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Competing Interests

The authors have no competing interests

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Executive Summary

Background

The prevalence of smoking within the general New Zealand (NZ) population is decreasing. In 2015, the adult smoking prevalence was 17%, down from 28% in 2000. This is in stark contrast to offenders, of which about 60% are smokers upon entering prison. Furthermore, Māori are an overrepresented group in both smoking and in prisoners. NZ prisons became smokefree in 2011, meaning, in theory, all prisoners should be smokefree during their sentence and upon release. International data suggests that over half of the prison population's would like to be smokefree. There is currently no NZ data about the rate of smoking relapse in this group. The objectives of this study were to assess relapse rates during the reintegration period, investigate factors that influence relapse, and evaluate opportunities to prevent relapse in this vulnerable population. As a pilot study, we also aimed to assess the effectiveness of the questionnaire and semi-structured phone interview methods for gathering this information.

Methods

A short online survey as well as a semi-structured phone interview were used to gather data. Participants included 13 clients enrolled in the Salvation Army Reintegration Programme and 10 key informants professionally involved in tobacco control, Corrections, or ex-prisoner reintegration. The Salvation Army clients completed a short closed-question survey looking at their smoking patterns. Following this, five clients and the key informants who consented, were phoned by trained interviewers who conducted a short, semi-structured telephone interview. They explored thoughts and opinions on smokefree prisons, factors which influence smoking, and supports available in and out of prison to support smoking cessation and relapse prevention. Interviews were transcribed, coded, and analysed using a thematic approach.

Results

Preliminary data from our research suggests smoking is still present in NZ prisons, and relapse in the first month after release is very common. Clients and key informants reported multiple challenges that ex-prisoners face to remain smokefree upon release from prison, including inadequate continuity of health care between corrections and the community, returning to environments in which friends and whānau smoke, and emotional stress during the reintegration period. There may be limited knowledge about and access to smoking cessation and relapse prevention supports, such as nicotine replacement and behavioural therapy, as well as limited awareness of Māori health providers.

Conclusions

These results reveal a missed opportunity as over half of prisoners wish to be smokefree yet many relapse after release. Improved support for continued smoking cessation in prison and on release as well as education for reintegration staff may reduce the rate of relapse. Given the

health disparities faced by this group, encouraging smoking cessation would have a huge public health impact.

These findings are pertinent and consistent with the international literature, suggesting further study with greater coverage and on-going monitoring is needed.

Introduction

Smoking tobacco is a major cause of preventable deaths in New Zealand. (1) Populations most at risk of smoking are Māori, prisoners, and those with a mental illness. (1-3) Despite population-based public health measures to decrease smoking initiation and increase smoking cessation, these disparities are not decreasing. (1, 4) Universal interventions are required to bridge this gap. Smoking initiation and cessation are influenced by a variety of factors and vary in different populations. (2) It is important to identify these risk factors to provide appropriate public health interventions aimed at both decreasing initiation and supporting cessation, whilst reducing inequities.

In 2011, New Zealand became the first country to introduce a nation-wide smokefree prison policy, as part of the Smokefree Aotearoa 2025 goal. This policy required prisons to be smokefree inside and out for all prisoners, prison workers, and visitors. (5) There was a comprehensive 12-month period of preparation for prisons. During this time, prisoners were educated about the risks associated with smoking, given advice on how to quit, books on smoking cessation were distributed to prison libraries, and prisoners were provided with nicotine replacement therapy (NRT). (6) Voluntary smokefree units were opened in the lead up to prisons becoming totally smokefree. (7) Additionally, a one-month ban on tobacco purchases preceding the beginning of the total ban aimed to ease the transition. (6)

In addition to the positive health outcomes, international evaluations have shown that smokefree prisons have further benefits, including mitigating fire risk, reducing the grounds for costly legal action by guards with regards to secondhand smoke exposure, reducing the risk of infectious disease outbreaks, lower maintenance costs, and lower insurance rates. (8-10) Successful smoking cessation is a central public health objective, and ensuring the vulnerable prison population has access to smoking cessation support represents an important opportunity. Reducing disparity is essential in evolving an equitable society, and a targeted approach at vulnerable populations is central to this. However, upon release, prisoners are no longer actively supported to remain smokefree.

Reintegration programmes are available to a proportion of prisoners upon release. One such programme operating in New Zealand is The Salvation Army Reintegration Programme. In association with the Department of Corrections and probation officers, this programme works with prisoners to help reintegrate them into daily life. Clients of this programme are ex-prisoners considered at high risk of reoffending, who are motivated to make change, and wish to be part of the programme. Before release prisoners meet with Corrections and the Salvation Army to set achievable goals. For the first 3 months, clients live in Salvation Army houses, where there are house rules, including smokefree indoors. During this time, clients meet with a Salvation Army caseworker once a week, to discuss any issues they are facing, and are helped with reintegration tasks such as obtaining photo ID, getting a birth certificate, and liaising with Work and Income. This programme is tailored to the individual's needs and personal goals. Salvation Army have a good knowledge of support systems within the community that may aid the ex-prisoners in reintegrating, such as sport teams and local marae. At this point there is no

dedicated support for relapse prevention or smoking cessation within the Salvation Army Prisoner Reintegration Programme, and there is insufficient data about smoking habits among New Zealand prisoners after their release.

Literature Review

Determinants of Smoking Status

Exposure to adults and older family members smoking is associated with early smoking initiation in children. (11) Taylor-Robinson et al found an association between mothers' level of education and child smoking initiation. There is a greater than five times increased risk of a child of a mother with no qualifications having tried a cigarette, than a child with a mother that had a tertiary education or higher. (11) Children who encountered adverse childhood experiences (such as verbal abuse, sexual abuse, and divorce in their home) were found to have an increased risk of smoking later in life. (12) Separation from their mother before the age of 16 was strongly associated with smoking initiation, particularly among men. (13) A similar risk factor identified in a New Zealand study by Blakely et al was "leaving a family nucleus", (14) which was also correlated with increased risk of smoking. Factors contributing to continuation of cigarette smoking include stress, nicotine addiction, habit, and anxiety. (13)

Smoking is strongly patterned by socioeconomic status (SES), with increased risk of initiation, increased risk of progression to regular use, and decreased likelihood of cessation, in those of lower SES. (15) Gilman et al identified the impact of SES over the lifetime in relation to smoking and found that "lower parental SES during the first seven years of life increased the risk of first cigarette use". (15) Quitting attempts in those of lower SES are less likely to be successful and a number of reasons have been hypothesised, including low motivation, lack of cessation support, targeted marketing of tobacco, and reduced of self-efficacy. (16) Factors associated with successful smoking cessation include: increased age, being married, non-smoking spouse or cohabitant, and higher SES. (13, 17)

Twyman et al conducted a systematic review to evaluate the perceived barriers to smoking cessation. (2) Commonly reported barriers to smoking cessation identified in the general population include enjoyment of smoking, cravings, and emotional stress. (2) As SES decreases, stress and "avoiding boredom" were more likely to be reported as barriers to quitting. (2) This review compared six vulnerable groups, which had a higher prevalence of smoking than the general population: low SES, indigenous, mental illness and substance abuse, homeless, prisoners, and at-risk youth. (2) All six groups identified the same barriers as the general population, as well as lack of support from health professionals and other providers, and high frequency and acceptability of smoking within their social groups.

