



TOBACCO TAXATION

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RECOMMENDED

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Health and Development Policy – Tobacco Taxation

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This is an updated version, produced in July 2022. This version updates the cost effectiveness estimate numbers to account for a minor calculation error.

Executive summary

Tobacco kills more than 8 million people each year. Over 80% of the world's tobacco users live in low- and middle-income countries (LMICs).

There is **very strong evidence linking tobacco to many negative health outcomes**, both for direct and secondhand smokers. These negative health effects include increases in lung cancer, chronic obstructive pulmonary disease (COPD), heart disease, stroke, and various other cancers.

There is also **very strong evidence that increasing tobacco taxes reduces tobacco consumption**. This is, in fact, one of the strongest results in tobacco control research. Because of this effectiveness, and its relatively low cost compared to other tobacco control initiatives, tobacco taxation has been shown to be the most cost-effective way to reduce tobacco use and health care costs while increasing revenue.

Our own cost-effectiveness analyses have also shown that tobacco taxation is an **extremely cost-effective** intervention, yielding an estimated cost per DALY equivalent¹ in the range of US\$39–\$51, depending on the country and ask being modeled.²

There is **strong evidence that this intervention can be effectively delivered by the government**. Indeed, to date there are 38 countries, 15 of which are LMICs, implementing tobacco taxation at its highest standard (75% of the product retail price).

Regarding the probability of success of advocacy for this intervention, **looking at a total of 159 case studies, we see an average success rate of ~27.14%**. Note that there may potentially be some double counting here as much of this advocacy work cannot be attributed to just one organization.

Despite the promise of this intervention, **there are some concerns**. There are two main funders in the space, but they favor large, well-established organizations, so **funding might be a limiting factor**. Two previously incubated CE tobacco taxation nonprofits, Good Policies and Policy Entrepreneurship Network, shut down after a year of operation. This was in part due to co-founder issues, but seems to have also been influenced by difficulties in getting funding. **Another concern about this intervention is neglectedness**. There are a few organizations working in this space that appear to be quite successful, are well-funded, and are targeting high-burden

¹ We use DALY equivalent here as this includes both health and economic impacts, though the health impacts are the dominant factor.

² We have modeled this intervention in Mongolia and Lebanon, and have modeled a 50% tax increase and an increase in taxes until they reach the WHO recommended level of 75%.

countries. The key strategy might lie in focusing on countries in which other organizations are not currently working (which might not be the most burdened countries, but still high-burden). **An additional concern is that it might be difficult to find skilled policy advocates to carry out this intervention.**

We have included a retrospective on tobacco taxation and why the previously incubated tobacco charities struggled in the past in [Annex 2](#), and we spoke with a co-founder on both the Good Policies and Policy Entrepreneurship Network teams as part of this research. You can read more about their perspective on this in the [Expert views](#) section.

Overall, our view is that policy work to increase tobacco taxation in low- and middle-income countries is **an idea worth recommending** to future charity founders.

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1 Introduction

This report has been produced by Charity Entrepreneurship (CE). CE's mission is to cause more effective charities to exist in the world by connecting talented individuals with high-impact intervention opportunities. We achieve this goal through an extensive research process and our Incubation Program. In 2021, our research process focused on the top policy and advocacy interventions within global health and development.

This intervention, advocacy in low- and middle-income countries to increase tobacco taxes, was recommended by CE during the 2019 Incubation Program. Two charities were founded, but neither of these organizations are still operational. As we believe that the shutdown of these organizations was mostly due to co-founder difficulties and difficulties fundraising in the wake of the COVID-19 pandemic, and not due to the promise of increasing tobacco taxes as an intervention, we are revisiting this idea as part of the 2021 research process.

Our research into tobacco taxation in 2021 mostly focused on updating [previous research done by CE](#), and we therefore spent less time researching this intervention than we did for other health and development policy ideas assessed in 2021.

2 Background

Tobacco kills more than 8 million people each year. Over 80% of the world's tobacco users live in low- and middle-income countries (LMICs) ([Tobacco, n.d. a](#)). In these countries, not only does tobacco result in health problems and death for its users and secondhand smokers, it also contributes to poverty by diverting spending on basic needs to tobacco. Tobacco also poses a monetary burden on the health system, which needs to cover the costs of treating smoking-related conditions.

Cigarette smoking is the most common form of tobacco use ([Tobacco, n.d. a](#)). Other forms of tobacco use include chewed tobacco, which is the most prevalent form of use in some countries such as India ([Tobacco, n.d. b](#)) and has also been proven very harmful ([CDCTobaccoFree, 2021b](#)).

An emerging form of tobacco use is heated tobacco products, such as those that use an electric battery to heat tobacco leaf. The use of these products is also likely harmful, though more research is needed to fully understand its short- and long-term health effects ([CDCTobaccoFree, 2020](#)).

In recent years, there has been a growth in nicotine product substitutes for tobacco in the form of e-cigarettes (also known as vapes and electronic nicotine delivery systems). There are good reasons to think these substitutes are much less harmful than tobacco use, although there are still some harms and there is less evidence

about their impact, especially their long-term effects ([McNeill A, Brose LS, Calder R, Bauld L & Robson D, 2018](#); [CDCTobaccoFree, 2021a](#)).

