

“Availability, Affordability, and Prices of Smoking Cessation Drugs in 9 Countries: Preliminary Findings”

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Global  Bridges™
Healthcare Alliance for Tobacco Dependence Treatment

Introduction

- Numerous effective medications are available for tobacco dependence treatment, and clinicians should encourage their use by all patients attempting to quit smoking
 - except when medically contraindicated or with specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents)
- Counseling and medication are effective when used by themselves for treating tobacco dependence.
 - The combination of counseling and medication, however, is more effective than either alone.

FCTC Article 14 Guideline

- ***Make medications available***
 - Tobacco cessation medications should be made available to tobacco users wanting to quit and where possible be provided free or at an affordable cost.
 - Collective bargaining by governments or regional economic organizations should be used
 - to reduce medication prices
 - to ensure that cessation treatment does not impose excessive costs on those stopping tobacco use
- **Create capacity for tobacco cessation support and tobacco dependence treatment**
 - Ensure that effective medications are readily available, accessible, and free or at an affordable cost

Research Aim/Methods

- **Research aim**
 - Determine availability, affordability, and prices of smoking cessation drugs in countries that are Global Bridges grantees and to make comparisons across them
- **Methodology**
 - Online survey among Global Bridges grantees
 - Structured survey instrument (8 items)
 - Availability of products
 - Price of products/cigarettes
 - Country profile
 - Data entry (SPSS), preliminary data analysis (STATA)

Participant Countries

| | Countries | GNI per capita 2014 (US dollars) | PPP ¹ (international dollars) | Average monthly wage | Minimum monthly wage | |
|---|------------|--|--|-------------------------|-------------------------|--------|
| Lower-middle income economies (\$1,046 to \$4,125) | Bangladesh | 1,080 | 3,330 | 243.30 | 81.10 | |
| | Vietnam | 1,890 | 5,350 | 1710.54 | 570.18 | |
| | India | Mumbai | 1,570 | 5,640 | 402.15 | 178.02 |
| | | Dehli | | | 964.76 | 192.95 |
| | Nigeria | 2,970 | 5,710 | 551.91 | 181.09 | |
| | Armenia | 3,780 | 8,490 | 905.77 | 281.90 | |
| Upper-middle income economies (\$4,126 to \$12,735) | Jordan | 5,160 | 11,910 | 2901.18 | 580.24 | |
| | Brazil | 11,530 | 15,590 | 1139.12 | 420.04 | |
| | Turkey | 10,840 | 19,020 | 1395.84 | 697.92 | |
| High income economies (\$12,736 or more) | Spain | 29,940 | 32,860 | 1465.32 | 999.08 | |

•All the countries ratified FCTC

•¹Purchasing power parity, <http://databank.worldbank.org/data/download/GNIPC.pdf>

Minimum

Maximum

Availability of Smoking Cessation Products

Availability of Smoking Cessation Products

| <i>Countries</i> | NRT | | | | | | Cytisine | Bupropion | Varenicline |
|-----------------------|------------|------------|-------------------|------------|---------|-------------|------------|------------|-------------|
| | Gum | Patch | Sublingual tablet | Lozenge | Inhaler | Nasal spray | | | |
| Bangladesh | A | | | | | | | L | L/A |
| Vietnam | | A | | | | | | L/A | |
| India (Mumbai) | L/A | L/A | | L/A | | | | L/A | L/A |
| India (Dehli) | M/A | M/A | | | | | | M/A | M/A |
| Nigeria | A | A | | | | | | | |
| Armenia | L/A | A | | | | | L/A | | L |
| Jordan | L/A | M/A | | L | | | | | L/A |
| Brazil* | L/A | L/A | | | | | | L/A | L/A |
| Turkey | L/A | L/A | | | | | | L/A | L/A |
| Spain | L/A | L/A | | L/A | | L/A | | L/A | L/A |

L: Licensed A: Available M: Missing

Price of Smoking Cessation Products and Tobacco

Smoking Cessation Products' Price (PPP)

| <i>Countries</i> | NRT | | | | Bupropion (per tab 150mg) | Varenicline (per pack) | |
|------------------|-------------|--------------|-------------|---------------|---------------------------------|----------------------------------|-------------------------|
| | Gum (2mg) | Patch (21mg) | Lozenge | Nasal spray | | Starter (11x0.5mg+14 x1mg) | Maintenance (28x1mg) |
| Mean (SD) | 0.55 (0.21) | 4.64 (2.32) | 0.43 (0.22) | 53.86 (22.30) | 1.49 (0.97) | 83.37 (11.91) | 104.65 (23.65) |
| Bangladesh | 0.69 (2.57) | - | - | - | - | - | - |
| Vietnam | - | 7.98 (9.17) | - | - | 0.96 (1.31) | - | - |
| India (Mumbai) | 0.27 (1.00) | 5.18 (5.95) | 0.27 (1.00) | - | 0.74 (1.00) | 75.44 (1.03) | 84.54 (1.02) |
| India (Dehli) | 0.35 (1.30) | - | - | - | 0.74 (1.00) | 75.44 (1.03) | - |
| Nigeria | - | - | - | - | - | - | - |
| Armenia | 0.77 (2.85) | - | - | - | - | - | 128.13 (1.55) |
| Jordan | 0.46 (1.72) | 5.48 (6.30) | - | 69.63 (1.83) | 3.34 (4.54) | 95.30 (1.30) | 95.36 (1.15) |
| Brazil* | 0.85 (3.15) | 4.04 (4.64) | - | - | 1.97 (2.68) | 73.27 (1.00) | 97.68 (1.18) |
| Turkey** | 0.58 (2.15) | 0.87 (1.00) | - | - | 0.82 (1.12) | - | 139.58 (1.69) |
| Spain | 0.43 (1.58) | 4.29 (4.93) | 0.59 (2.17) | 38.10 (1.00) | 1.90 (2.59) | 97.41 (1.33) | 82.59 (1.00) |

