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# MPOWER component E: essential axis in the reduction of tobacco consumption in Peru

Dear editor: Currently, at the global level, tobacco consumption is the biggest public health challenge, killing over seven million people, 80% of whom are from low- and middle- in-

come countries.<sup>1</sup> An alarming finding is the consumption among adolescents, with an important percentage under the age 18.<sup>2</sup> Due to this, from 2008, the World Health Organization (WHO) established measures focused on the reduction and control of tobacco consumption, included in the MPOWER strategy.<sup>1,3</sup>

MPOWER adopts the following measures: monitoring about tobacco use and prevention strategies; protecting people from tobacco smoke; offering help to quit tobacco use; warning about the dangers of tobacco; enforcing bans on tobacco advertising, promotion and sponsorship; and raising taxes on tobacco.<sup>3</sup> Of these, MPOWER component E reduces tobacco use approximately 7%, becoming one of the measures that generates greater consumption reduction.<sup>1</sup>

As part of the World No Tobacco Day, a survey was realized among 118 high school students from the north of the country, using four questions about the perception of advertising and promotion of tobacco of the Global Youth Tobacco Survey (GYTS).<sup>4</sup> The statistical analysis under Stata v.14.0 program found that 72.88% had received at least one activity related to the promotion of cigarettes (table I). Also 66.9% had

seen tobacco advertising posters in commercial establishments. Regarding anti-tobacco advertising, it was found that only 46.6% observed this type of information in newspapers or magazines, while 42.4% saw it on TV.

In Peru, the prevalence of to-bacco consumption among youth was 9.7% in 2014, an amount that has not changed significantly to this day, and which compared to 2007 decreased by approximately 10%.<sup>5,6</sup>

The percentages indicate that there is a wide perception of cigarette promotion activities and a low perception of anti-tobacco activities, so it is expected that the suggestions of the Framework Convention on Tobacco Control will be put in practice.

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# Table I CIGARETTE PROMOTION ACTIVITIES IN A SCHOOL OF THE NORTH OF PERU, 2017

Ggarette promotion activities	Yes		No		Does not know	
	N	%	N	%	N	%
Free samples of cigarettes	26	22.03	72	61.02	20	16.95
Cigarettes at sale price*	59	50	43	36.44	16	13.56
Coupons for cigarettes	14	11.86	78	66.10	26	22.03
Offers/discounts on others products for the purchase of cigarettes	21	17.8	77	65.25	20	16.95
Clothing or objects with a cigarette brand logo	43	36.44	53	44.92	22	18.64
Sending mail with cigar promotion material	19	16.10	68	57.63	31	26.27

<sup>\*</sup> Cigarettes on sale or discount

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## Temporal trends of lung cancer, other cancers and **COPD** hospitalizations in Mexicans age ≥40 years, 2000-2014

Dear editor: There is a favorable decreasing trend of the age-standardized mortality rates among Mexicans with lung cancer (LC)<sup>1</sup> and males with chronic obstructive pulmonary disease (COPD).<sup>2</sup> Hospital discharge

rates (HDR per 1000 total hospital discharges) trends represent another indicator of changes in LC and COPD incidence. Using joinpoint regression, this countrywide study determined HDR trends of LC and COPD in Mexicans age ≥40 years. HDR trends of other cancers (OC) and other diseases were calculated for comparison. From 2000 to 2014 the LC-HDR decreased in the whole sample (WS) and in males (annual percent change or APC= -2.3 and-3.6 respectively, p<0.05) but not in females, APC=-0.2, p=0.82. COPD-HDR' APC decreased by -2.2, -2.9, -1.6 for the WS-malesfemales respectively while OC-HDR' APC increased 3.4, 2.5 and 3.9 respectively, p<0.05 (table I).<sup>3</sup>

In 2007-2008 the Seguro Popular de Salud through the program Fondo de Protección Contra Gastos Catastóficos increased funding for cancer<sup>4</sup> which may explain the OC-HDR increase seen from 2008 to 2014 (figure 1) in WS-males-females (APC of 8.7, 5.9, and 10.0 respectively, p < 0.05, data not shown).

