

Summary Report on Public Health Thought Leadership Dialogue and Closed-Door Discussion on 'Challenges to Current and Future Tobacco Control' (6 March 2019)

The World Health Organization (WHO) has estimated that tobacco use is currently responsible for the death of about seven million adults across the world each year.¹ Research has found that, on average, in developed countries smokers die 14 years before their time and lose 23 years of their life.²

Knowledge of the dangers of tobacco has come a long way since the 1930s. By the 1950s studies were reporting links between smoking and cancer, and in 1964 the US Surgeon General stated (based on more than 7,000 articles) that cigarette smoking is a cause of lung cancer and laryngeal cancer in men, a probable cause of lung cancer in women, and the most important cause of chronic bronchitis.³

By 2019 there is now irrefutable evidence of the devastating health impacts of smoking and a long list of health consequences and diseases caused by tobacco use and exposure to tobacco smoke (second hand smoking).⁴ Tobacco is now linked to twenty-five different diseases, and is the major cause of lung cancer, bronchitis and emphysema.⁵

Recognising this important health issue, the NUS Saw Swee Hock School of Public Health hosted a day exploring the issues around tobacco control. The day was kicked off by a thought-provoking lecture given by Professor Kenneth Warner, an internationally renowned expert on tobacco control. Professor Warner set the scene of current and future tobacco control opportunities and obstacles. This was followed by a panel discussion with leaders from NUS, the Ministry of Health and the Health Promotion Board in Singapore.

After the lecture, leaders in health promotion and tobacco control from across the region (with representatives from Cambodia, Laos, Malaysia, Singapore, Taiwan and Thailand) took part in a thought leadership dialogue. The dialogue summarised the current position of individual countries and opportunities where collective approaches may add value. The dialogue focused on discussion of the evidence-based World Health Organization Framework Convention on Tobacco Control (WHO FCTC) and the WHO MPOWER measures.

MPOWER measures of tobacco control:



- M**onitor tobacco use and prevention policies
- P**rotect people from tobacco smoke
- O**ffer help to quit tobacco use
- W**arn about the dangers of tobacco
- E**nforce bans on tobacco advertising, promotion and sponsorship
- R**aise taxes on tobacco

Most regional countries have signed up to the WHO FCTC (except Indonesia). Although there has been progress, there are varying degrees of implementation of the WHO FCTC measures and sustained ongoing progress remains frustrated. Discussion focused on the obstacles and enablers to full implementation.

¹ WHO (2017) Report on the global tobacco epidemic. Monitoring tobacco use and prevention policies. WHO. Geneva, Switzerland. Available at: https://www.who.int/tobacco/global_report/2017/en/ (accessed 17.3.2019)

² Peto R et al (2010) Mortality from smoking in developed countries, 1950–2020. Oxford, United Kingdom: Clinical Trial Service Unit and Epidemiological Studies Unit. Available at: <http://gas.ctsu.ox.ac.uk/tobacco/index.htm> (accessed 17.3.2019)

³ CDC (2018) History of the Surgeon General's Reports on Smoking and Health. CDC. US. Available at: https://www.cdc.gov/tobacco/data_statistics/sgr/history/index.htm (accessed 17.3.2019)

⁴ Surgeon General (2014) The Health Consequences of Smoking - 50 Years of Progress: A Report of the Surgeon General, 2014. US Department of Health and Human Services. Available at: <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf> (accessed 14.3.2019)

⁵ WHO (undated) Tobacco - health facts. Fact sheet N°221. Available at: <https://www.who.int/mediacentre/factsheets/fs221/en/> (accessed 14.3.2019)

Overall there has been progress to reduce the prevalence of smoking in the region. However, there is high variation among countries and between males and females. Despite progress, even in countries with lower prevalence of smoking, the scale of the tobacco epidemic in regional countries remains a threat to the public's health and to the economies of countries, such as through loss of productive years and healthcare costs of the burden of diseases from tobacco.

Regional countries that have made the most progress (e.g., Singapore) in reducing the prevalence of smoking have found declines are slowing and there is concern that smoking in males and females may increase in the future. There was a consensus that consistent, relentless and sustained efforts are needed to fully implement tobacco control measures, to maintain reductions in smoking prevalence.

Delegates took part in a thoughtful debate around a 'tobacco endgame' — defined as working towards eliminating smoking altogether, or to reduce smoking prevalence to below 5% of the population. This concept evolves from tobacco control measures toward a date-linked goal of a tobacco-free future. Singapore's approach to raising the age of purchasing cigarettes with the aim of encouraging a smoke free generation sits alongside this new concept. The debate also included a rich dialogue on the use of vapes or e-cigarettes within the context of smoking cessation.

The day closed with attendees positively sharing a commitment to further learn from each other and work together to promote reductions in smoking in the region.

The following report summarises the themes from the tobacco events on the 6th March and next steps for discussion around the following four key areas.

Next steps

1. **APACPH:** Utilise Asia-Pacific Academic Consortium for Public Health as a platform for working together and championing tobacco control with a strong focus on reducing smoking to as low as possible across countries.
2. **WHO FCTC and MPOWER:** Further and faster implementation of the WHO FCTC and MPOWER tobacco control measures across all countries.
3. **WHO FCTC and MPOWER "+":** For countries with lower levels of smoking prevalence the aim would be to build on the core principle of evidence-based policy within the WHO FCTC and MPOWER measures, developing initiatives to move towards a smoking prevalence below 10% and then the tobacco endgame of below 5%.
4. **Asia-specific research and evidence base:** Developing the evidence base for the Asian context around smoking initiation and cessation.

