Respiratory Health Network

Framework for the Treatment of Nicotine Addiction

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Department of **Health**

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Acknowledgement

Executive summary

The Framework for the Treatment of Nicotine Addiction acts as a guide for a state wide approach across primary, secondary and tertiary health service provider settings to deliver comprehensive and integrated smoking cessation treatment and support services.

The Framework for the Treatment of Nicotine Addiction supports secondary and tertiary prevention recommendations of the Health Networks chronic disease Models of Care, including chronic obstructive pulmonary disease (COPD), diabetes, heart failure, chronic kidney disease and other cardiovascular, renal and respiratory illness.

The Framework for the Treatment of Nicotine Addiction seeks to reduce the prevalence of smoking and smoking related harm through the identification, assessment and treatment of nicotine addiction.

The WA Health Promotion Strategic Framework 2007-2011 addresses primary prevention strategies targeted to reduce the uptake of smoking through health promotion and social marketing campaigns. In addition the "Australia: The Healthiest Country by 2020, National Preventative Health Strategy – the roadmap for action 2009" recommends key actions in tobacco control. Primary prevention is outside of the scope of the Framework for the Treatment of Nicotine Addiction and the strategies and approaches outlined in the Framework aim to address those who are already addicted to nicotine.

The Framework for the Treatment of Nicotine Addiction provides information and guidance on:

1. Early identification and assessment of smoking and smoking related harm and illness
2. Delivery of evidence based smoking cessation methods and products
3. Utilising consistent pathways and treatment algorithms to support health service providers
4. Recall systems and referral pathways to ensure the provision of timely relapse prevention for all individuals who give up smoking
5. Creating supportive environments through policy and legislation that encourage quit attempts and reduce cues to smoke

This Framework has been developed to act as a resource and guide for health professionals who have the opportunity to identify and screen smokers and deliver evidence based smoking cessation support and treatment.

Methodology

The need for the Framework for the Treatment of Nicotine Addiction was identified as a priority by the Respiratory Health Network to develop a secondary prevention strategy, smoking cessation pathway and guidelines for use across WA Health and others working in smoking cessation.

The Australian Better Health Initiative (ABHI), primary integration category funded the Nicotine Addiction Treatment Project from July 2009 to June 2011. This project funds two Divisions of General Practice, one metropolitan and one rural, to implement smoking cessation services within primary health care settings and also supports Area Health Service public health units to develop partnerships to promote smoking cessation and build the capacity of the local workforce. This Project created the opportunity to develop this Framework.

The Framework has been developed by the ABHI Nicotine Addiction Treatment Project Manager and Health Networks Branch staff in consultation with the Respiratory Health Network and other key stakeholders and experts in Western Australia.

An extensive literature search and key national and state tobacco control strategies and initiatives have informed the development of the Framework.

The Network distributed this Framework to members of the chronic disease Health Networks, non government organisations and primary health care providers for consultation prior to finalisation.

This Framework is informed by the following key documents:

- Smoke Free WA Health Policy and Guidelines amended 2009
- Western Australian Health Promotion Strategic Framework 2007 – 2011
- National Tobacco Strategy 2004 – 2009 and Western Australian Tobacco Action Plan 2007-11
- Treating Tobacco Use and Dependence: 2008 Update by US Department of Health and Human Services Public Health Service 2008
- Smoking, Nutrition, Alcohol and Physical Activity (SNAP): A population health guide to behavioural risk factors in General Practice by RACGP
- Tobacco Smoking in Australia: A Snapshot, 2004-05 by Department of Health and Ageing (DoHA) 2006
- The National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003-2006
- Putting Prevention into Practice (The Green Book) by RACGP
- Australia: The Healthiest Country by 2020: National Preventative Health Strategy-the roadmap or action 30 June 2009, prepared by the National Preventative Health Taskforce
- National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes 2009

1. Rationale for the Framework for the Treatment of Nicotine Addiction

Smoking is a major contributor to health care costs in Australia. The Framework for the Treatment of Nicotine Addiction provides a guide for a state wide approach across primary, secondary and tertiary settings to deliver comprehensive and integrated smoking cessation treatment and support services. Therefore, the Framework is applicable to those already addicted to nicotine, and does not deal with primary prevention of smoking.

In general terms, if people quit smoking before the fourth decade of life, there is a dramatic reduction in the 4-fold increase in mortality from all causes due to smoking.

Smoking is not a personal lifestyle choice and to view it as such ignores:

- the superficial nature of smokers' **understanding of health risks**
- the reality of **addiction**
- the fact that the majority of **users start and become dependent** on nicotine delivered via smoking before they are adults.[5]

Not withstanding the ability of some individuals who quit without support (self quitters), there has been a significant shift to focus on nicotine addiction as a medical condition that requires treatment of both the psychosocial and physiological symptoms. This is in part due to the developments in and the role of pharmacotherapies. Despite the addictive nature of smoking and the availability of a range of evidence based methods and products, there are still improvements to be made in WA in terms of identifying and assessing smokers for nicotine addiction or developing referral pathways to access treatment and support services.

