#### Appendix: Global Trends in Alcohol Control Policies Between 2010–2019

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**Supplementary Table 1.** Countries excluded due to a lack of available data in 2019

WHO Region	Country
AFR	Algeria
AFR	Cameroon
AFR	Comoros
AFR	Equatorical Guinea
AFR	Eritrea
AFR	Gabon
AFR	Gambia
AFR	Guinea-Bissau
AFR	Lesotho
AFR	Madagascar
AFR	Malawi
AFR	Mauritania
AFR	Mauritius
AFR	Namibia
AFR	Niger
AFR	Togo
AMR	Haiti
AMR	Trinidad and Tobago
AMR	Venezuela
EMR	Libya
EMR	Yemen
EUR	Albania
EUR	Bosnia and Herzegovina
EUR	Montenegro
EUR	Uzbekistan
SEAR	Timor-Leste
WPR	Kiribati
WPR	Niue

**Abbreviations:** AFR; African Region, AMR; Region of the Americas, EMR; Eastern Mediterranean Region, EUR; European Region, SEAR;

**Supplementary Table 2.** 5-item instrument to assess the strength of alcohol-related public health policies in API.

ltem	World Health Organization categories	Low level (0 point)	Moderate level (1 point)	Strong level (2 point)
1. National policy to fight harmful consequences of alcohol	National plan	Countries that do not have a written national policy	Countries that adopted a written national policy without an action plan for its implementation	Countries that have a national action plan for the implementation of the written national policy on alcohol
2. Control over production, pricing and taxes	Taxes control, pricing policies or national license, production and selling control	Countries that do not have taxes controls or do not control licensing	Countries with some regulations on alcohol production, licensing, or selling. There are taxes, but they are not established for all alcoholic beverages	Countries with strong regulations on alcohol production, licensing, and selling. There are taxes on all alcoholic beverages
3. Marketing of alcoholic beverages and restrictions to alcohol access	Control over advertising and promotion, restrictions to alcohol access or national legal minimum age for on-premise sales of alcoholic beverages	Countries without control over ads, restrictions to alcohol access, or a national legal minimum age for on-premises sales of alcoholic beverages	Countries with less than 50% of policies in control over ads and restrictions on alcohol access. There is a national legal minimum age for on-premises sales of alcoholic beverages	Countries with at least 50% of policies in control over advertising and restrictions on alcohol access. There is a national legal minimum age for on-premises sales of alcoholic beverages
4. Drink- driving policies and countermeasures	Driving- related policies	Countries without established restrictions on blood alcohol concentration	Countries with established restrictions on blood alcohol concentration	Countries that have zero tolerance to alcohol consumption when

		when driving a vehicle or effective penalties for drink driving	when driving a vehicle or effective penalties for drink driving	driving a vehicle and effective penalties for drink driving
5. Monitoring and surveillance	Monitoring systems	Countries that do not meet the definitions for the moderate- or strong- level	Countries with national government support for community action or national monitoring systems	Countries with national government support for community action and national monitoring systems

## **Supplementary Table 3.** Public health policies enforced in 2010-2016-2019 and the score per each item of the instrument.