Event Report on Public Health Thought Leadership Dialogue and Panel Discussion, ‘Challenges to Current and Future Tobacco Control’ (Wednesday, 6 March 2019)

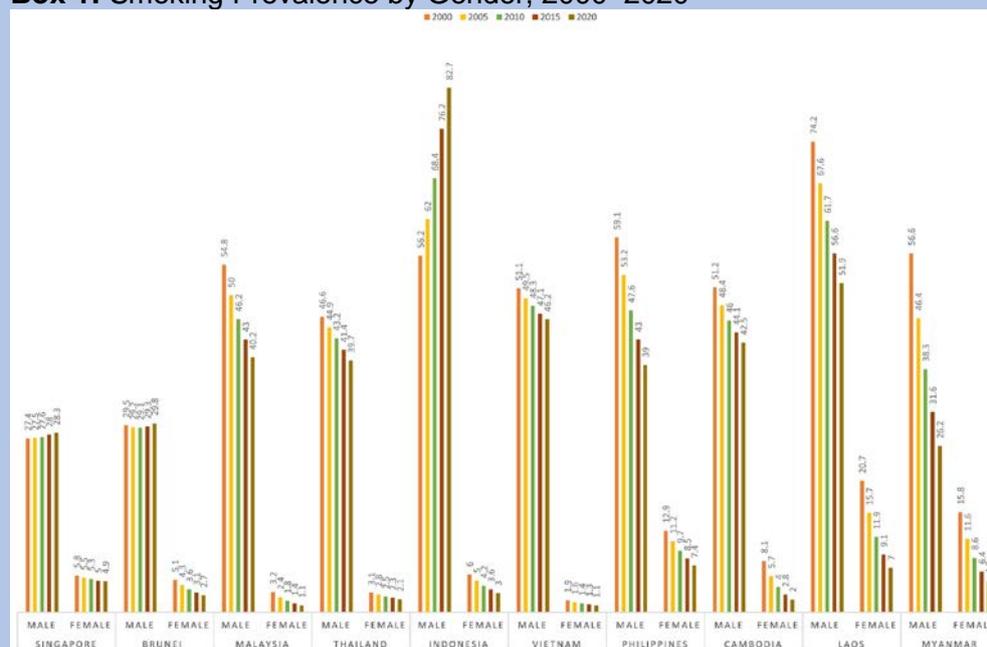
1 Current levels of tobacco prevalence

The World Health Organization (WHO) has estimated that tobacco use is currently responsible for the death of about seven million adults across the world each year.⁶

Smoking remains a main risk factor for early death and disability in the region, and the leading risk factor for men in some countries (e.g., Thailand, Vietnam and the Philippines).⁷

There has been progress to reduce the prevalence of smoking in the region, where it was estimated 24% of adults in 2000 smoked. By 2015 this declined to 17% and by 2025 prevalence is projected to decline further to 15%. However, there is high variation among countries and between males and females – highlighted in Box 1. In South East Asia it is estimated that while 32% of males smoke only 2% of females smoke, although there are countries with far higher male smoking prevalence (e.g., Indonesia, which has yet to sign up to the WHO FCTC, has a high male smoking prevalence).⁸ Although female smoking prevalence is declining, there was concern that with societal changes (e.g., gender roles changing and more women being financially independent) that the comparatively low prevalence of smoking in females may increase in future years.

Box 1: Smoking Prevalence by Gender, 2000–2020



Source: WHO, Global Health Observatory⁹

The rates of youth smoking are also of serious concern. Regionally, more than 1 million students currently smoke cigarettes, with high variation in youth smoking among countries.¹⁰

⁶ WHO (2017) Report on the global tobacco epidemic. Monitoring tobacco use and prevention policies. WHO. Geneva. Switzerland. Available at: https://www.who.int/tobacco/global_report/2017/en/ (accessed 17.3.2019)

⁷ GBD (2015) Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016;388:1659–1724. doi: 10.1016/S0140-6736(16)31679-8. Available at: <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2816%2931679-8> (accessed 17.3.2019)

⁸ WHO (2015) WHO global report on trends in prevalence of tobacco smoking 2015. Geneva: Switzerland. Available at: https://apps.who.int/iris/bitstream/handle/10665/156262/9789241564922_eng.pdf;jsessionid=015FEF32916C2B24BCE101C6F3F39A3A?sequence=1 (accessed 14.3.2019)

⁹ Amul GGH, Pang T (2018) The State of Tobacco Control in ASEAN: Framing the Implementation of the FCTC from a Health Systems Perspective. *Asia & the Pacific Policy Studies*. Volume5, Issue1. Pages 47-64 (cited in this source) Available at: <https://onlinelibrary.wiley.com/doi/full/10.1002/app5.218> (accessed 14.3.2019)

¹⁰ Tan YL, and Dorotheo U (2018) The Tobacco Control Atlas: ASEAN Region, Fourth Edition, September 2018. Southeast Asia Tobacco Control Alliance (SEATCA), Bangkok. Thailand. Available at: <https://seatca.org/dmdocuments/Tobacco%20Control%20Atlas%20ASEAN%20Region%204th%20Ed%20Feb%202019.pdf> (accessed 18.3.2019)

Youth Smoking

Numbers don't lie: Percentage of smoking among boys and girls (13–15 years)* in ASEAN



Source: ASEAN The Tobacco Control Atlas (2018).¹¹

Summary:

Despite progress, even in countries with lower prevalence of smoking the scale of the tobacco epidemic remains a threat to the public's health and to the economies of countries, such as through loss of productive years and healthcare costs of the burden of diseases from tobacco.¹²

In addition, countries that have made the most progress in reducing prevalence of smoking have found declines are slowing or plateauing (e.g., Singapore, Brunei). This led delegates to ask: how can tobacco control measures be more effective and what else can be done to reduce smoking prevalence?