The Framework for the Treatment of Nicotine Addiction addresses:

1. Screening and early identification of smokers and smoking related illness across the continuum of care and health settings.
2. Evidence based assessment of smoking behaviour and addiction.
3. Provision of accessible, culturally appropriate, evidence based best practice cessation advice, quit management and cessation support tailored to the level of nicotine addiction across all settings.
4. Workforce education and training to ensure the health workforce is competent in best practice identification, assessment and treatment of nicotine addiction.
5. The need for Information Communication Technology (ICT) infrastructure to support referral pathways and recall/ monitoring mechanisms particularly in primary health care settings.
6. Integration and coordination of services across primary, secondary and tertiary health care services to create opportunities for smokers to be identified, assessed and to have access to support and treatment services.

1.1   Burden of disease and priority populations

Tobacco smoking contributes to the development of all major chronic diseases. The causes of most conditions are multi-factorial, with tobacco being one of the biggest modifiable risk factors in Western Australia, second only to high body mass. Specifically, tobacco was responsible for 6.5% of the total **burden of disease and injury** in Western Australia in 2006. [6] The reason why high body mass has overtaken tobacco is because of successful public health efforts resulting in a reduced prevalence of smokers. For those who do smoke, the fact remains that smoking will cause the death of 1 in 2 smokers [7] and causes more mortality than high body mass.

In 2006 tobacco smoking was estimated to have caused around 1300 **deaths** in Western Australia[6] and is responsible for 82% of all drug-caused deaths.[8]

The **prevalence of smoking among Western Australians** aged 14 years and over in 2007 was 14.8 percent.[9] In comparison to other Australian states and territories, WA has the second lowest prevalence of smoking and falls below the Australian average of 16.6%. For Western Australian males, daily smoking decreased from 17.0% in 2004 to 15.1% in 2007 whilst there was a slight increase for females from 14.0% to 14.5%.[9]

Across Australia, there are a number of sub-populations in which smokers are disproportionately represented. For instance, of those in Australia aged 14 years and over who were recorded as a smoker in 2007, a higher proportion of **people lived in remote areas** (25%) compared with those living in major cities (18%).[10] People who smoked were also more likely to be of **low socioeconomic status** (25.9%) compared to those of high status (13.9%).[10]

According to the 2007 National Survey of Mental Health and Wellbeing the prevalence of smoking amongst people with **mental illness** in Australia is approximately 32%.[11-12] Furthermore, people with mental illness smoke 16% more heavily than smokers without mental health issues.[12]

As a result of the high proportion of prisoners who are from low socioeconomic areas, suffer from mental illness or are from Indigenous backgrounds, the rate of smoking amongst **prisoners and detainees** is almost four times that of the general population.[13] These high rates can also be attributed to a lack of smoking cessation programs available to prisoners whilst in prison, poor access to programs while in the community and remains embedded in the culture of prisons where cigarettes are still a form of currency.[14]

Of women who gave birth in Australia in 2005, 17.4% reported smoking during **pregnancy**. The rates were significantly higher amongst Aboriginal women and teenage mothers with 53.1% and 42.3%, respectively, of these populations reporting smoking during pregnancy.[15] If a pregnant woman smokes or is exposed to smoke during pregnancy, her baby has an increased risk of asthma, sudden infant death syndrome, unhealthy birth weight, miscarriage, premature labour, perinatal mortality, ectopic pregnancy and difficult pregnancies and births.[15]

In 2007, 7.8% of Australian households with **children under 14 years** had at least one adult who smoked inside the home and 29.2% of households had at least one adult who smoked outside the home.[10] The benefits of reducing children's exposure to environmental tobacco smoke at home include reduced school absenteeism, increased school performance, reduced uptake of smoking, and lower consumption of tobacco among children who smoke.[10]

In Western Australia in 2004/05, **tobacco was responsible** for:
- 67,370 hospital bed days and;
- cost the West Australian community more than $2.4 billion[2]

In 2007, the proportion of **hospitalisation costs** attributed to smoking for a number of **key preventable chronic diseases or conditions** in Western Australia were approximately $86.7 million, made up of:
- Cancer (excluding lung) ($11.9 million)
- Lung cancer   ($11.9 million)
- Cardiovascular disease   ($29.7 million)
- Respiratory disease   ($23.9 million)
- Low birthweight   ($7.4 million)
- Other   ($2.0 million) [4]

1.1.1   Aboriginal and Torres Strait Islander people

In 2004-05, half of the adult Aboriginal and Torres Strait Islander (ATSI) population in Australia were current daily smokers,[16] making smoking three times as likely when compared to the non-ATSI population. While there is variability across Indigenous communities, the smoking rates in this population are estimated to be as high as 60% among men aged 35-44 years and 54% for women aged 25 – 44yrs. [16]

As a result of the harm caused by these higher rates of smoking, ATSI people die from heart disease, stroke and vascular diseases at 2.6 times the rate of the non-Indigenous population and are nearly four times more likely to die from respiratory system diseases—such as emphysema and lung cancer.[17-18]

In 2004–05, around one in ten ATSI adults who were current daily smokers or ex-smokers had begun smoking regularly before the age of 13 years. More than two-thirds (68%) had begun smoking regularly before the age of 18 years. [16]

Whilst there has been a decrease in the smoking rate among the non-ATSI population, the adult ATSI population smoking rate has had no significant reduction for more than 10 years.

