



Evaluation of

ASC

Asian Smokefree Communities Pilot

**Six Month
Smoking Cessation Outcomes**

July 2007



Title: Evaluation of ASC (Asian Smokefree Communities) Pilot: Six-month smoking cessation outcomes, July 2007.

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Summary

Asian Smokefree Communities (ASC) pilot tested a novel Asian-specific service delivery model combining smoking cessation and smokefree environments promotion to address these issues in the Asian population of the Waitemata District Health Board area. A community-based service was established that combined proven smokefree promotion and smoking cessation methods, with family-oriented and language/culture-appropriate service delivery. Local Asian communities were involved from the start, and local bilingual coordinators were trained to provide the service, linked with an extensive interpreting service. A specific database was developed for the service, and Asian resources were developed and translated. Extensive community promotion was included as part of the service.

A prior planned evaluation found the service to be effective at reducing exposure to second-hand smoke through the implementation of smokefree homes/cars policies and assisting Asian smokers to stop smoking. The quit rate (self-reported continuous abstinence) was 72.0% at one month, 53.8% at three months. The evaluation also found this novel model for service delivery to be acceptable and appropriate to the clients and their families (Wong, 2007).

This document reports the six-month quit rates. At six months after their first quit date, 40.9% of all ASC cessation clients were still quit (self-reported continuous abstinence). The self-reported seven day point prevalence was 51.6% reflecting quit rates for clients who relapsed and set new quit dates within the first six months of the pilot.

The ASC six-month smoking cessation outcomes support the short term findings reported previously. ASC is an effective smoking cessation service for Chinese and Korean people in New Zealand. Delivery of the service in a manner appropriate to the target population, with respect to language, culture and the importance of family, has been found to be successful and may be replicated for other populations.

Background

Research undertaken by the Waitemata DHB Health Gain Team identified a gap in smoking cessation services for the growing Asian population of the district. Language, culture and access have been identified as barriers to care for Asian migrants (Asian Public Health Report, 2003). Asian Smokefree Communities (ASC) pilot tested a novel Asian-specific service delivery model combining smoking cessation and smokefree environments promotion to address these issues. The structure of the ASC service was based on an innovative formalised partnership of public health, primary health and secondary healthcare organisations.

The aims of the ASC pilot were:

- to reduce smoking and to reduce exposure to second-hand smoke
- to determine the appropriateness of the ASC model for the Asian population living in the Waitemata district

The service, launched on 28 April 2006, included promotion of ASC through Asian community media and networks, new and translated resources, and Korean and Chinese speaking smokefree coordinators delivering family focused community-based home, workplace or clinic based interventions with the option of individual appointments. Two trained coordinators assisted Asian smokers and their families to create smokefree environments (home and cars), and supported smokers with cessation using advice, education, counselling, nicotine replacement therapy (NRT), and carbon monoxide (CO) monitoring.

A formal evaluation commissioned by the ASC Steering Group, and funded by the Ministry of Health, was undertaken for the period between 1 May and 21 December 2006 (Wong, 2007). It was found that ASC service decreased smoking rates in clients. Of the 93 ASC cessation clients who had access to some form of intervention, the self-reported quit rate (continuous abstinence) was 72.0% at one month, and 53.8% at three months.

Funding for measurement of the six-month smoking cessation outcomes was provided in 2007.

Aim

To describe six-month smoking cessation outcomes for the ASC pilot programme.

Methods

The ASC smoking cessation rates were calculated using an intention-to-treat analysis. The number of clients who had received smoking cessation services by 21 December was calculated from the client database provided at that date. Thus clients who set quit dates between May 1 and November 21 2006 (n=82), and eligible people who approached the service but who did not set quit dates (n=11) were included in the denominator (N=93). Referrals who lived out of area and who could not go to the North Shore for treatment, or who were waiting for appointments on 21 December were excluded.

The smoking status (continuous abstinence) of clients at one month and three months after their quit date was established at 21 February and reported previously (Wong, 2007).

Six-month smoking status

Continuous abstinence was determined from the clients' first set quit date. Coordinators defined "relapse" as daily smoking of any number of cigarettes. Isolated episodes of smoking (up to five cigarettes) were not relapses.

Point prevalence was not smoking in the seven days prior to the follow-up interview.

Clients counted as successfully quit (continuous abstinence and point prevalence) at six months included only those contacted after five months and three weeks from their initial quit date. Clients who were not successfully followed up at six months were assumed to be smoking.