Disparities in Prisoner Health

The disparities between the health of prisoners and ex-prisoners compared to the general population are significant. The most extensive study of New Zealand's prison population was the Prisoner Health Survey in 2005. (18) Over 50% of prisoners had at least one chronic disease, most commonly asthma. (18) Prisoners had a high prevalence of risk factors for disease: about 66% were current smokers (before smokefree prisons); over 50% were overweight or obese; 20% had high blood pressure and 10% had high cholesterol. (18) Smoking

was found to be the most common health risk factor for prisoners, (18) compared to the general population for which hypertension is the most common.

Analysis of the Prisoner Health Survey included comparison with The New Zealand Health Survey of 2002/03 to assess evidence of disparity between the prison and the general population. (18) Male prisoners had a significantly lower prevalence of cancer and diabetes than the general population, however they were significantly more likely to be smokers. (19) Compared to the general population, prisoners had 2 times increased risk of alcohol abuse, 8 times increased risk of drug abuse, (18, 20) and 2-5 times increased risk of suicide. (18, 21) Increased rates of mental illness, substance dependence, noncommunicable disease, (22-25) and engagement in health risk behaviours in prisoners is also well documented in Australia and the US. (26, 27)

New Zealand research on ex-prisoners is sparse, but international evidence shows ex-prisoners have similarly poor health statistics to prisoners. There is often health improvement during imprisonment, but significant decline in health outcomes after release. (26) This may be, at least in part, due to having to make large adjustments from the prison life allowing little self-determination, to the freedom of the reintegration period. Several factors make this transition difficult, including: stress, anxiety, worsened psychiatric symptoms, homelessness, disappointment and lack of income. (28) These factors have also been linked with the risk of overdose and suicide during the post-release period. (28) A 2007 US study found that within the first two weeks of release there is a 12.7 times increase in risk of mortality compared to a person of the same age in the general population. (28, 29) Suicide is the major cause of this, (20, 31) increasing nine-fold following release. (28, 30)

Another interesting insight from Kinner is the disempowerment of prison health services. 70% of prison health consults are initiated by a staff member, rather than prisoners themselves. This raises concerns about prisoner access to health care upon release, as they may have had bad experiences with health providers in the past, or place little value on their own health due to low self-worth. (26) A study in the UK revealed the majority of 35 ex-prisoners would not contact the GP for their mental health issues, reasons cited being the stigma of diagnosis and a distrust of medications. (26, 32)

A number of overseas studies have investigated the health needs of ex-prisoners from their perspective and also that of service providers. During the reintegration period, ex-prisoners prioritise their basic needs, such as accommodation and employment, before addressing potentially harder goals such as smoking or substance use cessation. (32, 33) Some ex-prisoners prioritised their personal health care after release, however barriers to accessing health care were noted, such as knowledge of how to access it and long wait times. (28)

New Zealand Smokefree Prisons

Prisoners represent a community that differs from the general population in terms of psychosocial factors, level of education, health attitudes, and alcohol and substance abuse. (34) Māori and Pacific people are overrepresented in the prison population, along with those who suffer from mental illness, and illicit drug users. (35) These factors are independently associated

with a high prevalence of smoking, and so it is unsurprising that rates of smoking within the prison population are also high. Additionally, smoking has been a traditional part of prison life as cigarettes were often used as currency, a form of leverage, and as stress relief, (36, 37) thus exacerbating the difficulty of reducing smoking in this population.

A smokefree prison evaluation by Department of Corrections New Zealand in August 2012, just over a year after the implementation of the smokefree policy, indicated that prisons were indeed smokefree. (6) There was a decrease in the level of smoking-related contraband confiscated, a decrease in the number of fires lit by prisoners, and a better working environment for Corrections staff. Independent air testing at one Auckland prison was carried out before and after the total ban of smoking, and showed a halving in the fine-particles detected after the total smoking ban. (38) Benefits reported by prisoners included positive effects on whānau who no longer needed to provide money for cigarettes, favourable health effects, and increased ability to exercise. (6)

Internationally there are different variants of smokefree prisons. Some prisons have total smoking bans, others a smokefree indoor policy, and some are smokefree for prisoners only, each with varying successes. (5, 39) One U.S. study found there was an extensive black market for tobacco, prisoners could easily access cigarettes, and staff did not enforce the ban, resulting in smokefree policies having little effect. (39) North American studies found the introduction of smokefree policies were associated with a loss of smoking cessation programmes provided to prisoners. (8, 40) One study reported that 34% of prisoners smoked inside every day. (41)

It is likely that indoor smoking bans (as opposed to total smoking bans) do not promote smoking cessation, but may decrease total tobacco use. (41) In 2008 Canada implemented a total smokefree policy for prisons, but this was overturned a few days later and the amended policy allowed prisoners to smoke only outside. Prisoners in Canada reported a reduction in tobacco consumption and felt that the ban increased their general health. (40) However it was reported the prisoners still smoked in their cells due to cravings outweighing the risk of disciplinary action. Because of these issues the expected health outcomes from an indoor smoking ban did not eventuate. (40)

A common theme in research on prison smoking bans is that if smoking cessation support is not provided there is decreased compliance with the rule. (46) Good smoking cessation support is needed to ensure prisoners have positive health outcomes during and beyond prison. It has been widely reported that smoking bans alone do not decrease smoking rates, (36, 37, 46) and prisoners continue to smoke and leave prison as smokers. In prisons where combined smoking cessation approaches have been used, smoking cessation rates become similar to that of the general population. (44) Some successful approaches to smoking cessation have been a combination of NRT, pharmacological agents, and counselling (for example, through Quitline). (44-47) NRT alone can increase smoking cessation rates, (66) however intense behavioural counselling has the potential to increase the success rate to 12% at 3 months post-release, compared to 2% in a control groups who did not receive counselling. (67) The utility of group therapy has also been studied, showing a similar efficacy compared to one-on-one counselling, (67) making it a potentially viable and cost effective option for implementation in prisons. A

combination of NRT and behavioural counselling is most effective in maintaining long term smoking cessation. (66)

Recognizing the determinants of smoking status in prisoners is essential in establishing intervention and policy that works to reduce smoking prevalence. Forced smoking bans do not always lead to long term smoking cessation, so it is also pertinent to consider the factors that influence relapse. (45) Potential causes for uptake of smoking on release include stress of being reintegrated into communities and abiding by parole conditions, and re-entry into the communities in which their smoking was initiated.

There is no NZ data on the resumption of smoking in ex-prisoners, but Lincoln et al show 97% of former smokers from a smokefree facility in Massachusetts, USA, who were smokefree upon release, self-reported relapse at 6 months. (42) Valera et al also showed that 92% of former smokers released from New York smokefree correctional facilities resumed smoking behaviors after release, despite being smokefree during the sentence. (43) It is interesting to note that half of prisoners intended to restart smoking upon release. (6)

This marked rate of smoking resumption demonstrates that a smokefree facility does not equate to prolonged smoking cessation. Research shows that causes of relapse include: lifetime exposure to cigarettes and smoking behaviours; the pleasure and stress-relief associated with cigarette smoking; access and availability of cigarettes; and lack of access and availability of cessation products. (43) Additionally, a decreased level of general education, decreased health literacy, and stress were also important factors in relapse. (34) These themes indicate the necessity of appropriate support and intervention for prisoners pursuing long-term smoking cessation.

