2020

Summary of tobacco use among Aboriginal and Torres Strait Islander peoples

Australian Indigenous HealthInfoNet

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Australian Indigenous Health*InfoNet*

The Australian Indigenous Health*InfoNet's* mandate is to contribute to improvements in Aboriginal and Torres Strait Islander health by making relevant, high quality knowledge and information easily accessible to policy makers, health service providers, program managers, clinicians and other health professionals (including Aboriginal and Torres Strait Islander health workers) and researchers. The Health*InfoNet* also provides easy-to-read and summarised material for students and the general community.

The Health*InfoNet* achieves its commitment by undertaking research into various aspects of Aboriginal and Torres Strait Islander health and disseminating the results (and other relevant knowledge and information) mainly via its website (healthinfonet.ecu.edu.au). The research involves analysis and synthesis of data and other information obtained from academic, professional, government and other sources. The Health*InfoNet's* work in knowledge exchange aims to facilitate the transfer of pure and applied research into policy and practice to address the needs of a wide range of users.

Recognition statement

The Australian Indigenous Health*InfoNet* recognises and acknowledges the sovereignty of Aboriginal and Torres Strait Islander people as the original custodians of the country. Aboriginal and Torres Strait Islander cultures are persistent and enduring, continuing unbroken from the past to the present, characterised by resilience and a strong sense of purpose and identity despite the undeniably negative impacts of colonisation and dispossession. Aboriginal and Torres Strait Islander people throughout the country represent a diverse range of people, communities and groups each with unique identity, cultural practices and spiritualities. We recognise that the current health status of Aboriginal and Torres Strait Islander people has been significantly impacted by past and present practices and policies.

We acknowledge and pay our deepest respects to Elders past and present throughout the country. In particular, we pay our respects to the Whadjuk Nyoongar peoples of Western Australia on whose country our offices are located.

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Tell us what you think

We welcomes and value your feedback as part of our post-publication peer review process, so please let us know if you have any suggestions for improving this summary.

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Summary of tobacco use among Aboriginal and Torres Strait Islander peoples

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Further information

This Summary is based on the publication: Colonna E, Maddox R, Cohen R, Marmor A, Doery K, Thurber K A, Thomas D, Guthrie J, Wells S, Lovett R. (2020) Review of tobacco use among Aboriginal and Torres Strait Islander people. *Australian Indigenous HealthBulletin 20*(2).

The summary, tobacco review and more information about tobacco use among Aboriginal and Torres Strait Islander people can be viewed at: **aodknowledgecentre.ecu.edu.au/tobacco**

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Cover artwork

Panarringkarra by Jukuja Dolly Snell

Featured icon artwork

by Frances Belle Parker

The Health*InfoNet* commissioned Frances Parker, a proud Yaegl woman, mother and artist, to produce a suite of illustrated icons for use in our knowledge exchange products. Frances translates biomedical and statistically based information into culturally sensitive visual representations, to provide support to the Aboriginal and Torres Strait Islander workforce and those participating in research and working with Aboriginal and Torres Strait Islander people and their communities. Frances came to prominence winning the Blake Prize in 2000, making her the youngest winner and the first Indigenous recipient over the 65 year history of the prize.

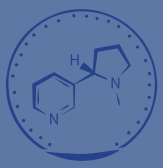
"Biirrinba is the Yaygirr name for the mighty Clarence River (NSW). It is this river that is the life giving vein for the Yaegl people. And it is this river which inspires much of my artwork. I am deeply inspired by my Mother's land (Yaegl land) and the Island in the Clarence River that my Mother grew up on, Ulgundahi Island. The stories which are contained within this landscape have shaped me as a person as an artist and most recently as a Mother. This is my history, my story and it will always… be my responsibility to share this knowledge with my family and my children."

Introduction

Tobacco use is very bad for health. It can harm almost every organ and system in the body. Tobacco use can cause conditions and diseases such as heart diseases, cancers, chronic lung disease and type 2 diabetes to be worse, or happen earlier in a person's life [1]. Tobacco use is the leading contributor to the burden of disease for Aboriginal and Torres Strait Islander peoples, so reductions in smoking can lead to big improvements to health [2].

This summary is based on the ***Review of Tobacco use among Aboriginal and Torres Strait Islander peoples***. The review summarises the evidence from journal publications, government reports, national data collections and national surveys accessed through the Health*InfoNet*'s database of publications. Please note that statistics presented do not always include all states and territories, see sources for details.

