QUALITY IMPROVEMENT REPORT

A framework for tobacco control:
lessons learnt from Veterans Health Administration

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In this article, I describe how the Veterans Health Administration (VHA; one of the largest managed care organisations in the United States) has carried out a large scale quality improvement and system change in tobacco control. This created a framework for how organisations approach tobacco control, moving through four increasingly complex stages (table 1). By anticipating these stages and approaching the challenges of each in sequence, systems may be able to set goals for quality improvement appropriate to their levels of readiness.

A four stage framework for tobacco control**Stage 1—No system for tobacco control**

The chief feature of the first stage (in the VHA, before 1996) is the lack of a system. Providers act independently and care is haphazard, with major variations between sites and between providers.

Before the 1990s, smoking cessation was not a high priority for the VHA. Though many medical centres

had smoking cessation programmes, few offered drugs for cessation. All facilities were required to have a smoking cessation coordinator, but this role was not clearly or consistently defined.

Nor was there a system for collecting data on clinical performance. The only data available were from researchers. Within the VHA, it was difficult to determine the answers to basic questions, such as the percentage of patients who use tobacco, how many were screened or advised to quit, and whether smokers were offered counselling or treatment.

What led to the transition to the next stage was the mandated use of evidence based guidelines and measurement of the level of adherence.

Stage 2—Systematic screening

Stage 2 (in the VHA, 1996-2002) is characterised by an organised approach to asking about smoking and advising smokers to quit. Practice guidelines advocate systematically asking about smoking at every visit, and

Abstract

Problem Existing clinical guidelines provide recommendations for treating smokers but little guidance on how to implement changes that will improve the delivery of smoking cessation care.

Design Extrapolation from experience in improving the quality of smoking cessation care in the Veterans Health Administration (VHA) to propose a conceptual framework describing the stages for improving the reach and effectiveness of organisations' tobacco control efforts.

Setting United States Department of Veterans Affairs healthcare system.

Key measures for improvement Improved rates of screening patients for smoking status, advising smokers to quit, and helping smokers with a quit attempt.

Strategies for change The framework identifies four stages of organisational change during quality improvement for smoking cessation. In stage 1, no system exists to structure tobacco cessation care. Stage 2 is characterised by a systematic approach to asking about smoking and advising tobacco users to quit. In stage 3 there is an organised approach to helping tobacco users quit at their

healthcare visits. The final stage focuses on providing tailored help for smoking cessation to the entire population within a healthcare system.

Effects of change By moving from stage 1 to stage 3, the VHA greatly improved tobacco use screening rates and tobacco counselling rates. Although prescription rates for smoking cessation drugs have shown a promising rise over the past four years, it is too early to evaluate the effect of system changes on the VHA's rate of helping smokers to quit.

Lessons learnt Six key lessons can be drawn from the VHA's experience with improving tobacco control: tobacco control is a *system* issue; practice guidelines are necessary; measuring performance is essential; performance measures should be tied to incentives; achieving guideline adherence requires additional system support; and best practices should be systematically identified and disseminated. Healthcare organisations as well as small practices can adapt these lessons to improve treatment for smokers, and the lessons can be modified to improve care delivery for other conditions, such as alcohol misuse and depression.

making smoking status a vital sign is an effective way to accomplish this.^{1,2} The health plan employer data and information set (HEDIS) used by the National Committee for Quality Assurance assesses the rate at which smokers are advised to quit, thereby systematising not just asking about smoking but also advising smokers to quit.

During the mid-1990s the VHA changed from a specialty based system of episodic care to a managed care organisation based in primary care.³ An important aspect of this transition was the nationally mandated adoption of evidence based practice guidelines. Performance was measured through annual review of 60 000-80 000 charts by an external peer review organisation. For tobacco control, the guidelines measured rates of screening and advising smokers to quit in the previous year. The salary of each facility's director was tied to the facility's level of adherence to the guidelines,^{4,5} and little or no guidance was given on how the improved performance might be achieved. Directors received financial bonuses for meeting performance measurement targets and risked losing their jobs for consistently failing to meet performance targets. Facilities were usually not focused on being the best performers, but rather were extremely concerned about not falling below the median. Holding the top leadership accountable resulted in an unequivocal message to managers and providers that performance matters.

The mandated (and measured) guidelines had a large effect on care and also dramatically changed what data were available. For the first time, systematic data were available for every VHA facility on the prevalence of smoking and the rate of screening and advice. The nationwide rate of screening (as measured by external chart review) increased from 49% to 86% the year that adherence to guidelines became mandatory, and the rate of advising smokers to quit increased from 35% to 79%. The rate of asking and advising rapidly approached 95% nationwide, where it has remained. The high rate of screening and advice was confirmed by the 1999 survey sent to 1.4 million enrollees (41% of all VHA users). Among the nearly 900 000 respondents, 81% reported being asked about smoking in the previous year and 72% reported being advised to quit.