2 Tobacco control

There is a strong evidence base that tobacco control measures are effective in reducing the prevalence of smoking (illustrated by graphic in Box 2: tobacco control measures in the US mapped to reductions in adult per capita cigarette consumption). There is clear international consensus on the need to put in place tobacco control measures, reflected in the evidence-based WHO Framework Convention on Tobacco Control, the first international health treaty negotiated through the WHO.^{13,14}

In 2008, the WHO introduced MPOWER, six easy-to-understand, practical, affordable and achievable measures to help countries implement tobacco control.



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- O**ffer help to quit tobacco use
- W**arn about the dangers of tobacco
- E**nforce bans on tobacco advertising, promotion and sponsorship
- R**aise taxes on tobacco

¹¹ Tan YL. and Dorotheo U (2018) The Tobacco Control Atlas: ASEAN Region, Fourth Edition, September 2018. Southeast Asia Tobacco Control Alliance (SEATCA), Bangkok, Thailand. Available at: <https://seatca.org/dmdocuments/Tobacco%20Control%20Atlas%20ASEAN%20Region%204th%20Ed%20Feb%202019.pdf> (accessed 18.3.2019)

¹² Ibid Amul GGH, Pang T (2018)

¹³ WHO (2018a) Global Progress Report on Implementation of the WHO Framework Convention on Tobacco Control. Geneva: World Health Organization. Available at: https://www.who.int/ctc/reporting/WHO-FCTC-2018_global_progress_report.pdf (accessed 14.3.2019)

¹⁴ Chaloupka F & Jha P (editors) (1999) Curbing the Epidemic: Governments and the Economics of Tobacco Control. A World Bank Publication. (Evidence based for the Framework mainly drawn from this source) Available at: <http://documents.worldbank.org/curated/en/914041468176678949/pdf/multi-page.pdf> (accessed 14.3.2019)

such as cigarette taxes, smoke-free air laws, mass media campaigns, marketing restrictions, packaging requirements, cessation treatment programs, and youth access restrictions.¹⁹

The tobacco industry has also used litigation (or threats of litigation) against governments with the impact of reducing political motivation to progress on tobacco control measures. Delegates discussed the need to learn from countries that had undertaken legal battles with the tobacco industry, such as Australia.

3.2 Resources

Capacity and capability can be an issue in some countries in implementation of tobacco control measures. The following examples were referenced:

- Countries that raise taxes need to have the commitment, capacity and ability to prevent smuggling of tobacco, as this would undermine efforts to reduce tobacco use and reduce tax revenues. This is a challenge particularly for countries with long land and sea borders.
- Increasing the age of sale of tobacco products is only effective if enforced, which is a challenge in countries with large rural areas that are difficult to access.
- Competing health priorities may result in a lack of bandwidth to focus efforts on tobacco control when balanced against other significant health issues, as well as a belief that smoking is 'solved' due to it being a high-profile health issue for many decades.

3.3 Industry interference

The obstacle of industry interference can range from the direct and obvious to more subtle approaches. The tobacco industry can also manipulate public opinion through messaging and marketing (increasingly through social media), use front groups, and promote poorly designed and biased research, which is then not robustly and rapidly discredited.

Indonesia holds the record of 13 instances of the tobacco industry's use of legal challenges against government tobacco control policy, followed by 11 cases in the Philippines and 8 in Thailand.²⁰

3.4 Cultural and social norms

Delegates discussed cultural and social norms being a barrier to tobacco control measures (and a factor in the far higher prevalence of male smoking). There was concern that with societal changes, the low prevalence of smoking in females may also increase.

Summary:

Delegates recognised the key obstacles and hoped to work further and faster to make progress in tobacco control. However, it was noted that even in countries that have progressed further, there remains a stubborn level of smoking prevalence and a need to go further and faster on the WHO FCTC and MPOWER measures to ensure progress is maintained and smoking is continually reduced. There was also a discussion around thinking differently to reduce smoking prevalence — this led on to discussions around harm reduction and tobacco endgame strategies.

4 Harm reduction and Alternative Nicotine Delivery Systems

Tobacco harm reduction refers to strategies designed to reduce the health risks associated with tobacco smoking but which may involve the continued use of nicotine.

In the 1970s it was stated in the British Medical Journal that “smokers smoke for the nicotine, but die from the tar.”²¹ The chemicals in cigarette smoke cause the vast majority of the damage

¹⁹ Levy DT SimSmoke (Georgetown) SimSmoke Tobacco Control Policy Simulation Model. Georgetown University. US. Available at: <https://resources.cisnet.cancer.gov/registry/packages/simsmoke-georgetown/> (accessed 17.3.2019)

²⁰ Tan YL and Dorotheo U (2018) The Tobacco Control Atlas: ASEAN Region, Fourth Edition, September 2018. Southeast Asia Tobacco Control Alliance (SEATCA), Bangkok, Thailand. Available at: <https://seatca.org/dmdocuments/Tobacco%20Control%20Atlas%20ASEAN%20Region%204th%20Ed%20Feb%202019.pdf> (accessed 18.3.2019)

²¹ Russell MJ (1979) Low-tar medium nicotine cigarettes: a new approach to safer smoking. *BMJ*. 1976;1:1430–3. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1640397/> (accessed 17.3.2019)

associated with smoking. Harm reduction approaches in tobacco have centred on the delivery of nicotine, through preventing or substantially reducing the impact of the disease-causing chemicals in tobacco smoke. Although, it should be noted that nicotine does impact health and may also be a disease risk factor. A 2015 study reviewed existing animal and human studies on the health impact of nicotine and found links to increased risk of cardiovascular, respiratory and gastrointestinal disorders, and that nicotine may impact on reproductive health. The study also reported that nicotine may affect cancer proliferation and metastasis, as well as resistance to chemo- and radio-therapeutic agents.²²

Although many public health organisations and professionals are supportive of harm reduction in other areas of public health such as HIV/AIDS, sexual health and intravenous drug use, harm reduction in smoking is a polarised debate.

