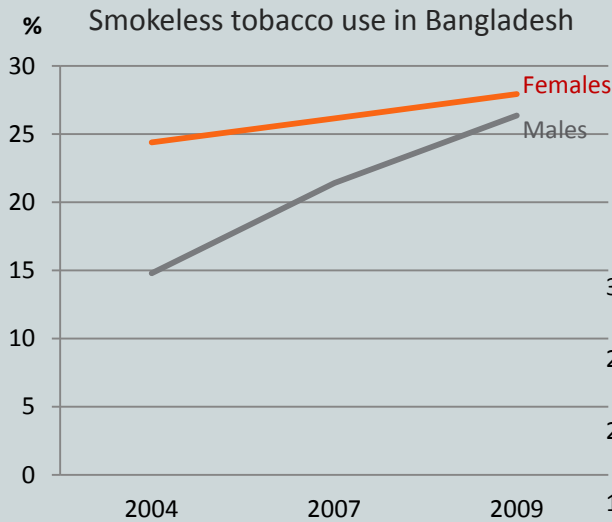
Of 184 countries with national data on tobacco use, 112 (61%) have reported smokeless tobacco use.

Around half of them (62) have data on smokeless use from two or more points in time.

Only 24 countries collect enough data to monitor trends in smokeless use among adults.



# Smokeless tobacco use among adults in different regions



Source: National surveys

## Monitoring smokeless use among youth

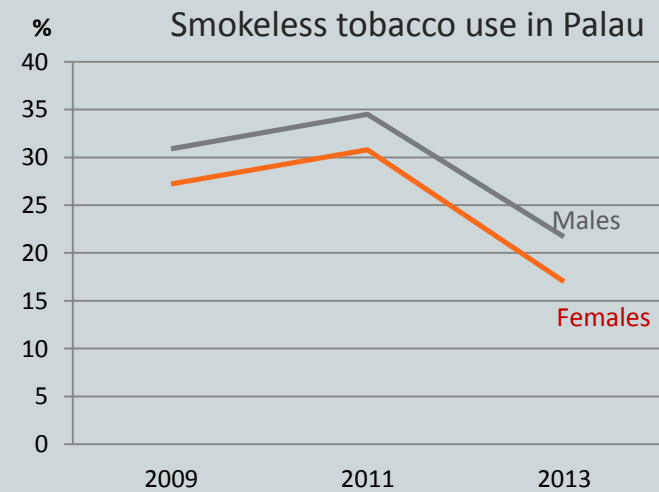
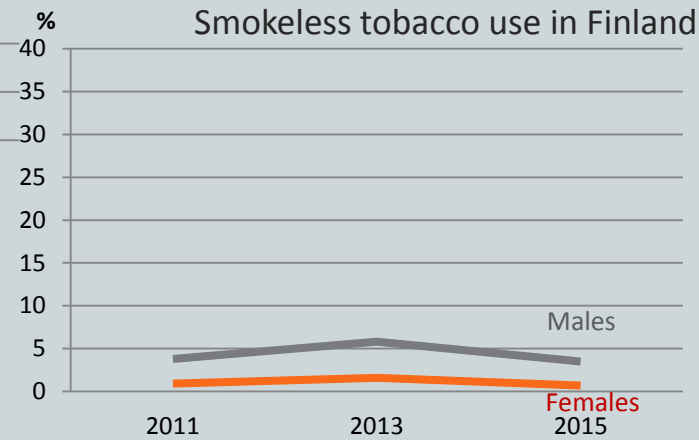
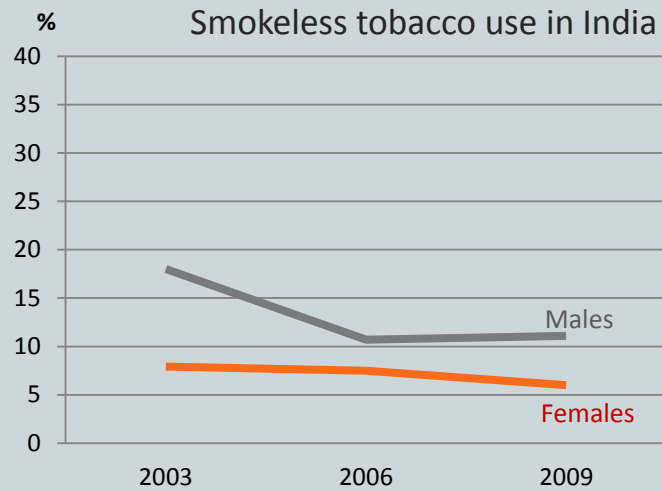
### Prevalence among youth

Of 178 countries with *national* data on youth tobacco use, 124 (70%) have reported smokeless tobacco use.

