

# It's time to change the default for tobacco treatment

Kimber P. Richter<sup>1,2</sup> & Edward F. Ellerbeck<sup>1,2</sup>

Department of Preventive Medicine and Public Health, University of Kansas Medical Center, Kansas City, Kansas, USA<sup>1</sup> and Kansas University Cancer Center, Kansas City, Kansas, USA<sup>2</sup>

## ABSTRACT

The World Health Organization estimates that 1 billion people will die from tobacco-related illnesses this century. Most health-care providers, however, fail to treat tobacco dependence. This may be due in part to the treatment 'default'. Guidelines in many countries recommend that health-care providers: (i) ask patients if they are 'ready' to quit using tobacco; and (ii) provide treatment only to those who state they are ready to quit. For other health conditions—diabetes, hypertension, asthma and even substance abuse—treatment guidelines direct health-care providers to identify the health condition and initiate evidence-based treatment. As with any medical care, patients are free to decline—they can 'opt out' from care. If patients do nothing, they will receive care. For tobacco users, however, the treatment default is often that they have to 'opt in' to treatment. This drastically limits the reach of tobacco treatment because, at any given encounter, a minority of tobacco users will say they are ready to quit. As a result, few are offered treatment. It is time to change the treatment default for tobacco dependence. All tobacco users should be offered evidence-based care, without being screened for readiness as a precondition for receiving treatment. Opt-out care for tobacco dependence is warranted because changing defaults has been shown to change choices and outcomes for numerous health behaviors, and most tobacco users want to quit; there is little to no evidence supporting the utility of assessing readiness to quit, and an opt-out default is more ethical.

**Keywords** Access, evaluation, evidence-based practice, harm reduction, health care quality, health services, motivation, practice guidelines, smoking cessation, tobacco use disorder.

*Correspondence to:* Kimber P. Richter, Department of Preventive Medicine and Public Health, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City 66160, USA. E-mail: krichter@kumc.edu

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## INTRODUCTION

The tobacco epidemic is devastating health, economies and societies across the globe [1]. Health-care providers can have a tremendous impact on access to smoking cessation services, as combined cessation medications and behavioral counseling can double the odds of quitting successfully [2]. Unfortunately, few smokers seeing a health-care provider actually gain assistance in quitting during their health-care visit—in the United States, 21% report receiving any form of counseling and 8% any form of cessation medication [3]; in the United Kingdom, only 6.4% receive medication [4].

Many would blame low rates of tobacco treatment on smokers' lack of motivation to quit smoking. We believe, however, that smokers fail to receive treatment due to the way that providers structure the tobacco treatment default. The 'default option' for smoking cessation is 'no treatment'. This is because many health-care providers

start by asking tobacco users if they are willing to make a quit attempt before offering treatment, and medications and counseling are only offered to tobacco users who state they are ready to quit. In other words, tobacco users must 'opt in' to receive care. Conversely, for most other chronic health conditions—diabetes, hypertension, asthma and even substance abuse—the treatment default is to initiate evidence-based treatment as soon as the health issue is identified. For example, when a health-care provider finds that a patient has high blood pressure, international guidelines do not encourage providers to ask the patient: 'Your blood pressure is high—are you ready to do something about it?'. Guidelines direct providers to inform patients that they have high blood pressure and to prescribe life-style modification and pharmacotherapy [5]. Patients can 'opt out' if they wish to refuse treatment, but if patients do nothing, they will receive care.

The opt-in approach drastically limits the reach of tobacco treatment because, at any given point in time,

only 12–20% of tobacco users say that they are ready to quit within the next month [3,6]. Current US guidelines, which implicitly recommend the ‘no treatment’ default, may partially explain why US physicians are much less likely to prescribe medication or provide health education to smokers for tobacco use than they are to provide pharmacotherapy and education to patients with hypertension, diabetes and hyperlipidemia [7].