Historically, tobacco harm reduction focused on reducing the inhalation of toxins from cigarettes, such as filters, which ended up being an effective tobacco industry marketing strategy and ineffective in protecting the user from the harmful effects of smoking.²³ This may have contributed to an innate scepticism around more recent tobacco harm reduction approaches, especially where they involve partnering up with the tobacco industry.

There has been a proliferation of the type of products used to deliver nicotine without burning tobacco, but often a lack of regulation of these products. Collectively these products are known as Alternative Nicotine Delivery Systems (ANDS). The global sales for these products are rapidly increasing. In 2014 worldwide sales totalled US\$2.76 billion, in 2016 US\$8.61 billion, and is expected to reach US\$26.84 billion by 2023.²⁴

Box 3

The graphic opposite highlights the variation in ANDS. Some are tobacco based, some don't use tobacco, some are heated and others are aerosol, some include flavours and additional additives and chemicals. As the box shows, some look like regular cigarettes while others look more like pens, flash drives, lipsticks or gadgets.

Source: Bates (2018)²⁵



Some ANDS have been used over many decades and there is a relatively well-established evidence base on their role in reducing the harm of tobacco, such as the case of Swedish snus.

Box 4: Swedish snus^{26,27,28}

Sweden has reached the WHO goal of reducing cigarette smoking to less than 20% of the adult population. Snus, a less harmful and cheaper alternative to smoking in Sweden is believed to have been a major factor behind Sweden's record-low prevalence of smoking and the lowest level of tobacco-related mortality among men in Europe.

²² Mishra A (2015) Harmful effects of nicotine. *Indian J Med Paediatr Oncol*. 2015 Jan-Mar; 36(1): 24–31. doi: 10.4103/0971-5851.151771 PMID: PMC4363846 PMID: 25810571. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363846/> (accessed 17.3.2019)

²³ RCP (2016) Nicotine without smoke: Tobacco harm reduction. Royal College of Physicians. London

²⁴ WHO (2018b) Conference of the Parties to the WHO Framework Convention on Tobacco Control. Progress report on regulatory and market developments on electronic nicotine delivery systems (ENDS) and electronic non-nicotine delivery systems (ENNDS) FCTC/COP/8/10 27 June 2018. Eighth session. Geneva, Switzerland, 1–6 October 2018. Available at: https://www.who.int/fctc/cop/sessions/cop8/FCTC_COP_8_10-EN.pdf (accessed 14.3.2019)

²⁵ Bates C (2018) NYU College of Global Health - E-cigarette seminar - New York. Available at: https://www.slideshare.net/Clive_Bates/nyu-college-of-global-health-ecigarette-seminar-new-york (accessed 14.3.2019)

²⁶ Maki J (2014) The incentives created by a harm reduction approach to smoking cessation: Snus and smoking in Sweden and Finland. *Int J Drug Policy* 2014; 26:569–74. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25214359> (accessed 14.3.2019)

²⁷ WHO. Snus – The Swedish Experience. Case Study. Available at: https://www.who.int/tobacco/framework/public_hearings/swedish_match_ab.pdf (accessed 8.3.2019)

²⁸ Lars Ramström et al (2016) Patterns of Smoking and Snus Use in Sweden: Implications for Public Health *Int J Environ Res Public Health*. 2016 Nov; 13(11): 1110. Published online 2016 Nov 9. doi: 10.3390/ijerph13111110 PMID: PMC5129320 PMID: 27834883. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5129320/> (accessed 17.3.2019)

Snus is used by 20% of Swedish males and by 2% of Swedish females; if snus was not available these people might have been cigarette smokers.

Snus is made through a proprietary heat treatment process, and as a result has lower levels of cancer causing properties (low levels of nitrosamines). Swedish snus is regulated by the Swedish Food Act and complies with food standards.

The blood nicotine levels in snus users do not differ from the levels in cigarette smokers, but studies show that the adverse health effects associated with the use of snus are far lower than those associated with cigarette smoking.

There has been concern that snus might inhibit smoking cessation and/or encourage those who would not otherwise have smoked to do so. Research has found that those who began daily tobacco use through snus were much less likely to subsequently take up smoking than those who had not, both among males (17.6% vs 45.9%), and females (8.2% vs 40.2%). Among those who started using snus after starting as smokers, 76.3% of men and 71.6% of women had stopped smoking completely, including 31.5% of the men and 28.6% of the women who had quit all forms of tobacco. Primary snus users were also more likely to have quit altogether than those who only ever smoked. Snus was also reported as the most common smoking cessation aid among men and yielded higher success rates than nicotine replacement therapy and other alternatives.

Although snus is increasingly recognised as effective in reducing the harm of tobacco in Sweden, the evidence relating to the impact on health and tobacco control of the new ANDS products will take many years to fully develop. That is if the impacts can ever be determined. That may be impossible given the large number of rapidly-changing products, combined with the numerous patterns of different combinations of product use, both at present and over time.

The recent proliferation of alternative nicotine delivery systems has led to apprehension and a polarised debate on harm reduction strategies. This can be illustrated through the international debate on 'vapes'.

4.1 Vapes

Vapes are electronic devices that heat a liquid which generates an aerosol, or 'vapour', that is inhaled by the user. The WHO has adopted a precautionary stance, steering more towards robust regulation;²⁹ vapes were banned in 15% of WHO Member States. Many countries cite the precautionary principle for prohibiting the sale of vapes and state they are awaiting further evidence on the risk and benefits of the products.

Precautionary principle: *"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."*³⁰

Although there are varying levels of enforcement, the majority of regional countries have banned electronic cigarettes (e.g., Brunei, Cambodia, Indonesia, Singapore, Thailand and Vietnam).^{31,32} Where countries have allowed the sale of ANDS, there is little consensus about how to regulate the industry.