Less than half of them (52) have data on smokeless use from two or more points in time.

Only 11 countries collect enough data to monitor trends in smokeless use among school-aged children.

# Smokeless use among youth in different regions



Source: National surveys

# Articles of FCTC

## Article 9

Regulation of the contents of tobacco products

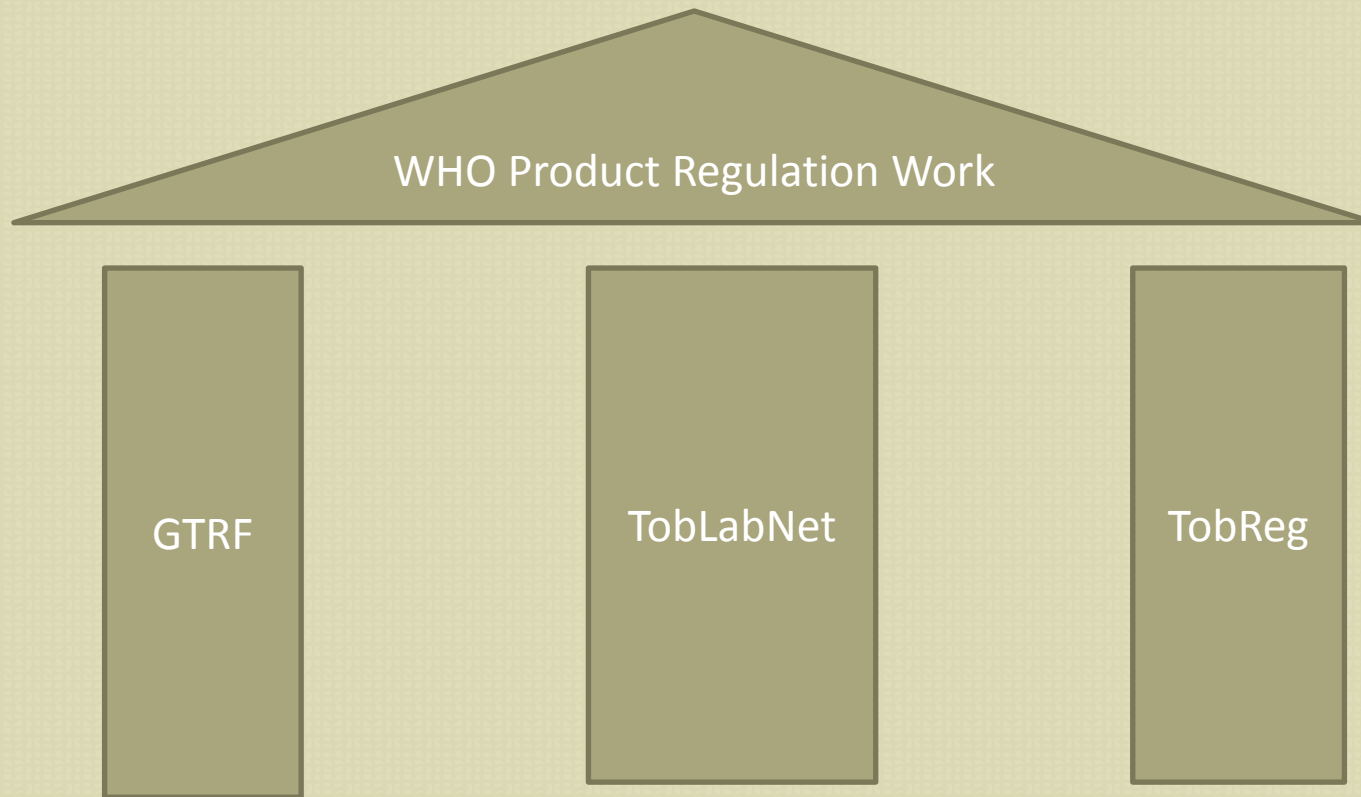
The Conference of the Parties, in consultation with competent international bodies, shall propose guidelines for testing and measuring the contents and emissions of tobacco products, and for the regulation of these contents and emissions. Each Party shall, where approved by competent national authorities, adopt and implement effective legislative, executive and administrative or other measures for such testing and measuring, and for such regulation.