In 2007, the World Health Organization introduced a framework for tobacco control: MPOWER ([Mitchell, 2019](#)). The six MPOWER measures are:

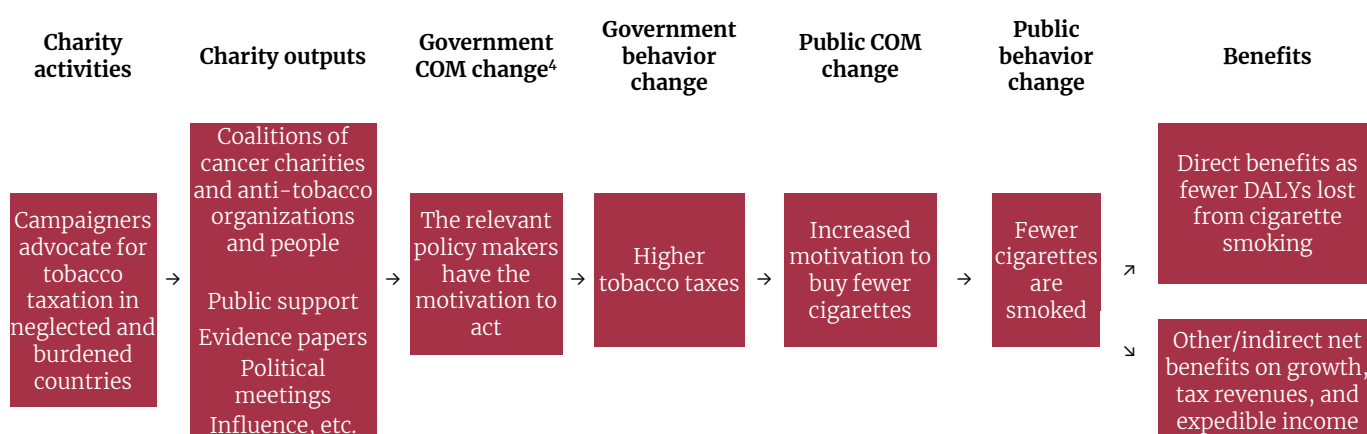
- **Monitor** tobacco use and prevention policies
- **Protect** people from tobacco use
- **Offer** help to quit tobacco use
- **Warn** about the dangers of tobacco
- **Enforce** bans on tobacco advertising, promotion, and sponsorship
- **Raise** taxes on tobacco ([MPOWER, n.d.](#))

Tobacco taxation has been shown to be the most cost-effective way to reduce tobacco use and health care costs, while increasing revenue, in many countries. On average, an increase in tobacco prices by 10% decreases tobacco consumption by 4% in high-income countries and 5% in LMIC ([U.S. National Cancer Institute and World Health Organization, 2016](#)).³ Despite its promise, taxation is the least implemented tobacco control measure ([World Bank Blogs, n.d.](#)).

3 Theory of change

Based on the fact that tobacco taxation appears to be the most cost-effective and yet least implemented of the tobacco control measures, we recommend charity founders choose a LMIC with relatively high tobacco use and low tobacco taxes that is not currently targeted by another nonprofit in this space, and advocate for tobacco taxation policy.

The theory of change (ToC) for this intervention could be as follows:



³ In HICs, most estimates of elasticities of demand range from -0.2 to -0.6 , clustering around -0.4 . In LMICs, elasticity estimates range from -0.2 to -0.8 , clustering around -0.5 . ([U.S. National Cancer Institute and World Health Organization, 2016](#))

⁴ COM refers to the capability, motivation, and opportunity for change from the COM-B model for behavior change ([The Decision Lab, 2021](#)).

The key assumptions, corresponding to each step (i.e., “→”) in the theory of change, are:



Scale: key uncertainty, high uncertainty, some uncertainty, low uncertainty, unconcerning.

4 Geographic assessment

4.1 Where existing organizations work

Currently, the Bloomberg Initiative to Reduce Tobacco Use and its partner organizations are doing most of the work in this space.⁵ This initiative focuses on many of the countries with the highest health burden resulting from tobacco and with overall very large populations. Their current focus countries are:

1. China
2. India
3. Indonesia
4. Bangladesh
5. Pakistan
6. Vietnam
7. Philippines
8. Brazil
9. Ukraine
10. Mexico

([The Union, n.d. a](#))

The Initiative’s partner organizations do some work outside of these priority countries, notably in Africa where work is supported by the Bill and Melinda Gates Foundation ([Bill & Melinda Gates Foundation, n.d. a](#); [Bill & Melinda Gates Foundation, n.d. b](#)). A complete list of the countries in which these organizations work can be found in [Annex 1](#).

⁵ Its partner organizations are The Campaign for Tobacco-Free Kids, International Union Against Tuberculosis and Lung Disease – “The Union,” Johns Hopkins University Bloomberg School of Public Health, the University of Illinois at Chicago, CDC Foundation, Vital Strategies, and World Health Organization Tobacco-Free Initiative ([Bloomberg initiative to reduce tobacco use partners, n.d.](#)).

4.2 Geographic assessment

We created a [weighted factor model](#) to assess potential countries to work in. The top ten countries were: Lebanon, Mongolia, Timor-Leste, Kuwait, Papua New Guinea, Switzerland, Belarus, Iraq, Cyprus, and Hungary. We considered the following variables:

- Burden of smoking – we favor countries with higher smoking prevalence, expressed as % of people over 15 who smoke.
- Taxation rate – we favor countries with low tobacco tax rates, expressed as the % of the retail price.
- Neglectedness – we favor countries where less work is being done. For this criterion, we considered the number of organizations working in each country (summarized above; the full analysis can be found in [Annex 1](#)).
- Population – we favor more populated countries, since the legislation will benefit a larger number of people
- Fragile states index / Impression of corruption – to try to capture countries where it might be easier to work with the government.
- Concerns about lack of data – to account for missing information (the cells in red in the main tab represent missing values, which we replaced with zeros).

Please note that this is only an initial assessment, and a more in depth analysis would need to be conducted with the top countries to determine if they are suitable for this intervention. An important factor to figure out, through additional research and expert interviews, is whether the government is willing, and has the capacity, to implement tax regulations.