Arguments against vapes

Internationally, there is a strong voice of opposition to these products, as they are viewed as supporting a gateway effect to tobacco cigarette smoking (there is developing international

²⁹ Ibid WHO (2018b)

³⁰ Raffensperger C, Tickner J, eds. (1999) Protecting Public Health and the Environment: Implementing the Precautionary Principle. Washington, DC: Island Press, 1999. Available at: <https://islandpress.org/books/protecting-public-health-and-environment> (accessed 14.3.2019)

³¹ Ibid Amul GGH, Pang T (2018)

³² Ibid WHO (2018b)

evidence of this effect),^{33,34} as well as potentially creating a new epidemic of people who are nicotine-dependent on a product with unknown long-term health risks.

Delegates raised concern that vapes, particularly flavoured vapes, were becoming normalised in a younger generation in countries that have allowed the sale of products and may lead to more younger people becoming nicotine dependent. A University of Michigan study found 17 to 18 year olds that reported vaping nicotine rose from 11% to 21% in 2017. It also found rises in 14 year olds (3.5% to 6.1%), and among 16 year olds (8% to 16%).³⁵

Box 5: US: JUUL ^{36,37,38}

JUUL is a battery-powered vape device that looks like a USB flash drive. It heats a nicotine-containing liquid to produce an aerosol that is inhaled. It also uses nicotine salts, which contain high levels of nicotine and are inhaled more easily. Flavours are also available to add.

JUUL sales have increased rapidly from 2.2 million devices sold in 2016 to 16.2 million in 2017. Nearly 1 in 3 vape sales in the US is JUUL, giving it the largest market share in the United States.

Use of JUUL by young people has been widely reported and led to widespread concern as it contains among the highest nicotine content of any vape in the US market.

The US Surgeon General and US Centers for Disease Prevention and Control have concluded that vape use among young people is a public health concern, and that vaping is not harmless, stating that the high levels of nicotine can be harmful to the developing adolescent brain.

In response to concerns JUUL has stated it will remove some flavours from retail store shelves (e.g., cucumber, mango and other fruit flavours) in an effort to reduce surging teenage use of its products, although these flavours will still be available online to users over the age of 21. JUUL has also said it is shutting down its social media channels on Instagram and Facebook and working with social media companies to remove youth-oriented content.

Although there was recognition that nicotine in ANDS carries fewer health impacts compared to being delivered through the smoking of tobacco, there was debate on the risks of nicotine dependence, particularly in younger people, with delegates awaiting further research in this area on the long-term health impacts of ANDS.

Arguments for vapes

There is the view from the UK Royal College of Physicians (RCP) and UK Public Health England (PHE) that vapes carry a substantially reduced risk of disease compared to tobacco products, and that they should be available as a smoking cessation aid.^{39,40} The RCP promotes the view that nicotine without smoke, with sensible regulation, has the potential to

³³ Conner M et al (2018) Research paper: Do electronic cigarettes increase cigarette smoking in UK adolescents? Evidence from a 12-month prospective study. *Tob Control*. 2018;27:365–372. Available at: <https://tobaccocontrol.bmj.com/content/27/4/365> (accessed 14.3.2019)

³⁴ Yoong SL et al (2016) Prevalence of smoking-proxy electronic inhaling system (SEIS) use and its association with tobacco initiation in youths: a systematic review. Document prepared at the request of WHO Prevention of Noncommunicable Diseases. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of WHO. Available at: https://www.who.int/tobacco/industry/product_regulation/BackgroundPapersENDS2_4November.pdf (accessed 17.3.2019)

³⁵ Prieur N (2018) Monitoring the Future. National Adolescent Drug Trends in 2018 Vaping Surges. Largest Year-to-Year Increase in Substance Use Ever Recorded in the U.S. for 10th and 12th Grade Students. University of Michigan. US. Available at: <http://www.monitoringthefuture.org/pressreleases/18drugpr.pdf> (accessed 14.3.2019)

³⁶ Office of the Surgeon General (2016) E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General. US Department of Health and Human Services. Available at: https://e-cigarettes.surgeongeneral.gov/documents/2016_sgr_full_report_non-508.pdf (accessed 14.3.2019)

³⁷ CDC (2019) Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. CDC. US. Available at: https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html (accessed 14.3.2019)

³⁸ Reuters (2018) Juul Labs to pull sweet e-cig flavors to curb youth use. November 14 2018 / 3:12 am. Kirkham C. Available at: <https://www.reuters.com/article/us-usa-health-juul/juul-labs-to-pull-sweet-e-cig-flavors-to-curb-youth-use-idUSKCN1N12IZ> (accessed 14.3.2019)

³⁹ Ibid RCP (2016)

⁴⁰ PHE (2018) Research and analysis: Evidence review of e-cigarettes and heated tobacco products 2018: executive summary. Updated 2 March 2018. PHE. London. Available at: <https://www.gov.uk/government/news/phe-publishes-independent-expert-e-cigarettes-evidence-review> (accessed 17.3.2019)

make a major contribution towards preventing the premature death, disease and social inequalities in health that smoking currently causes in the UK.⁴¹ Vapes are freely available in the UK to anyone over the age of 18 and regulated under the UK Tobacco and Related Products Regulations 2016.

The US Food and Drug Administration (FDA) has stated that nicotine, while highly addictive, is delivered through products along a “continuum of risk” with tobacco cigarettes at one end, and nicotine replacement therapy products at the other. All the new ANDS making a cessation aid claim are now regulated as pharmaceutical products and are required to undergo assessment by FDA. So far, the FDA has not approved any ANDS as a pharmaceutical product for smoking cessation.