It is known that low levels of general awareness of smoking related harm, combined with a number of social factors (seen as more 'serious' issues taking precedence), its role in social cohesion and its association with alcohol plays a role in the continued use of tobacco amongst the ATSI population.

1.2 Review of current nicotine addiction treatment and support services

The identification, assessment, treatment and support of smokers is currently ad hoc across the community, including primary health care settings, hospitals, educational institutions and workplaces. The key gaps and issues are summarised in the box below.

- Smokers are not routinely screened for smoking status by health professionals or within other settings, e.g. workplaces
- Screening tools are not consistently applied across clinical settings.
- Recording smoking status and other smoking related information is ad hoc and does not provide prompts for further identification, assessment and advice to quit.
- Spirometry, as a test in the diagnosis and management of many lung diseases, focuses on those with established disease rather than as a screening tool or in early diagnosis.
- Limited access to statewide smoking cessation courses in community settings.
- Limited capacity of Quitline to meet the demand for service, particularly for priority groups such as people with mental health issues, ATSI people and pregnant women who smoke.
- Few Aboriginal specific resources or smoking cessation programs are available.
- De-scheduling of NRT, may result in poor point of sale advice for maximised product efficacy and brief intervention.
- The Smoke Free WA Health Policy requires screening of all patients admitted to hospital for smoking status and nicotine dependence, however increased compliance, strong support at a managerial level and dedicated resource allocation for the Policy is needed to achieve this.
- Patients who receive treatment for nicotine addiction whilst in hospital are not routinely referred to appropriate community services on discharge, for ongoing support and management.
- WA Health does not routinely identify and assess smokers in outpatient, ambulatory and community settings.
- General practice software systems can recall and follow-up high risk patients, however, there is limited use of this data extraction process to identify smokers and recall them for follow up.

2.   Smoking as an addiction

Most smokers use tobacco regularly because of the addictive properties of nicotine, characterised by compulsive drug seeking and use, even in the face of negative health consequences. It is well documented that most smokers identify their behaviour as harmful and express a desire to reduce or stop smoking.[19]

Nicotine addiction is a chronic relapsing condition, with most relapse occurring in the first 8 days and only 3 to 5% of self-quitters achieving prolonged abstinence for 6 to 12 months after a given quit attempt.[20]

Tobacco dependence syndrome is in the World Health Organisation International Classification of Diseases and is a recognised psychiatric illness by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Health Disorders (fourth revision text revised).[1, 21] It has been referred to as 'the most prevalent, most deadly, most costly, yet most treatable of all substance dependence"[22] however, it is often overlooked by the mental health professions.[23]

> **World Health Organisation ICD-10 codes**[1]
>
> Current Tobacco Use is coded as Z72.0
> (excluding tobacco dependence).
>
> Mental and Behavioural Disorders due to Tobacco are coded as:
> - F17.1 for harmful use
> - F17.2 for dependence syndrome
> - F17.3 for withdrawal state

The nature of smoking and the properties of nicotine inhibit the choice to smoke or not to smoke by inherently distorting thought process and inhibiting the ability to cease smoking. The main obstacles to successfully quitting appear to be an underestimation by smokers of the complex physiological and psychological influence of nicotine and smoking addiction, and their belief that willpower alone is enough. This leads to inadequate use of effective treatments.[24]

Smoking is a highly effective means of delivering the stimulant nicotine to the brain, being absorbed rapidly through the lungs and passing directly into the systemic circulation. Structurally, nicotine resembles the naturally occurring neurotransmitter, called acetylcholine, which controls body functions such as heart rate, circulation, learning and memory. The acute effects of nicotine dissipate in a few minutes, as do the feelings of reward, which causes the smoker to continue dosing to maintain the drug's pleasurable effects and prevent withdrawal. A typical smoker will take 10 puffs on a cigarette over a period of 5 minutes that the cigarette is lit.[19]

> Smokers who consume 1½ packs (30 cigarettes) a day will get 300 "hits" of nicotine to the brain each day.[19]

3.   Framework for the treatment of Nicotine Addiction

The Framework for the Treatment of Nicotine Addiction promotes a person centred approach with an emphasis on self management and evidence based interventions. The Framework is applicable to those already addicted to nicotine and does not deal with primary prevention of smoking.