It is also important to consider the security risk of working in a particular country as work on tobacco taxation has strong opposition from many established, powerful groups (for example, the tobacco industry and its workers, local producers/farmers, and the cigarette importers). Getting on the wrong side of these groups could result in legal and security trouble in certain countries.⁶

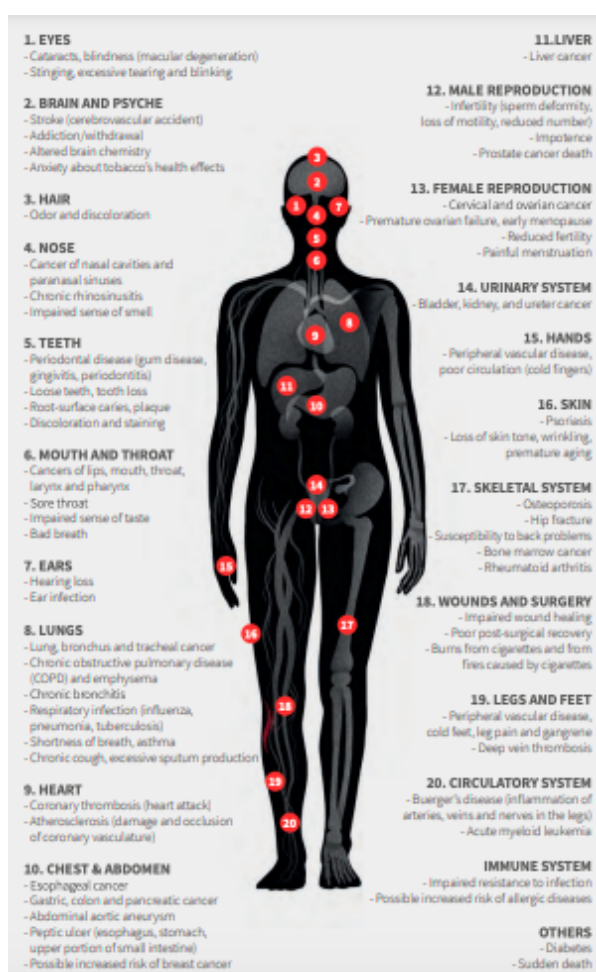
The best way to get information on these kinds of risks is to talk to NGOs working in the country, local people, or other tobacco advocacy organizations. You could also look at indicators such as the World Bank's Political Stability Index ([World Bank Group, 2021](#)) as a proxy for the security risk in a given country. Governments also tend to have travel advisory information for each country, and in some cases (for example, the UK government) it is fairly reliable, though rather risk averse ([Foreign and Commonwealth & Development Office, 2013a, 2013b](#)).

⁶ This risk may be especially important to consider if hiring local staff, as even in low-capacity governance environments or highly corrupted places the risk of prosecution may be sufficiently high to prevent trouble with a foreigner (especially from the US, the UK, the EU, or China), though the same would not hold for a local.

5 Quality of evidence

5.1 If delivered, will this intervention have the expected impact?

It is clear that smoking is linked to many negative health outcomes, both for smokers and for those around them breathing in secondhand smoke. The most well-known negative health effects of tobacco use are lung cancer, chronic obstructive pulmonary disease, heart disease, stroke, and various other cancers ([Drope and Schluger, 2018](#)).



Health effects of tobacco consumption ([Drope and Schluger, 2018](#))

There is strong evidence that increasing tobacco taxes reduces tobacco consumption. In fact, the evidence that tobacco taxes and tobacco consumption are directly anti-correlated is the strongest result in tobacco control research ([Richardson, 2017](#)).

The evidence supporting the anti-correlation of tobacco taxes and tobacco consumption is based on a simple economic mechanism—price elasticity—where a

tax will increase the price of tobacco products, thereby reducing demand. Research has estimated that a 10% increase in cigarette prices results in a 2–8% reduction in the consumption of cigarettes ([Drope and Schluger, 2018](#)).

We don't have to rely on this economic principle in theory alone, however, as there have also been hundreds of studies confirming that tobacco excise taxes⁷ reliably decrease tobacco consumption ([Chaloupka et al., 2012](#)).

5.2 Can the government effectively deliver this intervention?

There are 38 countries that currently tax tobacco at the WHO-recommended level of 75% of the retail price of these products, or higher.

It is important to note that 23 of these 38 countries are high income, so there is less evidence of low- and middle-income countries being able to effectively implement these taxes. Of the remaining 15 countries, 12 are upper-middle-income countries, 2 are lower-middle-income countries, and 1 is a low-income country.

- Upper-middle income: Argentina, Bosnia and Herzegovina, Brazil, Bulgaria, Colombia, Jordan, Mauritius, Montenegro, North Macedonia, Serbia, Thailand, and Turkey
- Lower-middle income: Egypt and occupied Palestinian territory
- Low income: Madagascar

Interestingly, 10 of these 38 countries have recently (since 2016) achieved this sufficiently high tax level. Moreover, since 2016, 3 countries (Cyprus, Lithuania, and Ukraine) dropped out of the best practice group as they were unable to keep their tax share at or above the 75% level ([World Health Organization, 2021](#)).

5.3 Can we effectively advocate for this intervention?

Looking at a total of 159 case studies, we calculated a weighted average success rate of ~27.14%.⁸

Note that there may potentially be some double counting here as much of this advocacy work cannot be attributed to just one organization.

⁷ An excise tax is a tax on specific goods at purchase (e.g., tobacco products). These taxes can be ad valorem (paid by percentage, e.g., 75% of the retail price) or charged on a per unit basis (Kagan, 2020).

⁸ You can find this calculation in the [“Calculations” tab of our cost-effectiveness analysis model](#). We have weighted Bloomberg Initiative's progress specifically on tobacco taxation highest as we feel that this is the most relevant, and the Bloomberg Initiative's progress on other tobacco control laws lowest as we feel that tobacco taxation is particularly difficult to campaign for (more difficult than smoke-free spaces, for example).