Vapes are increasingly viewed as more effective for smoking cessation than nicotine-replacement therapy. Recent modelling research has found that the health benefit associated with e-cigarettes (in terms of their potential to increase adult smoking cessation) exceeds their downside risk to health as a result of their possibly increasing the number of youthful smoking initiators.⁴²

In addition to previous population-level studies supporting the use of ANDS in smoking cessation, a recent UK randomised study on smoking cessation found that 18% of individuals had still quit smoking using vapes a year later (80% of these individuals were still using e-cigarettes a year later), whereas only 9% had quit using nicotine replacement therapy (9% were still using NRT a year later).⁴³

Summary:

Delegates were conscious that the current polarised international debate on vapes and other ANDS can distract from current well-established, evidence-based approaches to tobacco control. The harm reduction debate on ANDS created a strong dialogue, but also a consensus that the focus should always be on reducing smoking to as low as possible through the WHO FCTC & MPOWER measures.

Delegates were monitoring the emerging evidence base on ANDS, but recognised full scientific analysis of the impacts of ANDS would not be known for many years. Delegates were positive in keeping an open mind on ANDS, recognising that the international polarised debate has led to a hardening of positions within the tobacco control public health community, which can be unhelpful when the overall goal should always be to work together to reduce prevalence of smoking.

There was discussion on ANDS as potentially playing a specific role in managed smoking cessation programmes (as a regulated prescription product), which delegates would welcome research on in the region — discussed in next steps.

5 Tobacco endgame

There are some countries (e.g., Canada, Ireland, Finland, Sweden and New Zealand) that have announced a political commitment to achieving a ‘tobacco endgame’ — generally regarded as when smoking prevalence is below 5% of the adult population or eliminating smoking altogether. Although an emergent concept, it shifts the discussion away from control of tobacco toward the date-linked goal of a tobacco-free future.⁴⁴ There is no single strategy of tobacco endgame that has been proposed and discussions to date have focused around

⁴¹ RCP (2018) Position Statement. What the RCP thinks about ...tobacco. RCP. London. Available at: <https://www.rcplondon.ac.uk/projects/outputs/what-rcp-thinks-about-tobacco> (accessed 14.3.2019)

⁴² Warner K, Mendez D (2018) E-cigarettes: Comparing the Possible Risks of Increasing Smoking Initiation with the Potential Benefits of Increasing Smoking Cessation. *Nicotine & Tobacco Research*, Volume 21, Issue 1, January 2019, Pages 41–47, <https://doi.org/10.1093/ntr/nty062>. Available at: <https://academic.oup.com/ntr/article/21/1/41/4956222> (accessed 24.4.2019)

⁴³ Hajek P et al (2019) A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy. February 14, 2019. *N Engl J Med* 2019; 380:629-637. DOI: 10.1056/NEJMoa1808779. Available at: <https://www.nejm.org/doi/full/10.1056/NEJMoa1808779> (accessed 14.3.2019)

⁴⁴ McDaniel PA, Smith EA, Malone RE (2015) The tobacco endgame: a qualitative review and synthesis. Special communication. *BMJ Tobacco Control* 2016;25:594–604. doi:10.1136/tobaccocontrol-2015-052356. Available at: <https://tobaccocontrol.bmj.com/content/25/5/594> (accessed 14.3.2019)

implementation of WHO FCTC evidence-based measures to the full, with focus on denormalising tobacco use and closing any gaps in a country's implementation of the WHO FCTC. Possible endgame measures are outlined in the categories below. None of these ideas have been fully tested and each comes with its own potential issues, but they do represent positive steps towards thinking creatively about how to further reduce smoking.

Product-focused endgame proposals

These could include regulation of nicotine levels to make cigarettes non-addictive or less addictive, as well as redesigning the cigarette to make it unappealing (e.g., raising the pH of cigarettes, banning menthol, banning filters). Although controversial and the long-term evidence base is limited, Alternative Nicotine Delivery Systems (ANDS) have been discussed as playing a role in endgame strategies, with addicted cigarette smokers encouraged to switch to e-cigarettes to quit. These are discussed further in the tobacco harm reduction section.

Retail-focused endgame proposals

Ideas have included raising the age of smoking, requiring smoking cessation effort before purchase of cigarettes and prohibiting the sale of tobacco to citizens born in or after a certain year, creating 'tobacco-free generations.' The aim is to create a tobacco-free generation as many smokers start smoking as young adults. In Hawaii they have proposed raising the minimum age to 100 in a stepwise manner, which in effect would have the same impact as a tobacco-free generation proposal.⁴⁵

Supply-focused endgame proposals

These approaches could include licensing or 'sinking lid' policies, which would annually reduce the quota of tobacco supplied to a national market (to zero in 10 years), which could potentially be an option in more isolated island communities.

Institutional structure-focused proposals

A regulated market model has been suggested, under which an agency would be both regulator and sole purchaser of tobacco from manufacturers and importers. This agency could control standards, product availability, price, packaging and promotion.

Summary:

Discussions on the tobacco endgame focused on countries that had progressed furthest along WHO tobacco control measures, and around what else could be done and developing a WHO FCTC and MPOWER + concept. WHO FCTC & MPOWER + (plus) would build on the principles of evidence-based approaches to tobacco control and incorporate initiatives to move towards a smoking prevalence below 10% and then the tobacco endgame of below 5% smoking prevalence. Delegates would strongly support further initiatives in low smoking prevalence regional countries that would ultimately lead to a tobacco endgame so that these strategies and in-depth learning could be of significant benefit to all regional countries.

The concept of the endgame was also discussed in relation to what the tobacco industry's endgame is, querying their long-term strategy given falling sales of traditional cigarettes and the increasing market share of harm reduction products.

⁴⁵ BBC (2019) Hawaii may increase legal smoking age to 100. 5 February 2019. Available at: <https://www.bbc.com/news/world-us-canada-47129503> (accessed 17.3.2019)

6 Proposed next steps

The following next steps are drawn from the panel discussion and dialogue. These are intended to promote discussion and agreement on a positive way forward.

