Time to rethink tobacco dependence treatment in Australia

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Despite, widespread success and reductions in smoking prevalence rates, tobacco use remains the leading modifiable risk factor for ill health in Australia accounting for 22% of the cancer burden, 12% of cardiovascular disease and 41% of respiratory illness.[1] The forthcoming National Preventive Health Strategy identifies reducing tobacco use as a priority for all Australian Governments and cites "increased provision and access to evidence-based cessation services and support to help people who use tobacco to quit "as a key policy area.[2]

Australia, as a signatory to the Framework Convention on Tobacco Control (FCTC), has an obligation to provide evidence-based tobacco dependence treatment (TDT) as part of routine health care. Article 14 of the FCTC requires signatories to ensure cessation access and develop and implement a national cessation strategy, national treatment guidelines and a consistent approach to training health practitioners to provide brief advice, all of which must be free from conflicts of interest and integrated with comprehensive population level tobacco control measures.[3]

The recent TGA decision on liquid nicotine and the introduction of smoking cessation via telehealth together with the aspiration of increasing cessation in the new National Preventive Health Strategy provides an opportune moment for a commitment to improving the provision of TDT. In this commentary, we argue that TDT is an overlooked component of Australia's comprehensive national tobacco strategy and must be implemented urgently to complement population level actions that prevent uptake and encourage cessation.

Most smokers want to quit

The proportion of Australians smoking daily more than halved between 1991 and 2019, declining from 24.3% to 11.6%.[4] Moreover, smoking has become increasingly de-normalised with very few young Australians initiating smoking: less than 2% of 14-17 year-olds report daily smoking and the proportion of 18-24 year-olds never smoking rose to 80% in 2019.[5] However, there is still significant work to be done to improve cessation outcomes. For example, around one-third of Australian smokers made unsuccessful quit attempts in 2019 and this figure has been relatively stagnant for the past decade.[5]

Australia's success in lowering smoking rates reflects comprehensive population-level tobacco control interventions designed to reduce supply and demand (e.g. mass media campaigns, taxation, smoke-free spaces and bans on marketing and promotion).[6] Nonetheless, there are still considerable disparities in smoking prevalence rates with individuals from socially disadvantaged backgrounds more likely to be daily smokers compared to those from socially advantaged backgrounds (18% vs 5%).[5] Furthermore, while smoking rates have declined overall, they remain much higher in at-risk groups including those with a diagnosed mental illness (including substance use disorders), the unemployed, people living in remote areas and Aboriginal and Torres Strait Islander peoples.[5]

For the past decade, around 30% of smokers have said they do not want to quit; a statistic that seems to support the idea that there are large numbers of smokers who are unwilling to quit.[5] However, around half of these "unwilling to quit" smokers made a quit attempt in the past 12 months.[7] Only a quarter reported there was nothing that could motivate them to quit, meaning that most Australian smokers who say they are unwilling to quit also say they could be prompted to make a quit attempt.[5] Even if the 30% of smokers who say they do not want to quit represented the last remaining smokers in Australia, the population prevalence of smoking would be less than 5%.[7] Clearly then, most Australian smokers either want to quit or can be readily motivated to make a quit attempt.

Current TDT in Australia

Although there is a sizeable cohort of future quitters, system-wide efforts to promote cessation and improve the provision of TDT to individuals, to increase both quit attempts and quit success are currently lacking. Very few Australian health professionals routinely promote cessation and fewer still deliver evidence-based TDT; a combination of multi-session behavioural intervention plus combination pharmacotherapy.[8,9] While not all smokers require TDT, subgroups with complex psychosocial issues (e.g. mental illness, substance use disorder, low self-efficacy) or with existing health conditions or treatment plans affected adversely by smoking (e.g. pregnancy, pre-surgery, after a cancer diagnosis or cardiovascular event etc.) should be offered evidence-based cessation support. Health agencies have noted that under-utilisation of existing services and current structures of access to pharmacotherapy may be exacerbating tobacco related inequities.[10-14] Addressing these problems, by ensuring smoking cessation is core business in the health system is required urgently to both motivate people to make a quit attempt and to maximise best practice support for quitting.