Globally, most tobacco users live in countries with guidelines that recommend ‘opt-in’ treatment for tobacco dependence. Among the 25 most populous countries in the world [8], nine have tobacco treatment guidelines posted on the world-wide clearinghouse for tobacco treatment and policy, *treatobacco.net* [9]. Of these, the six most populous (India, United States, Brazil, Japan, Mexico and Germany) have guidelines that employ an opt-in approach by directing providers to: (i) ask patients if they are ready to quit; (ii) offer cessation treatment to smokers who are ready to quit; and (iii) attempt to motivate smokers who are not ready to quit. For example, India guidelines recommend that providers: ‘Ask every tobacco user if he/she is willing to make a quit attempt at this time (e.g. within the next 30 days). Not ready: encourage such a person to think about his/her tobacco use and make an offer of help. Offer them written information on the harms of tobacco use and benefits of quitting’ [9]. The remaining three countries (United Kingdom, Italy and France) have mixed or neutral recommendations for how treatment should be offered. In the United Kingdom, brief intervention guidelines direct providers to assess smokers’ readiness to quit and encourage those not ready to seek help in the future [10,11]. More recent guidelines for England and Wales, however, direct providers to offer counseling and medication to all smokers [12]. Moreover, general physicians are financially rewarded for offering support and medication to all smokers at least every 2 years [13]. Guidelines for Italy and France do not appear to provide explicit directions on how providers should broach the topic of quitting with patients.

Although not one of the most populous countries in the world, New Zealand has clearly adopted an opt-out approach to cessation care. Its guideline directs health-care workers to strongly encourage all smokers to use cessation support services and to offer help in accessing care [14].

## DEFAULTS INFLUENCE HEALTH CHOICES

For any given choice, there is a default option—the option that will occur if the chooser does nothing [15]. Defaults are unavoidable in any context, because there must be a rule that determines what should occur at decision points

should no action be taken. A wide range of studies demonstrate that defaults powerfully affect choices and behaviors. A paradigm-shifting paper in *Science* illustrated how default policies are associated with organ donation rates [16]. In presumed-consent countries, people are organ donors unless they register not to be—they must opt out. In explicit-consent countries, no one is an organ donor without registering to be one—they must opt in. Donation rates in opt out countries range from 86 to 99%; in opt-in countries, 4 to 26%. Even more compelling are data related to the treatment of HIV. In response to low rates of HIV screening, policymakers decided to change clinical practice guidelines from an opt-in to an opt-out approach [17]. This resetting of the default option led to dramatically higher screening rates [18]. Changing default options has also been shown to change consumers’ choices of health-care plans [19] and information shared on the internet [20].

Although choice research is a relatively new field, defaults are hypothesized to be highly influential because they capitalize on implied recommendations for courses of action, *status quo* biases, inertia and loss aversion [15]. For example, the way in which a health-care provider presents a choice may ‘leak’ information about the provider’s attitudes toward options, as well as their implied recommendation for a course of action [21]. Provider preferences could be leaked by tone of voice, phrasing of options, order of options, omission of options or what option is presented as the default option. In addition, people making decisions consistently exhibit a *status quo* bias—when an opportunity exists to either do something or do nothing, people tend to do nothing [19]. This may be due to the power of inertia and the tendency to procrastinate. Taken together, these factors can tip the balance in favor of some choices and against others.

Health-care providers act as ‘choice architects’ by creating a context in which the patient is presented with, and makes, a decision [15]. The choice architecture for tobacco may be different, because providers fear alienating patients by appearing to pressure them to quit [22]. Numerous studies, however, have found that satisfaction with health care is higher among smokers who receive cessation intervention compared to those who do not, regardless of smokers’ readiness to quit [23]. Hence, the exceptional position that smokers should be asked if they are ‘ready’ for treatment may be driven more by provider fears than patient reactions.

## ASSESSING READINESS IS, AND ALWAYS WILL BE, THE WEAK LINK IN TOBACCO TREATMENT GUIDELINES

Guidelines for the opt-in approach typically recommend identifying smokers, assessing readiness to quit,

providing counseling and medication to those who are ready to quit and following-up to support abstinence. Most of these steps are grounded in strong evidence from controlled clinical trials, but no randomized clinical trials have examined whether or not the assessment of 'readiness to quit' is a useful step in tobacco treatment.