Bloomberg Initiative to Reduce Tobacco Use

The work of the Bloomberg Initiative to Reduce Tobacco Use is primarily implemented through partner organizations (The Campaign for Tobacco-Free Kids, International Union Against Tuberculosis and Lung Disease – “The Union,” Johns Hopkins University Bloomberg School of Public Health, the University of Illinois at Chicago, CDC Foundation, Vital Strategies, and World Health Organization Tobacco-Free Initiative). They also run a grants program ([Bloomberg initiative to reduce tobacco use partners, n.d.](#); [fundsforNGOs – Grants and Resources for Sustainability, 2015](#)).

The Initiative has worked in more than 110 countries and, from 2010 to 2019, laws and policies proven to reduce tobacco use have been passed in 59 of these countries, covering almost 3.5 billion people and preventing an estimated 30 million premature deaths ([Bloomberg Philanthropies, 2016](#)).

Note that it may not be the case that all 59 countries have passed tobacco taxation laws. Many have passed other tobacco control laws from the MPOWER framework:⁹

- 39 countries have passed comprehensive smoke-free laws
- 32 countries have passed laws requiring graphic warning labels on tobacco packages
- 22 countries have passed bans on tobacco advertising and sponsorship

Using data from The Union, we can estimate that an increase in tobacco tax was achieved in a minimum of 12 of these 59 countries. The Union reports that they have helped increase tobacco taxes in 13 countries. However, one of these countries is Cambodia, which is not a priority country of the Initiative and so should not be counted towards the 59 countries being claimed by the Initiative ([The Union, 2016](#); [The Union, n.d. c](#); [Bloomberg Philanthropies, 2016](#)).

It may be unfair to see a focus on other MPOWER measures as failure to pass tobacco taxation laws, as it may have not been the aim of these advocacy campaigns to increase taxation – it is common for advocacy groups to “focus their efforts on the one [MPOWER measure] that is the most feasible or the most urgent in their country” ([Savedoff, 2017](#)).

Therefore, this Initiative had a success rate in the range of 10.91% (12/110 countries increased tobacco taxation) to 53.64% (59/110 countries passed tobacco control laws) over a 9-year period (2010–2019).

⁹ Note that some may have passed tobacco taxation laws *and* other tobacco control laws

World Bank

The World Bank has worked in a total of 49 countries through its Global Tobacco Control Program.

- Over a 6-year period (2013–2019), the Program has “provided support for the enactment of” tobacco tax policy reforms in 20 countries: Armenia, Azerbaijan, Belarus, Botswana, Colombia, Gabon, Ghana, Indonesia, Kazakhstan, Lesotho, Moldova, Mongolia, Montenegro, Nigeria, Philippines, Senegal, Sierra Leone, Tonga, Ukraine, and Uzbekistan
- Work is still in progress in Afghanistan, Bangladesh, Bosnia & Herzegovina, Chile, China, El Salvador, Ethiopia, Indonesia, Kyrgyz Republic, Macedonia, Mexico, Republic of Korea, Pakistan, Russia, South Africa, Trinidad and Tobago, Turkey, and Vietnam.
 - The Program has worked on an “assessment on tobacco tax system and policy implications, as well as on the progressive nature of tobacco taxation” in these countries, but this has not yet resulted in policy change
- Work is also still in progress in Cape Verde, Guinea Bissau, and the nine member states of the Organization of Eastern Caribbean States (OECS) ([World Bank Group, 2018](#); [World Bank Group, 2019](#)).

Therefore, this Program had a success rate of ~40.82% (20/49 countries) over a 6-year period (2013–2019).

Bill and Melinda Gates Foundation

The Bill and Melinda Gates Foundation reports that “Since 2008, 19 sub-Saharan African countries have instituted tobacco tax policies” ([Bill & Melinda Gates Foundation, n.d. a](#)).

It seems that the Bill and Melinda Gates Foundation has worked in a total of 18–23 African countries.¹⁰

From this information alone, it is hard to judge which, if any, of these tobacco tax policies were passed due to the Bill and Melinda Gates Foundation’s efforts, so we will exclude this from our analysis.

¹⁰ They list their “focus countries” as Burkina Faso, Ethiopia, Kenya, Nigeria, and South Africa ([Bill & Melinda Gates Foundation, n.d. b](#)), but they must have worked in ~13–18 other African countries as they report that they have worked on tobacco control in a total of 25–30 countries and only 7 of these have been outside of Africa ([Bill & Melinda Gates Foundation, n.d. a](#)).

6 Expert views

Overall, experts agree that tobacco taxation is a very important policy and that there is a need to work in this area.

There are two major funders in this space: the Bill and Melinda Gates Foundation and Bloomberg Philanthropies. However, some experts pointed out that these foundations tend to fund larger, more established organizations. Some such organizations, for example the Campaign for Tobacco-Free Kids, expressed a potential interest in partnering with us to work on tobacco taxation.

In terms of countries to work in, experts advise to work in countries with a high burden of tobacco use and where there is good political will. When this idea was first considered in 2016, there was an interest in focusing on India, but most experts advised against this direction as the political landscape there is very complex.

In terms of this intervention's risks, a few experts brought up the risk of this policy negatively affecting poor individuals, since a percentage of them will keep purchasing the product despite the price increase.

Something to be aware of is that the lobby of the tobacco industry is strong, and they are usually on good terms with any given country's Ministry of Finance (MoF) as, especially in LMICs, tobacco companies are often some of the largest and most reliable taxpayers.

Below are short summaries of our conversations with experts.

Campaign for Tobacco-Free Kids, 2016

At the time of the interview (2016), they had four global programs trying to reduce smoking in many countries, funded by Bloomberg Philanthropies and the Gates Foundation. Their programs work on multiple fronts: achieving smoke-free public environments via legislation, preventing the tobacco industry from advertising, disseminating graphic health warnings, and tobacco taxation.