1. Asia-Pacific Academic Consortium for Public Health (APACPH)

Delegates supported utilising the APACPH as a platform for working together and championing tobacco control with a strong focus on reducing smoking to as low as possible across countries.



APACPH was viewed as an ideal platform as its aim is to achieve the highest possible level of health for all the people of the nations of the Asia-Pacific region. This is to be achieved through enhancing regional capacity to address major public health challenges through the delivery of education, research and population health services.

This forum could also be used to agree on regional tobacco control research priorities to develop the regional evidence base (outlined further in point 4).

2. WHO FCTC & MPOWER measures

Delegates were supportive of promoting further implementation of the WHO FCTC & MPOWER measures.

Countries are at different stages of implementing the tobacco control measures, reflected in the high variation of smoking prevalence among countries and between males and females in countries. There was agreement that the WHO FCTC & MPOWER measures are grounded in the evidence base and known to be effective across many different contexts, but that some measures would be more challenging to fully achieve given the geographical and cultural contexts of some countries, and that approaches would need to be adapted and tailored to individual situations.

Countries where smoking prevalence has plateaued suggested the need for a hardening in the focus through clear goal-based timelines to achieve full WHO FCTC & MPOWER implementation and enforcement. For Singapore, the possible next steps to further progress tobacco control measures are outlined in Annex A.

3. WHO FCTC & MPOWER +

WHO FCTC & MPOWER + would build on the principles of evidence-based approaches to tobacco control and incorporate additional initiatives to move towards a smoking prevalence below 10% and then the tobacco endgame of below 5% smoking prevalence.

Some countries are at lower levels of smoking prevalence and delegates would strongly support further initiatives that would ultimately lead to a tobacco endgame so that these strategies and in-depth learning could be of significant benefit to all regional countries.

4. Research and developing the evidence base

Delegates were supportive of promoting regional-specific research, focusing on the key areas of smoking initiation and cessation.

The goal is to have a clear understanding of the multiple 'push' factors that promote smoking initiation and 'pull' factors that prevent smoking cessation in the Asian context. The aim would be that through greater understanding of these issues there can be the development of more effective prevention and health promotion activities.

Initiation of smoking

The following areas were discussed –

Due to the higher rates of smoking in males, exploring when and why Asian men start smoking was thought to be an area of key research. Are there critical points in the life course that make smoking initiation more likely and, if so, what could be put in place to reduce the likelihood of starting smoking? For example, surveys in Singapore have found that half of young smokers have a parent who smokes and 90% have a close friend who smokes. Local interventions could evolve to incorporate the influence of significant others as a factor (family and peers) and develop wider engagement to support overall reductions in smoking prevalence.

Pulling together the evidence and a proposal to support a ban on menthol cigarettes was discussed, recognising that menthol masks some of the unpleasant aspects of starting to smoke and is associated with reduced harm perception among females and younger smokers (a misperception promoted by the tobacco industry).⁴⁶ Menthol tobacco products became popular among young Singaporeans in the early 1980s, largely due to a health-consciousness trend among young people and the misperception that menthol tobacco products were ‘safer’. As of February 2018, menthol tobacco products comprise 48% of Singapore’s total tobacco market.⁴⁷

Delegates also identified the need to further understand the current use of social media platforms regionally in normalising smoking and how this can be matched with creative online tobacco control activism.

Smoking cessation

Smoking cessation obstacles were discussed, recognising that most individuals may take several attempts to quit smoking and that support for cessation efforts needs to be consistently available.

Within the context of pushing down smoking prevalence rates in countries with the lowest rates, delegates supported a trial of the use of an electronic nicotine delivery system in managed smoking cessation services (ideally a randomised control trial if appropriate). Such a product would need to be registered as a smoking cessation product based on evidence on efficacy and safety. The research project could study the impact of an electronic nicotine delivery system on smoking cessation and have emerging findings reported at 3-month, 6-month and 12-month intervals. This would enable the potential for rapid policy development based on findings.

An additional area of study might be to examine changes in cigarette smoking rates comparing countries in which vapes are banned (and are largely inaccessible) and those in which they are not banned.

Another possible research area discussed was the identification of persistent smokers in low prevalence countries and what would support them quitting. Are there socio-economic and health literacy factors contributing to a plateau of smoking prevalence in countries with lower rates? Are rates higher in specific groups?

⁴⁶ IT Agaku, UT Omaduie, FT Filippidis, CI Vardavas (2015) Cigarette design and marketing features are associated with increased smoking susceptibility and perception of reduced harm among smokers in 27 EU countries *Tob Control*, 24 (2015), pp. e233-e240

⁴⁷ van der Eijk Y, Lee JK, M Ling P. (2019) How Menthol Is Key to the Tobacco Industry’s Strategy of Recruiting and Retaining Young Smokers in Singapore. *J Adolesc Health*. 2019 Mar;64(3):347-354. doi: 10.1016/j.jadohealth.2018.09.001. Epub 2018 Nov 2. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30392860> (accessed 17.3.2019)

Annex A**Next Steps for Singapore**

A number of next steps were discussed to further implement WHO FCTC & MPOWER measures in Singapore. These included:

- Consider extending the 'tobacco-free generation' concept by raising the minimum age of legal access to tobacco products to 25.
- Evidence summary to support a ban on menthol and other flavours in tobacco products.
- Continue to increase tobacco taxation year on year, first to match inflation and purchasing power, and secondly to discourage initiation and consumption.
- Consider allowing an electronic nicotine delivery system as a smoking cessation product for existing smokers with the intention to quit. This should be evidence-based and only warranted when the evidence for safety and efficacy for an electronic nicotine delivery system as a smoking cessation product is available. The electronic nicotine delivery system product (or products) could then be available as a smoking cessation product on a prescription-only basis within a tightly regulated space for harm reduction.

