

2014 Global Health Case Competition

Connecting students from diverse fields to address a global health challenge

Developing Tobacco Control Strategies for the North Sumatra Province of Indonesia

February 17th-22nd, 2014

Sponsored by:

**UAB SPARKMAN CENTER
FOR GLOBAL HEALTH**

Knowledge that will change your world

1979-2014 • 35 YEARS OF SERVICE

Opening Scenario

Mangku Bayuni, director of a non-governmental organization based in Indonesia, excitedly walks back to his office after attending a workshop on monitoring and evaluation for tobacco related projects. During the workshop, one of the facilitators announced a new global initiative to reduce tobacco use is funding project proposals for high-impact, evidence-based tobacco control practices and programs. After glancing at the guidelines on his smart phone, Mangku quickly ascertained that proposals should focus on strategies that substantially reduce tobacco use with priority given to projects that will lead to sustainable improvements in tobacco control measures. With a proven track record of working with local governments, NGOs and communities to reduce tobacco use in the North Sumatra province of Indonesia, Mangku feels his organization is well positioned to develop and submit a proposal in partnership with other organizations.

As Mangku walks through the streets of Medan, the capital of the North Sumatra province, he is bombarded with reminders of tobacco's strong hold on Indonesia. Tobacco advertising on every street and shop, men smoking on their work breaks, youth still dressed in school uniforms sharing cigarettes and stories, and the always present and pungent smell of kreteks. Upon arriving, Mangku closely reads the proposal guidelines a second time before calling a team meeting with his staff to discuss potential strategies, partners and roles.

Introduction

Combating the global tobacco epidemic is one of the most pressing challenges facing the world today. Tobacco use is the leading cause of preventable death worldwide, killing more than 6 million each year [1]. Of particular concern is the rapid growth of tobacco use in low and middle income countries (LMICs), where approximately 80% of the world's 1 billion smokers currently live [1]. Tobacco-related deaths are projected to increase to more than 8 million per year by 2030 with more than 80% of those deaths occurring in LMICs [1]. Failure to implement comprehensive tobacco control measures will have serious implications for the health and wellbeing of populations in those countries.

Despite having one of the highest rates of smoking in the world, Indonesia has enacted limited legislation at the national level for tobacco control and remains one of the few countries yet to sign the WHO Framework Convention on Tobacco Control. Fortunately, due to Indonesia's decentralized government and diverse demographics, sub-national legislation has been far more effective. One of the most promising initiatives to date is the Indonesian Mayor's Alliance, established in 2011 by the Ministry of Health and 12 mayors to help build political will and best practices for tobacco control in Indonesia. Since 2011, the Alliance has expanded to 59 members with 15 major cities including Jakarta, Bogor, Cirebon and Yogyakarta having implemented smoke-free policies protecting more than 30 million people from exposure to second-hand smoke [2, 3].

Team Assignment

While local tobacco control efforts seem to have enormous promise, there has not been much documentation of best practices to date. To help address this gap, your Indonesian based NGO has decided to submit a proposal to develop and implement a toolkit of effective and culturally appropriate tobacco control strategies in partnership with other NGOs, local government and institutions in North Sumatra.

The time frame to document successful, local tobacco control strategies is over a period of 5 years. The maximum amount you are permitted to request is \$2,500,000 for the entire duration of the project. To receive funding, your team will have to present the proposal to a panel of local and global experts selected by the global tobacco control initiative on February 22, 2014. You will need to be able to justify the decisions you make towards the development of your final strategies and be prepared to explain the details of your choices.

Important Considerations

- Who is your target population? Will you focus on adults, youth, women and children or the entire population?
- How and where (urban and/or rural) will you test the strategies?
- Who will you develop partnerships with (other NGOs, local government, etc.) to leverage resources and expertise?
- How will you monitor and evaluate your project?
- Are the proposed strategies feasible, effective and culturally appropriate?

Case Background

Indonesia is the world's largest archipelagic nation and is comprised of more than 17,500 islands of which only 6,000 are inhabited. Due to its unique geography and history, Indonesia is one of the most linguistically and ethnically diverse countries in the world with over 300 different ethnic groups and more than 700 languages and dialects. The country is predominately Muslim (86.1%); however, five other world religions (Catholicism, Protestantism, Confucianism, Hinduism and Buddhism) are formally recognized by the Indonesian government [4].

