

ORIGINAL ARTICLE

SOUTHCENTRAL FOUNDATION TOBACCO CESSATION INITIATIVE

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ABSTRACT

Objectives. To describe the development of a comprehensive tobacco cessation program for Alaska Native and American Indian patients in a primary care setting utilizing current evidence-based guidelines.

Study Design. Cross-sectional.

Methods. A multidisciplinary team was assembled with representation from various departments including customers of the health care system to develop the tobacco cessation program. Feedback and guidance from the team were implemented and quit rates were calculated.

Results. In April 2005 the point prevalence of quitting among the 322 patients enrolled in the tobacco cessation program for 6 months was 21.1%.

Conclusions. Recognized clinical interventions that reduce tobacco use were effective in reducing tobacco use among the Alaska Native and American Indian patients enrolled in the tobacco cessation program. Initial results with respect to the quit rate and tobacco use screening rate provide a baseline for future work. (*Int J Circumpolar Health* 2007; 66(Suppl 1):23-28).

Keywords: tobacco, screening, Alaska Native, American Indian

INTRODUCTION

Tobacco use continues to be the leading cause of preventable morbidity and mortality in the United States. During 2005 about 21% of the U.S. population (45 million adults) smoked (1). This was a reduction from 23% in 2001 but was higher than the national health objective of 12% set by *Healthy People 2010* (2). It is estimated that if they continue to smoke about half will eventually die of tobacco-related illnesses. The burden of health-related costs borne by the general population from 1995-1999 approached 157 billion US dollars annually (3, 4).

Tobacco use is higher among Alaskans than among the U.S. population; in 2005 an estimated 25% of Alaskan adults used tobacco. Among Alaska Native adults, almost half were current smokers. Tobacco was the single largest killer of Alaskans, claiming nearly 500 lives per year, and was responsible for one in five deaths annually. The economic costs were substantial within Alaska. Medical expenditures in 1998 came to approximately 270 million US dollars or roughly 400 US dollars per person. Medicaid, which pays for about 15% of tobacco-related expenditures totaled about 20 million US dollars or 31 US dollars per person in 1998 (3).

Smoking cessation treatment remains one of the highest ranked services in terms of cost effectiveness and potential to reduce burden of disease. At the Alaska Native Medical Center a focused approach to treating tobacco use was undertaken (3). Asking patients about tobacco use, advising them to quit, assessing willingness to make an attempt to quit, assisting in the quit attempt and arranging follow-up are recognized clinical interventions that reduce tobacco use (5). In 2003, integration of these clinical practices in the primary care setting became a high priority.

MATERIAL AND METHODS

In early 2003, Southcentral Foundation created a multidisciplinary team with members from primary care, some of which were users of the primary care system, and an outside consultant to redesign the tobacco cessation program. The Anchorage Native primary care system is more fully described in another article in this issue (6). Utilizing the U.S. Public Health Service Clinical Practice Guideline (5) the tobacco team identified four areas of focus. These included integrating screening of each patient for tobacco use and readiness to quit at every clinic visit, creating a system for data collection, standardizing counseling and follow-up procedures, and expanding the access, types and efficacious use of nicotine dependence treatment pharmaceuticals.

Integrating screening of each patient for tobacco use and readiness to quit at every clinic visit

When a patient presented for an appointment in the family medicine clinic the first person on the family medicine provider team who saw the patient after the check in process was generally the certified medical assistant. The screening tool added to the visit generated electronic medical record to capture tobacco use and readiness to quit was completed by the certified medical assistant as they screened the patient for health maintenance needs. They asked the patient "Do you currently use tobacco products?" and documented the response by circling "Smoke" if the patient currently smoked "Chew" if the patient currently chewed, "Both" if the patient both smoked and chewed tobacco, "None" if the patient did not use tobacco, and "Secondhand" if the patient did not use tobacco but had a smoker living in their place of residence. If the patient

used tobacco they were then screened for their level of readiness to quit based on the “stages of change” model (7). Patients were asked the question “Are you currently thinking of quitting?” with the response documented as “Yes” or “No”. If the patient was currently thinking of quitting a book mark was attached to the patient encounter form and served as a visual cue to providers that they had a patient at the appropriate readiness level to initiate a referral to the tobacco cessation program and also served as reference material for the patient. When the patient continued with the visit and met with the provider this tobacco use information helped the provider assess the patient’s level of tobacco use and willingness to quit, advise them to quit if they used tobacco and assist them with access to treatment or increase readiness to quit. If the patient was at a readiness level to quit the provider referred them to the health education department for tobacco cessation treatment.