				2010					2016					2019		
Country	WHO region	Item 1	Item 2	Item 3	Item 4	Item 5	Item 1	Item 2	Item 3	Item 4	Item 5	Item 1	Item 2	Item 3	Item 4	Item 5
Angola	AFR	0	1	0	1	1	2	1	0	1	1	1	2	1	1	1
Benin	AFR	0	1	0	1	1	2	0	0	1	1	1	2	0	1	1
Botswana	AFR	1	1	1	1	2	1	1	2	1	1	1	2	2	0	2
Burkina Faso	AFR	0	0	0	0	0	0	2	0	1	1	0	2	0	1	1
Burundi	AFR	0	1	0	0	0	0	2	1	0	1	1	2	1	0	1
Cabo Verde	AFR	0	1	1	0	0	2	1	1	1	1	2	2	1	1	1
Central African Republic	AFR	0	2	0	1	0	2	1	0	1	0	1	0	0	1	0
Chad	AFR	0	1	0	0	1	0	0	1	1	1	1	2	1	1	1
Congo	AFR	1	1	0	1	1	0	2	0	1	0	0	2	1	1	0
CÒte d'Ivoire	AFR	1	1	0	1	0	2	2	1	0	1	2	2	1	0	2
Democratic Republic of the Congo	AFR	1	1	1	1	0	1	1	1	1	0	1	2	1	1	0
Ethiopia	AFR	0	1	0	1	0	0	1	1	1	1	0	2	1	1	1
Ghana	AFR	0	1	0	1	2	2	1	1	1	1	2	2	1	1	1
Guinea	AFR	0	1	0	1	0	0	2	0	1	0	0	0	0	1	0
Kenya	AFR	2	2	2	0	1	0	2	2	1	1	0	2	2	1	1
Liberia	AFR	0	2	0	1	0	0	2	0	0	0	0	2	1	0	0
Mali	AFR	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0

Mozambique	AFR	0	2	0	1	1	0	2	1	1	1	0	2	2	1	1
Nigeria	AFR	0	1	1	1	1	0	2	1	1	1	0	2	1	1	1
Rwanda	AFR	0	2	0	1	0	0	0	0	1	1	0	0	1	1	2
Sao Tome and Principe	AFR	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Senegal	AFR	0	1	2	2	0	0	2	2	0	1	0	0	2	0	1
Seychelles	AFR	2	1	0	1	1	1	1	2	1	1	0	2	2	1	1
Sierra Leone	AFR	0	1	0	0	1	0	1	0	0	1	0	2	0	0	1
South Africa	AFR	2	1	1	1	1	2	1	0	1	0	2	2	1	0	0
Uganda	AFR	0	1	0	1	2	0	1	0	1	0	1	2	0	1	0
United Republic of Tanzania	AFR	0	1	1	1	0	0	2	1	1	0	1	2	1	1	0
Zambia	AFR	0	1	1	1	1	0	1	1	1	1	1	2	1	1	1
Zimbabwe	AFR	0	2	2	1	1	0	2	1	1	1	0	2	1	0	1
Antigua and Barbuda	AMR	0	0	0	0	1	0	0	0	0	1	0	0	1	1	1
Argentina	AMR	2	0	1	1	2	1	0	0	1	1	2	1	1	1	2
Bahamas	AMR	1	1	2	1	2	1	1	2	1	1	1	2	1	1	2
Barbados	AMR	0	1	0	0	1	0	1	0	0	1	0	2	1	0	2
Belize	AMR	0	0	0	1	1	0	1	0	1	1		2	1	1	1
Bolivia	AMR	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0
Brazil	AMR	2	1	1	1	2	1	1	2	2	1	2	2	2	0	2
Canada	AMR	0	2	1	2	2	1	2	2	1	1	0	2	2	1	2