- Population: 251,160,124- 5th most populous nation in the world
- Economy: 16th largest with a GDP of \$1.237 trillion and an annual growth rate of 6.2%
- Indonesian is the official language but English and Dutch are commonly used along with various dialects [4]

North Sumatra

- Population: 13,000,000
- Geography: includes portions of the Sumatra, Nias Island, and Batu Islands
- Major Cities: Medan (capital), Binjai, Pematangsiantar, Tanjungbalai, and Tebingtinggi
- Religion: Islam (65.5%), Christianity (31.5%), Buddhism (2.8%), Other (0.2%)
- Ethnic Groups: Batak (42%), Javanese (33%), Nias (6%), Malay (5%), Other (14%) [5]

Tobacco Use in Indonesia

There has been a dramatic rise in the consumption of cigarettes in Indonesia since the 1970s due to population growth, rising household incomes and low cigarette prices. Indonesia is the 3rd largest tobacco market in the world with four privately held companies controlling over 70% of the total market share. Because of the tobacco industry's power in Indonesia, few restrictions or bans are in place and in any efforts to implement tobacco control by the central government

are met with heavy interference from the tobacco industry [6]. For a more detailed profile of the tobacco industry in Indonesia, please see Appendix B.

Although tobacco was first introduced to Indonesia in the 16th century, only a small number of the population used tobacco initially. Smoking was not common until the twentieth century when it rapidly replaced chewing of the betel nut, a widespread practice for thousands of years in Indonesia [7]. Presently, 97% of tobacco users in Indonesia smoke cigarettes with the vast majority (88%) of smokers using kreteks, traditional cigarettes made of tobacco and clove [6]. The rate of smoking among Indonesian men has steadily increased over the last 20 years from 53.9 % in 1995 to 67.0 % in 2013, one of the highest rates in the world [8]. For a complete profile on tobacco use in Indonesia, please see Appendices A, G and H.

Tobacco-Related Burdens

Smoking harms nearly every organ in the body and substantially increases the risk of heart disease, including stroke, heart attack, vascular disease, and aneurysm [9]. It is linked to 90% of all cases of lung cancer and can cause chronic bronchitis, chronic obstructive pulmonary diseases and emphysema. Tobacco smoke contains more than 7,000 chemicals and compounds, including hundreds that are toxic and at least 69 that cause cancer [7]. There is no safe level of exposure to second-hand tobacco smoke and children are especially at risk. The World Health Organization estimates 700 million children are exposed to secondhand smoke each year worldwide [10].

Indonesia

Approximately 200,000 people die each year as a result of tobacco use in Indonesia with second hand smoke accounting for an estimated 25,000 of those deaths [11]. The main causes of tobacco related deaths in Indonesia are heart disease, stroke, cancers and respiratory illnesses, particularly chronic obstructive pulmonary disease. Overall, the Government of Indonesia spends an estimated \$1.2 billion annually on tobacco-related illnesses [3]. Half of all tobacco related deaths occur during the prime productive years (30-69 years) resulting in enormous economic and social costs [12].

Exposure to Secondhand Smoke (SHS)

Smokers are not the only ones at risk. More than 95 million non-smoking Indonesians are exposed to secondhand smoke each year and while only a small percentage of Indonesian women smoke, over 75% are exposed to SHS in their homes [3] [13]. Children and youth are

also at risk with 43 million Indonesian children regularly exposed to second hand smoke at home and in public places [3] [14]. Exposure to SHS in public places is common among adults [13]:

- 69.4% of men and 55.4% of women are exposed to SHS in government buildings
- 51.3% of workers are exposed at indoor workplaces
- 17.9% of adults are exposed at health-care facilities
- 85.4% of adults are exposed in restaurants

Importance of Smoking in Indonesian Culture

Culture includes an individual's beliefs, values and social norms which often have a significant influence on a person's health behaviors. These behaviors are generally shaped early in a person's life and are learned by observing parents, friends, teachers and other important figures [15]. Smoking is an important part of Indonesian culture and permeates every part of life. It is common to welcome guests at important social gatherings, such as weddings, funerals, religious ceremonies, and community meetings with cigarettes and is considered standard practice to tip with cigarettes instead of money [16]. Therefore, understanding and developing culturally appropriate strategies should be an important component of proposals.