Evidence regarding smoking cessation support of ex-prisoners is limited. A literature review by Segan, (67) suggests that smoking cessation supports need to span the pre- and post-release period to prevent them falling through the cracks in the early reintegration period. Smokers about to leave prison need to be prepared for release with tools to aid them with smoking prevention and supports. (67)

Intention to remain smokefree after release somewhat predicts actual outcome. (48) This association is important to consider, particularly in the context of the stages of change model described by Prochaska and DiClemente. (49) The stage of change that existed before forced smoking cessation has been found to persist once the smoking cessation is no longer enforced. (50) There is also evidence to suggest that if smoking policy is not sensitive to the stages of change model, prisoner motivation to quit smoking is reduced. (51)

Reintegration Programmes

There are many different types of reintegration programmes with different approaches, and with varying degrees of success. Their primary aim is preventing reoffending, and not the health of the people they serve. Little is known about the health impacts of successful reintegration programmes, as "success" is judged against reoffending rates. As already discussed, this group of individuals tend to have high health needs, so reintegration programmes addressing these

needs could have a deep public health impact. However, little research has explored how the health needs of ex-prisoners can best be met and this is a gap in the literature that needs to be addressed.

Numerous international studies have been conducted to ascertain what factors contribute to a successful reintegration programme. Pertinent themes included following prisoners for longer periods of time, both post-release, or from as early as original sentencing. (52, 57) Having high compliance and completion of the programme was also associated with greater success. (58, 59) Focusing on high risk offenders has proven to show the most benefit, and providing support with factors associated with recidivism, such as antisocial behaviours and low self-control, is important. (52, 53) The use of patient-centered approaches to increase self-determination, such as cognitive behaviour therapy, increased community contact, and matching each offender to a suitable programme, helps ex-prisoners to reintegrate smoothly, thus reducing the rate of recidivism. (52, 54-56) For example, high-risk offenders have shown to do better with more intense reintegration programmes with more practical assistance, whereas lower-risk offenders may be better suited to more supportive programmes. (52) Creating a supportive environment is a key point the Ottawa Charter identifies for a successful public health programme. This was evident in the literature, as having a supportive and positive social and home environment assisted ex-prisoners in reintegrating successfully. (54-56)

There is minimal research into smoking relapse-prevention interventions during reintegration. But Segan et al (67) suggest that the following factors are important to prevent relapse during reintegration; motivation, intention, confidence to stay smoke-free, social support. If these factors are built into reintegration programmes this could help prevent smoking relapse in prisoners.

Aims and Objective

Since the introduction of smokefree prisons in New Zealand in 2011, there is yet to be any research to evaluate the long term effect this has on prisoners' and ex-prisoners' smoking status. Our aims for this project are to assess the smoking environment within prison, assess factors that influence ex-prisoners' smoking status, evaluate how ex-prison reintegration programmes can better help ex-prisoners remain or become smokefree, and lastly, to provide recommendations to the Salvation Army based on our research findings, on how they can assist the ex-prisoners in their programme to remain smokefree. We will achieve these aims by endeavouring to answer three questions:

- 1. What is the smoking status of NZ prisoners and what factors influence their smoking status during reintegration?
- 2. How do reintegration programmes influence the smoking status of ex-prisoners?
- 3. What are recommendations for reintegration programmes to allow improvement of support for ex-prisoners to remain or become smokefree?

As a small pilot study, we also aim to test the methods to determine whether they would be suitable for further research on a larger population of ex-prisoners in New Zealand.

Methods

Study design

This pilot study used a multifaceted approach. It involved a cross-sectional survey and two sets of semi-structured interviews. The survey was administered to ex-prisoners and the interviews were with either ex-prisoners or key informants. This approach allowed for the survey to provide quantitative data and the interviews were the source of qualitative data. Information was gathered between August 7th and September 1st 2017. Thirteen clients of the Salvation Army Reintegration Programme completed the online survey and four of these clients were followed-up with a semi-structured phone interview. Eleven key informants were interviewed.

Study participants and recruitment

The data gathered from this study comes from three different collection points: the initial client survey, ex-prisoner interviews, and key informant interviews. In order for participants to be included in this study as ex-prisoners, they had to be current clients of the Salvation Army Reintegration Programme in either Christchurch or Wellington. This programme is open to ex-prisoners who have served a minimum 2-year prison sentence, have been assessed using the RoC*RoI score as likely to re-offend, and have been deemed 'motivated' during an interview with a Salvation Army caseworker prior to release from prison.

Initial Client Survey

Salvation Army clients completed an initial online survey during a visit with their Salvation caseworker. This was used to collect data about ex-prisoners (eg. smoking status before, during and after imprisonment), and to determine if participants met the inclusion criteria for involvement in the qualitative component of this study as part of the 'ex-prisoner' group. At the time of the study sixty-eight ex-prisoners were part of Salvation Army Reintegration Programme and of this group 13 completed the initial survey. Eleven out of the thirteen clients were ex-smokers and five of these ex-smoker clients agreed to participate in a further interview.

Ex-prisoner interviews

Eligible ex-prisoners for interviews met the inclusion criteria of having been a smoker on entry to prison and being a client of the Salvation Army Reintegration Programme in either Christchurch or Wellington. Four clients met the eligibility criteria and a phone call with a trained interviewer occurred within two days of completing the survey, to arrange a follow-up semi-structured phone interview within five days of their first contact. One interviewed participant did not meet inclusion criteria, having quit smoking before entry to prison, but was included as a valuable key informant. This has been illustrated in Figure 1.

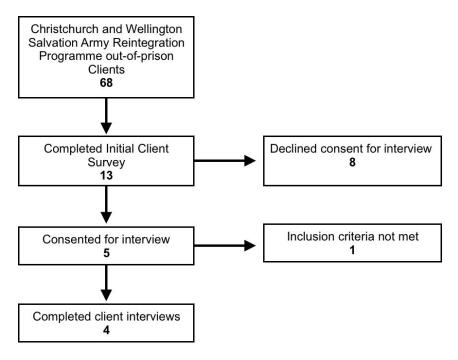


Figure 1. Recruitment of participants as Clients from the Salvation Army Reintegration Programme

Key informant interviews

Key informants were invited to participate in the study by email from the study supervisors who had identified these people as being potentially insightful to the topics we were looking to cover. After receiving few responses to the survey amongst the ex-prisoner client cohort, the decision to snowball sample for further key informants was made to increase the breadth of the information base. Further key informants were identified who had a professional involvement or interest in the area of tobacco control, prison populations, or post-prison reintegration, for example Salvation Army Reintegration staff, Corrections staff, Ministry of Health policy analysts, prison health workers, and tobacco control advocates. This group of key informants also participated in a semi-structured phone interview with a trained interviewer. Of the 19 key informants invited to participate, 10 were recruited. The client who was a non-smoker was included in the qualitative analysis as a key informant, bringing the total to 11. This is illustrated in Figure 2.

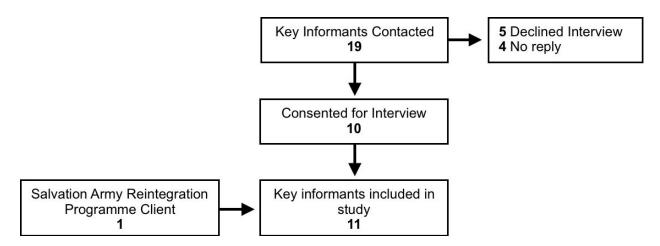


Figure 2. Recruitment of Key Informants

Study instruments

Short, closed-ended questionnaire

The questionnaire (Appendix 1) was for the clients of the Salvation Army Reintegration Programme only. It was conducted via Google Forms, with the link for the survey emailed to the Salvation Army caseworkers and completed by the client during one of their frequent meetings with a caseworker. The caseworkers had been briefed about the study, and explained the study's purpose and process to each client, who was free to participate or not. The survey included a set of short, closed questions, with multiple choice answers. This allowed us to gather the initial information about consent to participate, whether they met the inclusion criteria, a brief indication of the smoking environments to which they had been exposed, smoking status before, during and after imprisonment and a demographic of the cohort. Data was automatically recorded in Microsoft Excel for later quantitative analysis.