The Framework for the Treatment of Nicotine Addiction acts as a guide for a state wide approach across primary, secondary and tertiary settings to deliver comprehensive and integrated smoking cessation treatment and support services.

The Framework seeks to reduce the prevalence of smoking and smoking related harm through the identification, assessment and treatment of nicotine addiction. It has been developed as a resource for health professionals who have the opportunity to identify and screen smokers and deliver evidence based smoking cessation support and treatment.

The Framework for the Treatment of Nicotine Addiction provides information and guidance on:

1. Early identification and assessment of smokers, and smoking related harm and illness
2. Delivery of evidence based smoking cessation methods and products
3. Utilising consistent pathways and treatment algorithms to support health service providers
4. Recall systems and referral pathways to ensure the provision of timely relapse prevention for all individuals who give up smoking
5. Creating supportive environments through policy and legislation that encourage quit attempts and reduce cues to smoke

The following principles underpin the framework and determine the identification, assessment, treatment and support requirements of all individuals with nicotine addiction:

1. Smoking is an addiction, not a lifestyle choice, and should be treated and managed as such.
2. All individuals who decide to make a quit attempt should be offered and have access to ongoing, evidence based smoking cessation treatment and support to increase their chances of success and prevent relapse (see section 3.1).
3. There are varying levels of nicotine addiction and treatment interventions should be tailored to each individual's level of dependence and nature of their addiction.
4. Relapse is a normal part of the natural history of cessation and individuals should be encouraged to explore a variety of cessation approaches.
5. Consideration is given to at risk and disadvantaged population groups– especially people from low socioeconomic circumstances, Aboriginal and Torres Strait Islander (ATSI) people, people with mental illness, those imprisoned and detained, pregnant women who smoke, Culturally and Linguistically Diverse populations (CaLD) and those recently diagnosed with chronic disease.

3.1 The evidence base for the treatment of nicotine addiction

Quitting smoking remains one of the most important measures to reduce smoking related morbidity and mortality. There is no safe level of consumption or exposure to tobacco smoke.

Quitting smoking at any age results in immediate health benefits, irrespective of how long a person has been smoking. Many factors influence a smoker's decision to quit including cost, community tolerance, compromised health and smoking restrictions. It is common for people to need multiple attempts to quit before finally becoming a non smoker. In addition to motivation, support, confidence and cognitive ability, all smokers require access to a range of appropriate evidence based smoking cessation services and treatments, often delivered as combination therapies, to maximise their chances of success.

Evidence indicates that the effects of smoking cessation services are cumulative and that best results occur when multiple providers deliver treatment and support at different times. Numerous professions have been shown to be effective in increasing quit rates including physicians, nurses, dentists, psychologists, social workers, cessation counsellors and pharmacists.[25]

Only 3 to 5% of people remain abstinent from smoking 6 to 12 months after quitting on their own without support.[20]

The four evidence based smoking cessation treatment and support services are:

- brief intervention by trained health professionals,[26]
- intensive individual or group counselling[27] [28]
- telephone counselling particularly when promoted in conjunction with other approaches[29]
- pharmacotherapies including NRT and non nicotine products such as Varenicline and Bupropion

There is no evidence that acupuncture is an effective treatment and insufficient evidence to recommend hypnotherapy as a treatment for smoking cessation.[30] [31]

Treatment interventions need to be supported by clear referral and treatment pathways understood and commonly used by a trained and competent workforce across all health settings who have the capacity to deliver services.

3.1.1 Brief intervention

A brief intervention within a health care setting can be defined as "recognising a problem, or potential problem as soon as possible and doing something to stop the harm that the problem will cause. It involves intervening and is essentially an activity of primary health care workers. It offers a brief, structured form of advice, usually when the problem is first recognised".[32]

Brief intervention is a successful technique when used with patients who smoke and are receptive to intervention and change. Brief opportunistic advice has a low efficacy but because of the huge number of people health professionals see in the course of any one year, it can have a very significant public health impact.[26] [33]

The 5A's is a useful framework for engaging patients in smoking cessation discussions and advice. Evidence indicates that full implementation of the 5A's in clinical settings may yield results that are superior to partial implementation.[34]

1. **Ask** about tobacco use
2. **Advise** to quit through clear personalised messages
3. **Assess** level of addiction and willingness to quit
4. **Assist** to quit
5. **Arrange** follow-up and support

This may also be an opportunity to ask about their partner, family members or peers who smoke, as they may have an influence on their quit attempt. Another similar approach, which is supported by the Ministry of Health in New Zealand, is the ABC Framework for Tobacco.[35] The aim of the ABC framework is to assist all health professionals to **A**sk about smoking and document it, provide **B**rief advice to quit and offer **C**essation options including NRT and referrals to cessation services.