Annex B**Tobacco Control Situation Summaries**

The following summaries are drawn from delegate reports and online information.⁴⁸

Singapore

28% of males and 5% of females smoke in Singapore. Singapore is now focused on reducing smoking prevalence to 10% (a stretch target was cited to achieve this by 2020). Given the lower smoking rates in females, this would mean that male smoking rates would have to reduce to 17%, which would need 50,000 to quit smoking. The focus is on further maximising the implementation of the WHO FCTC & MPOWER measures and looking at developing multi-pronged evidence-based approaches.

The Smoking (Prohibition in Certain Places) Act authorises the National Environmental Agency (NEA) to designate places and public vehicles as smoke-free. There is also the Tobacco (Control of Advertisements and Sale) Act.

Singapore has made great strides in the area of tobacco control, resulting in a low smoking rate compared to neighbouring countries. Singapore has implemented and robustly enforced many of the key WHO tobacco control measures such as tax increases, advertising bans, smoke-free public areas and raising the Minimal Legal Age for smoking. Most recently, Singapore has also passed the legislation to implement standardised packaging with enlarged graphic health warnings.

Thailand

In Thailand 40% of males smoke and only 2% of females smoke. Smoking is predominantly rolled tobacco, as these are the cheapest products.

The Tobacco Products Control Act of 2017 is the primary piece of legislation governing tobacco control in Thailand. Smoking is prohibited in almost all indoor public places, indoor workplaces and public transport. However, international airports have smoking areas and hotels may allow smoking in guest rooms. Non-air-conditioned facilities serving food and/or drinks are smoke-free only in the areas where food and/or drinks are served. Outdoor parks, exercise areas, sports competitions, amusement parks, children's playgrounds and markets are smoke-free.

There is a ban on tobacco advertising and promotion, although some forms of sponsorship are allowed.

The law requires pictorial health warnings on cigarettes, occupying 85% of the top of the front and back principal display areas. Pictorial health warnings also are required on tobacco for hand-rolled cigarettes and cigars. Misleading packaging and labelling, including terms such as 'light' and 'low tar' and other signs, is prohibited.

ANDS are prohibited based on the precautionary principle, although there are active groups that would like this lifted as an aid to smoking cessation.

⁴⁸ Tobacco Control Laws. Washington. US. Available at: <https://www.tobaccocontrollaws.org/> (accessed 14.3.2019)

Cambodia

In 2015 44% of males smoked, while the latest data shows a marked decrease to 33% of males. Very few females smoke, with rates at less than 4%. ANDS are available for purchase in Cambodia, although there is a lack of data demonstrating if the declines in smoking tobacco in males is related to an increase in use of ANDS.

The Law on Tobacco Control, issued in 2015, is the primary piece of legislation governing tobacco control policy. Smoking is prohibited in all indoor workplaces and indoor public places and transport. Hospitals, schools, nurseries, public parks, religious facilities, museums, and historical and cultural facilities are all smoke-free.

Most forms of tobacco advertising and promotion are prohibited, and sponsorship is limited. All tobacco product packaging must display a pictorial health warning covering 55% of the front and back panels of the package.

Taxation measures are being discussed and modelled to establish the evidence base on impacts.

Laos

57% of males smoke and 9% of females.

The Law on Tobacco Control is the primary legislation on tobacco control.

Indoor public places, indoor workplaces and public transportation are smoke-free. Smoking is prohibited outside schools and hospitals, as well as in outdoor stadiums and parks.

There is a general ban on advertising and promotion; however, there is an exemption for advertising at point of sale. All forms of tobacco sponsorship are prohibited.

Text and picture warnings must occupy 75% of the front and back of cigarette packaging. Manufacturers must print the six authorised warnings in rotation, changing the warning at intervals of 50,000 packs. There are images used that were found to appear to be supportive of smoking, rather than a deterrent, reinforcing the need to continually review images used.

Health warnings are not required on smokeless tobacco products. Misleading packaging and labelling, including terms such as 'mild', 'medium' and 'light', is prohibited.

Taxation measures are being discussed and researched, as well as ANDS.

Malaysia

43% of males and less than 2% of females smoke.

Tobacco control is regulated under the Control of Tobacco Product Regulations 2004. Nationally, smoking is prohibited on public transportation and in specified public places and workplaces, including restaurants; workplaces with a centralised air-conditioning system; health, education, government and cultural facilities; and indoor stadiums. Smoking is allowed in pubs and clubs, and non-air-conditioned public transport terminals. Some regional areas may have more stringent tobacco control laws.

Most forms of tobacco advertising, promotion and sponsorship are prohibited. Rotating combined picture and text health warnings are required to occupy 50% of the front and 60% of the back of the package. Health warnings are not required on tobacco products other than cigarettes.

Tax on cigarettes has increased.

Taiwan

Smoking prevalence is at 30% and in last 10 years there has been a 1% decrease every year.

The Tobacco Hazards Prevention Act is the primary tobacco control law. Smoking is prohibited in indoor workplaces jointly used by three or more persons; however, this prohibition does not apply to workplaces that are listed as public places. There are limitations on smoking in indoor public places such as schools, universities, cultural institutions, government buildings and places for indoor sports and entertainment. Smoking is prohibited in public transportation. Sub-national jurisdictions may enact smoke-free laws that are more stringent than the national law.

Most forms of tobacco advertising and promotion are prohibited and sponsorship is restricted. Image and text health warnings must occupy 35% of the front and back of the packaging of smoked tobacco products. Misleading packaging and labelling, including terms such as 'light' and 'low tar' and other signs, is prohibited.

Tax increases have been implemented.

Annex B**Closed-door discussion contributors**

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