Open-ended question phone interview

Of the 13 Salvation Army clients who completed the initial survey, 5 consented to participate further. These participants were followed up with a semi-structured phone interview, which consisted of simple open-ended questions, outlining their experiences and opinions with regards to smoking and smoking cessation during 3 key periods: during prison, immediately upon leaving prison, and later during reintegration (Appendix 2). These interviews were recorded using a speakerphone and recording devices. More specifically, the questions explored their previous smoking status, supports they have received to be smokefree, expectations of supports compared with their experiences, factors that influence their smoking status, and an assessment of their goals in terms of smoking status.

We also used a semi-structured phone interview to contact our key informants, who were asked about their current role and how this ties into supporting smoking cessation, their comments on

the efficacy of smokefree prisons, smoking cessation supports currently provided, and any barriers and supports that may affect long-term smoking cessation (Appendix 3).

Qualitative methods were used to gain detailed data on the real-world context for the clients, and the ideas and concerns of both the client and key informant groups. Following a set of predetermined questions mitigated the risk of interviewer bias among the five interviewers.

Once a time had been agreed upon between the assigned interviewer and the participant, the interviewer was able to book the use of the speaker phone and a private room in the public health library. The conversation was recorded using a recording app on the interviewer's personal phone. At the beginning of the interview the participant was reminded that the interview was being recorded, but that it would be kept confidential within the study group, and all published information would be anonymised for their privacy.

After the interview the participant was thanked for their participation and reminded of the anonymity and confidentiality around the interview. They were told they could withdraw from the study at any point up until publication of the report, by contacting the Wellington Medical School Public Health department.

Immediately following the interview, the file was sent via email to the analysers and deleted from the interviewer's phone.

Data analysis

We analysed our data using a mixed method approach.

Quantitative

For the raw data, information from the Google Forms surveys was entered into Microsoft Excel 2016. Client demographics were recorded and univariate analysis was conducted.

Qualitative

Recorded phone interviews were sent to the data analysis team from the data collection team, as each interview was completed. Our approach to data analysis is described by Dey which involved transcriptions being made by one of the six data analysts, and the data was then divided into initial categories based on the research protocol and questions. (60) The 15 transcripts were pooled to identify trends and themes within the answers to the research questions, as well as information provided beyond the scope of the original questions.

Ethical Approval

Approval for this project was granted by the University of Otago Human Ethics Committee, under the category B criteria.

Results

Quantitative Results

All (n=68) current Salvation Army Reintegration Programme clients in Christchurch and Wellington were eligible to participate in the survey. Responses were received from 13 out of 68 current Salvation Army clients. We had email correspondence from the Salvation Army in Hutt Valley three weeks into the study, reporting that at least 18 surveys had been completed, however we have been unable to account for why we did not receive the data from these additional five respondents. The results from the 13 respondents are shown in Table 1 (the raw data collected in presented in appendix 4). The mean age of the clients was 40 years old and 12 out of the 13 respondents were male. 38% of responders identified as being Māori, 38% NZ European, and other ethnicities included Cook Island Māori, Fijian, and Arabic. 46% of respondents were incarcerated for between 2-3 years, 8% for between 3-4 years, 15% for between 4-5 years and 31% for 5 or more years.

Eighty-five percent of respondents had smoked at some point in their life. Sixty-four percent were smokers upon entering prison, and 64% smoked whilst in prison, which includes smoking before and after it was banned. Fifty-five percent of clients were still smoking upon release, and 64% of prisoners have been smoking since their release. Seven out of 13 clients want to be smokefree, three do not want to be smokefree, and one was unsure (table 1). Of the seven clients who were smokers on entering prison, six smoked whilst in prison, and at the time of release four were smoke free. Of the four who were smoke free on release, two had relapsed at the time of the survey. Four were not smokers when they went into prison, one started whilst in prison and continued to smoke on release, and one started smoking on release. Two remained smokefree throughout (as seen in table 2).

Two clients (15%) were never-smokers. The responses for these two clients were therefore removed from the analysis for the questions pertaining to smoking (as seen by n=11 in table 1). Table 2 presents each of the surveyed participants smoking status - before, during and after prison.

Initial Client Survey Results		n	%
Completed Surveys		13	100
Mean Age	40 (20-58)		
Gender	Female	1	8
	Male	12	92
Ethnicity	NZ European	5	38
	NZ Māori	5	38
	Cook Island Māori	1	8
	Fijian	1	8
	Arabic	1	8
Length of Prison Sentence (years)	2-3	6	46
	3-4	1	8
	4-5	2	15
	≥5	4	31
Ever Smoked (n = 13)	Yes	11	85
	No	2	15
Smoker on entering prison (n = 11)	Yes	7	64
	No	4	36
Smoked while in Prison (n = 11)	Yes	7	64
	No	4	36
Smokefree on leaving prison (n = 11)	Yes	6	55
	No	5	45
Current Smoker (n = 11)	Yes	7	64
	No	4	36
Do you want to be smokefree now? (n = 11)	Yes	7	64
	No	3	27
	Maybe	1	9

Table 1. Initial Client Survey results collected from 13 clients involved in the Salvation Army Reintegration Programme.

	Length of most	Smoking status			
Participant	recent prison sentence (years)	Before prison	During prison	On release	After release
1	≥5	Smoker	Smoker	Smoker	Smoker
2	2-3	Smoker	Smoker	Smoker	Smoker
3	2-3	Smoker	Smoker	Smoker	Smoker
4	2-3	Smoker	Smoker	Smokefree	Smoker
5	≥5	Smoker	Smoker	Smokefree	Smoker
6	≥5	Smoker	Smoker	Smokefree	Smokefree
7	≥5	Smoker	Smokefree	Smokefree	Smokefree
8	3-4	Smokefree	Smoker	Smoker	Smoker
9	2-3	Smokefree	Smokefree	Smoker	Smoker
10	2-3	Smokefree	Smokefree	Smokefree	Smokefree
11	2-3	Smokefree	Smokefree	Smokefree	Smokefree

Table 2. Surveyed participants smoking status before, during and after prison.

Qualitative Results

There were two components to the qualitative investigation: interviews with ex-prisoners and interviews with key informants. From the 13 survey responses received from clients of the Salvation Army Reintegration Programme, five consented to be contacted for a follow-up phone interview. One client (client 5) who completed the survey was smokefree at sentencing, during prison, and post release, thus not eligible for inclusion under this category. However, since he was willing to be contacted, he was used as a key informant.

One client was a smoker upon entering prison, but was smokefree during prison, on release, and since release (table 3, client 4). Two clients were smokefree on release from prison but relapsed after release (table 3, clients 2 and 3). One client continued to smoke before, during, and after release from prison (table 3, client 1). The key informants interviewed are shown in table 4.

				Length of		Smokin	g status	
	Age	Sex	Ethnicity	Sentence (years)	Before prison	During prison	On Release	After release
Client 1	41	Male	Māori	≥5	Smoker	Smoker	Smoker	Smoker
Client 2	30	Male	NZ European	≥5	Smoker	Smoker	Smokefree	Smoker
Client 3	20	Female	Māori	2-3	Smoker	Smoker	Smokefree	Smoker
Client 4	53	Male	NZ European	≥5	Smoker	Smokefree	Smokefree	Smokefree

Table 3. Interviewed clients demographics and smoking status

Role of Key Informant	Company/place of work
Probation Officer (1)	Dept. of Corrections
Probation Officer (2)	Dept. of Corrections
Programme Manager	Salvation Army Reintegration Programme
Caseworker	Salvation Army Reintegration Programme
Academic	University of Otago
Tobacco Control (1)	Ministry of Health
Tobacco Control (2)	Ministry of Health
General Practitioner	A Prison
Drug and Alcohol Counselor	A Women's Prison
Programme Manager	Advocacy NGO
Ex-prisoner (ex-smoker, 25 years free)	Client of Salvation Army Reintegration Programme

Table 4. Key informants interviewed (n=11), their roles and their places of work

The key themes of the qualitative analysis are presented below, under seven headings: smoke free prisons, smoking post release, factors affecting re-uptake of smoking post-release, supports surrounding smoking cessation (within prison, after release), role of the Salvation Army, smoking and health, and cultural findings.