:																
Chile	AMR	2	1	0	1	1	1	1	1	1	1	1	2	2	1	1
Colombia	AMR	2	2	1	1	2	2	2	0	1	1	2	2	1	1	2
Costa Rica	AMR	0	2	2	1	2	0	1	2	1	1	1	2	2	1	2
Cuba	AMR	2	0	2	1	2	0	0	0	1	1	0	0	1	1	2
Dominica	AMR	0	1	0	0	1	0	1	0	0	1	0	2	1	0	1
Dominican Republic	AMR	0	1	1	1	1	0	1	1	1	1	0	2	1	1	2
Ecuador	AMR	0	1	2	1	0	0	1	2	1	1	0	2	2	1	2
El Salvador	AMR	0	2	0	1	1	0	1	1	1	1	0	2	1	1	2
Grenada	AMR	0	0	0	0	2	0	1	0	0	1	0	2	1	0	2
Guatemala	AMR	0	0	1	0	1	0	1	0	0	1	1	2	1	0	1
Guyana	AMR	0	1	0	1	2	0	1	0	1	1	0	2	1	0	1
Honduras	AMR	0	2	1	1	1	0	1	1	1	1	0	2	1	1	1
Jamaica	AMR	0	1	1	1	1	0	1	1	1	1	0	2	1	1	2
Mexico	AMR	2	1	2	1	2	2	1	1	1	1	1	2	1	0	2
Nicaragua	AMR	0	1	2	1	2	0	1	0	1	1	1	2	1	1	2
Panama	AMR	0	1	0	1	1	0	1	2	1	1	0	2	1	1	2
Paraguay	AMR	1	0	0	0	1	1	1	0	2	1	1	2	1	2	2
Peru	AMR	0	1	2	1	1	0	1	1	1	1	0	2	1	1	2
Saint Kitts and Nevis	AMR	0	1	0	1	1	0	1	0	1	1	0	2	0	1	1
Saint Lucia	AMR	0	1	0	1	1	0	1	0	1	1	1	2	1	1	2
Saint Vincent and	AMR	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0

the Grenadines																
Suriname	AMR	0	1	0	1	1	1	1	0	1	1	0	2	0	1	1
United States of America	AMR	2	1	1	1	2	2	2	2	1	1	2	2	2	1	2
Uruguay	AMR	0	1	0	1	2	0	0	0	2	1	0	1	1	2	1
Afghanistan	EMR	0	2	2	2	1	2	2	2	2	0	0	0	2	2	0
Egypt	EMR	2	2	1	2	1	2	1	2	0	1	2	2	1	0	1
Iran	EMR	0	2	2	2	0	2	2	2	2	1	0	0		2	2
Iraq	EMR	0	0	1	1	0	0	0	2	1	1	0	2	2	1	1
Jordan	EMR	0	2	2	1	0	0	2	2	1	1	0	2	2	1	1
Oman	EMR	2	0	2	1	1	0	2	2	1	0	0	2	2	1	0
Pakistan	EMR	2	1	2	2	1	0	2	2	2	0	0	2	2	2	0
Saudi Arabia	EMR	1	2	2	0	0	2	2	2	0	0	0	0	0	1	0
Somalia	EMR	0	2	2	0	0	2	2	2	0	0		0	2	1	0
Sudan	EMR	0	2	2	2	0	2	2	2	2	0	0	0	2	2	0
Syrian Arab Republic	EMR	0	2	0	1	0	0	2	2	0	1	0	2	1	0	1
Tunisia	EMR	0	2	2	0	1	0	0	0	0	0	0	0	1	0	0
Andorra	EUR	0	1	0	1	1	2	1	0	1	1	2	2	1	1	2
Armenia	EUR	0	1	1	1	0	0	2	1	1	1	0	2	1	1	1
Austria	EUR	0	0	1	1	1	1	0	2	1	1	1	1	1	1	2
Azerbaijan	EUR	0	1	0	2	2	2	1	0	2	1	2	2	1	2	2
Belarus	EUR	2	1	2	1	2	2	2	2	1	1	2	2	2	1	2