Nicotine



Most tobacco products include a chemical called nicotine. Inhaling nicotine causes the body to release certain chemicals like dopamine that can make people feel alert, happy, relaxed and good [3, 4]. People can become dependent on nicotine, making it very hard for them to quit smoking and lead to symptoms of withdrawal like anxiety and stress if they stop smoking [4].

The context of tobacco use among Aboriginal and Torres Strait Islander peoples

Pre-colonial use of tobacco

Before colonisation, Aboriginal and Torres Strait Islander peoples did not smoke tobacco, though some people chewed the leaves of plants that contained nicotine [5-7] and some Aboriginal peoples in northern Australia traded tobacco and pipes with Macassan fishermen [5, 6].

Colonial introduction to tobacco

From 1788, tobacco was brought to Australia by European colonisers [6]. Tobacco was often used in first encounters between colonisers and Aboriginal and Torres Strait Islander peoples as a gesture of goodwill and to form relationships [5, 6, 8, 9]. After tobacco was introduced, it became a highly desired product and Aboriginal and Torres Strait Islander peoples sought it from colonisers [10]. Tobacco was used as a way to get Aboriginal and Torres Strait Islander peoples to:

- do labour
- adopt European ways of living
- convert to Christianity
- exchange cultural items and knowledges, like ceremonies, languages, or information about plants and animals [5, 6, 11, 12].

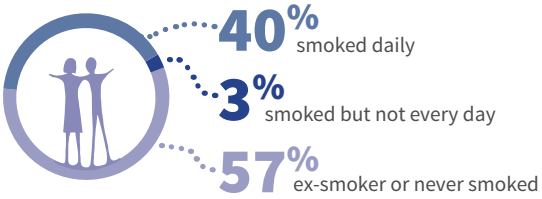
It also became part of the rations provided by the government or employers [13].

The colonisers' use of tobacco disrupted Aboriginal and Torres Strait Islander peoples' culture and connection with Country and caused health problems [10]. Colonisation also led to ongoing trauma, stress, racism and exclusion from economic systems, all factors that are associated with tobacco use.

Extent of tobacco use among Aboriginal and Torres Strait Islander peoples in Australia

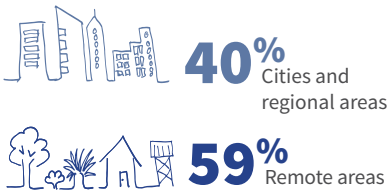
Smoking prevalence

The 2018–19 *National Aboriginal and Torres Strait Islander Health Survey* (NATSIHS) showed that for adults [14]:



Similar percentages of men and women smoked (daily and less than daily)

Smoking was less common for people in cities and regional areas than in remote areas



Smoking was less common for younger people compared to older people

The good news is that there have been significant reductions in smoking [14]

Daily smoking levels among adults have dropped by 10 percentage points

Decreases were particularly large for younger people

The decrease was also particularly large for people living in cities and regional areas

These reductions will lead to substantial health improvements

When people start smoking

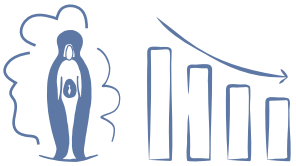
Aboriginal and Torres Strait Islander young adults are starting smoking later [15].

In 2014-15, 76% of daily smokers aged 18-24 years started before they turned 18 years. This is a decrease from 84% in 2004 [15]

Smoking during pregnancy

There has been a substantial decrease in smoking during pregnancy among Aboriginal and Torres Strait Islander women [16].

52% 2009



44% 2017

Second-hand smoke

Second-hand smoking is when a person breathes in the smoke from a tobacco product but is not smoking the cigarette (or other product) themselves. Second-hand smoke releases thousands of chemicals into the environment [17] and it can be bad for health.

While many people smoke outdoors to limit exposure to second-hand smoke, some people live with a friend or family member who smokes inside.

13% of children

19% of people over 15 years of age

lived in a home where people smoke inside in 2014-15 [99]

Many Aboriginal and Torres Strait Islander people are making changes to reduce the impact of second-hand smoke on others [18-21]. These include stopping people from smoking inside, avoiding social situations where people would be smoking, and changing their clothes after smoking.

