

Adapting workforce density threshold to WHO's new antenatal care recommendations

A morning scene at the maternity outpatient waiting room of Chamawa First-Level Hospital in Lusaka, Zambia, struck me because of how overcrowded it was, with almost 100 pregnant women waiting to see one of the few doctors on duty. Anxiously, I imagined how the scene would change after the revision of the national antenatal care guidelines; how much busier will the doctors be? How much more congested will the waiting room be? And how well will the hospital keep functioning?

WHO recommends, in its antenatal care guidelines, a minimum of eight antenatal care contacts as an intervention necessary to reduce perinatal mortality.¹ In response to the launch of WHO's guidelines in 2016, an increasing number of countries raised the minimum number of antenatal care contacts from four to eight. Zambia is in the process of preparing to pilot a new national policy enforcing a minimum of eight antenatal care contacts as one of 25 early adopting countries of the 2016 WHO guidelines.

In subdistrict five of Lusaka province where Chawama First-Level Hospital and eight health centres or posts are located, a total of 188 physicians, nurses, and midwives work to serve 403 000 people in the local catchment area.² Thus, the density of health workers, a health-system-related monitoring indicator for UN Sustainable Development Goal (SDG) 3, for the subdistrict was estimated at 0.47 health workers (ie, physicians, nurses, and midwives) per 1000 population. This number is far below both the national average in Zambia of 1.81 health workers per 1000 population,³ and WHO's global threshold of 4.45 health workers per 1000 population. Although the question remains, has the global threshold set by WHO been designed to ensure eight antenatal care contacts?

In 2006, WHO initially set the threshold for density of health workers at 2.28 per 1000 population as the benchmark to ensure coverage of skilled birth attendance of 80% or more.⁴ In 2016, WHO revised the threshold to 4.45 per 1000 population as the benchmark to ensure 50th percentile of composite index of skilled birth attendance coverage and 11 additional SDG monitoring indicators.⁵ As a result, two of 12 SDG monitoring indicators embedded into the composite index are those related to maternal health—ie, coverage of skilled birth attendance and at least four antenatal care visits. A change in the minimum number of antenatal care contacts from four to eight will demand an increase in the number of health workers.

WHO should further revise the current threshold for density of health workers in response to the increase in the minimum number of antenatal care contacts. The two international norms (ie, minimum number of antenatal care contacts and threshold for density of health workers) published by WHO in 2016 are likely to be neither coordinated nor consistent. Generally WHO's recommendations are highly influential to the health policies of a country. Thus, WHO must ensure consistency in the international norms and standards across its guidelines to avoid disseminating conflicting messages, or their reliability will be questioned and ultimately damaged.

I declare no competing interests.

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- 1 WHO. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization, 2016. https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/ (accessed Oct 17, 2019).
- 2 Ministry of Health. National health facility census analytical report. Lusaka: Ministry of Health, 2019.

3 WHO. Global Health Observatory data repository. Geneva: World Health Organization, 2018. <http://apps.who.int/gho/data/node.main.HWF> (accessed Oct 17, 2019).

4 WHO. The World Health Report 2006—working together for health. Geneva: World Health Organization, 2006. <https://www.who.int/whr/2006/en/> (accessed Oct 17, 2019).

5 WHO. Global strategy on human resources for health: Workforce 2030. Geneva: World Health Organization, 2016. <https://www.who.int/hrh/resources/globstrathrh-2030/en/> (accessed Oct 17, 2019).

Cigarette prices, smuggling, and deaths in France and Canada

Tripling real cigarette prices would approximately halve cigarette consumption worldwide.¹ Although high excise taxes could increase smuggling, weak customs enforcement

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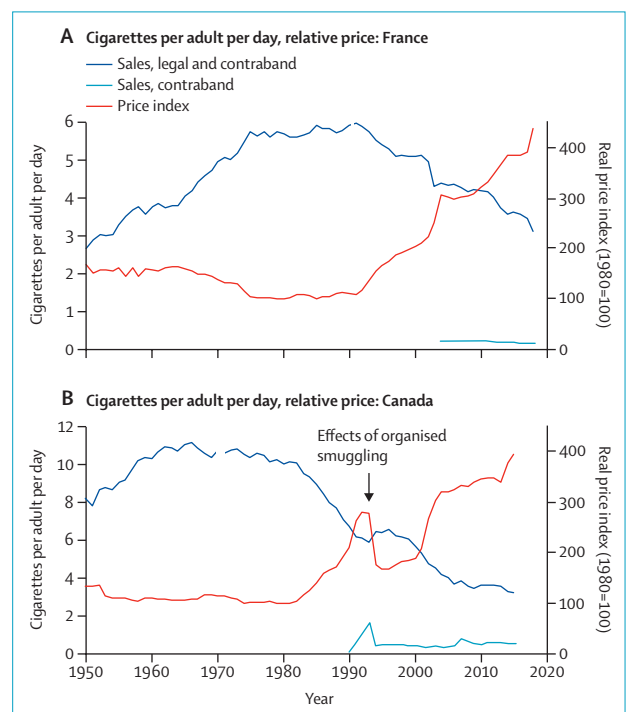


