## Supplementary attachment 1

## Definitions of nicotine and tobacco products in Nicotine Survey 2019-2020

Cigarettes: A roll of cut tobacco machine-manufactured into a paper cylinder for the purpose of smoking. Common examples include Marlboro, Newport, Camel, Pall Mall, and L&M.

Hand-rolled/RYO (roll your own) /MYO (make your own) tobacco: Cut tobacco sold in packaged format for smoking either in roll-your-own (RYO) cigarettes (rolled by hand using loose cigarette paper) or make-your-own (MYO) cigarettes (inserted in filter tubes manually or using a machine). Includes volume tobacco. Common examples include Bugler, Natural American Spirit, Drum, and Zig Zag.

Smokeless tobacco: Smokeless tobacco is used either in the mouth or in the nose, by chewing, sucking or inhaling (in the case of nasal snuff) and traditionally has been divided into two subcategories, snuff and chewing tobacco. Snuff was originally a nasal product but today is more commonly used in the mouth (oral snuff, moist snuff) in a manner similar to that of chewing tobacco. Common examples include Copenhagen, Grizzly, and Skoal.

Cigars: Cigars are made from tobacco wrapped in leaf as opposed to paper (such as cigarettes). Cigars generally consist of three sections: the filler, the binder and the wrapper though the product varies considerably in terms of price, quality and size. Different terms are used to describe the various types of cigar depending on country. So-called 'blunt wraps', made from homogenised tobacco, are excluded. Common examples include Dutch Masters, Garcia y Vega, and Montecristo.

Cigarillos: Cigarillos are defined as miniature cigars weighing less than 3 grams each, with a ring gauge of ≤29. Can be unfiltered and unflavoured but more commonly contain filter, aroma or both. Common examples include Swisher Sweets, Black & Mild, and White Owl.

Shisha/Hookah/Pipe tobacco: Includes water pipe tobacco originating in the Middle East, known as 'shisha', hookah and narguile. Typically consumed away from home in public, social spaces. Also includes medwakh/dokha tobacco. Common examples include Al Fakher, Nakhla, and Starbuzz.

E-cigarettes (does not include traditional cigarettes): An electronic device used to vapourise liquid nicotine. Includes products with a cartridge, pod system, or refillable tank system. Types of e-cigarettes may be: cig-a-likes (an e-cigarette product which are intended to mimic traditional rolled manufactured cigarettes and which contain a battery and enclosed flavour cartridge), non-cig-a-like closed systems (an e-cigarette product which do not physically resemble cigarettes but which incorporate the use of enclosed flavour refill pods or cartridges e.g. Juul), and products with a refillable e-liquid chamber and comprise a power source (battery), a tank to hold e-liquid (vapouriser) and e-liquid itself. Common examples include JUUL, Vuse, Blu, SMOK, Innokin, and Eleaf.

Heated tobacco (does not include cigarettes, cigars, cigarillos, etc.): Products, generally manufactured by major tobacco companies, which heat rather than combust tobacco to produce vapour rather than smoke e.g. iQOS, glo, Lil/Fiit.

Supplementary attachment 2

## Definitions of MPOWER scores from WHO MPOWER Overview Data by country (2018)

(available at https://apps.who.int/gho/data/node.main.TOBMPOWER?lang=en)

#### Monitor (1-4)

- 1 = No known data or no recent\* data or data that are not both recent\* and representative\*\* 2 = Recent\* and representative\*\* data for either adults or youth 3 = Recent\* and representative\*\* data for both adults and youth 4 = Recent\*, representative\*\* and periodic\*\*\* data for both adults and youth
- \* Recent means in the data year or the 5 years previous to the data year. \*\* Survey sample representative of the national population. \*\*\* Survey repeated at least every five years. Survey is considered an "adult survey" if it is a household survey sampled from the general population with respondent ages not limited to those under 15.

#### Protect from tobacco smoke (1-5)

1 = Data not reported/not categorized\* 2 = Up to two public places completely smoke-free 3 = Three to five public places completely smoke-free 4 = Six to seven public places completely smoke-free 5 = All public places completely smoke-free (or at least 90% of the population covered by complete subnational smoke-free legislation)

Country's legislation is assessed to determine whether smoke-free laws exist in each of the following places at either the national or subnational level: • health-care facilities; • educational facilities other than universities; • universities; • government facilities; • indoor offices; • restaurants; • pubs and bars; • public transport. \*In several countries, in order to significantly expand the creation of smoke-free places, including restaurants and bars, it was politically necessary to include exceptions to the law that allowed for the provision of designated smoking rooms. The requirements for designated smoking rooms are so technically complex and stringent that, for practical purposes, few or no establishments are expected to implement them. Because no data were requested on the number of complex designated smoking rooms actually constructed, it is not possible to know whether these laws have resulted in the complete absence of such rooms, as intended. For this reason, these few countries have not been categorized in the analyses for this indicator.