3.1.2 Intensive individual or group counselling

Both individual and group counselling have been shown to improve rates of quitting when compared to no or less intensive interventions.[27] [28] There is a dose-response relationship between the intensity of tobacco addiction counselling and its effectiveness. Treatments involving person-to-person contact (via individual, group, or proactive telephone counselling) are consistently effective, and their effectiveness increases with treatment intensity (e.g. minutes of contact). The evidence states that multiple counselling sessions, with total contact time of up to 90 minutes increase cessation rates.[25]

3.1.3 Telephone counselling

Telephone help lines provide an important route of access to support for smokers. Their usefulness can be enhanced when call-back counselling is included as a part of the service. These services can be provided as part of a treatment program or accessed spontaneously by smokers. They can potentially reach large numbers of people. Reviews have found telephone counselling to be effective with multiple sessions likely to be most helpful.[29]

Proactive call back telephone counselling helps smokers interested in quitting. There is evidence of a "dose-response" relationship; one or two brief calls are less likely to provide a measurable benefit. Three or more calls increases the likelihood of quitting compared to a minimal intervention such as providing standard self-help materials, brief advice, or compared to pharmacotherapy alone.[29]

3.1.4 Pharmacotherapy

There are several pharmacotherapies available for the treatment of nicotine addiction. NRT is a commonly used pharmacotherapy which is available in a number of forms including gum, transdermal patches, lozenges, tablets and inhalers. The results of a review of randomised trials in which NRT was compared to placebo or to no treatment found that NRT can improve rates of quitting by 50 to 70%.[36]

Community pharmacies which sell a range of over the counter NRT products are an ideal setting, as many provide local support strategies including individual and group counselling at the point of sale. However, NRT products are also available at supermarkets and other retail outlets. Several pharmaceutical companies provide telephone "help lines" in conjunction with their products. From 1 February 2011, a 12

week supply of nicotine patches (Nicorette®, Nicabate P® and Nicotinell®) will be available on the [Pharmaceutical Benefits Schedule](#) to patients who have indicated they are ready to cease smoking and have entered or are entering a comprehensive support and counselling program.

Other pharmacotherapy products include Varenicline (Champix®) and Bupropion (Zyban®). These products are listed on the Pharmaceutical Benefits Schedule and are only prescribable by a medical practitioner, who is able to assess the safety and precautions for use.

Multiple pharmacotherapy treatments can be used simultaneously particularly for people with high levels of addiction, unless contraindications exist. Chances of quitting are enhanced when nicotine patches are combined with a fast acting form of NRT such as inhaler, gum or lozenges.[36]

While NRT may not be the primary option during pregnancy or in patients with cardiac disease, NRT should be offered if the alternative is smoking as the associated risks are lower.

Although there is limited research into the effectiveness of nicotine replacement therapies in Aboriginal and Torres Strait Islander people, the evidence that is available suggests that strategies targeted at an individual level (such as NRT) are likely to be effective amongst Aboriginal populations. However population based strategies (such as mass media campaigns) and those aimed at addressing social and cultural barriers may not be as effective. [37]

3.1.5   Combination therapy

Combination therapy refers to the use of pharmacotherapies and counselling to support a quit attempt. Evidence suggests that long term quit rates can be improved by combining drug treatments and counselling (including brief, intensive, group or individual) rather than using the treatments alone.[38] [39] Therefore, combination therapy has proven to be most effective in addressing the nicotine addiction and the habitual behaviour for smokers. It is also recommended for those who relapse after a single intervention.

Combination therapy has been shown to be cost-effective in comparison to other smoking cessation treatments and when compared to other routinely reimbursed medical interventions (e.g., treatment of hyperlipidemia and mammography screening).[40]

> Effective treatment delivered by more than one type of health professional increases long term quit rates. This includes individual and group counselling, proactive telephone counselling, provision of problem-solving skills training and helping smokers obtain social support outside of treatment.[25]

3.1.6   Tailoring treatments for individuals and sub-populations

When determining treatment options it is important to note there are different levels of nicotine addiction and each individual smokes in a way that is necessary to achieve their desired blood level of nicotine.[41] The level of nicotine addiction can be assessed via the Fagerstrom Test. The successful tobacco control measures that have been implemented in Australia to date may result in a higher dependence among the remaining smokers and this population may therefore be harder to treat.[42] This is of relevance when considering the appropriate degree of intensity of interventions and NRT dosages.