Smokefree prisons

<u>Clients</u>

Client 4 reported smoking for 25 years prior to entering prison, however, as seen in table 2, successfully quit during his prison sentence, and was able to maintain cessation throughout reintegration.

This client was smokefree whilst in prison and able to maintain smoking cessation following release. For this client, the cost of smoking in prison was the key motivator to stop smoking even though he comments that it would still be possible to.

"Yeah I've smoked for about 25 years. In the end I was pretty much a chain smoker." (Client 4)

The same client also commented on nicotine replacement patches being used as currency in prisons.

"I realised what the patches were worth, they use them for currency." (Client 4)

Three out of the four clients interviewed reported access to "smoking" whilst inside prison, albeit at a price. It was unclear whether these "smoking" products were tobacco cigarettes or 'handmade nicotine substitutes'.

"If I wanted to [smoke] yes, but I had given it up when I was in there for quite a few years." (Client 1)

"Yeah, but it would've become really expensive." (Client 4)

Only one client stated that they believed prisons were in fact completely smokefree after the legislation was introduced in 2011.

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"...before 2010 (sic), yes [smoking], but after then no." (Client 2)
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Three of the four clients interviewed agreed with the concept of smokefree prisons, and believe in the legislation's utility.

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"...yeah it's way healthier." (Client 3)
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"Well when I went to prison I was smoking, then going through the prison system... because they phased it out... I stopped it for a good 5 or 6 years or so... I think it's great." (Client 2)

However one client disagreed with this paternalistic approach.

"...I think it's wrong, we are adults, we should be entitled to smoke." (Client 1)

Key Informants

There was a mixed response among the key informants regarding how well smokefree prisons have been implemented. Half of the key informants agreed that although prisoners are meant

to be smokefree, prisoners do still smoke, and that tobacco is available if they know how to get it.

"But what I know from it is, it's seen as smokefree but people can still have access, if you have the right contacts, and you have the dollars to show, people can still smoke while inside." (Salvation Army reintegration services manager)

"It's naive to say that there is no smoking or no tobacco in prison... prisoners are pretty resourceful." (Ministry of Health - Tobacco Control 2)

One key informant, a client who was a non-smoker before entering prison, confirmed that smoking occurred inside prisons. He did not partake in smoking and tried to distance himself from it, but it was obvious to him that other prisoners continued smoking.

"To be honest with you, yes people did smoke... I was in an area where I could smell it... it was undoubtedly going on." (Salvation Army Reintegration client)

The probation officers interviewed told a different story and believed that smokefree prisons were working well, with one believing that there was no smoking of or access to tobacco within prison.

"They don't have access to cigarettes." (Probation officer 1)

"I know it's working but I don't know how well." (Probation officer 2)

While prisoners may not have access to cigarettes, they do have access to nicotine replacement patches, and the key informants reiterated what the clients suggested; that these are used as currency. These patches allow the prisoners to fuel their nicotine addiction in other ways, for instance using them to make "tea-bacco".

"We have heard subsequently that there is a bit of currency involved with the patches...we are not sure how widespread it is... making tea-bacco, hoarding the patches and leaching the nicotine out of them." (Ministry of Health - Tobacco Control 1)

From these results, the majority of clients and key informants agree that tobacco products continue to be available within prisons, though possibly not widespread. Most of the clients believe that the smokefree legislation is for the better, commenting that it has helped with smoking cessation during imprisonment.

Smoking post-release

Clients

Two out of the three clients who were smokefree when they left prison, relapsed within a month of being released from prison.

"Ah yes, it was probably about three weeks afterwards." (Client 2)

"Ooh, I've had about 5 ciggies since I've been out." (Client 3, released <4 weeks ago)

However, Client 4 was smokefree during prison and remained smokefree post-release.

"Still smokefree." (Client 4)

Key Informants

When asked how prevalent they believe smoking resumption to be upon the release, although the numbers varied, their estimates ranged from 50-80%.

"..actually quite a lot...from what I can see it's probably at least more than 70%.." (Probation Officer 1)

"I would say about two thirds." (Ministry of Health - Tobacco Control 2)

In summary, smoking relapse rates after release from prison appear to be significant.

Factors affecting re-uptake of smoking post-release

Clients

Three out of four clients reported that they would like to remain smokefree upon release but several factors, such as the sociability of smoking, lack of willpower, and stress, impeded the success of this. The smokefree prison also influenced one client's expectations of remaining smokefree post release.

"...I would have thought it [staying smokefree] would be quite a lot easier, and I managed to kick it when I was in prison." (Client 2)

The three clients who were smokers after release stated that the people around them, such as family members, friends, flatmates, and co-workers, are smokers. Client 4

"...just the social aspect of it really, because having the flatmates around, that smell again...you know, just those cravings come back...It [smoking] is on and off, more social when people are around." (Client 2)

"...my influences around people? Being around people that smoke." (Client 3)

"...But I did give it [smoking] up for five years. When I got out last year, but when people smoke around you, you just feel like a smoke." (Client 1)

Two clients reported that willpower plays an important role in relapse prevention, and another commented on the difficulty of staying smokefree.

"...I can give up but it is all willpower and the mind." (Client 1)

"There's nothing easy about staying smokefree other than my willpower." (Client 4)

Another factor that was explored in relation to its effect on re-uptake of smoking was stress. Levels of stress appeared to differ before conviction and after release, with three out of the four clients reporting that they have lower levels of stress following release.

"Previously it was quite a high thing... now it's just back to social things, so yeah, stress these days is not as much." (Client 2)

"I haven't really been stressed since I've been out." (Client 4)

However, one client attributes her smoking status to the stress that comes with being released from prison.

"Now it's just stress. Because... I've just been out of prison, it's new, everything's new." (Client 3)

Key Informants

Half of the key informants believed that returning to an environment in which others are smoking is a main factor contributing to ex-prisoners to resuming smoking. This included having peers, partners, and family members that smoke.

"Having a partner who smokes as well, or friends who smoke is likely to put someone at greater risk of relapse compared to smokefree homes." (Academic, University of Otago)

"Access to alcohol, getting back into your old circles with people who are smoking, those types of things make it difficult to remain smokefree." (Ministry of Health - Tobacco Control 2)

Anxiety, dependency and mental health issues were also highlighted as factors influencing ex-prisoners to restart smoking.

"I think the biggest thing... is the anxiety they have before release and on release... stresses and stuff like that, can really up that anxiety and smoking is the first best thing...

they grab just to calm themselves down." (Salvation Army Reintegration Programme manager)

"It's all hooked up with their mental health issues." (Ministry of Health - Tobacco Control 1)

However, a Salvation Army caseworker found that anxiety was not a problem for the clients during the reintegration period, and so did not contribute to re-uptake of smoking:

"A lot of our clients have come back... they don't really have the same anxiety to get back into it." (Salvation Army Reintegration Programme caseworker)

Less commonly mentioned were factors contributing to prisoners remaining smokefree upon release. Those included cost of smoking and wanting to lead a different life. It also appears to depend on the amount of time spent in prison; it was thought to be easier to stay smokefree after a more prolonged sentence.