Belgium	EUR	1	1	0	1	2	0	1	1	1	1	0	2	2	1	2
Bulgaria	EUR	0	1	2	1	1	1	1	1	1	1	1	0	1	1	2
Croatia	EUR	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2
Cyprus	EUR	2	1	1	1	2	2	1	1	1	1	2	1	1	1	2
Czech Republic	EUR	2	1	1	2	1	2	1	1	2	1	2	2	1	2	1
Denmark	EUR	0	0	1	1	2	1	0	1	1	1	1	2	1	1	2
Estonia	EUR	0	1	1	1	2	2	0	1	1	1	2	2	1	1	2
Finland	EUR	2	2	2	1	2	2	2	2	1	1	1	2	2	1	2
France	EUR	1	1	2	1	2	1	1	2	1	1	1	2	2	1	2
Georgia	EUR	0	0	0	1	1	2	0	1	1	1	0	2	2	1	1
Germany	EUR	1	1	1	1	2	1	0	1	1	1	0	1	1	1	2
Greece	EUR	2	1	0	1	2	0	1	1	1	1	1	2	2	1	2
Hungary	EUR	0	0	1	2	2	0	0	1	2	1	0	2	1	2	2
Iceland	EUR	1	2	2	1	2	1	2	2	1	1	1	2	2	1	2
Ireland	EUR	2	1	2	1	1	1	1	2	1	1	2	2	2	1	1
Israel	EUR	2	1	1	1	1	2	1	1	1	1	1	2	2	1	1
Italy	EUR	1	1	2	1	2	2	1	2	1	1	2	1	2	1	2
Kazakhstan	EUR	1	1	1	2	1	2	1	2	2	1	1	2	2	1	2
Latvia	EUR	2	1	1	1	2	2	1	1	1	1	1	2	2	1	2
Lithuania	EUR	2	1	2	1	2	2	1	2	1	1	2	2	2	1	2
Luxembourg	EUR	0	1	0	1	1	0	1	1	1	1	0	2	1	1	1
Malta	EUR	0	1	2	1	0	0	1	2	1	1	1	2	2	1	1

Monaco	EUR	0	0	0	1	0	0	0	0	1	1	0	2	0	1	2
Netherlands	EUR	2	1	1	1	2	1	1	1	1	1	2	2	2	1	2
North Macedonia	EUR	1	2	2	1	2	1	2	2	1	1	0	2	2	0	2
Norway	EUR	1	2	2	1	2	1	2	2	1	1	1	2	2	1	2
Poland	EUR	2	1	1	1	2	1	1	1	1	1	2	2	2	1	1
Portugal	EUR	2	1	1	1	2	2	1	2	1	1	2	2	2	1	2
Republic of Moldova	EUR	2	2	2	1	2	2	2	2	1	1	2	1	2	1	2
Romania	EUR	2	1	1	2	2	0	2	1	2	1	0	2	2	0	1
Russian Federation	EUR	1	1	1	2	0	1	1	2	1	1	2	2	2	1	2
San Marino	EUR	1	1	0	1	0	1	1	0	1	0	1	0	1	1	0
Serbia	EUR	0	1	1	1	2	0	1	1	1	1	1	2	1	1	1
Slovakia	EUR	1	1	1	2	0	2	0	1	2	1	2	2	1	2	2
Slovenia	EUR	2	0	1	1	2	1	0	2	1	1	1	2	1	1	2
Spain	EUR	2	1	1	1	2	2	1	1	1	1	2	2	1	1	2
Sweden	EUR	2	1	2	1	2	1	0	2	1	1	1	2	2	1	2
Switzerland	EUR	1	1	1	1	2	1	1	0	1	1	1	1	1	1	2
Tajikistan	EUR	1	2	1	1	1	1	2	1	1	1	2	2	2	1	2
Turkey	EUR	0	1	1	1	0	0	1	2	1	1	1	2	2	1	2
Turkmenistan	EUR	2	2	2	2	1	0	2	1	1	1	1	2	2	1	1
Ukraine	EUR	0	1	1	1	2	0	1	1	1	0	1	2	1	1	0
United Kingdom	EUR	1	2	1	1	1	1	1	1	1	1	1	2	0	1	2