It may be appropriate to consider harm reduction approaches for highly dependent smokers in the short term.[43] In 2008, the Therapeutic Goods Administration (TGA) approved the use of NRT and concomitant smoking. Smokers will alter the topography (e.g. the number of puffs, depth of inhalation etc) of their smoking to allow for the contribution of the patch to their blood nicotine levels. This will result in health benefits due to the lower intake of carbon monoxide and other chemicals from cigarettes.[41] Furthermore, there is evidence to suggest that using a nicotine patch whilst smoking either as a 'pre quit' tool or to 'cut down to stop' can improve rates of success.[36] Carbon monoxide monitors, that measure expired carbon monoxide levels, may be useful tools for health professionals both to demonstrate to their patient the reduction in their smoking and to verify that progress.[41]

Although the average level of dependency of smokers in the total population of Australia is high, there are still sub-populations which may benefit from the less intensive or population based interventions that have worked on the general population to date. Populations such as people from low socioeconomic circumstances, people with mental illness, pregnant women who smoke, ATSI people and Culturally and Linguistically Diverse populations still have a high prevalence of smoking and are likely to include a large proportion of smokers with low nicotine dependence.

Interventions in certain sub-populations, particularly ATSI people, may also need to focus more on addressing the 'normalisation' of smoking and the role it plays in social cohesion and kinship among community members. However evidence of the effectiveness of interventions to address this is limited and further research is needed.[37]

Further evidence promoting the need to tailor interventions to the individual has emerged, suggesting that nicotine dependence is highly heritable.[44] That is, there are genetic characteristics that influence both a person's chances of becoming addicted to nicotine and inversely their chances of success with any given treatment. The implication of these findings on nicotine addiction treatment is that one unsuccessful outcome should not be used to predict the success or failure of that treatment with another patient.

3.2   Enablers to improve identification and support smoking cessation

3.2.1   Workforce education & professional development

Many health care providers do not enquire about smoking status or address smoking cessation as they feel unskilled to address the issue of smoking, or because they do not feel that they have the time for meaningful interventions.

However, even brief advice from general practitioners and other health professionals can prompt many smokers to quit.[26 33] There are a number of brief intervention training programs available for health professionals (see Appendix 1).

Education and training to build the capacity of health professionals to deliver evidence based smoking cessation interventions and techniques is required. Training needs to be competency based and provide health professionals with the basic skills required within WA Health and in the community. Specialised training for those working with high risk target populations should also be provided.

Training should be accessible to all health professionals and available in both face to face and online programs. Availability of training needs to begin during university education to capture undergraduate health professionals. Where possible, this

should be incorporated as a mandatory component of the curriculum. Maintaining the capacity and competency of the workforce needs to be considered by WA Health Area Health Service workforce planners. Information sharing, professional development and skills maintenance in the use of best practice for nicotine addiction treatments is required for all health professionals.

Health professionals who receive training are 1.5 to 2.5 times as likely to engage in smoking cessation as those not trained.[45]

3.2.2 Pathways and treatment algorithms to support health service providers

Pathways and treatment algorithms are needed to guide health professionals through their treatment with patients. A basic algorithm for identifying and treating nicotine dependence is outlined in Figure 1. For a more in depth algorithm please refer to the WA Health "Clinical guidelines and procedures for the management of nicotine dependent inpatients" and the soon to be developed "Clinical guidelines and procedures for the management of nicotine dependent patients in community settings".

Figure 1: Algorithm for identifying and treating nicotine dependence
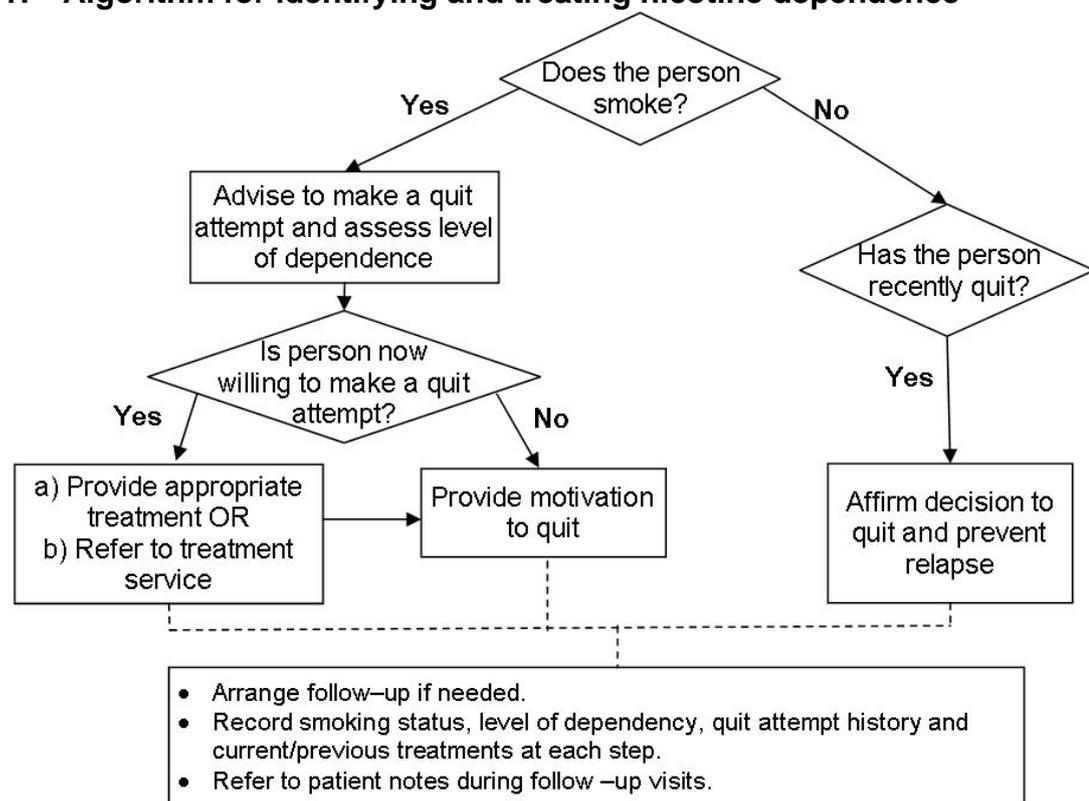
Reference: Adapted from Fiore et al. Treating Tobacco Use and Dependence: 2008 Update Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.

