

## Supplementary Online Appendix

**Table S1. Littered pack collection sample characteristics**

<b>City</b>	<b>Average distance of first- and second-order roads per AGEB (in meters)</b>	<b>Number of AGEBs selected to the sample</b>	<b>Number of packs collected</b>
Mexico City	5,833.40	14	918
Durango	8,642.40	11	1294
Guadalajara	9,074.00	10	865
Hermosillo	6,234.90	14	1183
Leon	8,184.10	11	1184
Merida	9,520.60	9	1122
Monterrey	8,412.40	12	809
Veracruz	7,999.10	11	829
<b>Total</b>	<b>7,775.00</b>	<b>92</b>	<b>8204</b>

Note: The sample size for the survey of littered packs was based on the pilot study conducted in Mexico City in June 2017, which found 100 packs per each 12.36 km traveled, on average, of

which 2% were illicit. The power analysis concluded that a sample of 670 packs per city was needed to obtain estimates with relatively small margin of error (1.5%), considering an effect design of 2. Thus, it was determined that a distance of minimum 82.8 km per city needed to be walked in order to collect the desired number of packs. The specific formulae employed to calculate the sample size and weights can be found in the full report of the study.[40]

**Table S2. Survey of smokers sample characteristics**

City	Smoking prevalence	Number of AGEBS selected	Minimum number of blocks	Sample size (surveys)	Margin of error at 95% confidence
Mexico City	27.8%	48	96	482	+/- 4.0 %
Durango	21.0%	25	50	255	+/- 5.0 %
Guadalajara	17.9%	33	66	336	+/- 4.1 %
Hermosillo	17.0%	21	42	217	+/- 5.0 %
Leon	17.3%	22	44	220	+/- 5.0 %
Merida	15.4%	29	58	298	+/- 4.1 %
Monterrey	22.8%	40	80	402	+/- 4.1 %
Veracruz	14.1%	18	36	186	+/- 5.0 %
<b>Total</b>		<b>236</b>	<b>472</b>	<b>2396</b>	

Note: The power analysis concluded that a sample of 2396 smokers was needed to obtain estimates with desired margin of error. The assumed margin of error varies by city and is larger in cities with expected higher prevalence of illicit cigarette consumption.[32] The margins are larger than in the littered pack collection, due to high costs of the face-to-face surveys. The quota of smokers was distributed among 236 randomly-selected AGEBS. Within each of those AGEBS, two blocks to conduct the interview and two auxiliary blocks were randomly selected. The interviewer's path begun always in the northwest corner of the block and continued clockwise around the block. The interviewer approached each household on their path. The households in occupied private homes and apartment buildings were included in the study, while collective

housing (guest houses, hotels, etc.) was excluded. A random walk method was not used, due to relatively low smoking prevalence. Indeed, a census of households within selected AGEBS was required to complete a pre-determined quota of five interviews per block or ten per AGEBS. If ten interviews were not completed in the two selected blocks per AGEBS or the sample size required a few additional surveys, the interviewers proceeded to the first auxiliary block in that AGEBS to fulfil the quota of interviews per AGEBS. Within each approached household, only one randomly-selected (Kish selection grid) person who met the eligibility criteria (smoker, age 18 or older) was interviewed. At the end of the interview, the interviewer continued to the next household along the route. Survey weights were calculated as the [inverse of the product of the probabilities of selection at each stage](#). About 71 thousand households were approached; occupants were contacted in nearly 36 thousand. Among contacted households, 11% refused to participate, 2% had inadequate informants, 65% had no smokers, and in 15% selected smokers refused to participate. The specific formulae employed to calculate the sample size and weights can be found in the full report of the study.[40]

**Table S3. Proportion of packs with selected characteristics from the survey of littered packs**

City	Packs without the front health warning			Packs without the back health warning			Packs without the "For exclusive sale in Mexico" message			n
	% of packs	95% CI	# of packs	% of packs	95% CI	# of packs	% of packs	95% CI	# of packs	
Mexico City	7.3%	[ 5.6% - 9.5% ]	63	7.3%	[ 5.6% - 9.5% ]	63	7.5%	[ 5.8% - 9.8% ]	64	802
Durango	18.4%	[ 16.0% - 21.0% ]	184	18.4%	[ 16.0% - 21.0% ]	184	18.4%	[ 16.0% - 21.0% ]	184	1,023
Guadalajara	10.6%	[ 8.3% - 13.5% ]	63	10.6%	[ 8.3% - 13.5% ]	63	11.7%	[ 9.3% - 14.7% ]	69	590
Hermosillo	0.4%	[ 0.2% - 1.1% ]	4	0.4%	[ 0.2% - 1.1% ]	4	0.4%	[ 0.2% - 1.1% ]	4	820
Leon	32.6%	[ 29.3% - 36.0% ]	302	32.6%	[ 29.3% - 36.0% ]	302	32.8%	[ 29.5% - 36.2% ]	303	919
Merida	9.9%	[ 8.0% - 12.2% ]	85	9.9%	[ 8.0% - 12.2% ]	85	10.1%	[ 8.1% - 12.4% ]	87	789
Monterrey	1.7%	[ 0.8% - 3.7% ]	21	1.7%	[ 0.8% - 3.7% ]	21	1.7%	[ 0.8% - 3.7% ]	22	607
Veracruz	1.1%	[ 0.5% - 2.4% ]	7	1.1%	[ 0.5% - 2.4% ]	7	1.1%	[ 0.5% - 2.4% ]	7	672

Note: 95% CI: Confidence interval at 95% estimated using a normal approximation and sampling weights; n: observations. Only packs with all three features visible. Difference in two-tailed test for comparison of two proportions is not statistically significant ( $p>0.05$ ).

**Table S4. Comparison of estimates based on the pack characteristics and brand criteria**

<b>City</b>	<b>Estimates based on the brand criterion</b>	<b>Estimates based on the pack characteristics criteria</b>
Mexico City	6.8%	6.6%
Durango	17.5%	17.5%
Guadalajara	10.8%	10.6%
Hermosillo	0.3%	0.3%
Leon	27.5%	27.5%
Merida	8.1%	7.8%
Monterrey	1.5%	1.4%
Veracruz	1.5%	1.0%
Total	8.9%	8.8%

Note: Difference in two-tailed test for comparison of two proportions is not statistically significant ( $p > 0.05$ ).