1,00-minimal price, reference group

*NRT gum, patch and bupropion are partially reimbursed in Brazil

** Varenicline is fully reimbursed in Turkey

Cigarette Price (PPP)

| <i>Countries</i> | Marlboro (pack of 20) | Local (pack of 20) | Per month | | Average smoker smoke per day |
|------------------|--------------------------|-----------------------|----------------|---------------|------------------------------------|
| | | | Marlboro | Local | |
| Mean (SD) | 6.55 (3.21) | 3.79 (2.09) | 122.37 (57.69) | 74.43 (40.66) | 14.73 (8.27) |
| Bangladesh | 7.62 | 2.91 | 58.29 | 22.26 | 5.10 |
| Vietnam | 3.42 | 2.28 | 71.84 | 47.88 | 14.00 |
| India (Mumbai) | 11.88 | 8.50 | 110.48 | 79.05 | 6.20 |
| India (Dehli) | 11.99 | 4.91 | 111.51 | 45.62 | 6.20 |
| Nigeria | 5.03 | 2.01 | 67.91 | 27.14 | 9.00 |
| Armenia | 3.08 | 2.05 | 92.25 | 61.50 | 20.00 |
| Jordan | 5.22 | 2.90 | 234.90 | 130.50 | 30.00 |
| Brazil | 3.86 | 2.40 | 132.01 | 82.01 | 22.80 |
| Turkey | 6.98 | 4.19 | 198.93 | 119.42 | 19.00 |
| Spain | 6.47 | 5.73 | 145.58 | 128.93 | 15.00 |

Monthly Treatments vs. Minimum and Average Wages

| <i>Countries</i> | Monthly NRT gum/ min wage | Monthly bupropion/ min wage | Monthly varenicline/ min wage | Monthly NRT gum/ average wage | Monthly bupropion/ average wage | Monthly varenicline/ average wage |
|-----------------------|------------------------------|--------------------------------|----------------------------------|----------------------------------|------------------------------------|--------------------------------------|
| Bangladesh | 2.56 | | | 0.85 | | |
| Vietnam | | 0.10 | | | 0.03 | |
| India (Mumbai) | 0.46 | 0.25 | 0.47 | 0.20 | 0.11 | 0.21 |
| India (Dehli) | 0.54 | 0.23 | | 0.11 | 0.05 | |
| Nigeria | | | | | | |
| Armenia | 0.82 | | 0.45 | 0.25 | | 0.14 |
| Jordan | 0.24 | 0.35 | 0.16 | 0.12 | 0.07 | 0.03 |
| Brazil* | 0.61 | 0.28 | 0.23 | 0.22 | 0.10 | 0.09 |
| Turkey** | 0.25 | 0.07 | 0.20 | 0.12 | 0.04 | 0.10 |
| Spain | 0.13 | 0.11 | 0.08 | 0.09 | 0.08 | 0.06 |

*NRT gum, patch and bupropion are partially reimbursed in Brazil

** Varenicline is fully reimbursed in Turkey

Monthly Marlboro and Local Cigarettes vs. Average and Minimum Wages

| <i>Countries</i> | Monthly Marlboro/ min wage | Monthly local cig/ min wage | Monthly Marlboro/ average wage | Monthly local cig/ average wage |
|-----------------------|-------------------------------|--------------------------------|-----------------------------------|------------------------------------|
| Bangladesh | 0.72 | 0.27 | 0.24 | 0.09 |
| Vietnam | 0.13 | 0.08 | 0.04 | 0.03 |
| India (Mumbai) | 0.62 | 0.44 | 0.27 | 0.20 |
| India (Dehli) | 0.58 | 0.24 | 0.11 | 0.05 |
| Nigeria | 0.37 | 0.15 | 0.12 | 0.05 |
| Armenia | 0.33 | 0.22 | 0.10 | 0.07 |
| Jordan | 0.40 | 0.22 | 0.08 | 0.04 |
| Brazil | 0.31 | 0.20 | 0.12 | 0.07 |
| Turkey | 0.29 | 0.17 | 0.14 | 0.09 |
| Spain | 0.15 | 0.13 | 0.10 | 0.09 |

Main findings

- None of the countries had all FDA approved smoking cessation products licensed/available
 - Three of the countries (Bangladesh, Vietnam and Nigeria) did not have any licensed NRT
 - Nigeria did not have any licensed Smoking cessation product
- Upper-middle and high income countries are more likely to have licensed and available smoking cessation products
- Only low income countries had not licensed smoking cessation products available in the market

Main Findings (2)

- The price of smoking cessation products was lower in low-middle income countries
 - The ratio of monthly treatment price to minimum and average wages is higher in low-middle income countries
- The price of monthly smoked cigarettes is lower in low-middle income countries
 - The ratio of monthly Marlboro and local cigarettes prices to average and minimum wages is higher in low-middle income countries

Next Steps

- Expand the sample:
 - More countries participation in the survey (servlists, survey monkey etc.)
- More affordability indicators:
 - Price of the treatment vs. expenditures on food, education, and healthcare
 - (Your suggestions)
- Further analysis:
 - Association between the availability, price and affordability and other covariates

Thank you

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