Bangladesh	SEAR	0	2	0	2	1	1	2	0	2	1	1	2	2	2	1
Bhutan	SEAR	0	1	1	1	0	2	1	2	1	1	2	1	2	1	1
India	SEAR	0	1	2	1	2	1	1	2	1	1	1	0	1	1	1
Indonesia	SEAR	0	2	0	2	1	1	1	1	0	1	1	2	0	0	1
Myanmar	SEAR	0	1	2	1	2	0	1	2	1	1	0	2	1	1	1
Sri Lanka	SEAR	0	1	2	1	1	1	1	2	1	1	2	2	2	1	2
Thailand	SEAR	2	1	2	1	2	2	1	2	1	1	2	2	2	1	2
Australia	WPR	2	0	1	1	2	2	1	0	1	1	2	1	1	1	2
Cambodia	WPR	1	1	0	1	1	2	1	0	1	1	2	0	0	1	1
China	WPR	0	1	0	1	0	0	1	0	1	1	0	2	0	0	1
Cook Islands	WPR	0	2	2	1	1	2	1	0	1	0	0	2	1	1	0
Japan	WPR	2	1	0	1	2	2	1	0	1	1	2	2	1	1	1
Lao People's Democratic Republic	WPR	2	1	1	1	1	1	1	1	1	0	1	2	1	1	0
Malaysia	WPR	2	1	1	1	2	1	1	2	1	1	2	2	2	1	2
Mongolia	WPR	2	2	1	1	2	0	2	1	1	1	1	2	2	1	1
New Zealand	WPR	1	1	1	1	2	1	1	1	1	1	1	2	2	1	2
Philippines	WPR	0	1	1	1	0	2	2	1	1	1	1	2	1	1	1
Republic of Korea	WPR	1	1	0	1	2	1	1	0	1	1	2	2	1	1	2
Singapore	WPR	0	1	0	1	2	1	1	0	1	1	1	2	2	1	2
Vietnam	WPR	0	1	1	2	0	2	1	1	2	1	1	2	1	2	2

### **Supplementary Table 4.** The change of API (%) between 2010 – 2020 for each country

Country	WHO region	API Change (2010–2019, relative, %)
Angola	AFR	77.3
Benin	AFR	40.4
Botswana	AFR	-22.8
Burundi	AFR	370.0
Cabo Verde	AFR	149.1
Central African Republic	AFR	-23.4
Chad	AFR	321.0
Congo	AFR	-18.6
CÒte d'Ivoire	AFR	40.5
Democratic Republic of the Congo	AFR	-19.9
Ethiopia	AFR	68.8
Ghana	AFR	28.2
Guinea	AFR	-67.0
Kenya	AFR	33.7
Liberia	AFR	19.2
Mali	AFR	-57.0
Mozambique	AFR	97.3
Nigeria	AFR	3.2
Rwanda	AFR	68.9
Senegal	AFR	-26.5
Seychelles	AFR	3.6
Sierra Leone	AFR	100.5
South Africa	AFR	-37.1
Uganda	AFR	-29.4
United Republic of Tanzania	AFR	5.7
Zambia	AFR	21.4
Zimbabwe	AFR	-0.6
Antigua and Barbuda	AMR	841.9

Argentina	AMR	7.5
Bahamas	AMR	-13.8
Barbados	AMR	242.4
Belize	AMR	150.3
Bolivia	AMR	17.2
Brazil	AMR	-21.5
Canada	AMR	11.3
Chile	AMR	20.2
Colombia	AMR	-10.0
Costa Rica	AMR	24.4
Cuba	AMR	-43.1
Dominica	AMR	188.0
Dominican Republic	AMR	18.9
Ecuador	AMR	47.5
El Salvador	AMR	107.4
Grenada	AMR	135.5
Guatemala	AMR	160.5
Guyana	AMR	-19.5
Honduras	AMR	16.2
Jamaica	AMR	18.9
Mexico	AMR	-31.3
Nicaragua	AMR	6.0
Panama	AMR	73.7
Paraguay	AMR	253.0
Peru	AMR	25.7
Saint Kitts and Nevis	AMR	14.0
Saint Lucia	AMR	100.2
Saint Vincent and the Grenadines	AMR	-52.5
Suriname	AMR	14.0
United States of America	AMR	-10.0