Creating a system for data collection

The second improvement area of the tobacco cessation program redesign involved creating a system for data collection in the health education department where the actual tobacco cessation program was located. A questionnaire was developed and given to patients to complete when they checked in for their tobacco cessation appointment at the health education department. This intake questionnaire asked for demographic and general health information, current and past tobacco use and quit attempts, triggers, and more importantly identified the stage of readiness to quit. If the patient was ready to quit in the next 30 days that put them at the preparation stage of Prochaska and DiClemente’s “stages of change” model (7) and a 50 minute counseling session ensued. If the patient was in the

contemplation or pre-contemplation stage (not ready to set a quit date in the next 30 days) then the tobacco educator conducted a brief educational intervention and encouraged the patient to reschedule when they were ready to set a quit date in 30 days or less. The idea was to move the pre-contemplators and contemplators along the continuum to the preparation phase; once at the preparation phase all efforts were made to assist the patient in addressing their nicotine dependence, but not until the patient was ready would significant resources be allocated. The information collected on patients enrolled in the program was entered into a database developed to track patient demographic information, medication use, follow up, and quit status.

Standardizing counseling and follow-up procedures

The health education department assigned a health education staff member to each primary care provider in the clinic. If a primary care provider referred a patient to the health education department they would be working with the same health education department staff member at each referral. This was important in reinforcing Southcentral Foundation’s family wellness goal by maximizing the coordination of all the divisions, departments, and programs. Because it was important to standardize the practical counseling techniques and processes used during the initial consult with the patient and the subsequent follow-up contacts with the patient the health educators who conducted the tobacco cessation education were sent to nicotine dependence treatment trainings and a best practice protocol was established. Each new health educator was mentored by an established counselor before they independently conducted counseling sessions.

The initial individual counseling session with the patient was between 45-55 minutes. Follow up with the patient was usually a 5-10 minute phone call although patients were encouraged to come in to the clinic if they preferred. The frequency of the follow up contact occurred minimally on or shortly before the patient set quit date and at 1, 2, 3, 6, 12, 26, and 52 weeks afterwards. If the patient was in relapse at the time of the call (if the patient had used tobacco within 7 days of the call) the health educator reset a quit date with the patient after determining the patient was still at a readiness level to quit. The original quit date remained intact for data collection purposes.

Expanding the access, types and efficacious use of nicotine dependence treatment pharmaceuticals

The fourth component dealt with expanding the access, types and efficacious use of nicotine dependence treatment pharmaceuticals to the patients enrolled in the tobacco cessation program. Once the patient had seen the health educator for the behavioral aspect of the treatment program, the patient was directed to the pharmacy for evaluation by a clinical pharmacist. The pharmacist evaluated the patient for appropriateness of therapy and contraindications to pharmacotherapy and counseled about correct administration of the medications. Once the best approach had been determined the pharmacist then prescribed nicotine replacement therapy and bupropion (Zyban®) under an approved protocol. The typical treatment duration was sixty days although in some patients bupropion (Zyban®) or nicotine replacement therapy was continued longer because there is some evidence that longer durations of therapy may delay the time to next relapse (8-10).

This was an innovative approach in that a clinical pharmacist provides medication management services working closely with health educators who served in a central role providing behavioral counseling. Pharmacists with the U.S. Indian Health Service have provided drug therapy management since the 1960s and are recognized by the American College of Clinical Pharmacy as pioneers in this area. (4) Pharmacists were in an ideal role to provide these services since they had full access to electronic medical records of each patient, had private counseling rooms to discuss therapy and had extensive knowledge of drug therapy.

Data for patients who failed to follow up with the counselor for three sessions in a row were inactivated in the database and the pharmacy would no longer fill prescriptions for tobacco cessation medications for those patients. This measure reinforced the patient / counselor relationship in the quit attempt. Other reasons that a patient's data would be inactivated included a patient in relapse without setting a reset quit date, patient request, or patient death. The counselor could activate the patient's data once they were contacted and met the active status criteria.

Calculating quit rates

When calculating quit rates for the program the denominator consisted of all patients who set a quit date. The numerator consisted of those patients in the denominator who reported that they had quit at the time of the call. Regardless of whether the patient was active or inactive the data remained in the denominator for quit rates, the only exception being if a patient was deceased.