There have been innumerable pilots and trials promoting and testing practice change in Australian settings, ranging from the use

The authors have stated the following conflicts of interest: Tanya Buchanan is the CEO of Cancer Council Australia. Sarah White is the Director of Quit and responsible for delivering non-profit Quitlines in several Australian states. Henry Marshall is the Convenor of the Tobacco Control Special Interest Group at the Thoracic Society of Australia and New Zealand. Kristin Carson-Chahhoud is a Board member of the Thoracic Society of Australia and New Zealand. She has received payments from Pfizer and Menarini to speak at conferences.

of targets and financial incentives in whole subsets of a state health system down to clinical pathway "tools" in single inpatient units in hospitals.[15,16] The feasibility and acceptability of embedding TDT in routine care in Australia is not in doubt. However, achieving sustainability of practice change, in the absence of policy and structural changes engendered by a national commitment is highly questionable. The key focus of Article 14 is coordinated system level actions rather than sporadic or isolated activity.

Current TDT service provision in Australia has a number of challenges. For example, it is disjointed, does not reach populations with higher levels of smoking effectively and consistently, is not embedded in health care delivery, slips through the cracks of health care professional education and is often not evidence based in practice.[17] Complicating these issues is the federated structure in which the Commonwealth derives benefits from tobacco taxation and is responsible for Australia's commitment to the FCTC and the subsidisation of some pharmaceuticals. However, it is the states/territories that are responsible for funding and delivery of behavioural support via quit lines and integration into the health care sector.

Ill health and cost have been identified as the leading reasons cited by smokers for making quit attempts; thus each contact with healthcare workers represents an opportunity for cessation intervention.[5] However, documentation of smoking status and active delivery of TDT is inconsistent across the health sector and key settings such as alcohol and other drug treatment centres.[17] In 2018, the Australian Council on Health Care Standards clinical indicator for documenting preoperative smoking status was the least commonly collected anaesthesia indictor – reported by only one health care organisation.[18] Since the first version of the Royal Australian College of General Practitioners (RACGP) Smoking Cessation Guidelines was published in 2011, systematic identification of all people who smoke has been strongly recommended. However, despite a decade of unequivocal guidance, there is no such system routinely in place.[19]

The Federal Government subsidises nicotine replacement therapy (NRT) in the form of patches, gum and lozenge, as well bupropion and varenicline, via the Pharmaceutical Benefits Scheme (PBS). PBS subsidisation, however, does not reflect the well-established evidence base when it comes to effective prescribing of NRT. Combination therapy is not subsidised and subsidies are only available to people on very low incomes and Aboriginal and Torres Strait Islander peoples. The general patient charge for Nicorette Invisipath 25mg/16hr (x28) on the PBS is $41.30 (plus the cost of a GP appointment if the GP does not bulk bill). The same product retails for $40.99 from a large pharmacy chain store. By making the subsidised cost essentially the same as purchasing NRT over the counter, there is a lost opportunity to incentivise people who smoke to visit a health professional for subsidised pharmacotherapy and receive advice and a referral for behavioural intervention.

Pharmacotherapy is most effective when combined with multi-session behavioural intervention, such as that provided by Quitlines in Australia.[19,20] However, the number of health professionals actively referring to Quitline is very low. In 2018 in Victoria, an estimated 32,000 NRT prescriptions were dispensed, but Quitline received only 1,555 referrals.[13] When pharmacotherapy is used in isolation of behavioural intervention, neither government investment in subsidised pharmacotherapy nor quitting success are maximised.

Given smoking cessation is not addressed routinely and that safe, high quality and efficacious TDT is underutilised, it is not difficult to see that low cost system level interventions to embed TDT in routine care have the potential to significantly increase quitting outcomes. It is also unsurprising that, in the absence of consistent advice on quitting and the underutilisation of TDT, e-cigarettes have come to be viewed by some as a possible 'magic bullet' for increasing cessation rates.