Uruguay	AMR	10.9
Afghanistan	EMR	-35.6
Egypt	EMR	-8.2
Iran	EMR	2.0
Iraq	EMR	59.0
Jordan	EMR	48.5
Oman	EMR	-21.2
Pakistan	EMR	-34.8
Saudi Arabia	EMR	-69.5
Somalia	EMR	57.5
Sudan	EMR	-28.7
Syrian Arab Republic	EMR	65.9
Tunisia	EMR	-42.5
Andorra	EUR	116.0
Armenia	EUR	11.4
Austria	EUR	97.1
Azerbaijan	EUR	48.2
Belarus	EUR	-7.2
Belgium	EUR	-3.0
Bulgaria	EUR	8.5
Croatia	EUR	-5.9
Cyprus	EUR	-5.7
Czech Republic	EUR	-5.5
Denmark	EUR	21.2
Estonia	EUR	9.8
Finland	EUR	-7.5
France	EUR	-7.5
Georgia	EUR	141.1
Germany	EUR	-16.9
Greece	EUR	2.2

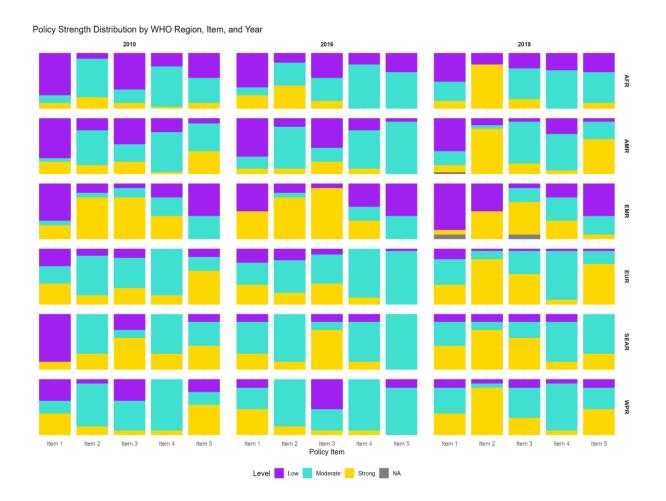
	FUE	6.7
Hungary	EUR	6.7
Iceland	EUR	-0.6
Ireland	EUR	5.0
Israel	EUR	-6.7
Italy	EUR	10.3
Kazakhstan	EUR	20.5
Latvia	EUR	-16.2
Lithuania	EUR	-7.2
Luxembourg	EUR	50.8
Malta	EUR	50.3
Monaco	EUR	136.4
Netherlands	EUR	-10.0
North Macedonia	EUR	-26.5
Norway	EUR	-0.6
Poland	EUR	-19.0
Portugal	EUR	-10.0
Republic of Moldova	EUR	10.4
Romania	EUR	-44.6
Russian Federation	EUR	37.6
San Marino	EUR	-30.0
Serbia	EUR	-9.8
Slovakia	EUR	23.3
Slovenia	EUR	-10.9
Spain	EUR	-15.7
Sweden	EUR	-13.5
Switzerland	EUR	-5.9
Tajikistan	EUR	33.1
Turkey	EUR	58.6
Turkmenistan	EUR	12.6
Ukraine	EUR	-27.2

United Kingdom	EUR	-5.7
Bangladesh	SEAR	151.3
Bhutan	SEAR	72.3
India	SEAR	-32.7
Indonesia	SEAR	52.9
Myanmar	SEAR	-20.1
Sri Lanka	SEAR	66.7
Thailand	SEAR	-7.2
Australia	WPR	7.5
Cambodia	WPR	-26.1
China	WPR	-5.5
Cook Islands	WPR	-4.4
Japan	WPR	-8.1
Lao People's Democratic Republic	WPR	-30.4
Malaysia	WPR	-10.0
Mongolia	WPR	-20.1
New Zealand	WPR	-10.5
Philippines	WPR	31.0
Republic of Korea	WPR	11.4
Singapore	WPR	42.6
Vietnam	WPR	53.6

# **Supplementary Table 5.** Ten countries with the lowest AUD prevalence and alcohol-related cancer, liver, and cardiovascular mortality indicators in 2020, and overlap with top API performers.