There was no consistent or recommended approach as to how facilities might improve their performance at asking and advising. The primary intervention was to mandate the outcomes, leaving facilities almost complete freedom to achieve these goals. This approach fosters innovation but tends to be inefficient, as effort is duplicated and many sites implement changes that are ineffective. The most effective intervention seemed to be including the screening questions as part of the nurse's routine job.

Although the system was uniformly asking and advising, the rates of assisting smokers remained quite low. The quality improvement trial for smoking cessation, showed that though 66% of smokers (at 18 sites) reported that a VHA provider talked about cessation within the past year, only 28% were referred to a programme and only 9% attended.⁶ About a quarter of patients reported receiving a prescription for nicotine patches within the past year.

Stage 3—Systematic treatment

Stage 3 (in the VHA, from 2002) is characterised by a systematic approach to assisting smokers in quitting. Most facilities rely on nursing staff to systematically ask about smoking, but the approach to offering counselling has been much more variable.⁷ The VHA's experience, where the prevalence of smoking changed very little even though nearly all smokers received advice, suggests that advising patients to quit may be necessary but not sufficient. Stage 3 therefore represents the next step—ensuring that all smokers are offered help in quitting, through both counselling and drugs.

The VHA's approach to increasing treatment rates represented a shift to a public health approach to tobacco control, orchestrated at the national level by VHA public health and tobacco cessation experts. Only 7-10% of smokers received drugs to help them quit,⁸ so we considered where to focus our effort. Rather than try to increase interest in quitting among the 40% of smokers not trying to quit in a typical year, it was more effective to focus on increasing treatment rates among the 60% who do try to quit. Our efforts since 2002 have included strategies based on evidence and our experience at changing clinical practice and

Characteristics of the four stages for smoking cessation and elements needed for transition

Stage	System for tobacco control	What does patient receive to help quit smoking?	Extent of provider's involvement in tobacco control	What data are available?	What is needed for transition to the next stage?
1	None	Care is haphazard, varies greatly by provider and site	Only zealots	Data from researchers; focus on research needs rather than patient care or quality improvement	Measurement of adherence to guidelines and performance needs to matter
2	Consistent but not coordinated	Consistent advice, often from nursing staff	At least minimal	Process measures	Patient's needs
3	Coordinated, visit based	Consistent help; requires coordination between nursing staff and providers	At least moderate	Process measures, patient data	Accurate database of all smokers
4	Coordinated, population based	Consistent tailored help; requires coordination between nursing staff and providers and also approach for outreach and quality monitoring	At least moderate	Process, utilisation, population data	

Smoking cessation strategies used at VHA

Mandate the availability of drugs to help smoking cessation—Before 2003, most facilities restricted smoking cessation drugs to smoking cessation clinics despite the low rates of attendance at clinics.⁸ This new policy enabled doctors to prescribe drugs without restrictions.¹¹

Update guidelines to promote treatment—The 2004 guidelines recommended offering drugs and counselling to all smokers in the most intensive setting they are willing to attend.¹²

Decreasing financial barriers to treatment—The copayment was removed from smoking cessation treatment (although not from smoking cessation drugs) in October 2005.

Revised performance measures—In 2007, the VHA adopted new smoking cessation performance measures (similar to those used by HEDIS), focusing on whether smokers were offered counselling, smoking cessation drugs, and referral to an intensive programme.

health policy (box).^{9 10} The rate of prescribing smoking cessation drugs was remarkably constant from 1999 to 2002, but has increased steadily over the past four years.

The survey of healthcare experiences of patients, administered to about 400 000 VHA users annually since 2002, has included questions on smoking habits and services offered. These surveys are cross sectional rather than longitudinal, so provide no data on changes in the prevalence of smoking. They show a downward trend, but this may be due partly to an increase in affluent patients (with a lower prevalence of smoking)¹³ using the system for prescription benefits.

The feature essential for transition to stage 4 is a comprehensive database of smokers. Nearly all VHA facilities use electronic clinical reminders for smoking cessation. These reminders (and the accompanying data structure) have differed between facilities. This will change when new smoking cessation performance measures are assessed with a national clinical reminder, resulting in consistent storage of smoking status and a national database of smokers.

Stage 4—Population health

Stage 4 (a future stage for the VHA) focuses on assisting all smokers covered by the healthcare system. Because it does not depend on patients visiting the facility, this proactive, population based approach requires being able to identify all smokers. It incorporates outreach to all smokers and opens the possibility of tailoring the approach on the basis of smokers' need, interest in quitting, and other factors.