They said CTFK could be interested in partnering with a new nonprofit in the space.¹¹

They mentioned that it can take a long time to see the effects of these campaigns. From a donor perspective, this type of project is medium- to long-term focused. Sometimes it takes 2–3 years for change to happen, other times longer (10 years in the U.S.), and sometimes no change is achieved.

¹¹ Note that as we last spoke to CTFK in 2016, this may not still be the case as priorities, especially with COVID, may have shifted.

When asked about the challenges of working in this field, they mentioned going against the tobacco industry and finding the right talent, in particular skilled policy advocates.

In terms of countries to work in, they believe this intervention is a good idea in most countries, particularly focusing on countries with higher burden and where there is political will to create change. When asked about India specifically, they thought it would be quite difficult unless the organization is very well-funded. CTFK has been working there for many years, and it is very complex.

Bloomberg Philanthropies, 2016

They oversee efforts to assist LMICs implement tobacco tax policies. They work with the following partners: CTFK, The Union for Tuberculosis and Tobacco Control (through Bloomberg grants), WHO (specifically their tobacco economics team), World Bank (they provide technical assistance to governments), Johns Hopkins, and CDC.

At the time of the interview (2016), the grants had ranged from \$10,000 to \$500,000 for a couple of years.

In terms of countries to work in, they mentioned that Bloomberg prioritizes countries with the highest number of smokers. When asked about working in India, they said that it would be quite difficult to work there, for several reasons: 1) there is a new goods and services tax system such that states are no longer able to tax tobacco themselves, so a campaign would need to happen at the federal level, 2) you need to have very strong connections to work in India, 3) it is a very complex landscape (she said it “could really be a sinkhole”).

They mentioned that they would be interested in following up with us and potentially collaborating if we were to start a nonprofit in this space.¹²

Center for Global Development, 2016

Work from the Center for Global Development (CGD) argues that tobacco taxation is the best global health policy ([Svedoff and Alwang, 2015](#)).

They mentioned a couple of potential issues with this intervention. One of them was that developing countries have a weak ability to administer taxes. Additionally, they said that even though in general, poor people benefit from this policy, poor families that continue to smoke despite the tax suffer significantly.

¹² Note that as we last spoke to Bloomberg in 2016, this may not still be the case as priorities, especially with COVID, may have shifted.

Good Policies and Policy Entrepreneurship Network, 2021

Good Policies and Policy Entrepreneurship Network were two nonprofits incubated by Charity Entrepreneurship in 2019 looking to improve tobacco control in neglected countries. They both shut down in 2020.

When asked about the main reasons for their failures, one of the co-founders (who worked on both projects) mentioned:

- 1) Poor co-founder fit.
- 2) Lack of funding: the two main funders in the space are Bloomberg Philanthropies and the Gates Foundation, but they have few application rounds and favor larger, well-established organizations. These funders often already have partners in mind that they want to work with, so it is much harder to access those funds as a new organization in the space. They also mentioned that there wasn't a good EA donor network for this intervention that they were able to tap into.
- 3) COVID: The pandemic made it much harder to work on this type of intervention at the outset, as government priorities nearly universally shifted towards COVID responses.

Overall, they still think the idea can be viable.

They raised the concern that a tobacco tax could penalize the poor, since some percentage of smokers continue to purchase at the same level despite increased prices. Without the government reinvesting the new funds into supporting affected communities, there is an argument for regressivity of the tax. Another concern could be an increase in black market activity, but they believe this to be country-dependent and dependent on the quality of local governance.

Regarding implementation, they said that the MoH is generally willing to work with nonprofits on this issue. The MoF is much harder to approach, since, as mentioned above, the tobacco industry has more influence over them.

Good Policies had identified Mongolia and Armenia as the two priority countries in which to pilot its program based on smoking prevalence, tax rates, neglectedness, and expert opinions. Policy Entrepreneurship Network worked in Ukraine.

Finally, they said they would be happy to share their notes and connections with the founders of a new charity in this space.

Other interviews with experts in the space

GiveWell has also conducted interviews with CTFK and the CGD in 2017 ([Richardson, 2017](#); [Savedoff, 2017](#)). They also spoke with the International Union

Against Tuberculosis and Lung Disease (The Union) in 2017 ([Dr. Gan Quan and Dr. Paula I Fujiwara, 2017](#)).

In 2020, more expert interviews on the topic of tobacco control were conducted by GiveWell, with:

- Caleb Parikh, co-founder of CE-incubated charity Good Policies
- Greg Hallen of the International Development Research Center (IDRC)
- Dr. Adam Karpati and Stephen Hamill of Vital Strategies

([Dr. Adam Karpati and Stephen Hamill, 2020](#); [Hallen, 2020](#); [Parikh, 2020](#))

7 Cost-effectiveness analysis

[Our cost-effectiveness analyses](#) model policy changes in Mongolia and Lebanon, as these countries looked most promising after our [geographic assessment](#). We have modeled both an increase in taxes by 50% of the current tax rate and an increase in taxes until they reach the WHO recommended level of 75% of the retail price.

Using the cost-effectiveness of alcohol taxation ([modeled in 2020 with a cost per DALY equivalent of \\$96](#)) as the bar for policy interventions to meet to be considered promising, we find tobacco taxation to be very promising.