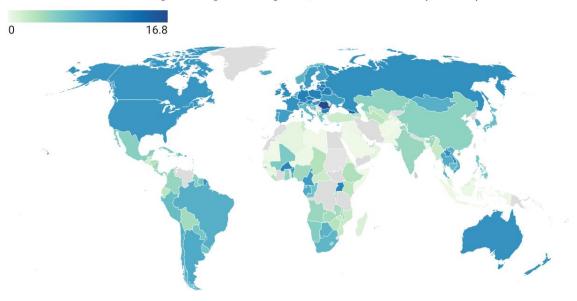
AUD prevalence (%)	HCC incidence (rate)	HCC incidence, alcohol attributable (rate)	HCC mortality (rate)	Cirrhosis mortality (rate)	Cardiovascular mortality (rate)
Guinea	Sri Lanka	Sao Tome and Principe	Sri Lanka	Ireland	Benin
Syrian Arab Republic	Sudan	Burundi	El Salvadore	Israel	Peru
Benin	Belize	Iran	Oman	Oman	Nicaragua
Iraq	El Salvador	Sudan	Belize	Norway	Burundi
Nizoria	Democratic Republic of the	Democratic Republic of the	Democratic Republic of the	lovesias	Nicorio
Nigeria	Congo	Congo	Congo	Jamaica	Nigeria
Egypt	Argentina	Oman	Argentina	New Zealand	Mali
Sudan	Sao Tome and Principe	Ethiopia	Sao Tome and Principe	Jordan	Kenya
Afghanistan	Burundi	Saudi Arabia	Burundi	Iceland	Somalia
Chad	Ethiopia	Afghanistan	Ethiopia	Singapore	Ethiopia
Mali	Jordan	Jordan	Jordan	Cook Island	Uganda

#### **SUPPLEMENTARY FIGURES**



**Supplementary Figure 1**. Policy Distribution by WHO region, items and year. Item 1. National alcohol policy frameworks; Item 2. Controls on production, pricing and taxation; Item 3. Restrictions on marketing and physical availability; Item 4. Drink-driving countermeasures; Item 5. Surveillance and monitoring systems.

# Alcohol Consumption per Capita, Worldwide (2020)

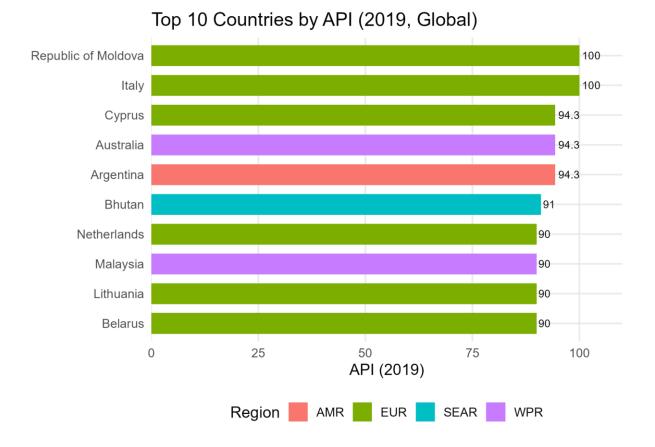


Supplementary Figure 2. Alcohol Consumption per Capita (liters), worldwide (2020).

Antigua and Barbuda 841.9% Burundi 370.0% Chad 321.0% Paraguay 253.0% Barbados 242.4% Dominica 188.0% Guatemala 160.5% Bangladesh 151.3% Belize 150.3% Cabo Verde 149.1% % change in API Region SEAR AFR **AMR** 

Top 10 Countries by % API Increase 2010→2019

**Supplementary Figure 3**. Top 10 countries by relative API increase between 2010 and 2019.



**Supplementary Figure 4.** Top 10 countries by absolute API level in 2019.