Chewing native tobacco

In some parts of Australia, Aboriginal and Torres Strait Islander peoples chew plants that contain nicotine, such as bush tobaccos and pituri [6]. Native tobacco is used to improve a person's mood, lower appetite, reduce stress and pain, and maintain relationships through sharing tobacco [5-7, 22]. Currently, there is limited research on native tobacco [22]. However, studies have found that chewing tobacco may increase the risk of death from some types of cancers and cardiovascular disease [23]. Chewing tobacco while pregnant is also linked to poor birth outcomes [24-26].

E-cigarettes

E-cigarettes are battery operated devices that heat a liquid to produce a vapour that can be inhaled. In Australia, it is illegal to sell e-cigarettes that contain nicotine [27]. The limited research suggests that a smaller percentage of Aboriginal and Torres Strait Islander peoples may have tried e-cigarettes than non-Indigenous people [28, 29].

21% Aboriginal and Torres Strait Islander peoples

31% Non-Indigneous people

Some studies have looked into whether e-cigarettes are effective for quitting smoking, but the quality evidence is unclear [30, 31]. There is also some evidence that e-cigarettes are harmful [32, 33] and might increase the risk of developing respiratory disease, cardiovascular disease and cancers [32, 34] and are linked to lung injuries in the United States [35]. There is also growing evidence that e-cigarette use can lead to smoking [27, 36, 37]. The Cancer Council Australia have said that, based on the current evidence, the harms of e-cigarettes outweigh the potential benefits [32].

How smoking affects your body and health

Tobacco use has negative health impacts throughout a person's life, harming almost every organ and body system. But quitting smoking has immediate and long-term benefits [38]. The biggest health problems caused by tobacco relate to chronic conditions [1], but it also causes a wide range conditions including rheumatoid arthritis, tooth and gum disease, pneumonia and hip fractures [38].

Heart diseases

There is a group of heart diseases that occur when the arteries become hardened and too narrow, reducing and sometimes blocking blood flow. These heart diseases (known as atherosclerotic diseases) include coronary heart disease (CHD) and heart attack. They also include what are called cerebrovascular diseases, which reduce blood flow to the brain and can lead to strokes and peripheral arterial disease, which reduce blood flow to the limbs. Smoking contributes to the hardening and narrowing of arteries [39].

Cancers

Cigarette smoke contains more than 7,000 chemicals and at least 69 of them are known to cause cancer [38]. Smoking causes a lot of different types of cancers, including lung, head and neck, pancreatic, liver and colorectal cancers [38]. Smokers with cancer are at increased risk of dying compared with non-smokers [38, 40].

Chronic obstructive pulmonary diseases

Chronic obstructive pulmonary disease (COPD) is a group of lung diseases that block airflow and make it hard to breathe. COPD includes conditions like emphysema, chronic bronchitis and chronic asthma. Smoking is a major cause of COPD [38].

Diabetes and diabetes complications

Smoking contributes to the development of pre-diabetes, type 2 diabetes and complications to the circulatory system [41, 42]. The risk of getting diabetes increases with the intensity of smoking [38]. Evidence shows that people who already have diabetes and quit smoking:

- reduce their risk of death by around two-thirds
- reduce their risk of cardiovascular disease by over 80%
- reduce the risk of stroke to the level as people who have never smoked [43].

Smoking in pregnancy

Smoking during pregnancy, or being exposed to second-hand smoke during pregnancy, increases the risk of a range of health problems for the mother and baby [44-48].

These include:

- 'ectopic' pregnancy, where the egg starts to develop outside of the womb [49]
- miscarriage [40]
- low birth weight [50]
- premature birth [49]
- stillbirth or death of the baby right after it is born [51, 52]
- birth defects like cleft lip and/or palate [53]
- Sudden Infant Death Syndrome (SIDS) and Sudden Unexpected Death of the Infant (SUDI) [54].

Smoking during pregnancy can also affect children as they grow up. It has been linked to Attention Deficit Hyperactivity Disorder [48], obesity [45], asthma [47], and diabetes [46].

Second-hand smoke

Exposure to second-hand smoke increases the risk of developing conditions like COPD, CHD, lung cancer and stroke [38, 47, 55]. Children who are exposed to second-hand smoke are at increased risk of invasive meningococcal disease, middle ear disease, lower respiratory infections and asthma [47, 56, 57]. Evidence suggests that people who are exposed to second-hand smoke are more likely to start smoking, more likely to have a heavier dependence on smoking, and are less likely to quit [58].