## Article 10

Regulation of tobacco product disclosures

Each Party shall, in accordance with its national law, adopt and implement effective legislative, executive, administrative or other measures requiring manufacturers and importers of tobacco products to disclose to governmental authorities information about the contents and emissions of tobacco products. Each Party shall further adopt and implement effective measures for public disclosure of information about the toxic constituents of the tobacco products and the emissions that they may produce.

# “Pillars” of our work



# WHO TobLabNet

## *Goals*

- ❑ Develop laboratory capacity for testing and cross-laboratory validation of quantitative analytical methods with the goal of providing information on products relevant for regulatory agencies
- ❑ To serve as a counter-balance to the tobacco industry's decades-long predominance in the areas of tobacco testing, research, and international methods development
- ❑ Aim: Develop independent laboratory capacity; serve as the primary source for method development and “round-robin” validation studies; develop expertise and train new labs

# TobLabNet Members



# WHO TobLabNet

## Method Validations



TSNAs in MS Smoke

NNN, NNK

Nicotine in Tobacco

Benzo[a]pyrene in MS Smoke

Ammonia in Tobacco

VOCs in MS Smoke

benzene, 1,3-butadiene,

Humectants in Tobacco

propane-1,2-diol, glycerol,  
triethylene glycol

Aldehydes in MS Smoke

acetaldehyde, acrolein,  
formaldehyde



# Meetings on COP7(14) decisions on smokeless tobacco:

- (b) to collaborate with the Knowledge Hub on smokeless tobacco by assisting tobacco testing laboratories:
- i. to **collect scientific information on the chemicals in contents and emissions in smokeless tobacco products that contribute to the toxicity, addictiveness and attractiveness and analytical methods used to measure them, and the levels found in products on the market;**
- ii. to **finalize the standard operating procedures for measuring nicotine, tobacco specific nitrosamines (TSNAs) as requested by decision FCTC/COP6(12) 2b.ii;**
- iii. to **advise on the applicability of WHO Tobacco Laboratory Network (TobLabNet) standard operating procedures to measure humectants and ammonia in smokeless tobacco products;**

# Request: **finalize the standard operating procedures for tobacco specific nitrosamines (TSNAs) in SLT**

- **WHO SOP 03 (TSNAs) is applicable and can be modified to measure TSNAs in SLT because:**
  - **method is specific (retention time) and selective**
  - **calibration range can be adjusted to cover the diverse range of SLT**
  - **facilities required are commonly available in food or pesticides or drug testing labs**
  - **surveillance of products retailing locally can be initiated**
  - **training can be provided.**
- ***Being finalised in 2018 and will be delivered to COP***

# Request: **finalize the standard operating procedures for measuring nicotine in SLT**

- **WHO SOP 04 (nicotine in cigarette filler) is applicable and can be modified to measure nicotine in SLT because:**
  - **Method is specific (retention time) with acceptable selectivity**
  - **Calibration range can be adjusted (lower/higher) to cover the diverse range of SLT products**
  - **Facilities required are commonly available in general analytical facilities (food/pesticide/drug testing lab(GC/FID))**
  - **Surveillance of products retailed locally can be initiated**
  - **Training can be provided by TobLabNet members if required**
- **Next steps: verification over coming months of SOPs 03 and 04 to measure nicotine and TSNAs in SLT**
- ***Being finalised in 2018 and will be delivered to COP***

# **Request: advise on the applicability of WHO Tobacco Laboratory Network (TobLabNet) standard operating procedures to measure humectants and ammonia in SLT**

- **SOP6 (humectants) is applicable with parameters: lack of interference, recovery, linearity, repeatability, reproducibility, limit of detection and quantification.**
- **SOP 07 (ammonia) is applicable with modifications including: moisture correction, sample pre-treatment (grinding/milling/cutting based on product characteristics), dilution of extracts**