## Offer help to quit tobacco use (1-5)

- 1 = Data not reported 2 = None 3 = NRT\* and/or some cessation services\*\* (neither cost-covered) 4 = NRT\* and/or some cessation services\*\* (at least one of which is cost-covered) 5 = National quit line, and both NRT\* and some cessation services\*\* cost-covered
- \* Nicotine replacement therapy. \*\* Smoking cessation support available in any of the following places: health clinics or other primary care facilities, hospitals, office of a health professional, the community.

## Warn about the dangers of tobacco (1-5)

1 = Data not reported 2 = No warning or warning covering <30% of pack surface  $3 = \ge 30\%$ \* but no pictures or pictograms and/or other appropriate characteristics\*\* 4 = 31% - 49%\* including pictures or pictograms and other appropriate characteristics\*\*  $5 = \ge 50\%$ \* including pictures or pictograms and appropriate characteristics\*\*

\* average of the front and back of the cigarette pack. \*\* • Specific health warnings mandated; • appearing on individual packages as well as on any outside packaging and labelling used in retail sale; • describing specific harmful effects of tobacco use on health; • are large, clear, visible and legible (e.g. specific colours and font style and sizes are mandated); • rotate; • written in (all) principal language(s) of the country

#### Enforce bans on tobacco advertising (1-5)

- 1 = Data not reported 2 = Complete absence of ban, or ban that does not cover national television (TV), radio and print media 3 = Ban on national TV, radio and print media only 4 = Ban on national TV, radio and print media as well as on some but not all other forms of direct\* and/or indirect\*\* advertising 5 = Ban on all forms of direct\* and indirect\*\* advertising.
- \* Direct advertising bans: national television and radio; local magazines and newspapers; billboards and outdoor advertising; point of sale. \*\* Indirect advertising bans: free distribution of tobacco products in the mail or through other means; promotional discounts; non-tobacco products identified with tobacco brand names (brand extension); brand names of non-tobacco products used for tobacco products; appearance of tobacco products in television and/or films; sponsored events.

#### Raise taxes on tobacco (1-5)

1 = Data not reported 2 =  $\leq$  25% of retail price is tax 3 = 26–50% of retail price is tax 4 = 51–75% of retail price is tax 5 = >75% of retail price is tax.

Taxes assessed include excise tax, value added tax ("VAT"), import duty (when the cigarettes were imported) and any other taxes levied. Only the price of the most popular brand of cigarettes is considered. In the case of countries where different levels of taxes applied to cigarettes are based on either length, quantity produced or type (e.g. filter vs. non-filter), only the rate that applied to the most popular brand is used in the calculation. Given the lack of information on country and brand-specific profit margins of retailers and wholesalers, their profits were assumed to be zero (unless provided by the national data collector).

#### Anti-tobacco mass media campaigns (1-5)

- 1 = Data not reported 2 = No national campaign conducted in the reporting period with a duration of at least three weeks 3 = National campaign conducted with 1-4 appropriate characteristics\* 4 = National campaign conducted with 5-6 appropriate characteristics\*, or with 7 characteristics excluding airing on TV and/or radio 5 = National campaign conducted with at least 7 appropriate characteristics\* including airing on TV and/or radio.
- \* Characteristics of a high-quality campaign are: the campaign was part of a tobacco control programme; before the campaign, research was undertaken or reviewed to gain a thorough understanding of the target audience; campaign communications materials were pretested with the target audience and refined in line with campaign objectives; air time (radio, television) and/or placement (billboards, print advertising, etc.) was obtained by purchasing or securing it using either the organization's own internal resources or an external media planner or agency (this information indicates whether the campaign adopted a thorough media planning and buying process to effectively and efficiently reach its target audience); the implementing agency worked with journalists to gain publicity or news coverage for the campaign; process evaluation was undertaken to assess how effectively the campaign had been implemented; and an outcome evaluation process was implemented to assess the campaign impact.

# Supplementary table 1

Proportion of selected reasons\* to reduce nicotine and tobacco product consumption among adults in 21 countries, by individual and country characteristics, Nicotine Survey 2019-2020, WHO 2018, and World Bank 2019-2020