Figure: Real price of cigarettes and consumption per adult per day in France and Canada since 1950

The real price index represents prices, adjusted for inflation, as a percentage of 1980 prices.^{3,4} For France, consumption includes only manufactured cigarettes until 1989, then manufactured and grams of fine-cut tobacco from 1990 to 2018, and smuggled tobacco from 2004. For Canada, consumption includes manufactured and hand-rolled cigarettes (estimated as grams of fine-cut or pipe tobacco until 1973, then grams of fine-cut tobacco from 1974 to 2015) and estimated smuggled cigarettes (about 34 billion sticks from 1990 to 1994).⁵ Smuggled cigarettes between 1995 and 2002 were estimated using the average ratio of legal to smuggled cigarettes for 1994 and 2003.

(rather than high price) is the main determinant of illegal cigarette sales. Importantly, the tobacco industry actively smuggles its own products.² Illegal sales affect not only revenue but overall sales, and hence mortality. France and Canada illustrate the effects of price on consumption.

By 2004, France had tripled real prices since the early 1990s through industry price hikes and tax increases, and consumption had fallen by a third. Progress then stalled for a few years, but the increase in real price and decrease in consumption resumed in the 2010s (figure).³ By 1991, Canada had tripled real prices since the early 1980s, mainly by tax increases, leading consumption to fall by nearly a third. Progress slowed, especially among price-sensitive youths, when in 1993 Canada lowered taxes substantially in response to a well orchestrated operation by the tobacco industry to smuggle tax-free exports of specific Canadian brands back into Canada; this reduced taxation lasted a decade. The 1990s Canadian tax reversal is cited by industry to argue against higher taxes.² In France, contraband sales arose mostly from lax enforcement against illegal imports, with no obvious industry stunt.³

Despite the different taxation strategies and smuggling levels, consumption has at least halved in both countries: in France from 96 billion (six cigarettes per adult per day) in 1992 to 48 billion (three cigarettes per adult per day) by 2018, and in Canada from 70 billion (ten cigarettes per adult per day) in the early 1980s to 30 billion (three cigarettes per adult per day) by the 2010s.⁵ However, Canada's decline in consumption was delayed by industry smuggling. The additional consumption in Canada, due to industry smuggling of 30 billion to 40 billion cigarettes in the early 1990s and the reduced prices this caused must have amounted to some tens of billions

of cigarettes during and after the 1990s. Epidemiological studies of the excess mortality in smokers indicate that, on average, 1 million cigarettes causes about one death. (Consistent with this, the world smokes about 6 trillion cigarettes a year, and has about 6 million tobacco-attributed deaths a year).¹ Hence, there will eventually be some tens of thousands of tobacco-attributed deaths due to the tobacco industry's orchestration of smuggling during the 1990s.

Raising cigarette excise taxes rapidly is the single most effective and cost-effective intervention for governments to reduce premature adult mortality worldwide, and increases government revenues.¹ The World Bank recommends that governments pair higher taxes with interventions to fight contraband cigarettes, and hold the tobacco industry accountable for its own smuggling.²

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The Sydney Statement 2019: normalising global health security online

In June, 2019, delegates from more than 65 countries attended the first international Global Health Security conference in Sydney to debate how to strengthen global health security and contain epidemics at source.¹ The Sydney Statement¹ on global health security, announced as a “product of this conference”, was presented in its final form on the first day of the conference with seven guiding principles, including reference to the values of “integrity of international norms, respect for human rights, and social justice...[and] transparent decision making”.

Global health security is an energising way of framing risk, of mobilising resources, increasing provision of development assistance for health,² and clarifying the international obligations of nation states. But how had the countries of the Global South been consulted in formulating the Statement, and were their own priorities for health and their perceptions of risk considered?

Since 2018, the conference website had invited online contributions towards the Statement.¹ The final decision makers and decision making processes were not declared, and the contributions received for the Statement were not made public, nor were they debated at the conference. At the conference, the pre-prepared Statement was printed across 3 m of canvas and prominently displayed. Delegates tweeted themselves signing it. By contrast to the exhaustive process of debate on other initiatives (eg, the Alma-Ata statement on primary health care or the Sustainable Development Goals), the Sydney Statement, presented as an object and social media presence, reflects brand-positioning and contemporary change-making practice. Further, the Statement offers the appearance of consensus through an inadequate process of consensus-making.