Moreover, this step in the guidelines, as currently framed, is non-scientific. Science is based on testable (also known as refutable or falsifiable) assumptions [24]. It is very important, especially in the treatment of addictions, for care to be science-based and testable. Assessment of readiness to quit will always be a weak link, because it is not possible to directly test the hypothesis that smokers who are 'ready' are more likely to quit than those who are not ready. We cannot randomly assign smokers to be 'ready to quit' or 'not'. However, it is possible to test the effects of changing the treatment default. A clinical trial could randomly assign smokers to receive opt-in or opt-out care. Smokers assigned to opt-in care would be assessed for readiness to quit and only those who indicate they are ready to quit would be provided counseling and medication. All smokers assigned to opt-out care would be provided with counseling and medication. Study outcomes would include rates of treatment participation and cessation. Hence, re-framing how treatment is allocated, from a 'readiness' perspective to 'treatment default' perspective, is more scientifically useful. It places control of the independent variable squarely in the hands of treatment providers and can be tested experimentally. Until such studies can be conducted, we argue that the default should be 'opt out' because it accords with treatment guidelines for other health conditions, tobacco is the top cause of death in many countries and opt-out care is more ethical.

### **AN 'OPT-OUT' DEFAULT IS MORE ETHICAL**

Unless or until a clinical trial shows otherwise, the more ethical choice would be to use an opt-out as opposed to an opt-in approach to treatment of tobacco dependence. Decision theorists suggest that, where there is strong evidence that supports an appropriate therapy, therapy should be presented as the default [25]. Others recommend that institutions should structure default choices to be the options that make the choosers better off, as judged by themselves [26]. As most smokers want to quit, setting 'active treatment' as the default option for tobacco dependence could increase uptake of effective treatment among smokers, particularly among those who might initially be ambivalent about whether or not they were ready to initiate a quit attempt.

### **MUST SMOKERS BE 'READY' TO QUIT?**

One possible objection to changing the default is the widely held belief that smokers must be 'motivated' in order to quit. However, numerous clinical trials have found that smokers who report they are not ready to quit actually quit at the same rates as those who report they are ready to quit [27,28], possibly because intentions to quit can change rapidly [29]. In fact, a majority of smokers quit as a result of unplanned, spontaneous, quit attempts [30], which suggests that motivation is highly variable and that other factors may help to trigger quit attempts.

Moreover, smokers who are not planning to quit will accept treatment. The population-based Inter99 intervention trial in Copenhagen offered all smokers attending a life-style modification consultation the opportunity of enrolling in smoking cessation groups. Even though only 11% had reported that they were planning to quit in the next month, more than one in four (27%) enrolled in cessation groups [31]. Thirty-five per cent of all participants were abstinent by the end of the groups. Among successful quitters, only 16% were those who had been planning to quit smoking at the beginning of the trial [28]. If Inter99 had followed guidelines endorsed by the Danish Medical Society, it would have restricted its offer of treatment to those few smokers who were planning to quit and failed to help many to achieve abstinence.

A meta-analysis by Aveyard and colleagues suggests that physicians will treat tobacco dependence more effectively by providing opt-out care [32]. The meta-analysis confirmed prior studies by finding that advising all patients to quit, compared to giving no advice, significantly increased long-term abstinence [relative risk (RR) = 1.47, 95% confidence interval (CI) = 1.24–1.75]. It went on to find that universally offering cessation medication, regardless of smokers' readiness to quit, outperformed advice to quit. Compared to advice to quit alone, smokers who were also offered nicotine replacement therapy (NRT) were 49% more likely to quit (RR = 1.49, 95% CI = 1.19–1.89). Another trial in the meta-analysis examined the effects of offering behavioral support for cessation to all smokers (opt-out), compared to providing brief advice to quit to all smokers. Although universal behavioral support did not conclusively outperform advice to quit in promoting abstinence (RR = 3.10, 95% CI = 0.38–25.51), it prompted more quit attempts (RR = 1.69, 95% CI = 1.24–2.31). Importantly, patients in this study found the offer of behavioral support to be more helpful than simply being advised to quit.