# Special session on 14 August

- **Collect scientific information on the chemicals in contents and emissions in smokeless tobacco products that contribute to the toxicity, addictiveness and attractiveness and analytical methods used to measure them, and the levels found in products on the market;**

# Chemicals contributing to toxicity in SLT:

## Five groups of chemicals

Metals  
Lead,  
Cadmium,  
Chromium, Arsenic,  
Nickel

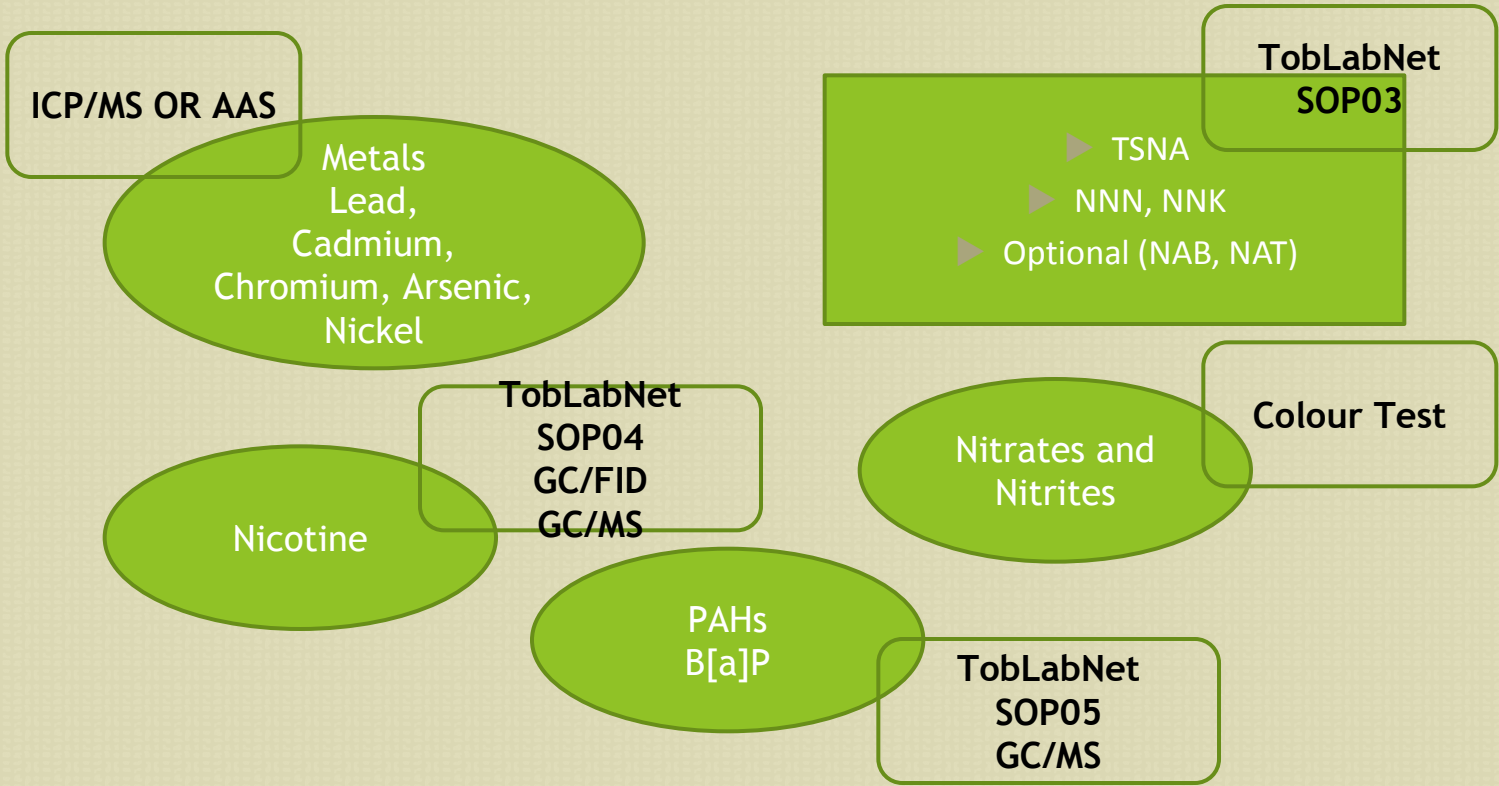
- ▶ TSNAs
- ▶ NNN, NNK
- ▶ Optional (NAB, NAT)