3.2.3 Information Communication and Technology (ICT) infrastructure support

Health professionals have a role in the identification, screening and monitoring of patients/clients smoking status. All clients should be asked if they smoke and smoking status recorded.

Referral feedback

Confirmation of attendance status and feedback on patient progress from the referral service is integral to ongoing monitoring and support from the general practitioner.

Monitoring and feedback enables the follow-up and recall system to be relevant and appropriate to the person's level of nicotine addiction, smoking and previous quit attempt history and readiness for change.

Referral to services that provide counselling and proactive follow-up and support have the potential to double the effectiveness of GP advice when compared with self-help materials alone and it is important to explore the options available locally.

Case study – Quitline referral program

Quitline (counselling provided by qualified counsellors at Alcohol and Drug Information Service) and WA Health have worked collaboratively with a number of different health services to put in place a referral program for clients seeking support to Quit smoking. Clients agree to be referred to the Quitline by consenting to be contacted by a Quitline counsellor to discuss their smoking and cessation plans. A call back service that is driven by the clinician and directed by the client is then negotiated with Quitline offering up to 6 call backs.

Clients from the following services have participated in this program:
- the cardiac rehabilitation ward at Royal Perth Hospital
- antenatal clinics at King Edward Memorial Hospital, Armadale Kelmscott Memorial Hospital and Kaleeya Hospital.
- South Metropolitan Mental Health Services
- Derbarl Yerrigan Health Service
- GP clinics

Although initially implemented as pilot projects at these services, many of the programs have been sustained and become a part of core business.

Extending this referral program to other health services is one approach to improve rates of follow-up and support.

Recall and follow-up

There is evidence to suggest that smoking cessation programs that begin during a hospital stay and include follow-up support for at least one month after discharge are more effective than those without follow-up.[46]

A recall and monitoring system across health care enables a follow up for ongoing quitting advice that is relevant to the individual.

General practice information management systems vary across Divisions and practices. Desk top systems however do include general data entry fields such as smoking status and this information is recorded as part of the patient file.

A data extraction tool can also be applied to collect information on a practice's client base and allow for proactive management of patient populations. The benefits of data extraction tools include supporting:[47]

- Pro-active health care
- Improved patient outcomes
- Improved quality, accuracy and completeness of the practice's clinical data
- Enhanced team-based care
- Business planning

- An ability to measure the progress of quality improvement initiatives within the practice.

> Implementing clinical systems designed to increase the assessment and documentation of tobacco use almost doubles the rate at which clinicians intervene with their patients who smoke.[3]

3.2.4 Policy legislation and regulation

Restricting smoking through smoke free policies in workplaces and health service settings has positive health impacts by:

- reducing exposure of non-smoking employees to environmental tobacco smoke
- decreasing cigarette consumption during the day
- encouraging people to quit smoking.

Research shows that smokers consume 11% to15% less and quit at a rate that is 84% higher in smoke free environments compared to those with designated smoking areas. [48]

4.   Horizon Scanning

This Framework is a living document that will be reviewed as the evidence base alters what is 'best practice'.

5.   Recommendations

Recommendation 1

All health consumers to be:

- Screened for smoking status
- Assessed for level of addiction
- Provided with a brief intervention
- Offered cessation assistance

Recommendation 2

All health care providers:

- Record smoking status on patient records, discharge summaries and referral forms by noting the relevant International Classification of Disease (ICD-10) code for tobacco use.
- Integrate smoking cessation strategies with chronic disease prevention and behaviour modification programs
- Utilise existing Information Management systems to record smoking status, recall and follow-up smokers and those who have recently quit.
- Establish referral pathways to ensure all identified smokers receive ongoing support to achieve or maintain abstinence from smoking. This includes referral pathways from hospital based care to appropriate community support services.