Importance of Smoking to Men

Smoking is ingrained in men's lives in Indonesia and is associated with many important cultural milestones, e.g. circumcision ceremonies [17] [18]. Smoking is seen as an important symbol of masculinity and many Indonesian men view smoking as a sign of "potency, wisdom and bravery" [18]. It is considered a norm in many families, and male family members who do not smoke are viewed shamefully as breaking a family tradition [17]. Smoking has important social utility among men by offering an opportunity to socialize with peers and share a sense of solidarity [19].

Women and Tobacco

While traditionally it has not been culturally acceptable for women to smoke in Indonesia, rates among young, educated women who live in urban areas are increasing dramatically. A significant factor in this increase is the tobacco industry's advertising to girls and women that frames smoking as a sign of being an independent, successful and modern woman [20]. The low prevalence of smoking among women may also be contributed to the commonly held belief that smoking is a "male habit" and that women who smoke in public are viewed as "impolite and

ill-mannered” [18] [17]. Even though most women do not smoke in Indonesia, the vast majority are exposed to second hand smoke in the home and the community [20].

Cultural Themes in Tobacco Advertisements

Tobacco advertisements have played a role in the increase of smoking in Indonesia, especially among youth [10]. Very few advertising, promotion and sponsorship restrictions are placed on tobacco companies in Indonesia and tobacco companies use creative and aggressive marketing tactics to promote their products via all forms of media including television commercials, billboards, and the radio. In 2010 alone, tobacco companies spent an estimated \$202 million on advertisements in Indonesia [21]. The tobacco industry also sponsors concerts and events featuring popular Indonesian and international artists [22]. Many of these advertisements and events utilize important Indonesian cultural norms such as cultural heritage and modernity.

Tobacco Control Strategies

The Framework Convention on Tobacco Control (FCTC), ratified in 2005, provides a foundation for countries to implement comprehensive tobacco control. It is the first international treaty negotiated by the World Health Organization and the most quickly ratified treaty in United Nation’s history. In 2008, To help countries tailor and implement tobacco control measures the WHO identified the 6 most cost effective tobacco control policies known as MPOWER [23]:

- Monitor tobacco use and prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use,
- Warn people about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

The MPOWER policy package assists countries in the implementation of effective and country specific tobacco control strategies to reduce tobacco use. Examples include:

- Community based prevention and cessation programs
- Smoke-free laws and plans for enforcement
- Capacity building among health-care providers
- Mass media campaign and other materials to build awareness of the health effects of tobacco and change social norms
- Developing or strengthening tobacco control networks
- Legislative proposals to modify/enact tobacco related taxes, bans and regulations

- Innovative funding ideas to address tobacco related burden

Tobacco Taxes

Increasing taxes on tobacco products is one of the most cost-effective methods to decrease consumption and prevent youth from initiating use. Cigarette prices and tax rates in Indonesia are very low relative to neighboring countries in part due to Indonesia's complex yet comprehensive tax system which has created loopholes for the tobacco industry to avoid paying higher taxes [24]. See Appendix F for a complete profile of tobacco taxation in Indonesia.

Smoke-free Environments

Enacting laws that create smoke-free workplaces and public places is important to protect people from the harms of tobacco smoke. Many local governments in Indonesia have now implemented smoke-free policies with the support of political leaders. A key challenge, however, is the implementation and enforcement of smoke-free policies [2]. There are also efforts to implement community-wide and household bans on smoking [20].

Increasing Public Awareness

Building awareness of the health effects of tobacco is necessary to advance tobacco control and change social norms. One must have accurate information in order to make an informed decision regarding tobacco use. Many Indonesians (youth in particular) are not fully aware of the addictive nature of tobacco, risks of smoking, or exposure to secondhand smoke [14, 19] [25].

One of the best ways to raise awareness and reduce tobacco use is by gaining the support of religious leaders, public figures, health providers and other role models. Media can be a powerful tool to influence public opinion. Billboards, radio, TV and newspapers can be effectively used to convey the risks associated with smoking and change perceptions. Developing effective counter advertisements that incorporate Indonesian cultural norms is important for raising awareness about the risks of smoking and reducing tobacco use [19].

Cessation

If someone successfully quits smoking, the risk of developing tobacco related disease is significantly reduced. However, quitting smoking is difficult due to the highly addictive qualities of nicotine coupled with social and physical factors that encourage smoking like those found in Indonesia. Nearly 50% of adult smokers in Indonesia plan or are thinking about quitting with 30.4% having made an attempt to quit in the past 12 months. Quitting without assistance (70.7%) was the most common cessation method reported by smokers who made an attempt to

quit, 7.0% received counseling and only 3% were able to successfully quit without the help of others. Prescription medication was the least used method (.04%) in Indonesia [13].