In conclusion, LC-hospitalizations decreased in males by 2.3% annually from 2000 to 2014 while COPD hospitalizations decreased at a higher rate in males (APC -2.9) than females (APC -1.6). The main contributors for this favorable trend are likely the reduction of smoking prevalence overtime (estimated 26.2% in 1998-2002 and 21.7% in 2011)<sup>5</sup> and the cigarette taxes and anti-smoking laws implemented in 2007 and 2008.

The lack of statistically significant reduction in female's COPD

-0.2

-1.6^

3.9^

-0.3

Table I HOSPITAL DISCHARGE RATES AND TOTAL NUMBER OF DISCHARGES BY YEAR, GENDER AND BY FINAL DIAGNOSIS AT DISCHARGE AMONG HOSPITALIZED MEXICANS AGE ≥40 YEARS

Ministry of Health (Secretaría de Salud) Hospitals only, Mexico, 2000-2014\*

Both sexes Males Females Lung Lung Other Other Total Other Other Total Lung Other Other Total Year COPD COPD COPD cancers diseases N= cancers diseases N= cancers diseases N= HDR **HDR** HDR 2000 2.8 22.7 51.1 923.5 229 266 4.8 27.3 43.3 924.5 90 658 1.4 19.6 56.1 922.8 138 608 2001 903.3 265 657 909.9 106 114 4.3 21.7 70.7 6.9 26.0 57.2 2.6 18.8 79.8 898.8 159 543 170 273 2002 3.1 21.5 70.3 905.1 284 665 4.9 25.2 913.7 114 392 1.8 19.0 79.9 899.3 56.1 2003 3.5 23.7 905.9 305 926 5.3 27.8 913.6 121 947 2.2 20.9 76.I 900.8 183 979 67.0 53.2 2004 2.8 22.4 66.8 908.0 326 666 4.5 26.0 55.6 914.0 131 692 1.6 19.9 74.5 904.0 194 974 2005 3.1 24.7 63.7 908.6 360 704 4.8 28.3 52.6 914.3 145 107 1.9 22.3 71.1 904.7 215 597 2006 4.4 2.9 20.4 63.I 913.6 393 858 23.6 52.2 919.9 158 782 2.0 18.3 70.4 909.3 235 076 2007 2.7 20.3 919.6 440 767 3.9 22.5 925.1 181 816 1.8 18.7 63.7 915.8 258 951 48.6 2008 2.7 20.4 59.9 917.0 459 508 4.2 22.3 52.0 921.4 188 015 1.7 19.0 65.4 914.0 271 493 2009 19.4 911.4 919.5 2.6 66.6 473 625 4.0 21.5 55.0 191 975 1.7 18.0 74.6 905.8 281 650 2010 2.6 21.6 76.3 899.4 492 316 3.8 23.9 58.9 913.3 197 773 1.8 20.1 88.0 890.1 294 543 2011 2.7 17.7 86.1 893.6 537 905 3.6 19.7 64.0 912.7 215 858 2.1 16.3 100.8 8.088 322 047 2012 2.7 16.7 90.3 890.4 577 843 3.8 18.8 908.3 231 407 104.5 878.4 69.2 1.9 15.2 346 436 2013 2.3 18.0 90.8 888.9 580 100 3.1 19.7 64.8 912.4 234 251 1.8 16.8 108.5 872.9 345 849 2014 2.9 16.7 102.1 878.3 619 682 4.0 17.7 75.2 903.0 252 402 2.1 15.9 120.6 861.4 367 280 2.8 75.2 902.1 6 348 488 4.2 914.4 2 562 189 1.9 3 786 299 Total 19.9 22.5 58.9 18.2 86.1 893.8 2000-2014

-2.9^

2.5^

-0.06

-3.6^

Source: Dirección General de Información en Salud<sup>3</sup>

-2.2^

-2.3^

APC ‡

3.4^

-0.2^

<sup>\*</sup> Excludes external causes of hospitalization (ICD-10 starting with letters S to Z) or in-hospital deaths. HDR hospital discharge rate per 1000/ total hospital

<sup>&</sup>lt;sup>‡</sup> Annual percent change by joinpoint regression analysis, ^ p<0.05