The case for e-cigarettes as a form of NRT for cessation is reasonable in theory but not, as yet, unequivocally supported by evidence. A 2020 Cochrane review found moderate-certainty evidence "limited by imprecision" that e-cigarettes may assist with cessation.[21] A randomised controlled trial of e-cigarettes versus NRT for smoking cessation demonstrated that e-cigarettes were more effective than NRT.[22] The critical factor in this study by Hajek et al. was that e-cigarettes were successful when combined with high-intensity face to face behavioural intervention such as that provided by Quitline.[22]

An important secondary finding from the Hajek study was that combustible cigarette quitters substituted e-cigarettes for cigarettes; 80% of e-cigarette users persisted in using an e-cigarette at 12 months (compared to only 9% of NRT users persisting with NRT use).[22] This is highly consistent with the pharmacokinetic profile of e-cigarette delivery of nicotine mimicking the rapid peaks and troughs seen with combustible cigarettes compared to the lower level, steadier nicotine levels achieved using NRT patches. The concern is that smokers who switch to e-cigarettes maintain nicotine addiction and are at high risk of relapse to combustible cigarettes.[23-26]

Whether or not e-cigarettes increase cessation, a similar approach to promotion and utilisation of TDT described above will be required.[22] We should ensure TGA-approved pharmacotherapies are used first and with behavioural intervention. If necessary, e-cigarettes can then be used as a second-line approach with behavioural intervention, as recommended by the RACGP Smoking Cessation Guidelines 2020.[19] And, as a whole, the system will need to be ready to treat people who are dependent on e-cigarettes, probably (and perhaps ironically) using pharmacotherapy and behavioural intervention used to treat people who are dependent on cigarettes.

Opportunities to Improve TDT

A consistent national approach to TDT guidance and training and national TDT coordination are foundation pieces to implement Article 14 and thus improve TDT. The reasons why health care professionals do not routinely deliver TDT have been studied repeatedly. Some of the main reasons include lack of confidence, time, skills or experience in discussing smoking, taboos around addressing personal matters, lack of knowledge about TDT options, lack of reimbursement for a TDT consult and systems issues such as unclear follow up procedures or referral pathways.[27] Providing effective training in TDT to health care professionals would enhance delivery of quit smoking support using established therapies by addressing many of these barriers and changing practitioner attitudes and behaviours when it comes to promoting cessation and facilitating uptake of TDT. Quit training uses evidence-based skills development that is based on the latest research evidence as it becomes available.

Khan et al. provide an important reminder that evaluation of smoking cessation studies, such as those designed to increase clinicians' willingness to deliver brief advice, is vital to ensure shared learning.[28] This call to evaluate is equally important for interventions that are successful and for those that are not. However, at the present time, Australia lacks a coordination mechanism or clearing house by which these outcomes can be reviewed and considered by jurisdictions for scale up and deployment as usual care. This leads to inefficiencies and redundancies in the funding and execution of research studies and clinical trials.

System-level improvements to record interventions as part of a management reporting framework have been demonstrated to ensure TDT is offered more frequently.[15] System-level advocacy and coordination is also required to ensure there is a system-level (and sustainable) change in health care practice. Addressing attitudes and behaviours in individuals (e.g. through professional standards set by national peak bodies), organisations (e.g. by incorporating TDT in national quality and safety standards) and governments (e.g. by including TDT targets in service and funding contracts) will all be required.

Conclusion

Australia leads in many other aspects of FCTC implementation but is not yet delivering a systematic approach to TDT systems as part of a comprehensive national approach to reducing smoking prevalence. This is not an either/or scenario in which TDT for individuals is prioritised over population level interventions. Article 14 specifically recognises the role population level interventions have in driving motivation to quit. There is no 'magic bullet' that can reduce smoking prevalence. It requires a multi-faceted, coordinated and comprehensive approach.

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