Third-hand smoke

Third-hand smoke occurs when people are exposed to the chemicals from tobacco smoke that stick to surfaces like carpets, blankets, clothes and skin [59]. These chemicals can be breathed in, absorbed through the skin or swallowed, and children are particularly at risk of third-hand smoke. Studies suggest that third-hand smoke may harm the liver, lungs and skin [60].

Tobacco-related burden of death and disease

In 2003, 20% of all deaths were attributed to smoking [61]. In 2015-16, at least 886 Aboriginal and Torres Strait Islander premature deaths were caused by smoking each year [62].

In 2011, 12% of the total burden of disease for Aboriginal and Torres Strait Islander people was from tobacco use [1]. This was equal to 23,000 years of healthy life lost. Tobacco contributed to the majority of the burden of diseases for lung cancer (93%) and COPD (87%).

Impact on community and culture

Tobacco use significantly impacts the community because it causes so much ill health and death. The grief that comes with this loss can have significant impacts on families and communities [63]. Also, the early deaths of community members, including Elders and older community members, stop generational knowledge, kinship, language, customs and law from being passed on to the younger generation [64-66].

Factors related to tobacco use among Aboriginal and Torres Strait Islander peoples

Factors associated with tobacco use

Factors associated with tobacco free behaviours

Tobacco environment

Tobacco industry

- Exposure to tobacco marketing, including marketing targeted specifically at Aboriginal and Torres Strait Islander peoples [5, 67]
- Misinformation about the harms caused by tobacco [68-70]

Tobacco resistance and control

- Proud history of Aboriginal and Torres Strait peoples and organisations resisting the marketing of tobacco [9, 71]
- Tax increases [72-76]
- Plain packaging with health warning labels [77-79]
- Smoke free policies [80]
- Aboriginal and Torres Strait Islander specific policies and programs (detailed below)

Social determinants of health

- Ongoing impacts of colonisation:
  - trauma [8, 81-83]
  - removal from family (during the Stolen Generations or now) [72, 81]
- Poor social and emotional wellbeing:
  - psychological distress [84]
  - having a mental health condition [85]
  - experiencing racism [74, 83, 86-90]
- Less economic opportunity:
  - education [91]
  - employment [92]
- Going to prison [93-95]
- Substance use:
  - drinking a lot of alcohol, either short-term risky drinking or long-term dependence [84, 96, 97]
  - cannabis, though it is not yet clear whether smoking makes cannabis use more likely or the other way around
- Stress [95, 98-101]
- Having lower levels of trauma
- Not being removed from your family
- Higher levels of social and emotional wellbeing
- Not experiencing racism
- Having economic opportunity
- Not going to prison
- Not drinking alcohol or using other substances
- Experience lower levels of stress
- Feeling empowered and having control over ones' life [102]

Factors associated with tobacco use	Factors associated with tobacco free behaviours
Social factors	
• Seeing smoking as normal [8, 65, 73, 103, 104] • The social role of smoking [3, 7, 8, 104-106]	• Denormalisation of smoking [107, 108] • Support of family and friends [104, 109] • Wanting to be a role model by not smoking [3, 74, 91, 103]
Attitudes about quitting	

• Not wanting to quit because people:
  • enjoy smoking and believe quitting is hard [108]
  • believe there is no point when they were exposed to second-hand smoke anyway [104].
  • had other health priorities, like heart disease, alcohol and other drug use, or managing bodyweight because of diabetes [102, 104, 110],
  • didn't feel in control of their health [102, 111].
  • didn't trust the information from doctors and public health messaging [18, 19, 102]
	• Knowledge about the health impacts of:
	  • tobacco use [74, 104, 111]
	  • smoking during pregnancy [101, 112]
	  • second-hand smoke [3, 74]
	• Wanting to quit smoking because people:
	  • regret starting [108]
	  • see the benefits of quitting [105, 108]
	  • had lots of worries [108]
	  • felt they were spending too much money on cigarettes [105]

Policies related to tobacco use among Aboriginal and Torres Strait Islander peoples

In addition to national policies applying to all Australians (such as tax increases, plain packaging and health warning labels, and smoke free policies), there are some policies specifically targeted towards Aboriginal and Torres Strait Islander peoples [113]. Recent policies include:

- **National Aboriginal and Torres Strait Islander Health Plan 2013–2023:** includes targets to reduce smoking among certain groups of Aboriginal and Torres Strait Islander people [114].
- **National Tobacco Strategy 2012–2018:** reduce the Aboriginal and Torre Strait Islander adult daily smoking rate by half from 48% in 2008 to 24% by 2018 [115].
- **National Aboriginal and Torres Strait Islander Peoples' Drug Strategy 2014–2019:** reduce the level of Aboriginal and Torres Strait Islander people smoking through a range of approaches [116, 117].
- National Preventative Health Strategy 2009: reduce the life expectancy gap between Aboriginal and Torres Strait Islander peoples and non-Indigenous people [118]. A new National Preventive Health Strategy is being developed for release in 2020.