"It's an expense a lot of them can't afford. They're just trying to leave the old lifestyle." (Salvation Army Reintegration Programme caseworker)

"I think for those people who have been in prison for many years, it's reasonably easy for them to stay smokefree." (Probation officer 1)

In general, the most commonly suggested factors both clients and key informants reported would affect re-uptake of smoking post-release were the environment that an ex-prisoner returns and to a lesser degree, mental health issues such as anxiety and stress.

Supports surrounding smoking cessation

Supports Within Prison

Clients

All clients who were interviewed said that either nicotine patches or lozenges were provided in prison to aid with smoking cessation.

"The medical team there gave you patches and lozenges... just the support that you required for it." (Client 2)

The clients did not consistently specify the length of time for which these supports were provided, however one client mentioned that these supports were provided for three months and then stopped.

"...they only give you what you are entitled to... for three months then they cut it." (Client 1)

Half of the clients interviewed reported that they were interested in becoming smokefree before conviction, and so it was relatively easy for them to guit during their prison sentence.

"It was easy in jail." (Client 3)

"...I didn't have a choice." (Client 4)

Key Informants

Currently, prisoners are provided with nicotine replacement therapy only, however some key informants suggested that counselling and behavioural support therapies in conjunction with nicotine replacement would provide a better long term outcome.

"They're very unlikely to get access to more of the talk-based and thinking based strategies to cope with the withdrawal process and hopefully translate what is sort of an enforced cessation into something that they can carry on in the long term." (Academic, University of Otago)

The perception of several key informants was that it appears likely that prisoners receive much less support with smoking cessation than the general population. This lack of equity may contribute to the reduced success of maintaining smoking cessation during the ex-prisoner reintegration period.

"So that's a shame you know, that they probably cannot get the same level of support to be smokefree long term than if you are people in the community." (Academic, University of Otago)

Key informants from the Ministry of Health reported that prisoners have access to services such as Quitline, and the Ministry of Health arranged for the prisoners to have extra phone privileges if they were calling such services to aid them to be smokefree in prison. However the uptake of such services is doubtful.

"We facilitated access to some of the support... like the Quitline, so prisoners could ring the Quitline and we arranged extra time... on the phone." (Ministry of Health - Tobacco Control 2)

"I would imagine it pretty low if any prisoners are calling the Quitline." (Ministry of Health - Tobacco Control 2)

Ten out of the eleven key informants were aware of nicotine patches offered in prison to help with smoking cessation. On top of this, there was also mention of access to health professionals and counselling sessions.

"I know about the patches..." (Probation Officer 2)

"They [Department of Corrections] were also working on building up and maintaining sufficient stocks of nicotine replacement therapy. They distribute it to prisoners... they have health clinics that operate in prison. I believe that they were trying to train some of the usual day to day prisoner staff and prison officers as well." (Academic, University of Otago)

- "...I know they have access to, uh, health professionals." (Probation Officer 1)
- "...so we did one-to-one and some group counselling." (Drug & alcohol counsellor)

When asked about the efficacy of these supports, two key informants mentioned that while the patches were effective, there needs to be a more holistic approach to smoking cessation.

"...high levels of anxiety and stress were able to be managed in our unit [women's prison] without the distractions, and people had diaries, people could do arts, ...you know, so provision of alternatives to keep... their [female prisoners'] minds busy and their hands busy, was really key but that wasn't available in the mainstream." (Drug & alcohol counsellor)

These results demonstrate that the current supports for smoking cessation in prison include nicotine replacement therapy, either in the form of patches or lozenges, access to health professionals and additional support services such as Quitline. There is also an indication for further behavioural therapy, which may lead to better long term outcomes.

Support in the reintegration period

Clients

All clients who smoked after release stated that they still want to be smokefree, but find it difficult without the help of supports such nicotine replacement therapy.

"I'd say quitting will be cool..." (Client 1)

"It's good...if I had the lozenges and patches, I probably would have stopped fully but because I don't, there's an urge to smoke." (Client 3)

Two out of the four clients interviewed stated that there were no supports available for continued smoking cessation post-release.

"Nah, I don't know how to do it." (Client 3)

When asked what extra supports they would have liked to remain smokefree, a lack of knowledge was highlighted surrounding what supports are currently available in the community. One client, however, stated that nicotine replacement therapy would be useful to help with long term smoking cessation.

"I'm not too sure actually, I know that there are supports out there and everything." (Client 1)

"Lozenges and patches?" (Client 3)

Key Informants

Two of the key informants said that smoking cessation was not usually seen as a priority in discussions with the ex-prisoners regarding reintegration into the community (probation officer and reintegration case worker). There seems to be greater focus on recreational drugs and alcohol.

"...usually we don't actually discuss with them about smoking cigarettes – as long as it doesn't actually affect their ability to stay in community without reoffending... Usually the focus of us is like other substances, like illegal drugs or drinking instead of cigarettes." (Probation Officer 1)

"We can definitely find support groups. The nice thing about being part of the Salvation Army is we're connected to many churches in the different communities... A lot of it isn't towards tobacco but more towards recreational drugs and alcohol. But the opportunity is there for sure." (Salvation Army Reintegration Programme caseworker)

Two key informants mentioned support groups in the community that offered help with maintenance of smokefree status for ex-prisoners. One also talked about the ex-prisoners' self-referral to their GPs to seek help for smoking cessation. However, generally, there was uncertainty around the availability of specific smoking-centered supports for prisoners after release. Some key informants were aware of Māori reintegration programmes available in the community.

"...after they're released, we have a service like Kokiri Marae at Lower Hutt. They have a program to help people stay cigarette free... we can refer them to that service - or they can refer themselves to that service. Usually we recommend for them to see the GP..." (Probation Officer 1)

"There is a Māori health reintegration program run by Kahungunu health services... that I know about...I would rather them (Māori reintegration programmes) linking into the prison." (Programme manager, Advocacy NGO)

"...so those clients that we normally deal with... that said they want to quit smoking, normally say to us; 'I'm going to see my GP to get some assistance." (Salvation Army Reintegration Programme manager)

In addition, five out of the ten key informants stated that there seemed to be a lack of continuity between healthcare in prison and outside of prison, and issues regarding access.

"...it's actually up to them to enroll themselves in a medical centre... But it can be a struggle for them if they're new... sometimes it can take a while for them to get the proper healthcare in place." (Probation Officer 1)

"The impression I got was that there wasn't a strong kind of "okay so you're about to go, do you know about this service or that service". (Academic, University of Otago)

"Prisoners who I've talked to often identify reintegration being the key problem... but once they go back out into community [healthcare] is discontinued because for whatever reason, lack of support." (Drug & alcohol counsellor)

Another key informant talked about a further lack of coordination between sectors that was hindering the provision of support during the reintegration period for prisoners to remain smokefree.

"So smoking cessation has to be seen in a bigger context and the bigger context is the lack of cross sector support." (Drug & alcohol counsellor)

It was suggested that the difference in healthcare during the prison sentence and post-release depends on the individual, as there were different preferences among the ex-prisoners.

"Some will say they haven't had much assistance inside so they prefer to go to a GP outside because they can get more treatment and better care...for others it's been really good in prison, and therefore they are encouraged to enrol with the GP on the outside to continue their health care." (Salvation Army Reintegration Programme manager)

One key informant suggested that bridging the period from prison to the community would be valuable in making early connections with smoking cessation supports upon release.