While evidence-based interventions to treat tobacco dependence such as quit lines and counseling have proven to be effective, many tobacco users often have low levels of awareness about the interventions [19]. Healthcare providers in Indonesia have an important role to play to raise awareness and communicate the risks, but are not effectively prepared to counsel and treat tobacco dependence during their training. Among smokers who visited a health-care facility, only 40.5% were asked about their history of tobacco smoking and 34.6% were advised to quit smoking [26]. In addition, many providers are not fully aware of the dangers with 80% of physicians responding that smoking up to 10 cigarettes per day was not harmful to one's health [27].

Social Aspects of Quitting

It is important to consider the role of social interactions when quitting smoking and how to address those challenges. For example, there is a heavy emphasis on politeness in Indonesian culture and it is considered rude to turn down a cigarette or to ask a guest or family member to not smoke in your home [20] [19]. Many have expressed concern over a diminishing number of social interactions if they quit and the difficulty of resisting smoking when a friend is urging them. Developing culturally appropriate responses to these types of situations will be helpful for an individual's efforts to quit [19].

Capacity Building and Collaboration

Building a strong tobacco control network by increasing the capacity of individuals and organizations is important for the sustainability of tobacco control efforts. These individuals will develop and implement tobacco control programs and monitor the local situation. Developing partnerships and sharing information will be important in counteracting the powerful and wealthy tobacco industry.

Summary of Team Assignment

Your team is submitting a proposal to implement and evaluate effective tobacco control strategies for the North Sumatra province of Indonesia. The goal is to share best practices on the implementation of effective and culturally appropriate tobacco control strategies with other cities and communities in Indonesia. In this proposal, you will need to demonstrate how your organization is partnering with other NGOs, local government and institutions to implement tobacco control policies and programs. The time frame to document successful, local tobacco

control strategies in North Sumatra is over a period of 5 years. The maximum amount you are permitted to request is \$2,500,000 for the entire duration of the project.

To receive the funding, your team will have to present the proposal to a panel of local and global experts selected by the global tobacco control initiative. You will need to be able to justify the decisions you make towards the development of your final strategies and be prepared to explain details of your choices.

Important Considerations

- **Choice of Target Population:** Who is the target population and why did the team choose to target them?
- **Social Benefit/Social Return on Investment:** Impact on health outcomes, economic improvement, and productivity at the personal, family, and community levels
- **Feasibility:** How well do the proposed strategies utilize and/or improve capacity of current health systems, training/education required to implement plan, what provisions for education, product, or service delivery?
- **Economic Impact:** Direct costs associated with proposed strategies; transportation and/or opportunity costs to stakeholders
- **Cultural Acceptability:** Cultural perceptions of the proposed strategies and the extent to which they have taken in local cultural context and technologies
- **Legal and Ethical Issues:** Strategies for how these will be addressed, if applicable
- **Scalability:** Application of recommendation to other communities or more extensive coverage beyond the North Sumatra province, provided there is evidence of success
- **Sustainability:** Plans for how the program will proceed once funding ends
- **Monitoring and Evaluation:** Comparison of baseline data to data collected during and after proposed intervention(s) and how this information will be used to inform program improvements and demonstrate impact
- **Risk Identification & Mitigation Strategies:** Potential challenges/risks associated with recommendation(s) and how those will be addressed
- **Innovation:** Are there aspects of the proposal which could be considered particularly innovative or creative; novel application of existing technologies or new products/services proposed?