> **WHO ICD-10 codes[1]**
>
> Current Tobacco Use is coded as Z72.0
> (excluding tobacco dependence).
>
> Mental and Behavioural Disorders due to Tobacco are coded as:
> - F17.1 for harmful use
> - F17.2 for dependence syndrome
> - F17.3 for withdrawal state

Recommendation 3

All health professionals and those well placed to deliver cessation support receive on going best practice, evidence based training and professional development to achieve competency in smoking cessation management and treatment.

Recommendation 4

Support existing effective, community-based smoking cessation services and programs, and the development of new services and programs in areas of unmet need.

Recommendation 5

A WA centralised directory of smoking cessation services, programs and resources is developed to improve communication and coordination.

Recommendation 6

All high risk priority groups such as ATSI people, those living with a mental health problem, those imprisoned and detained, pregnant women who smoke and CALD groups, to receive targeted and culturally appropriate smoking cessation support.

This should include incentives for improved primary health care such as Medicare Items for chronic disease management and subsidised PBS medications such as NRT.

Recommendation 7

Continue to support and facilitate opportunities to conduct research to:

- Guide best practice for improved monitoring and management of smokers with a chronic disease.
- Improve pharmacotherapy treatment regimes for nicotine withdrawal management.
- Determine the smoking cessation interventions that are effective amongst ATSI communities, particularly in terms of challenging the cultural acceptance of smoking.

Acronyms

ABHI	Australian Better Health Initiative
ADIS	Alcohol & Drug Information Service
ATSI	Aboriginal and Torres Strait Islander
CALD	Culturally and linguistically diverse
COPD	Chronic obstructive pulmonary disease
ICD	International Classification of Diseases
ICT	Information Communication Technology
NRT	Nicotine replacement therapy
PBS	Pharmaceutical Benefits Scheme
RACGP	Royal Australian College of General Practitioners
TGA	Therapeutic Goods Administration
WHO	World Health Organisation

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Appendix 1: Treating nicotine addiction tools and resources

Across Population ————————▶	Across Population and Identified Smokers ————————▶	Identified Smokers ————————▶	
Community awareness and prevention in general population	**Screening & Early identification of smoking (includes prevention in high risk groups)**	**Assessment of smoking & smoking related harm and early intervention**	**Coordinated ongoing cessation management and harm reduction**
Health Promotion Promotion of healthy behaviours • Quit message • Anti-tobacco mass media • Health education resources/brochures (**e.g.** NAPS program) Promotion of healthy environments • Smoke free WA Health policy • Smoke free workplaces – guide to implementation • Legislation – smoke free cars, playgrounds, outdoor eating areas, beaches • Smoke free homes – tips for parents Universal approaches • Social marketing/mass media • Community education • Regulation and Legislation • Research Targeted approaches • Access to range of culturally appropriate strategies	**Primary Prevention** Screening tools • Smoking status • Smoking and Quitting history • Level of dependence = all information recorded for recall (e.g. Hospital pre admission forms, Lifescripts, patient records) Targeted advice • CaLD, ATSI, People with mental illness, Pregnant women, those recently diagnosed with chronic disease Brief intervention • 5As: Ask, Advise, Assess, Assist, Arrange • Training for health professionals (**e.g.** Online Brief Tobacco Intervention Training, Cancer Council Fresh Start Training Pharmacotherapies • Nicotine Replacement Therapy (NRT) • NRT PBS listings for ATSI people • Non-NRT (Bupropion and Varenicline) Periodic health examinations – MBS Items • Health checks & Healthy child checks • Chronic Disease Management Program (CDMP) • More Allied Health Services (MAHS) Program • Allied health referrals • Medication Management Review	**Secondary prevention** Assessment of addiction • Fagerstrom test Diagnosis and early detection of smoking related harm • Spirometry Reduced associated harm • Smoke free WA Health policy • Smoke free workplaces – guide to implementation • Legislation – smoke free cars, playgrounds, outdoor eating areas, beaches • Smoke free homes – tips for parents Tracking and recall • Feedback from referral service Care plan Documentation of • Smoking status • Nicotine withdrawal management • Discharge plans • Clinical pathways	**Nicotine Addiction Management** • Recall and monitoring of smoking status (**e.g.** Canning Data Extraction Tool) • Repeated advice to quit • Medication Management Review Self management • Chronic Disease Self Management programs Continuing care • Care plans Documentation of • Smoking status • Nicotine withdrawal management • Discharge plans • Clinical pathways Smoking cessation services • Metropolitan Healthy Lifestyle Program • Living Well Without Smoking • Cancer Council Fresh Start Course • Online & phone support (Quitline) Refer to the Guidelines for the management of nicotine addiction in patients and staff for detailed guidance of nicotine addiction treatment

Who: General Practice, Other primary health care providers, WA Health, NGOs, Industry and workplaces, Private providers, Hospitals, Public and population health services, Allied Health, Diagnostic Services, Community smoking cessation services, Community Pharmacist, Quitline

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