ASC staff at Harbour Health provided six-month smoking cessation data for the 82 clients who set quit dates from their data base and paper service records. They recorded six-month continuous abstinence and six-month point prevalence, at the closest date to six months contacted, on an Excel spreadsheet.

In addition, ASC staff provided information about second or subsequent quit attempts and relapses within the six-month time frame following the clients' initial quit date. These were used for secondary six-month outcome analyses.

A database download of the smokefree coordinators' client contact dates was sent to the evaluator by Harbour Health.

As the information provided initially to the evaluator was incomplete, the evaluator filled in the spreadsheet with the smokefree coordinators. The extra information was taken from both the clients' paper files and the data base files. Provided data was also reviewed to check its accuracy. In total, information was gained directly from, or checked in, 46% of paper and 27% of data based files. The questions used to collect the data were also reviewed.

Because the data collectors were the service providers they used questions related to their most recent contact with the clients to collect data about smoking status rather than standard research based questions (West et al, 2005). The questions they used

were almost the same as the questions they used to collect information previously (Wong, 2007).

Coordinator A - Have you smoked since I last contacted you?

The responses were followed up as described:

No – no further questions.

Yes – “How many? When? Why? Where?” (This provided information for point prevalence).

Coordinator B - One or two questions were asked:

Have you smoked since your first quit date?

Do you still smoke?

The responses were followed up as described here:

No – no further questions.

Yes – “How many? When? Why? Where?” (This provided information for point prevalence).

The coordinators collected information by phone or at face-to-face appointments with their clients.

Some clients had their smoking status validated with the CO monitor and this information was provided to the evaluator. This was not undertaken on all self-reported quitters at standardised times, and therefore could not be used to validate self-reported quitting. Therefore, smoking status used in this evaluation was self-reported.

The data were analysed using Microsoft Excel.

Results

The results in Table 1 reflect an intention-to-treat analysis as far as possible. CO monitor readings to validate self-reported smoking status were available for some clients but were not consistently collected, and so verified quit rates are not reported here.

At six-months after their first quit date, 40.9% of all ASC cessation clients were still quit (self reported continuous abstinence) (Table 1). These clients were all contacted at least five months and three weeks after their first quit date. All other clients are counted as relapsed although not all were contacted at six-months. For instance, information about eleven of the forty one clients who relapsed was gathered before six-months. Three clients who set quit dates were “lost to follow up” and their smoking status was not able to be established. Eleven “not ready to quit” clients contacted ASC during the time period of the evaluation, but either left the service without setting quit dates, or set quit dates later, outside the time period of evaluation. One relapsed client had reduced his cigarette consumption by 50% to 20 cigarettes daily.

One month after their first quit date, 72.0% of all ASC cessation clients were still quit (continuous abstinence). Three months after their first quit date, 53.8% of all ASC cessation clients were still quit (continuous abstinence) (Table 1).

Table 1. ASC cessation clients: Self-reported one-month, three-month and six-month quit rates - continuous abstinence

			n (%)
One month post-quit date			
	Quit	67	67 (72.0)
	Relapsed	14	
	Lost to follow up	1	
	Not ready to quit	11	
			26 (28.0)
			93
Three months post-quit date			
	Quit	50	50 (53.8)
	Relapsed	29	
	Lost to follow up	3	
	Not ready to quit	11	
			43 (46.2)
			93
Six months post-quit date			
	Quit*	38	38 (40.9)
	Relapsed#	41	
	Lost to follow up	3	
	Not ready to quit	11	
			55 (59.1)
			93

* Contacted at least five months and three weeks after first quit date

Contacted at some time after initial quit date

At six-months clients had received an average of eleven contacts each. In addition, the ASC coordinators remained in contact with 83% of the clients (n=68) who set quit dates in the evaluation period (n=82). Fourteen (34%) of those who relapsed (n= 41) set second quit dates within six-months of their first quit date. Twelve of these clients used NRT for their second quit attempts.

The seven day point prevalence was 51.6% (Table 2). This is higher than the continuous abstinence measure. It reflects the ten clients who relapsed, set new quit dates within the first six-months of the pilot and were smokefree for the seven days before their six-month contact.