RESULTS

Initial results with respect to the quit rates and screening rates provided a baseline for the initiative to incite further tests of change. Of the 902 patients who met with the health education department and set a quit date between February 1, 2004 and April 1, 2005, 597 (66.2%) were female and 305 (33.8%) were male. Eight hundred seventy-six patients (97.1%) reported using cigarettes; the average cigarette use was 16.9 per day for males and 14.8 per day for females and the average time of use was 19.9 years. Eighty six (9.5%) patients reported using chewing tobacco (average of 1.2 cans per week), 37 (4.1%) reported using cigar tobacco (average of .5 per day), 17 (1.9%) reported using pipe tobacco (average of 2 bowls per day), and 13 (1.4%) reported using iq'mik (a chewed mixture of whole leaf tobacco mixed with the ash of a fungus that grows on birch trees) with an average of 0.9 cans per week. The point prevalence quit rate for patients enrolled in the tobacco cessation program at the 6 month follow up cycle was 21.1% (68 patients quit out

of 322 patients enrolled) in April 2005 (Fig. 1).

Relapse is a common aspect of quitting tobacco use and 158 (19.2%) of the patients reported trying to quit at least one time in the past, 187 (22.7%) two times, 160 (19.4%) three times, 80 (9.7%) four times, and 238 (28.9%) five or more times. Seven hundred sixteen patients (79.4%) reported that they wanted to quit using tobacco for health reasons, 525 (58.2%) to save money, 497 (55.1%) because they wanted to live longer, 449 (49.8%) to be a positive role model, 418 (46.3%) because they wanted to protect the health of others, and 126 (14%) for other reasons.

Multiple use therapy was common and in a sample of 58 patients who were contacted at the 26 week interval 26 who had quit reported using the nicotine patch, while 23 who were in relapse reported using the nicotine patch. Of those in the sample who used the nicotine lozenge 18 had quit and 21 were in relapse, of those who used the nicotine gum 11 had quit and 12 were in relapse, and of those who used bupropion (Zyban®) 18 had quit and 20 were in relapse.

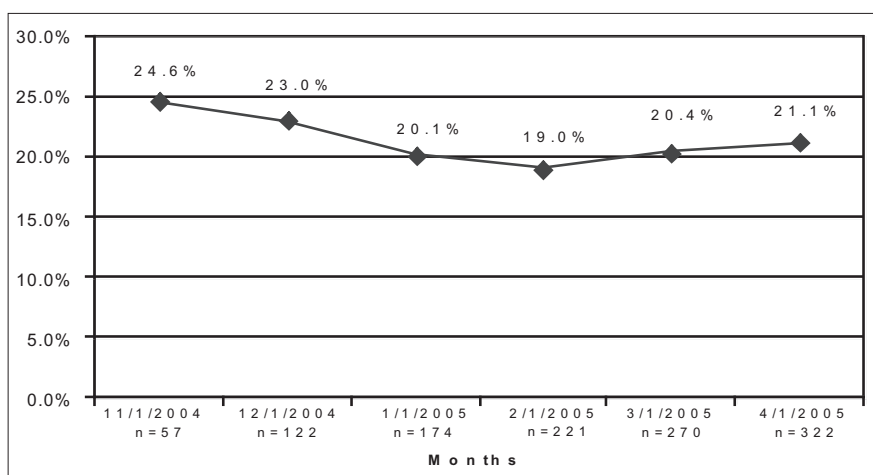


Figure 1. Point prevalence quit rate by month.

Conclusions

Southcentral Foundation made a multi-tiered system-wide change in existing services utilizing recognized clinical interventions shown to reduce tobacco use. Staff screened every patient at every visit for their tobacco use and if they used tobacco, their readiness to quit was assessed. Patients at the appropriate level were referred by the provider to the health educator for tobacco cessation counseling and follow-up. This referral also authorized the pharmacist to prescribe nicotine replacement therapy and/or bupropion (Zyban®) to patients following an approved clinical protocol.

There are a number of limitations to this report. There was intense follow up with patients active in the program including 8 scheduled contacts, usually by phone, with the patient over the course of the year. If a patient was not contacted then it was assumed the patient was in relapse and remained out of the numerator, so it was possible to have patients who were successful in their quit attempts who were not represented in the quit rate. It was for this reason that every effort was made to contact each patient.

Southcentral Foundation plans to continue working to facilitate standardization and certification of tobacco cessation counseling practices in Alaska and explore reimbursement for counseling and medication management services.

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