Earlier policies included the Council of Australian Governments National Healthcare Agreement 2008 [119], Closing the Gap 2008 [120, 121], and The Framework Convention on Tobacco Control (FCTC) 2003 [122].

Programs to address tobacco use among Aboriginal and Torres Strait Islander peoples

Characteristics of effective programs

Culturally appropriate

This means programs should [123-129]:

- be developed by/with Aboriginal and Torres Strait Islander communities
- prioritise and incorporate Aboriginal and Torres Strait Islander voices and leadership [122, 127]
- build long-term, trusting relationships between program staff and community members to increase community interest and the credibility of the program [127]
- make sure programs are delivered in a flexible way and can adapt to community needs.

Holistic approach addressing the social determinants of health

It is vital that programs are based on Aboriginal and Torres Strait Islander ways of knowing and doing, in which health and wellbeing encompass physical health along with environmental, spiritual and cultural wellbeing [123-129]. Historical, cultural and social factors also need to be considered [117, 126].

A comprehensive multi-faceted approach

Programs should involve multiple approaches to reducing tobacco use, which requires collaboration and coordination with different community sectors and adopt a whole-community approach [123-128].

Expanded, long-term funding

Most programs have irregular and short-term funding, making them too short in duration, not able to reach enough people, and making it harder to evaluate [130].

Evaluation

Robust, published evidence is needed to help identify what works to change smoking attitudes and behaviours in the long-term. This evidence is vital to planning services and getting long-term funding for future programs [124].

Types of tobacco control programs

Tobacco control programs aim to help people and communities understand the health risks of tobacco use and help people who smoke to quit [126, 127, 129]. Tobacco control programs can target individuals, and/or the community. The common types of programs are:

Brief intervention: A 'brief intervention' is when a health professional provides information to a person about quitting smoking [131, 132]. There is evidence that brief interventions work for Aboriginal and Torres Strait Islander peoples [108, 133, 134].

Examples: SmokeCheck: an Aboriginal and Torres Strait Islander people-specific brief intervention program [135, 136]. **The Indigenous Counselling and Nicotine (ICAN) QUIT in Pregnancy:** program to train health professionals to provide culturally appropriate and evidence-based care for Aboriginal and Torres Strait Islander expectant mothers [137].

Telephone support - Quitline: Quitline is a one-on-one phone-based quit counselling service [138]. Those who were referred to Quitline were more likely to make a quit attempt than those who were not (60% v 55%)[133].

Examples: Quitline has dedicated Aboriginal and Torres Strait Islander quit counsellors and staff to assist Aboriginal and Torres Strait Islander people to quit smoking [134, 138].

Support groups: Support groups are where people who smoke work together to quit. These programs are often run by an Aboriginal Health Worker (AHW) or an Aboriginal or Torres Strait Islander ex-smoker [134]. There is limited Aboriginal and Torres Strait Islander-specific evidence for the outcomes of support groups [126].

Examples: Support groups can either be focused just on smoking and helping people quit, or can be focused on healthy lifestyles more generally (e.g. a walking group where smoking is one of the focuses) [134]. **Yarning circles** have been used to support pregnant women to quit smoking [137].

Pharmacotherapy: Pharmacotherapy is a term used for treatments that involve medicines. A national survey found people who had used pharmacotherapy believed these products had helped them to quit and that they would use them in the future [139].

Examples: There are three main medicines used in Australia for quitting smoking are: **nicotine replacement therapy** (NRT), **bupropion**, and **varenicline** [139].

Social media and mass media campaigns: Social media and mass media campaigns aim to increase knowledge about the harms of tobacco use and exposure to second-hand smoke. They can include television advertisements, social media advertisements, smartphone apps, and sponsorship of community, cultural and sporting events [134]. General campaigns can be effective, but targeted campaigns are particularly effective [108]. They can help to change attitudes to smoking [129], but they are not always linked to quit attempts [140].