	Improve health		Save money		Pressure from family		Use another substance instead	
	Unwtd	Wtd%	Unwtd	Wtd%	Unwtd	Wtd%	Unwtd freq	Wtd%
	freq	(95% CI)	freq	(95% CI)	freq	(95% CI)		(95% CI)
Overall	18,595	86.5	14,194	64.7	4,081	18.6	939	4.2
		(85.8-87.3)		(64.0-65.4)		(18.1-19.2)		(3.9-4.5)
Nicotine and tobacco products (NTPs) use	•	•				•		
Multiple NTPs use	7,370	86.5	5,737	67.1	1,822	21.4	592	6.8
		(85.8-87.3)		(66.1-68.2)		(20.5-22.4)		(6.2-7.3)
A single NTP use only (any NTP)	11,226	83.9	8,458	63.2	2,260	16.9	347	2.6
		(83.2-84.5)		(62.3-64.1)		(16.2-17.5)		(2.3-2.8)
Cigarettes only	8,387	86.9	6,357	66.0	1,592	16.7	203	2.0
		(86.2-87.6)		(64.9-67.0)		(15.9-17.5)		(1.7-2.3)
Cigarillos only	171	70.8	127	52.3	51	20.5	11	
		(65-76.7)		(45.7-59.0)		(15.1-25.9)		
Cigars only	159	66.9	110	46.3	52	21.3	15	6.3
		(60.8-73.0)		(39.7-52.9)		(15.6-27.0)		(3.2-9.5)
E-cigarettes only	767	76.7	542	53.3	189	18.1	45	5.1
		(73.9-79.6)		(49.8-56.7)		(15.6-20.5)		(3.4-6.9)
Heated tobacco products only	361	77.8	274	59.4	72	14.6	9	
		(73.9-81.7)		(54.7-64.1)		(11.4-17.8)		
Roll-your-own tobacco only	1,097	82.1	842	62.4	196	14.2	39	2.7
		(79.8-84.3)		(59.6-65.3)		(12.3-16.1)		(1.9-3.6)
Shisha only	208	72.3	117	40.4	48	16.5	9	
		(66.6-77.9)		(34.4-46.4)		(12.1-21.0)		
Smokeless tobacco only	76	41.7	89	51.8	60	35.2	16	9.2
·		(34.1-49.2)		(44.1-59.6)		(27.7-42.7)		(4.8-13.7)
Sex								
Women	8419	85.3	6,528	65.7	1,696	17.2	357	3.4
		(84.6-86.1)		(64.7-66.8)		(16.4-18.0)		(3.0-3.8)
Men	10,151	84.7	7,641	63.9	2,368	19.7	575	4.8
		(84.1-85.4)		(63.0-64.8)		(19-20.5)		(4.3-5.2)

18-24	2,222	78.0	1,893	65.5	521	18.1	172	6.3
		(76.4-79.6)		(63.7-67.4)		(16.6-19.6)		(5.3-7.2)
25-34	4,111	83.3	3,226	65.9	893	18.3	270	5.4
		(82.2-84.3)		(64.5-67.2)		(17.2-19.4)		(4.8-6.1)
35-44	4,448	86.4	3,349	65.5	939	18.3	212	4.2
		(85.4-87.4)		(64.1-66.8)		(17.3-19.4)		(3.6-4.7)
45-54	4,093	87.0	3,002	63.8	850	18.1	149	3.2
		(86.0-87.9)		(62.3-65.2)		(17.0-19.2)		(2.7-3.7)
55-64	2,983	87.3	2,180	63.5	670	19.1	106	3.0
		(86.1-88.4)		(61.8-65.2)		(17.7-20.5)		(2.4-3.5)
65-74	738	85.5	544	62.5	208	21.8	30	2.4
		(82.8-88.2)		(58.5-66.5)		(18.4-25.2)		(1.3-3.5)
Nativity status								
Lived in the country for less than 5 years	257	54.6	237	50.0	142	29.6	48	10.4
		(49.9-59.2)		(45.3-54.6)		(25.3-33.8)		(7.5-13.2)
Lived in the country for more than 5 years	1,216	75.5	1,056	65.4	372	23.0	110	6.9
		(73.4-77.7)		(62.9-67.8)		(20.9-25.2)		(5.6-8.2)
Native born	16,960	86.6	12,767	65.1	3,518	18.0	768	3.8
		(86.1-87.1)		(64.4-65.8)		(17.4-18.6)		(3.5-4.1)
Undisclosed	162	67.6	134	54.0	49	20.0	13	4.7
		(61.5-73.7)		(47.4-60.7)		(14.8-25.2)		(2.1-7.4)
Annual family income								
Income below the national average	9,774	84.2	8,200	70.3	1,783	15.4	411	3.4
-		(83.5-84.9)		(69.4-71.2)		(14.7-16.1)		(3.1-3.8)
Income at or above the national average	8,821	85.7	5,994	58.4	2,298	22.3	528	5.0
-		(85-86.4)		(57.4-59.4)		(21.4-23.1)		(4.6-5.4)
Education		•		•				
Primary school graduate	400	80.9	355	71.1	75	15.4	21	4.1
,		(77.4-84.4)		(66.9-75.3)		(12.1-18.8)		(2.4-5.9)
Secondary school graduate	3,131	83.7	2,691	71.5	535	14.5	138	3.8
,	,	(82.5-85.0)		(70.0-73.1)		(13.2-15.7)		(3.1-4.5)
A-level or college equivalent	408	76.3	409	77.1	84	15.5	35	6.8
		(72.6-80.0)		(73.5-80.7)		(12.4-18.6)		(4.6-9.1)
Vocational school graduate or technical school	5,629	84.8	4,499	67.2	1,140	17.2	232	3.5
certificate		(83.8-85.7)		(66.0-68.4)		(16.2-18.2)		(3.0-3.9)
Associate's or "2-year" degree from junior college	143	84.6	118	68.7	48	28.0	19	11.5
or technical school		(79-90.2)		(61.4-76.1)		(21.2-34.9)		(6.6-16.4)
Bachelor's degree from college or university	5,940	86.7	3,981	58.4	1,480	21.4	345	4.7
		(85.8-87.5)		(57.1-59.6)		(20.4-22.5)		(4.2-5.3)
Graduate or post-graduate studies	2,509	84.7	1,809	61.6	640	21.6	130	4.3
							1	