Policy	Country	Total DALYs averted (if the campaign is successful)	Total DALYs averted (expected)	Economic benefits	Charity cost per DALY equivalent	Charity + government cost per DALY equivalent
Increasing the existing tobacco taxation rate by 50%	Mongolia	114,134	30,981	\$90,828,693 or equivalent to 3,817 DALYs	\$39	\$51
	Lebanon	153,585	41,690	\$120,632,895 or equivalent to 6,329 DALYs	\$31	\$51
Increasing the tobacco taxation rate to 75%	Mongolia	130,310	35,372	\$103,701,342 or equivalent to 4,358 DALYs	\$34	\$45
	Lebanon	200,073	54,309	\$157,146,447 or equivalent to 8,245 DALYs	\$24	\$39

These cost-effectiveness analyses model two sources of impact: health and income. They are described below using the illustrative example of increasing the existing tobacco taxation rate by 50% in Mongolia; the inputs for the other models are very similar.

7.1 Health effects

The health effects of increasing tobacco taxation are defined in terms of total DALYs averted annually following policy change through reduced tobacco consumption (mostly from smokers reducing how much they smoke or completely quitting smoking, but also from a reduction in secondhand smoke). To calculate this number, we used the following inputs:

- Total annual DALYs lost from tobacco use – this was taken from GBD Compare 2019 using “Tobacco” as a risk factor ([GBD results tool, n.d.](#))
- The current smoking prevalence in the country – this is the tobacco consumption of those aged 15 and over ([World Health Organization, 2021](#))
- The overall trend of tobacco consumption in the country – tobacco consumption is expected to decrease in Mongolia, but increase in Lebanon ([World Health Organization, 2019](#))
- The price elasticity of demand for tobacco – estimates for the price elasticity of tobacco in low- and middle-income countries cluster around -0.5 ([U.S. National Cancer Institute and World Health Organization, 2016](#))
- The current excise tax rate on tobacco products in the country ([World Health Organization, 2021](#))
- The excise tax rate increase and the resulting price increase as a result of our advocacy – in one version of the analysis, we modeled a 50% increase, and in another we modeled this to be whatever increase is necessary to reach the WHO-recommended tax rate of 75%
- The new counterfactual tobacco consumption level – this is calculated using the current adult smoking prevalence, the overall trend in tobacco consumption, the price elasticity of demand, and the overall price increase
- Probability of success – we used a weighted average probability of success of ~27.23%

We then converted the health effects into monetary terms. The monetary value of averting a DALY is assumed to be equal to 2.8 times the per capita income in the country being modeled. This is based on GiveWell’s estimates of the trade-offs people are willing to make between income and health ([GiveWell, 2019](#)).

7.2 Income effects

Studies have estimated that the economic impact of tobacco consumption in low- and middle-income countries is between 1.1% to 1.7% of GDP. This estimate includes both direct and indirect costs. Direct costs include the monetary value of tobacco products, the related illnesses of tobacco use and the associated healthcare costs (e.g., physician time and fees, medicines, transport to the hospital, etc.). Indirect costs include the value of lost productivity and lost lives resulting from illnesses related to tobacco use ([Vulovic, 2019](#)).

We have taken the average of these estimates and assumed that the economic costs in both Mongolia and Lebanon are 1.4% of GDP.

7.3 Costs

Our analysis of charity costs was very simple, and was largely based on the costs modeled in our [alcohol taxation cost-effectiveness analysis](#) from 2020. We held these costs constant throughout all of the cost-effectiveness analysis models made this year.

Our analysis of government costs was more complex. We found that the per capita cost of regulation for tobacco taxation is \$0.05 ([World Health Organization, 2011](#)). We then calculated the ongoing costs of tobacco taxation by multiplying this per capita estimate by the population of Mongolia and Lebanon, respectively.

8 Implementation

8.1 Talent

CTFK said that one of the main challenges of working in this area is finding talent, particularly at early stages. They think the field needs a larger number of skilled policy advocates.

8.2 Access

Information

Information on the status of tobacco control policies worldwide is very good, with WHO publishing a yearly report on the topic ([World Health Organization, 2021](#)). Of particular relevance for this intervention are Annex IV (Highest level of achievement in selected tobacco control measures in the 100 biggest cities in the

world) and the web annexes, especially Web Annex VI (Global tobacco control policy data), Web Annex VIII (Tobacco tax revenues), and Web Annex IX (Tobacco taxes, prices, and affordability) ([Global tobacco report 2021, 2021](#)).

Government

From expert interviews, it seems that to do advocacy in this space one has to work with both the MoH and the MoF and get them both on board. This is more difficult than for other health interventions in which you typically only need support from the MoH. The MoH seems easy to approach on this matter, but the MoF is harder to convince and is usually on good terms with the tobacco industry.

8.3 Funding

EA funding

Good Policies and Policy Entrepreneurship Network mentioned a lack of interested EA donors in this space during the 2019–2020 timeframe.

In a post about Policy Entrepreneurship Network, Michal Trzesimiech wrote, “Our preliminary finding was that while there is a significant number of organizations working in the space of tobacco taxes, they’re typically underfunded and under-resourced” ([The years 0 and 1 of the Policy Entrepreneurship Network – EA forum, 2020](#)).

Non-EA funding

Bloomberg Philanthropies is one of the main funders in the space and has a specific Initiative to reduce tobacco use ([Bloomberg Philanthropies, 2020](#)). According to a post from 2016, they have invested a total of \$1B over ~10 years ([Bloomberg Philanthropies, 2016](#)).

The Bill and Melinda Gates Foundation is another major funder in the space, claiming to have committed US\$376 million “to address the tobacco epidemic in more than 30 countries” ([Bill & Melinda Gates Foundation, n.d. a](#)).

Though these donors commit large amounts of funds to tobacco control, it is worth noting that Good Policies and Policy Entrepreneurship Network pointed out that they tend to favor large, well-established organizations, and it is much harder to receive funding from them as a new unproven organization.

8.4 Scale of the problem

According to WHO's 2021 report on the Global Tobacco Epidemic, three quarters of countries and 5.3 billion people are now covered by at least one MPOWER measure executed at the highest level of achievement ([World Health Organization, 2021](#)). However, tobacco taxation is the least-implemented measure, with only 38 countries (24% of which are high-income countries) and ~13% of the world population covered by a complete policy, leaving a large share of the population lacking this best practice legislation.