> **Examples: Deadly choices** [141], **No Smokes** [142], **Deadly N Ready** [134]

Community and cultural events: Sponsoring community events and/or holding stalls at local cultural or sporting events is one of the most common ways to raise awareness and encourage quitting in communities [134]. In 2017, 93% of Tackling Indigenous Smoking (TIS) workers surveyed stated that they agreed or strongly agreed that community events increase community understanding of the health impacts of tobacco use [134].

Tackling Indigenous Smoking

The Tackling Indigenous Smoking (TIS) program is the national model for programs to address tobacco use among Aboriginal and Torres Strait Islander peoples (2016–2022). TIS emphasises the need for culturally appropriate, local, Aboriginal and Torres Strait Islander-led and multifaceted approaches to tobacco control. Tackling Indigenous Smoking teams use population based prevention programs in their local regions [134, 143].

Programs for pregnant women

Pregnant women are a priority population and a key component of TIS [143, 144]. It is important to note that varenicline and bupropion are not recommended during pregnancy, but if counselling alone is unsuccessful short-acting NRT can be considered [143]. Further, tobacco programs for expectant mothers should involve the mothers and also family and community members to create a more supportive quitting environment [144].

Programs for youth and children

Research shows that it is important to have programs that prioritise youth specifically, and to shift social norms around smoking in the community, family, and friends [106, 134, 145]. Types of youth programs include: school-based programs, media and advertisement campaigns, community interventions that involve schools and families, and local peer role models and ambassadors [125, 134]. While many tobacco programs targeting youth have been tried, not many have been rigorously evaluated [128, 146].

Emerging tobacco control approaches

There are numerous emerging tobacco control initiatives [147-149]. These include:

- limiting the number of tobacco retail licenses based on the population of an area
- banning tobacco retail licenses in stores near schools and community spaces
- issuing smoker's license or prescriptions to buy tobacco
- phasing out tobacco sales altogether, or to people born after a specific year
- developing different ways to deliver nicotine into the body
- decreasing quotas on sales and/or imports of tobacco products
- regulating cigarettes to make them unappealing (e.g. by liming how much nicotine is in a tobacco product).

Future directions

Historical and social determinants of tobacco use

Recognise the ongoing effects of colonisation and racism to tobacco use by Aboriginal and Torres Strait Islander peoples and deliver programs to support Aboriginal and Torres Strait Islander peoples to heal from the associated intergenerational trauma.

Policies and laws

Aboriginal and Torres Strait Islander peoples to lead the development and reviews of policies and laws including their monitoring and review.

Media campaigns

Start new, and expand existing, Aboriginal and Torres Strait Islander-specific tobacco campaigns at the national and state/territory level, that are locally tailored with effective monitoring.

Programs

Develop, fund and deliver holistic, culturally safe tobacco programs that are supported long-term to ensure sustainability of services with streamlined administrative processes.

Research and evaluation

Do appropriate research, monitoring and evaluation of Aboriginal and Torres Strait Islander tobacco use and tobacco control at local, regional and national levels. Create opportunities for health workers and other health professionals to network, communicate and share information and wise practices about Aboriginal and Torres Strait Islander tobacco control.

Conclusion

Smoking levels among Aboriginal and Torres Strait Islander peoples have declined significantly in recent decades [2, 150], but it is still common and more reductions are possible. Smoking is very bad for health and the benefits that come from quitting or being smoke free are substantial [38, 151-157]. Quitting smoking, or never starting to smoke, is complex and influenced by a number of historical and contemporary factors [158]. The overall approach to reducing smoking among Aboriginal and Torres Strait Islander peoples needs to:

Consider the social and economic situations that do not fully include Aboriginal and Torres Strait Islander peoples.

Understand the racism and discrimination faced by Aboriginal and Torres Strait Islander peoples.

Ensure all Aboriginal and Torres Strait Islander peoples have access to education and employment.

Provide information about tobacco dependence and harms to empower Aboriginal and Torres Strait Islander peoples to make informed choices.

Engage with Aboriginal and Torres Strait Islander peoples in planning, delivering, and evaluating tobacco control programs.

In order to make sure progress continues, we need to gather evidence about 'what works' to tackle smoking. This should be done by evaluating programs and incorporating knowledge from Aboriginal and Torres Strait Islander peoples and service providers. To continue the good trend of reducing tobacco use, all Aboriginal and Torres Strait Islander peoples need to have access to effective and appropriate tobacco control programs and initiatives.

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