Nicotine

Nitrates and  
Nitrites

PAHs  
B[a]P

# Testing methods for these chemicals:

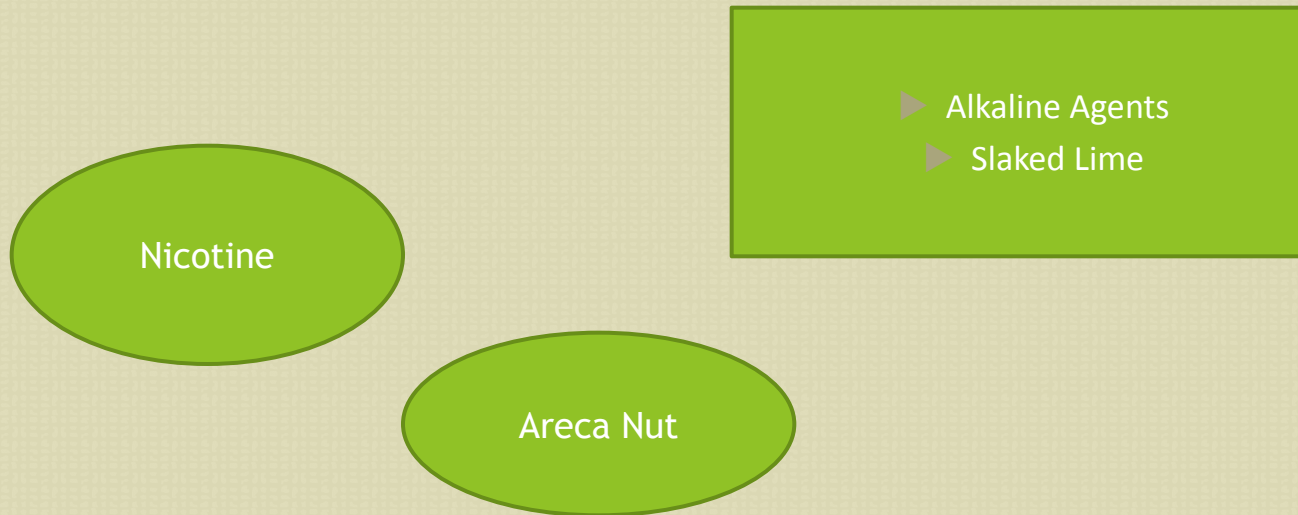


# Other Considerations

- ▶ pH Measurements
  - ▶ pH Meter
- ▶ Microbial Contamination
  - ▶ Bacterial Count
  - ▶ Microbial and Fungi Count
- ▶ Moisture measurements
  - ▶ Oven Drying
  - ▶ Karl Fisher