This intervention is also quite scalable such that if it was successful in one country, it seems like the infrastructure could be easily adapted to other countries.

8.5 Neglectedness

In our analysis of organizations working in the space (see [Annex 1](#)), we found 6 large organizations working across the globe on tobacco control. They primarily seem to focus on countries with the highest burden, suggesting that countries with a lower burden are more neglected. This sentiment was also reflected in our expert interviews.

CTFK seems to be the leading advocacy non-profit working to lower tobacco use. They have several initiatives worldwide, including some with a focus on taxation. They claim to “provide funding, legal, communications and research support to governments and non-governmental organizations to help them put in place effective tobacco control policies” ([Campaign for Tobacco-Free Kids, 2017a](#)). They have prioritized their campaigns in most LMICs with a high burden of disease from tobacco that are also not facing violent internal conflict. They have support from Bloomberg Philanthropies and the Bill and Melinda Gates Foundation. When interviewed, CTFK said that they would be interested in partnering with a new incubated charity in the area.

The International Union Against Tuberculosis and Lung Disease (The Union) works in LMICs, partnering with governments to provide assistance for tobacco control policies ([The Union, n.d. b](#)). They are funded by Bloomberg Philanthropies and the Gates Foundation. They partner with CTFK, Johns Hopkins, and CDC for many projects. When interviewed, some of their experts said that their “sister organization” for tobacco control projects is Vital Strategies, which mainly focuses on running educational campaigns to help change behaviors around smoking and attitudes towards the tobacco industry ([Vital Strategies, n.d.](#)).

8.6 Externalities

There are some potential positive and negative externalities to consider.

On the positive side:

- A tobacco tax increases government revenue, which can then be applied towards positive causes (e.g., it could be applied to other tobacco control strategies to complement the taxation strategy).
- This regulation will impact not only smokers but also the rest of society, particularly in countries that don't have regulations banning smoking in closed spaces. A decrease in smoking prevalence would positively affect third parties who are currently exposed to secondhand smoke.

On the negative side:

- Evidence suggests that tobacco taxation lowers tobacco sales. However, a non-negligible percentage of consumers will continue to purchase cigarettes. This will disproportionately affect the poorest consumers, and this increase in price might impact their family economy, as some experts suggested.
- There is the possibility that increasing the price of cigarettes causes people to smoke more e-cigarettes if they aren't regulated as well. There is not that much evidence about these products, but this result could be harmful.
 - In some instances consumers may use both traditional cigarettes and e-cigarettes.¹³ There is even less evidence about this blended use, but this could also be harmful.
- There is a potential risk that an increase in taxation may lead to the creation of/an increase in a black market. However, experts said that this would depend greatly on the implementation country, and would be less likely to happen if governance is good.

8.7 Additional factors

Two previously incubated charities, Good Policies and Policy Entrepreneurship Network, shut down after working in this space for one year. We interviewed them (see the [Expert views](#) section). Part of the failure seems to have been due to poor co-founder fit, but they also mentioned a lack of funding in this field for new organizations and the difficulties of driving this policy in the COVID era.

We have also written a retrospective on tobacco taxation and why the previously incubated tobacco charities struggled in the past in [Annex 2](#).

¹³ In instances where consumers do not quit traditional cigarette smoking entirely, but do intend to reduce their consumption, they may end up using both traditional cigarettes (reduced use) and e-cigarettes (increased use to compensate for the reduction in traditional cigarette smoking).

Alternative paths to impact or scale

There are two potential avenues to scale up the organization's impact beyond tobacco taxation:

1. If we were to find that some countries that have high smoking prevalence and good political will are already implementing tobacco taxation but are lacking other useful regulations, for example, banning smoking in closed spaces, the organization could lobby for those policies.
2. The organization would be working in close relationship with the Ministry of Finance on a tax issue. This relationship could be used to then pursue other useful policy interventions that have similar stakeholders (e.g., alcohol tax, salt tax, etc.).

9 Conclusion

Overall, our view is that advocacy to increase tobacco taxation in low- and middle-income countries is an idea worth recommending to future charity founders. In particular, we recommend that founders focus on lower-burden countries that are more neglected by existing actors.

This intervention is likely the one, of all those considered, where co-founders would benefit greatly from experience as skilled policy advocates, though some progress was made by CE's previously incubated charities who didn't have the background or relevant experience in the space. The tobacco lobby is a strong opposition that co-founders will have to be comfortable with going against. Driven advocates must be ready to tackle any of the challenges this opposition brings, as they will be actively trying to slow down your progress at every step of the way.

Annex 1 – Where are existing organizations working?

Bloomberg Initiative to Reduce Tobacco Use

The work of the Bloomberg Initiative to Reduce Tobacco Use is mostly implemented through partner organizations (The Campaign for Tobacco-Free Kids, International Union Against Tuberculosis and Lung Disease – “The Union,” Johns Hopkins University Bloomberg School of Public Health, the University of Illinois at Chicago, CDC Foundation, Vital Strategies, and World Health Organization Tobacco-Free Initiative) ([*Bloomberg initiative to reduce tobacco use partners, n.d.*](#)).