(e.g., master's, doctoral degree)		(83.2-86.1)		(59.7-63.5)		(20-23.2)		(3.5-5.0)
Other	435	85.6	332	64.8	79	15.3	19	3.2
		(82.5-88.8)		(60.4-69.1)		(12-18.5)		(1.7-4.7)
Residential area								
Rural	1,391	80.6	1,220	70.2	282	16.7	68	3.7
		(78.6-82.5)		(67.9-72.5)		(14.7-18.6)		(2.8-4.6)
Urban	17,204	85.3	12,974	64.2	3,799	18.8	871	4.2
		(84.8-85.8)		(63.5-64.9)		(18.2-19.4)		(3.9-4.5)
Social norms								
Tobacco use is not normal	2,046	85.8	1,491	61.7	619	26.8	115	4.6
		(84.3-87.3)		(59.6-63.9)		(24.7-28.8)		(3.7-5.4)
Tobacco use is somewhat normal	15,367	84.5	11,679	64.2	3,227	17.6	731	3.9
		(84-85.1)		(63.5-65)		(17-18.2)		(3.7-4.2)
Tobacco use is normal	1,182	88.4	1,024	76.4	235	17.1	93	6.6
		(86.7-90.1)		(74.1-78.8)		(15-19.2)		(5.2-7.9)
Living with children in the household								
No	10,719	84.4	8,368	65.4	1,957	15.5	451	3.4
		(83.7-85.0)		(64.5-66.3)		(14.8-16.2)		(3.1-3.8)
Yes	7,876	85.7	5,826	63.6	2,124	23.2	488	5.2
		(85.0-86.5)		(62.6-64.7)		(22.3-24.1)		(4.8-5.7)
								/
Living with a household member who uses	s nicotine or tobacc					•		,
	s nicotine or tobacc		7,342	62.3	2,466	20.9	463	3.8
		o products	7,342	62.3 (61.4-63.3)	2,466	20.9 (20.1-21.7)	463	
		o products 84.3	7,342 6,581		2,466 1,532		463 453	3.8
No	9,941	84.3 (83.6-85)		(61.4-63.3)		(20.1-21.7)		3.8 (3.5-4.2)
No	9,941	84.3 (83.6-85) 85.4		(61.4-63.3) 68.5		(20.1-21.7) 15.9		3.8 (3.5-4.2) 4.7
No Yes	9,941	84.3 (83.6-85) 85.4		(61.4-63.3) 68.5		(20.1-21.7) 15.9		3.8 (3.5-4.2) 4.7
No Yes  Country-level characteristics	9,941	84.3 (83.6-85) 85.4		(61.4-63.3) 68.5		(20.1-21.7) 15.9		3.8 (3.5-4.2) 4.7
Yes  Country-level characteristics  Country income level	9,941 8,163	84.3 (83.6-85) 85.4 (84.6-86.1)	6,581	(61.4-63.3) 68.5 (67.6-69.5)	1,532	(20.1-21.7) 15.9 (15.2-16.7)	453	3.8 (3.5-4.2) 4.7 (4.2-5.1)
Yes  Country-level characteristics  Country income level	9,941 8,163	84.3 (83.6-85) 85.4 (84.6-86.1)	6,581	(61.4-63.3) 68.5 (67.6-69.5)	1,532	(20.1-21.7) 15.9 (15.2-16.7)	453	3.8 (3.5-4.2) 4.7 (4.2-5.1)

<sup>\*</sup>Selected reasons are not mutually exclusive

UnWtd freq – unweighted frequency

Wtd% (95% CI) – weighted percent and 95% confidence interval

**Bold font** – **global** chi squared tests of association across all levels of each variable are significant ( $p \le 0.05$ )

-- – estimates with relative standard error of 30% or more were suppressed