"I don't know if people have an exit interview when they are leaving prison... but from a health perspective it would make sense if they were a smoker... when they leave prison

they have a prescription of a quit card for replacement therapy or at least offered it on release... a sensible easy solution." (Ministry of Health - Tobacco Control 2)

In summary, many of the clients showed an interest in maintaining a smokefree status, however are unsure about available supports to help them do so. Key informants were more knowledgeable about available programmes but suggested that smoking cessation supports and support to remain smokefree are not currently a priority for reintegration.

Role of Salvation Army

Clients

Before commencing the programme, clients reported misconceptions about the Salvation Army and the work they do.

"I actually thought I was going to be forced into church and all that kind of stuff, but what it turned out to be was do what you need to do, abide by their rules and everything will be sweet." (Client 2)

After being in the programme, however, all clients expressed a positive attitude towards the Salvation Army. The programme offers help in multiple ways, covering various facets of life. These include help with accommodation, transport, and providing social support.

"Everything, they support you and everything, they support people. They take you to appointments and all that, find places for you to live." (Client 1)

"They certainly have....They have supplied me with accommodation, even though it's only short term only 3 months." (Client 4)

This support is strongly focused towards providing services which directly assist reintegrating into the community. Smoking support was not offered within the programme, nor was it expected by the clients.

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"Nah they didn't......No, cause it's not like their job to do that." (Client 1)
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"No." (Client 3)
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However, two of the four clients stated that the reintegration services were helpful in supporting their smokefree status.

"Yes, I think they do if we request it. I think I've seen some pamphlets in their office about staying smokefree." (Client 4)

Key informants

Two out of the six key informants answered a question about the availability of smoking cessation supports, one of which was a caseworker employed by the Salvation Army, mentioned the Salvation Army Reintegration Programme. However, all of the key informants who were not workers of the Salvation Army were unaware of the programme or the services that it provides. They were aware of the other avenues for support such as Quitline and peer support groups provided to the general population.

"Ah I'm well aware of the quit smoking types of campaigns that are made on the television all the time and so forth that people can access if they wish but I'm not aware of anything that is available specifically from the service that you've asked." (Probation Officer 2)

"All I know is that one of my cousins is one of the workers And I don't know much about it." (Programme manager, Advocacy NGO)

"I think there is a Salvation Army one but I'm not sure...I would rather them linking into the prison, which is the Māori health one [sic - reintegration program run by Kahungunu health services]." (General Practitioner)

Both of the Salvation Army caseworkers mention they have not had any training on techniques for smoking cessation.

"Nothing around training, nothing. So, what I know is what I read myself..." (Salvation Army Reintegration Programme manager)

"I haven't received any with this job." (Salvation Army Reintegration Programme caseworker)

However, three out of six key informants (including one of the Salvation Army caseworkers) stated they would be interested in receiving smoking cessation training.

"...better equipping would be all useful for sure." (Salvation Army Reintegration Programme caseworker)

"Oh, that'll be good." (Probation officer 1)

In summary, clients appear to be satisfied with the service provided by the Salvation Army, which while not directly focusing on smoking cessation, may help clients remain smokefree in indirect ways. Information about these programmes is not widely known by the key informants.

Smoking and Health

Clients

Subsequent questions targeting the client's knowledge around smoking revealed some understanding about the negative health impacts, however overall the comments suggested poor health literacy, eg,

"Well it's probably going to reduce my life by a little bit, if not years." (Client 2)

"Asthma... a lot... I don't really know, bad lungs?" (Client 3)

"Killer, I know that much. I know that it has affected myself, my doctor tells me that my lungs sound ok but I know it has." (Client 4)

and a focus on the potential benefits of smoking:

"I know that it can relieve tension and stress." (Client 4)

In summary, health literacy was not strong amongst the clients that were interviewed.

Cultural Findings

Key Informants

Five out of the 11 key informants mentioned ethnic health disparities in regards to smoking, and suggest prioritising reducing tobacco-related harms amongst Māori and Pasifika populations.

"Over 60% of women's prisons are Māori, and Māori women have a very high smoking rate... They are coming into prison being over represented in their smoking rates..." (Ministry of Health - Tobacco Control 2)

"... Broader health policy has identified Māori and Pacific peoples as priority populations re reducing the harm caused by tobacco." (Academic, University of Otago)

The key informants also mention that they would prefer a holistic approach to the prevention of tobacco smoking relapse, as this approach may better suit ex-prisoners from Mā*ori and Pacific* backgrounds.

"They need to be supported on all levels. I think in the Māori culture, it's called Te Whare Tapa Wha, they're talking about the four pillars of support." (Salvation Army Reintegration Programme caseworker)

"Our funded services are offering services to pretty remote, disparate communities and

helping with their smoking... there are other issues... some of our models operate in the Whānau Ora model... and smoking which is a huge contributor to health may not be what the smoker wants to concentrate on." (Ministry of Health - Tobacco Control 1)

In summary, key informants suggest cultural considerations which are important in order to deliver equitable and effective programmes.

Discussion

Our pilot study found that smoking has not been eliminated from prisons, however the smokefree legislation assisted many prisoners in becoming smokefree during incarceration.

Important factors that were found to influence the continuation of smoking cessation during the reintegration period included the social environment to which ex-prisoners return, psychological stresses, cost, and duration of sentence. Dissonance was noted between the information provided by the clients and the key informants. For example, key informants focused on stress, while clients found social reasons to be of greater importance. Smoking cessation support provided while in prison was limited to nicotine replacement therapy (NRT) and Quitline, though the latter appears to be rarely used. Clients did not report use or knowledge of available smoking cessation or relapse prevention supports in the community, and The Salvation Army Reintegration Programme was not well known by most key informants. Clients of the programme had only positive comments to make about it, allowing for a potential avenue to assist prisoners to become or remain smokefree upon release.

Smoking in Prisons

The effect of the smokefree prisons legislation, introduced in 2011, was explored within our qualitative research. The majority of key informants agreed that while the prevalence of smoking had reduced, prisoners were still able to access cigarettes, with one key informant strongly describing it as "naive to say that there is no smoking or no tobacco in prison" (Ministry of Health - Tobacco Control 2). This was reinforced by reports from the clients who stated that they had access to 'smoking' while in prison, but whether that was in the form of cigarettes or handmade nicotine substitutes is unclear. However, it is clear that this access to cigarettes is not universal, with one key informant bluntly stating, "They don't have access to cigarettes." (Probation officer 1), and a client, "...before 2010 (sic), yes [smoking], but after then no" (Client 2).

Although we were unable to assess the amount of cigarettes smoked by the clients while in prisons, it would be interesting to investigate whether this has decreased due to the smokefree legislation, and whether this reduction impacts on the success of smoking cessation later on. It is important to note this was a small study using a population not necessarily representative of the prisoner population. It would be interesting to conduct a more comprehensive survey with a large population of prisoners to assess the extent to which smoking in prison occurs.