The Initiative mainly focuses its work in 10 priority countries (chosen as they have the highest prevalence of tobacco use):

- China
- India
- Indonesia
- Bangladesh
- Pakistan
- Vietnam
- Philippines
- Brazil
- Ukraine
- Mexico

([*The Union, n.d. a*](#))

Looking at each individual organization in the Initiative and the countries they work in (not including the Initiative’s priority countries) as listed on their website, we have:

The Campaign for Tobacco-Free Kids

- Botswana
- Cameroon
- Democratic Republic of the Congo
- Egypt
- Ethiopia
- Ghana
- Kenya
- Namibia
- Nigeria
- Senegal
- South Africa
- Togo

- Uganda
- Thailand
- Turkey
- Poland
- Russia

([Campaign for Tobacco-Free Kids, 2017b](#))

The Union

- Africa ([The Union, n.d. c](#))
 - Chad
 - Uganda
 - South Africa
- Asia Pacific ([The Union, n.d. d](#))
 - Cambodia
 - Myanmar
 - Timor-Leste
 - Nepal
- Southeast Asia ([The Union, n.d. e](#))
 - Sri Lanka
 - The Maldives
- Europe ([The Union, n.d. f](#))
 - Armenia
 - Turkey
 - Georgia
 - Russia
 - Poland
- Latin America ([The Union, n.d. g](#))
 - Uruguay

Vital Strategies

- The US
- Turkey
- Uzbekistan
- Myanmar

([Vital Strategies, n.d.](#))

World Health Organization Tobacco-Free Initiative

- Active in the Western Pacific Region, though it is not very specific about which of the 27 countries in this region it works in ([World Health Organization, n.d.](#)). The countries in this region that are not prioritized by the Initiative are:
 - Australia
 - Brunei

- Cambodia
- Cook Islands
- Fiji
- Japan
- Kiribati
- Laos
- Malaysia
- Marshall Islands
- Micronesia
- Mongolia
- Nauru
- New Zealand
- Niue
- Palau
- Papua New Guinea,
- Republic of Korea (South Korea)
- Samoa
- Singapore
- Solomon Islands
- Tonga
- Tuvalu
- Vanuatu

Johns Hopkins University Bloomberg School of Public Health, the University of Illinois at Chicago, and the CDC Foundation

All of these organizations seem to support tobacco control advocacy efforts through research, rather than doing advocacy themselves.

World Bank

Work to inform policy making has been conducted in Afghanistan, Bangladesh, Bosnia & Herzegovina, Chile, China, El Salvador, Ethiopia, Indonesia, Kyrgyz Republic, Macedonia, Mexico, Republic of Korea, Pakistan, Russia, South Africa, Trinidad and Tobago, Turkey, and Vietnam. However, this has not yet resulted in policy change, so work is still in progress in these countries ([World Bank Group, 2019](#)).

Work is also still in progress in Cape Verde, Guinea Bissau, and the nine member states of the Organization of Eastern Caribbean States (OECS) ([World Bank Group, 2018](#)).

Bill and Melinda Gates Foundation

- Africa – Listed “focus countries” are Burkina Faso, Ethiopia, Kenya, Nigeria, and South Africa ([Bill & Melinda Gates Foundation, n.d. b](#)). However, they must have worked in ~13–18 other African countries as they report that they have worked on tobacco control in a total of 25–30 countries and only 7 of these have been outside of Africa ([Bill & Melinda Gates Foundation, n.d. a](#))
- Southeast Asia – Cambodia, the Philippines, Myanmar, Indonesia, Vietnam, and Lao PDR ([Bill & Melinda Gates Foundation, n.d. a](#))
- China ([Bill & Melinda Gates Foundation, n.d. a](#))

Annex 2 – Tobacco taxation retrospective

In this retrospective, we explore the three main reasons why our previously incubated charities were unsuccessful.

We also think it important to highlight a cross-cutting meta factor: CE’s Incubation Program was simply not as strong across a number of domains in 2019 compared to our current program. We do not know how much this factor connects with each point, but we feel that it is something worth keeping in mind.

Co-founder pairing

Co-founder pairing is almost always the hardest part of the program to get right, and is also one of the greatest predictors of success and impact.

We started two charities focused on tobacco control in 2019. One started with a solo founder and the other had 2 co-founders. The co-founding team had sufficient incompatibilities such that they split up within a few months of starting, leading one of them to subsequently join the solo founder on their project. The challenges provided by a co-founder split are fairly clear, not even accounting for the struggles and time cost prior to the separation.

We are fairly pessimistic about solo founding. We have typically found it to underperform dramatically relative to two-person teams. We think this is for a range of both practical and psychological reasons, including a large reduction in the charity’s ability to work quickly.

Overall, we think a strong, compatible, two-person founding team would still have a strong chance of effectively running a new tobacco control charity. We think that CE’s co-founder pairing and outreach processes have improved such that this is a far more likely outcome for founders going through our 2022 program compared to our 2019 program.

COVID-19 disruption

Although COVID-19 remains an ongoing challenge for many nonprofits, when the pandemic first started it had a much stronger effect on government interactions than it would today.

When COVID-19 was first declared a pandemic, governments were extremely unwilling to consider any other topic area. However, as time has progressed, many governments have fallen into a more steady state. New issues are now able to be considered even with the ongoing COVID situation. We think if these two charities had been started now, they would have had a wider range of government actors they could speak to, speeding up their progress.

Fundraising challenges

Fundraising ease is a complex calculation involving the speed of progress, the timing of fundraising, the size of the fundraising network, and co-founder fundraising ability.

We think that the speed of progress made by these two charities (due to COVID and co-founder issues) sufficiently slowed such that fundraising became a challenge.

This project was also given considerably less seed funding (~\$38k) than our charities typically receive now (~\$110k), giving them a shorter runway to get through these sorts of challenges.

In addition, we think the funding networks of CE and EA as a whole have grown considerably since our 2019 Incubation Program, giving more funding pathways and opportunities for new organizations even independent of seed grant size and speed of progress.

Closing remarks

Overall, a tobacco taxation intervention's potential for highly impactful success is still strong, despite the previous charities' shortcomings, which we believe were in part due to luck and in part due to CE's youth. Therefore, assuming the right co-founders are recruited, we feel confident in recommending that a new charity for this intervention idea be launched in 2022.

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