Table 2. ASC cessation clients: Self-reported six-month quit rate - point prevalence

		n (%)	
Six months post-quit date – point prevalence			
	No smoking prior 7 days *	48	48 (51.6)
	Smoked prior 7 days*	20	
	Lost at six months#	14	45(48.4)
	Not ready to quit [†]	11	
			93

* Contacted at least five months and three weeks after first quit date

Set quit date but lost to follow up (11 known to have relapsed but 7 day point prevalence could not be established, 3 lost - smoking status unknown)

[†] Contacted ASC during time period of the evaluation, but either left without setting quit date or set quit date after the evaluation period

The coordinators noted that clients sometimes relapsed when they visited their country of origin, especially at times of high social activity such as New Year.

The coordinators reiterated their concern about negative reactions from some clients when asked to use the CO monitor. They used CO monitoring as a motivational tool, rather than to confirm smoking status. They reported difficulties with managing with one CO monitor since they both have large case loads, and they need to be able to fit in with the appointment needs of their clients. A second CO monitor has been purchased recently.

Discussion

The six-month impact of the ASC intervention on smoking rates was excellent and confirms the short term smoking cessation findings. Of the 93 ASC cessation clients who had access to some form of intervention, the self-reported quit rate (continuous abstinence) was 40.9%. This high quit rate maintains the trend described previously. The self-reported quit rate (continuous abstinence) was 72.0% at one month, 53.8% at three months (Wong, 2007).

Follow up for six months from the target quit date, self-report of smoking abstinence over the whole follow-up period rather than point prevalence only, and the use of an intention-to-treat analysis strengthen confidence in the findings (West et al, 2005). Limitations include reliance on self-reported data (phone or face-to-face) collected by the service providers and given to the evaluator, no consistent biochemical verification of smoking status, and the possible effect of a novel intervention by very enthusiastic coordinators in a population who have not previously received service.

These high quit rates (although self-reported) were supported by the high motivation levels of the clients and coordinators and the intensity of contacts including contact following relapse. The smokefree coordinators were also certain of their clients' smoking status. They knew their clients and communities well and reported having a number of their clients' smoking status confirmed by friends and family members. They continued to work successfully with almost all of their relapsed clients confirmed by the six-month point prevalence (51.6%). The coordinators also understood how important relapse was, and were very concerned about being reliable about quit status. Cross checking of the reports of the service providers with database records and the paper records confirmed their consistency.

It is possible that ASC's high cessation outcomes reflect the enthusiasm engendered by an exciting and innovative new service, and the quit rates may decrease as the programme becomes embedded. In comparison, the long-term (six to twelve month) abstinence rates reported in the Cochrane review of nicotine replacement for smoking cessation were 17% (Silagy et al, 2006). However it has been suggested that programmes tailored to ethnic minorities can reach success levels well beyond average (Bell et al, 2007). While there are few smoking cessation interventions for Asian smokers reported in the literature (Kim et al, 2007; Lawrence et al, 2003), interventions with elements of ASC suggest that they are successful, and that Asian smokers are receptive to treatment. For instance, a less intensive intervention with Chinese and Korean smokers in Pennsylvania resulted in a self reported quit rate of 47% at three months (Fang et al, 2006). This is comparable with ASC's 54% three month quit rate. The Pennsylvanian intervention was provided in Mandarin, Cantonese or Korean. It included a one in-person 90 -120 minute session which included identifying concerns specific to the culture of the smokers and culturally appropriate quitting strategies, and free NRT. Follow ups were at one week, one month and three months.

A clinic based service in Hong Kong provided one individual counselling session, one telephone follow up, additional counselling and follow-up calls according to individual need, three data collection follow ups, and a one week free supply of NRT (Abdullah et al, 2004). It resulted in a seven day point prevalence rate of 27% at 12

months. Other interventions for Chinese and Korean smokers were substantially different from ASC.

The continuing need for an effective smoking cessation service for Asian peoples is supported by data from the 2006 census (Statistics New Zealand, 2007). This shows that smoking rates in Chinese men have increased from 17% (1996 census) to 20% (2006 census). While smoking rates in all other Asian sub-groups have declined, Vietnamese (31.2%) Korean (26%) and Japanese (25%) males have smoking rates higher than those in the non- Asian male population (Ministry of Health, 2007; Statistics New Zealand, 2007).

The ASC six-month smoking cessation outcomes support the short term findings reported previously. ASC is an effective smoking cessation service for Chinese and Korean New Zealanders.

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