Bibliography

1. *Tobacco Factsheet*. World Health Organization, 2013.
2. *Sub-national Legislations and tobacco control in Indonesia*, 2013. Available from: http://www.searo.who.int/entity/tobacco/news_events/smoke_free/en/index.html#.
3. *Indonesia*. 2013. Available from: <http://www.tobaccofreeunion.org/index.php/where-we-work/indonesia>.
4. *Indonesia*. *CIA World Factbook*. Central Intelligence Agency, 2014.
5. Abhinav, V. *North Sumatra*. Encyclopædia Britannica Online, 2014.
6. Barber, S., et al., *Tobacco economics in Indonesia*. International Union Against Tuberculosis and Lung Disease, 2009.
7. Reid, A., *From betel-chewing to tobacco-smoking in Indonesia*. *The Journal of Asian Studies*, 1985: p. 529-547.
8. *Report on the Global Tobacco Epidemic. Country Profile: Indonesia*. World Health Organization, 2013.
9. *Tobacco Addiction in NIDA Research Report Series*. National Institute on Drug Abuse, 2012.
10. Prokhorov, A.V., et al., *Youth Tobacco Use: A Global Perspective for Child Health Care Clinicians*. *Pediatrics*, 2006. 118(3): p. e890-e903.
11. *Global Tobacco Epidemic. Country Profile: Indonesia*. World Health Organization, 2013.
12. Barber, S., et al., *Tobacco economics in Indonesia*. International Union Against Tuberculosis and Lung Disease, 2008.
13. *Global Adult Tobacco Survey: Indonesia Report*. World Health Organization, 2012.
14. *Indonesia GYTS Fact Sheet*. 2009.
15. Airhihenbuwa, C.O. and O. Pineiro, *Cross-cultural Health Education: A Pedagogical Challenge*. *Journal of School Health*, 1988. 58(6): p. 240-242.
16. Tandilittin, H. and C. Luetge, *Civil Society and Tobacco Control in Indonesia: The Last Resort*. *Open Ethics Journal*, 2013. 7: p. 11-18.
17. Nichter, M., et al., *Reading culture from tobacco advertisements in Indonesia*. *Tobacco Control*, 2009. 18(2): p. 98-107.
18. Ng, N., L. Weinehall, and A. Öhman, *'If I don't smoke, I'm not a real man'—Indonesian teenage boys' views about smoking*. *Health education research*, 2007. 22(6): p. 794-804.
19. Nichter, M., et al., *Anthropological contributions to the development of culturally appropriate tobacco cessation programs: a global health priority*, in *Anthropology and public health*. 2009. p. 298-331.
20. Nichter, M., et al., *Developing a smoke free household initiative: an Indonesian case study*. *Acta Obstetrica et Gynecologica Scandinavica*, 2010. 89(4): p. 578-581.
21. Damar, A. *Tobacco Brands Still Relentless on Advertising in Indonesia*. *Jakarta Post*, 2013.
22. *Tobacco Industry Profile – Indonesia 2009*. CTFK, 2009.
23. *WHO Report on the Global Tobacco Epidemic*. World Health Organization, 2013.

24. Barber, S., *Tobacco Economics in Indonesia*. 2008.
25. Ng, N., L. Weinehall, and A. Öhman, '*If I don't smoke, I'm not a real man*'—*Indonesian teenage boys' views about smoking*. *Health Education Research*, 2007. 22(6): p. 794-804.
26. *Global Adult Tobacco Survey: Indonesia Report*. World Health Organization, 2011.
27. Ng, N., et al., *Physician assessment of patient smoking in Indonesia: a public health priority*. *Tobacco Control*, 2007. 16(3): p. 190-196.

Appendices

Appendix A: Global Tobacco Epidemic, 2013. Country Profile: Indonesia

http://www.who.int/tobacco/surveillance/policy/country_profile/idn.pdf

Appendix B: The Indonesia Tobacco Market: Foreign Tobacco Company Growth

http://global.tobaccofreekids.org/files/pdfs/en/TI_Profile_Indonesia.pdf

Appendix C: Kreteks in Indonesia

http://global.tobaccofreekids.org/files/pdfs/en/IW_facts_products_Kreteks.pdf

Appendix D: Indonesia Tobacco Control Policies:

http://www.tobaccocontrolaws.org/legislation/factsheet/policy_status/indonesia

Appendix E: Tobacco control country profiles: Indonesia

http://www.who.int/tobacco/surveillance/policy/country_profile/idn.pdf

Appendix F: Tobacco Taxes in Indonesia

http://global.tobaccofreekids.org/files/pdfs/en/Indonesia_tobacco_taxes_summary_en.pdf

Appendix G: Indonesia Global Youth Tobacco Survey

http://www.searo.who.int/entity/noncommunicable_diseases/data/ino_gyts_fs_2009.pdf

Appendix H: Indonesia Global Adult Tobacco Survey

http://www.searo.who.int/entity/tobacco/data/gats_indonesia_2011.pdf