Our goal is to move the VHA to this fourth stage. The availability of a national database of current smokers should help this transition. It should also allow the use and testing of evidence based and promising strategies, such as direct marketing,^{14 15} disease management for

smoking cessation, and “recycling” relapsed smokers.¹⁶

Lessons learnt**Tobacco control is a system issue**

At the Veterans Health Administration, performance did not improve meaningfully until tobacco control became a system issue (a mandated guideline with monitored performance). It requires a more concerted effort than simply having a smoking cessation clinic and waiting for referrals.

Practice guidelines are necessary

To improve the quality of care, evidence based standards of care are needed. Without a standard, there is no consensus on how to measure quality, and standards that are not evidence based are more likely to be resisted by providers. Practice guidelines group the standards of care for a topic and describe the extent to which each is evidence based.

Measuring performance is essential

Without data, providers and administrators overestimate the quality of care.¹⁷ Measuring performance regularly helps raise awareness of the level of adherence to guidelines. Accuracy of measurement is essential, or few will believe the assessment of quality.

Performance measures must be tied to incentives

Performance measurement has little value if the data are not used or viewed as important. The approach taken by the VHA to increase guideline adherence—holding top leadership personally accountable for performance—seemed to be effective at changing providers' behaviour, even though facilities received little or no guidance on how to make the change.

Achieving adherence to guidelines requires additional system support

The trend across VHA facilities in more recent years is to change the system to help providers adhere to guidelines. Most facilities now rely on nursing staff to systematically ask patients about tobacco use.⁷ Computer reminders for smoking cessation are in use throughout the VHA. Many facilities use audit and feedback to keep providers informed about their level of performance. Most recently, doctors' pay within the VHA was restructured to provide a financial incentive for meeting locally and regionally determined performance goals, which will likely improve performance in these areas.¹⁸

Systematically identify and disseminate best practices

In retrospect, it would have been worth while to systematically identify best practices and disseminate them to foster effective and efficient change. The most effective solutions have in general been ones that keep the provider's role as brief as possible, relying on other health professionals (nursing staff, pharmacists, etc),

and on information systems to monitor and remind providers at all levels.

Next steps

This approach applies to conditions other than smoking cessation—managing major depression, for example. Increasing the screening rate for depression has been straightforward.¹⁹ Many healthcare systems are now at stage 3, using a collaborative care model to ensure that all patients identified as depressed receive effective treatment. Similarly, management of alcohol misuse within the VHA has progressed from stage 1 (no system) to stage 2 (near universal screening with the AUDIT-C alcohol screening tool),²⁰ and current efforts focus on increasing rates of treatment for alcohol misuse (stage 3).

Whether these future directions will be effective in reducing tobacco use within the VHA remains to be seen. Ongoing programmes by the Department of Defense should reduce the numbers of people who start smoking and increase stopping among military personnel on active duty, leading to a lower prevalence of tobacco use among patients entering the VHA.

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Smoke it again, Sam

For more than a decade, I've been writing and editing in the field of tobacco control. It's no small irony that my favourite film is also a smoke-fest. With brilliant performances and a sparkling script, Michael Curtiz's *Casablanca* marks the perfect marriage of romance and politics, cynicism and idealism.

In *Casablanca* people "wait ... and wait ... and wait" for visas to Lisbon, "the great embarkation point" for "the freedom of the Americas." Humphrey Bogart is Rick, the man who "sticks his neck out for nobody," yet must decide to help resistance leader Victor Laszlo (Paul Henreid) get letters of transit for himself and his wife, Ilsa (Ingrid Bergman), a woman who has somehow managed to touch, and then break, Rick's flinty heart.

From every table, the bar, and around Sam's piano, a noxious fug of hookahs, cigars, and cigarettes shrouds the room. Our first glimpse of Rick follows a hand raising a cigarette from an ashtray to his lips. Captain Renault may famously be "shocked, shocked" by the gambling at *Rick's Café Américain*, but the smoking is taken for granted.

The nicotine cartel is so powerful and the toll wrought by tobacco use so devastating (100 million deaths in the 20th century, 1 billion projected for the 21st) that it's hard not to invoke Laszlo's bitter remark, "Even the Nazis couldn't kill that fast." Comparisons with the Third Reich are considered bad form, but when the destruction is manufactured and the losses are on such a monstrous, unfathomable scale, how can the parallel not be drawn?

Of course, smoking was largely responsible for Bogart's death, at 57 years, from cancer of the oesophagus, but the damage is never foreshadowed on screen. And smoking cannot diminish *Casablanca's* pleasures nor dim its insights. Still, if ever I question the need to participate in the battle against a relentless, distressingly vibrant tobacco industry, I think of Victor Laszlo's words: "You might as well question why we breathe."

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