Another possible objection to changing the default is the belief that, for unmotivated smokers, tobacco cessation intervention should focus on counseling to increase smokers' readiness or motivation to quit. Motivational

counseling interventions have yielded mixed findings in terms of cessation outcomes [33–36]. Also, most smokers already say they want to quit. This suggests that health-care providers could be more effective, on a population basis, if they focus on enabling all smokers to quit, rather than trying to make smokers state that they are ready to quit as a precondition for access to treatment.

### MUST SMOKERS BE READY TO ‘QUIT’?

Changing the default should create a strong demand for effective ‘fall-back’ treatments for patients who opt out of behavioral counseling and/or pharmacotherapy for cessation. Some of these approaches involve harm reduction strategies aimed at minimizing exposure to smoked tobacco, without requiring smokers to quit completely. For example, in the United Kingdom, harm reduction approaches such as long-term use of medications instead of smoking, and smoking reduction, are actively promoted by national policy [37].

Providing opt-out treatment for quitting smoking does not necessarily commit countries to adopting tobacco harm reduction. It should, however, stimulate research and development on harm reduction methods as well as methods to induce smokers to make quit attempts. Cessation induction, in particular, is a promising field of research as its endpoint (a quit attempt) is short-term and readily measureable. Examples of novel cessation induction methods include commencing pharmacotherapy with a flexible quit date [38]; ‘practice quit attempts’ or temporary abstinence with nicotine replacement therapy sampling [39]; cutting down to quit [40]; and using nicotine patch treatment or varenicline to prompt quit attempts [41,42]. Motivational counseling should also be explored as a fall-back treatment—not for cessation, but for cessation induction. To be consistent, any form of cessation induction or harm reduction, where it is national policy, should be offered via an opt-out approach, and not contingent upon smokers’ stated interest in cutting down or reducing harm.

### ‘OPT-IN’ IS NOW A MAJOR BARRIER TO ACCESS

The World Health Organization *Framework Convention on Tobacco Control* (FCTC) commits signatories to improving access to cessation services [1]. Guidelines for many of these countries, however, recommend an opt-in approach to tobacco treatment. As long as providers screen for readiness, the majority of tobacco users will report that they are not ready to quit, and they will not receive care. Indeed, in treatment-rich countries, opt-in is now possibly the major barrier to access to care.

Opt-in guidelines may also adversely influence attitudes and resource allocation. First, opt-in guidelines may influence provider attitudes. The implicit assumption underlying opt-in care is that tobacco users must be ‘ready’ to quit in order to benefit from tobacco treatment. This assumption could have influenced the opinions of 2836 European physicians who recently reported that the two top barriers to smoking cessation were patients’ lack of willpower and interest in quitting [43]. Secondly, opt-in guidelines could undermine investment in tobacco treatment. It might be difficult for tobacco control advocates to secure more resources for care as long as health-care opinion leaders, including physicians, believe that smoker apathy is the major barrier to successful cessation. Thirdly, opt-in guidelines provide a very effective, if highly subjective, excuse for rationing care and limiting expenditures on tobacco users. Screening for readiness clearly reduces the number of tobacco users who are offered evidence-based treatment.

Undoubtedly, changing the treatment default will make greater demands on health-care systems. Many low- and middle-income countries have not allocated many resources to provide formal cessation support. As countries consider adopting an opt-out approach, they will need to re-examine resource requirements for tobacco treatment. The evidence, albeit evidence from high-income countries, is that investment in smoking cessation is highly cost-effective [44].

In order to reduce barriers to evidence-based care, it is time to change the default for tobacco treatment. It has become clear that tobacco users at all levels of ambivalence can benefit from treatment. An opt-out approach for smoking cessation is consistent with the overall desire of most smokers to quit. Changing the treatment default could give ambivalent smokers the ‘nudge’ they need to accept treatment and quit.

### Declaration of interests

None.

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