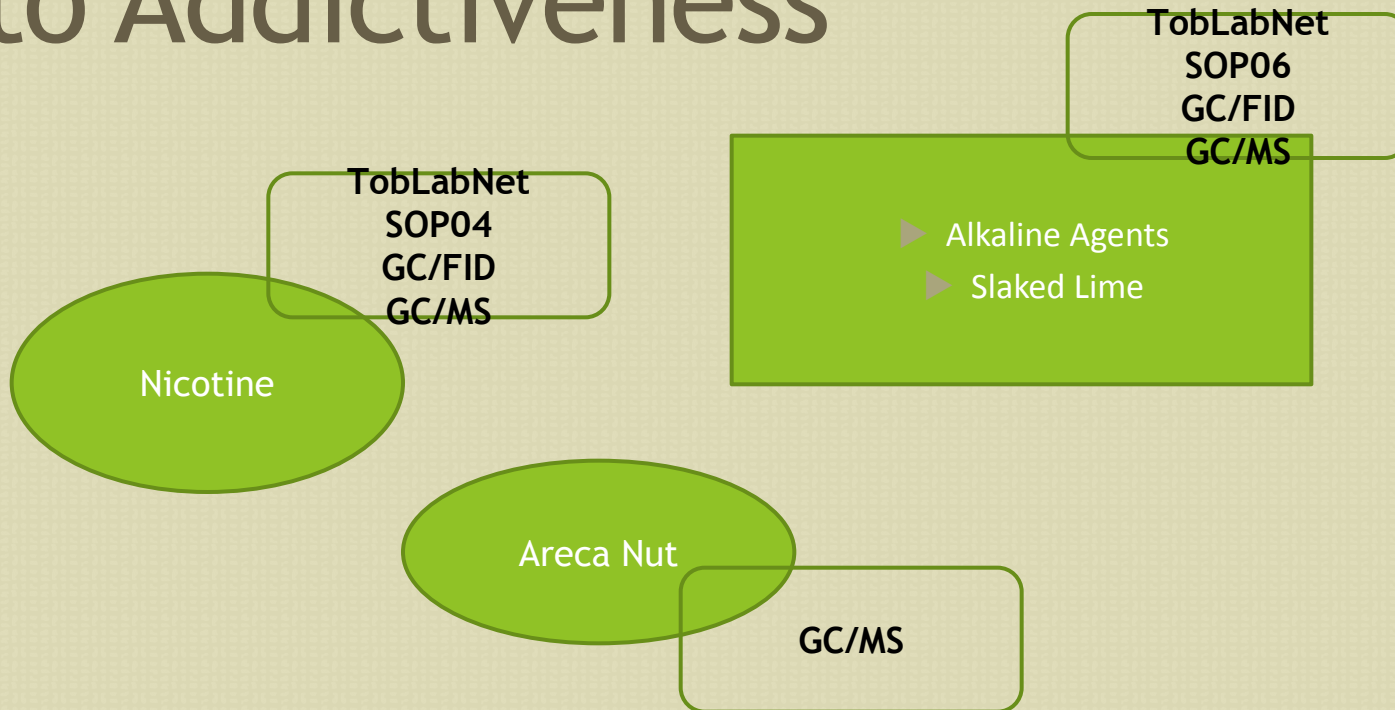


# Chemicals contributing to Addictiveness

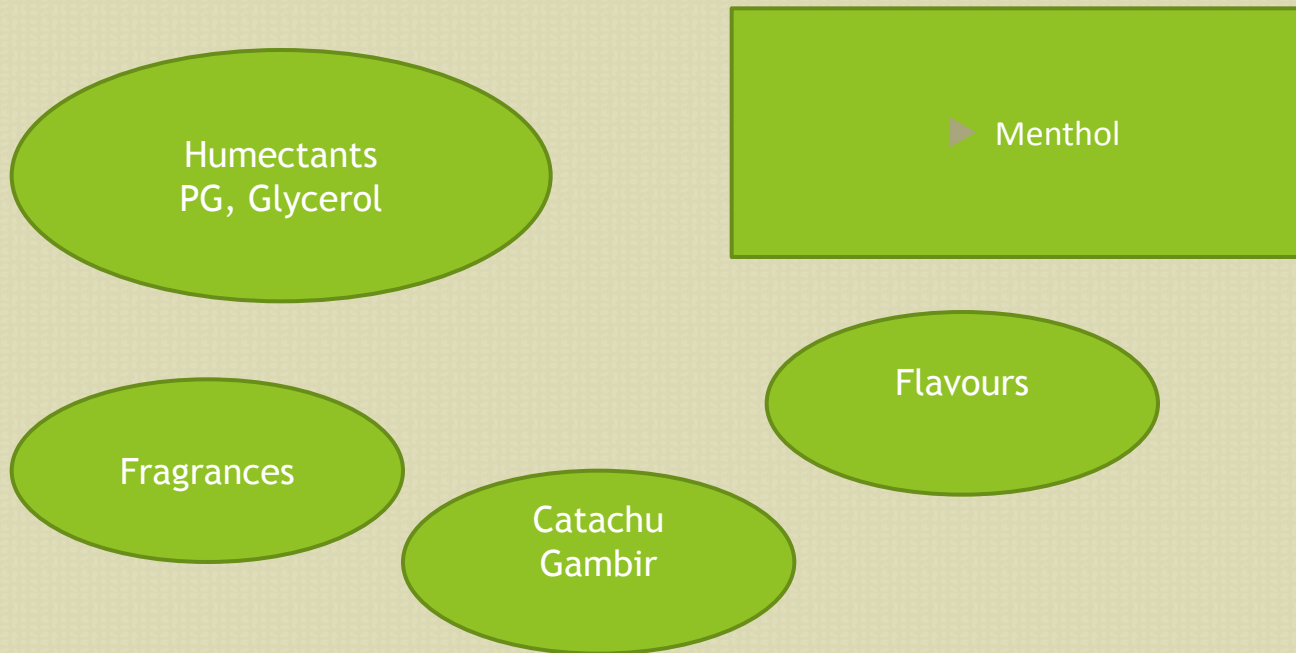


Main agents under consideration

# Chemicals contributing to Addictiveness

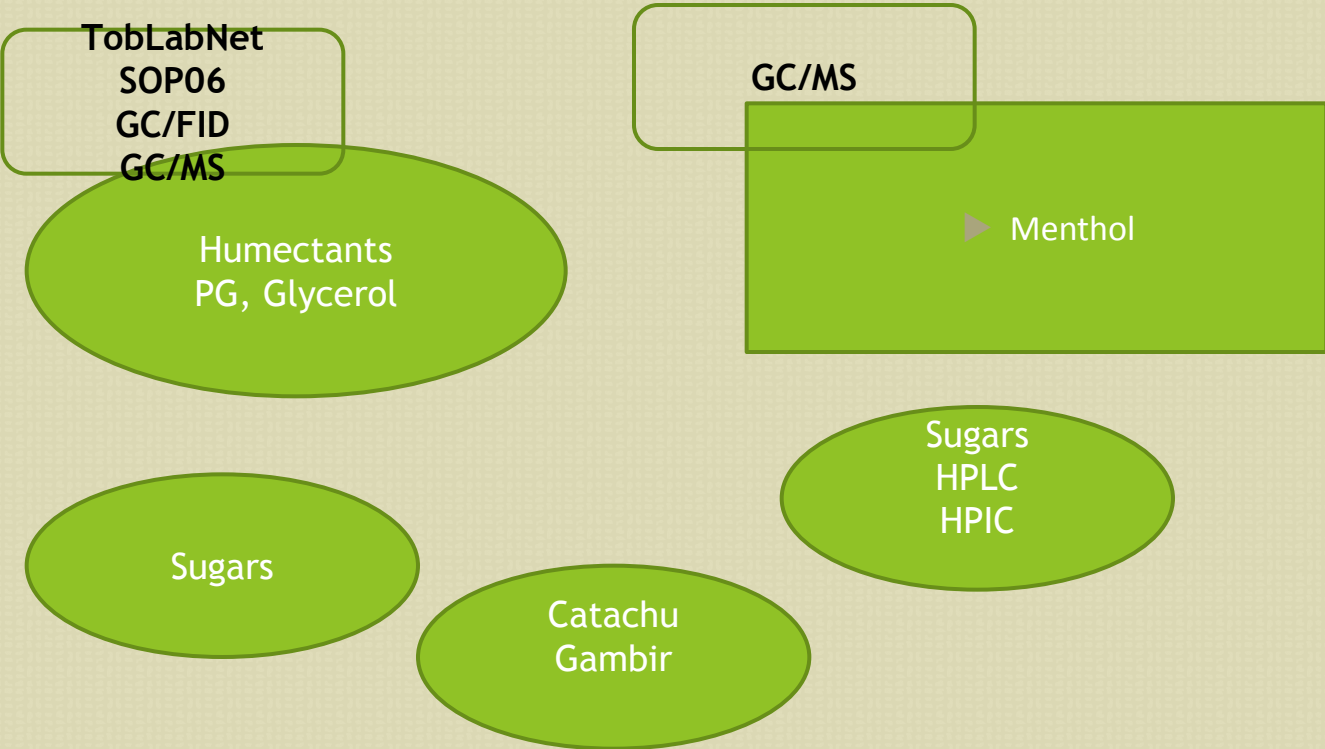


# Chemicals contributing to Attractiveness

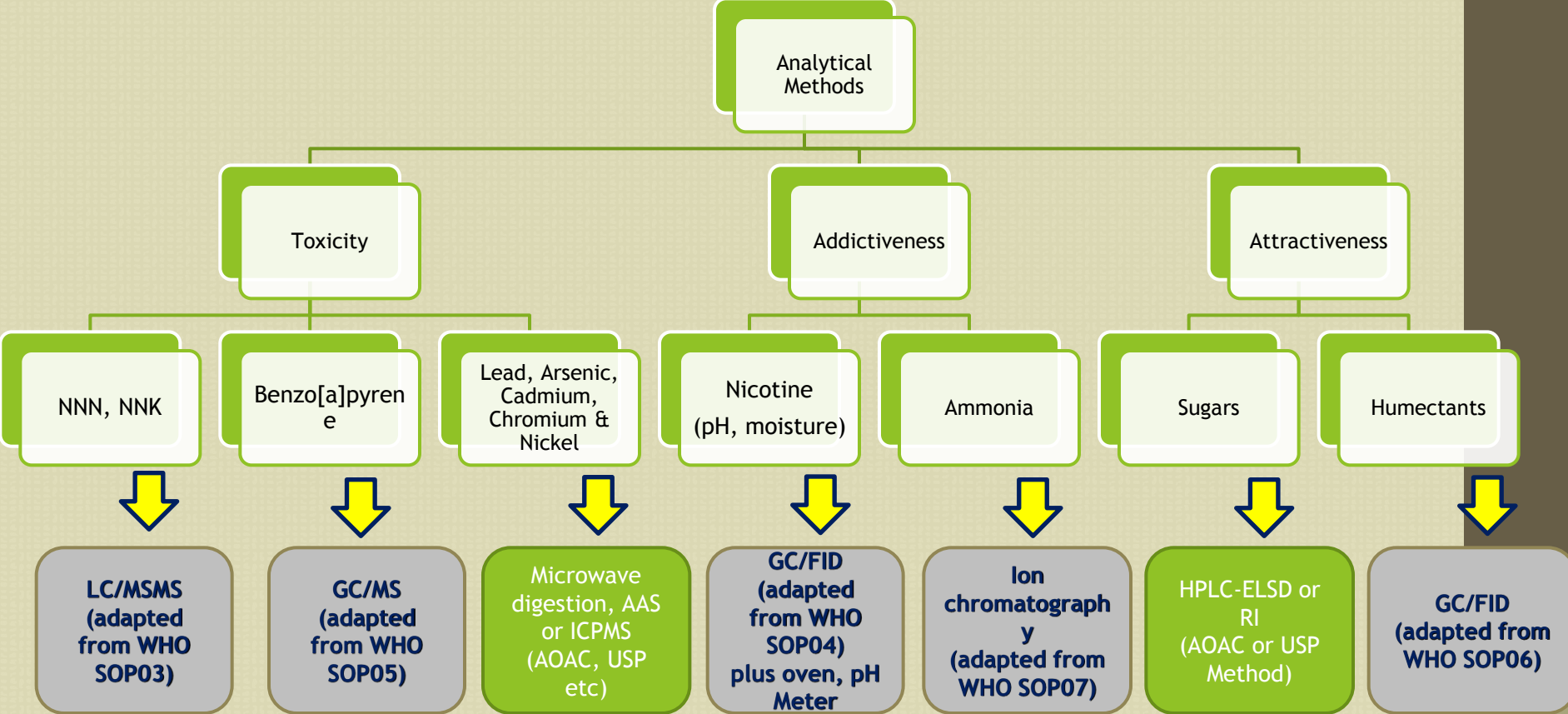


**Range of attractive substances** - attractiveness is not as straightforward as addictiveness and toxicity and will merit further consideration

# Chemicals contributing to Attractiveness and methods



# Analytical methods for measuring chemicals of interest in SLTs: chemicals that can realistically be tested



# Meeting outcomes:

- The group proposed a list of **13 chemicals based on toxicity with the main groups of chemicals being TSNAs, Nicotine, Heavy Metals, B[a]P and Nitrates/Nitrites**. This builds on existing knowledge of chemicals that contribute to Addictiveness and Toxicity based on worked previously undertaken by TobReg, IARC and the FDA
- The relevant TobLabNet SOPs are applicable and are being adapted/finalised with verification studies planned
- Simple and applicable methods are available for chemicals for which TobLabNet Methods do not currently exist
- Other factors such as pH due to its effect on nicotine, measurement of moisture, the role of microorganisms and areca nut on chemicals in SLTs merit consideration
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- WHO has enough information to fulfil the COP request