Factors affecting ex-prisoner smoking status

The most frequently reported factor affecting the maintenance of smokefree status upon release is the environment to which ex-prisoners return, and "getting back into old circles with people who smoke" (Ministry of Health - Tobacco Control 2). One ex-prisoner stated "I've got a lot of people that smoke in my family". An environment in which smoking is common is a key determinant of smoking status (17), so it is not surprising that the clients resumed smoking when they returned after release. This finding is consistent with Bock et al (61) who found that prisoners were leaving the smokefree prison environment and entering one where most of their

friends and family smoked. In particular, this may skew the efforts of Māori clients, since Māori populations carry the greatest burden of smoking in the general population, therefore they are more likely to return to environments where smoking is prevalent. (69)

Another important factor influencing the success of smoking cessation are the psychological stresses ex-prisoners are exposed to. One ex-prisoner, when asked why they resumed smoking stated "Now it's just stress. Because I'm... I've just been out of prison, it's new, everything's new." (Client 3). However another client stated "I haven't really been stressed since I've been out." (Client 4), which was also reiterated by two others (Clients 1 and 2) suggesting this point of inter-personal variation. Stress and mental illness was considered an important factor in our key informants. One stated "I think the biggest thing... is the anxiety they have before release and on release... stresses and stuff like that, can really up that anxiety and smoking is the first best thing..." (Salvation Army Reintegration Programme manager) and another mentioned how smoking is "....all hooked up with their mental health issues." (Ministry of Health - Tobacco Control 1). But one Salvation Army case worker suggested that their clients' do not have the same stress to smoke that ex-prisoners once did. This variation between prisoners and key informants is interesting. It may indicate that key informants are focusing on stress when it isn't an issue or that these ex-prisoners did not recognise their personal issues and anxieties. The comment from the Salvation Army case worker describing that their clients didn't have high stress levels may indicate the usefulness of such reintegration programmes in decreasing ex-prisoners' stress. Salvation Army clients may differ from the general ex-prisoner population. Their accommodation is provided and they receive extensive support. This may mean that their stress levels may tend to be lower than others who are reintegrating after release. This could account for the differences between findings in the literature, where stress is a key issue, from our findings which were mixed.

It has been documented that good health literacy, leading to self-efficacy for health management, is associated with better health-promoting behaviours including smoking cessation. (62) Prisoners typically have lower levels of education and health literacy, (63) which may contribute to an increased likelihood of smoking or failed cessation. This limited health literacy was seen in our interviewed clients, who were only vaguely aware of the health impacts of smoking, "I don't really know, bad lungs?" (Client 3). Education around health behaviours, aimed at prisoners or upon release, as part of the Salvation Army Reintegration Programme may be an effective tool to help reduce resumption of smoking. (62)

Smoking Cessation Support & Relapse Prevention

Smoking cessation support availability within prisons and on release was assessed. Nicotine patches and other replacement forms are available within the first 12 weeks of incarceration, "...they only give you what you are entitled to... for three months then they cut it" (Client 1), afterwhich the prisoners have to purchase their own NRT. Prisoners are also given the opportunity to call Quitline without using their personal phone call allowance, and may receive extra vouchers for NRT if they do so. However, one of our key informants suggested the use of Quitline is "...pretty low if any" (Minister of Health - Tobacco Control 2). A possible reason for this was that prisoners found quitting "easy in jail" (Client 3), and they "...didn't have a choice"

(Client 4), although the breadth of this study does not allow us to definitively comment on the availability or uptake of these supports.

International research shows that forced smoking abstinence is not enough to ensure smoking cessation upon release (64, 65) and effective smoking cessation within prisons is associated with a decrease in smoking re-uptake after release. (64) We know a combination of NRT and behavioural methods of smoking cessation increase quit rates. (66,67) Current availability of behavioural therapies within the prisons was not deeply explored, but one key informant hypothesised, "They're very unlikely to get access to more of the talk-based and thinking based strategies to cope with the withdrawal process..." (Academic, University of Otago), and comments from the clients, "...I can give up but it is all willpower and the mind." (Client 1), suggest that these types of therapies may prove beneficial.

Salvation Army Reintegration Programme clients who are current smokers expressed that they did wish they were smokefree. One stated that "...if I had the lozenges and patches, I probably would have stopped fully but because I don't have [lozenges and patches] there's an urge to smoke." (Client 3). It is sad to hear that the system is failing this vulnerable population by not adequately supplying the help needed to maintain smoking cessation. New Zealand provides many supports for smoking cessation, such as Quitline, which offers counselling support, and subsidised NRT available on prescription for as long as needed. These policies and supports will not be effective or equitable unless they are reaching the vulnerable communities that most need them. (68) Reintegration programmes are a possible means through which to provide this much needed help, as currently, ex-prisoners may not have the knowledge to access them alone, "Nah, I don't know how to do it." (Client 3). These programmes appear to assist clients in many areas socially and economically, but are distanced from healthcare, leading to issues around discontinuity and access, "...it's actually up to them to enroll themselves in a medical centre... But it can be a struggle for them if they're new... sometimes it can take a while for them to get the proper healthcare in place." (Probation Officer 1). This is potentially jeopardizing the time spent smokefree in prison if they cannot easily access these tools to help them remain smokefree upon release.

Reintegration Programmes

The Salvation Army Reintegration Programme was found by all of the clients we interviewed to be very helpful, supporting them in many important aspects of life including accommodation, transport, and socially. One client stated, "Everything, they support you and everything, they support people. They take you to appointments and all that, find places for you to live" (Client 1) All clients talked of a positive experience with the Salvation Army programme, despite some having initial misconceptions as to what the programme would actually entail; "I actually thought I was going to be forced into church and all that kind of stuff" (Client 2). This indicates that the relationship between clients and Salvation Army caseworkers is that of a supportive and cohesive one, with potential for expansion into smoking cessation support and relapse prevention.

However providing pre- and post-release support to help prisoners remain smokefree is not currently part of the programme; nor did clients expect it to be. One felt that smoking cessation support was not the purpose of the programme: "No, 'cause it's not like their job to do that, but they just give us advice along, that kind of thing" (Client 1). Despite this, other clients felt that the Salvation Army were helpful in providing information and pamphlets, if asked for, "....I think they do if we request it. I think I've seen some pamphlets in their office about staying smokefree" (Client 4). The staff involved in reintegration were aware of this gap; "...usually we don't actually discuss with them about smoking cigarettes – as long as it doesn't actually affect their ability to stay in community without reoffending... Usually the focus of us is like other substances, like illegal drugs or drinking instead of cigarettes." (Probation Officer 1). Like other reintegration programmes, the focus is less on health and more on preventing recidivism.

However, the Salvation Army may support smoking cessation in indirect ways. For example, the houses provided for the clients are smokefree indoors, and the social and general support reduces the stress of reintegration. While the Salvation Army programme comes across as being fairly holistic, the provision of relapse prevention is a gap in which it could lead the way in addressing. For example, a Salvation Army caseworker and a probation officer both expressed interest in receiving training on smoking cessation support, which is known to be most effective when delivered by well trained individuals. (64)

Cultural Considerations

Māori and Pacific people are significantly over-represented in terms of both smoking status and prisoner population in New Zealand. (1,18) On release, prisoners return to their whānau and old social circles. As previously discussed, this environment to which ex-prisoners return appears to be a key factor affecting the maintenance of their smokefree status. Considering the significant proportion of New Zealand smokers being Māori, it can be hypothesised that Māori would be more likely to return to an environment where smoking is more prevalent. (69) Therefore, an important cultural consideration is that Māori may be more likely to relapse on release, so it is vital for an effective reintegration programme to consider this in order to help reduce the health inequity. Future research is needed to further define inequities in relation to ex-prisoner health, and smoking in particular. All guidelines and policies introduced should be assessed for their effect on societal inequalities, using tools such as the Health Equity Assessment Tool (HEAT). (70)

Additional Findings

An important additional finding was the inconsistency in reports between key informants. This was evident in several contexts, with one probation officer saying prisoners do not have access to cigarettes, and the Salvation Army Reintegration Programme manager and a Ministry of Health representative saying it is obvious cigarette smoking still occurs. This is important to consider as it may imply a lack of continuity and communication between services, which may affect the quality of support and care that ex-prisoners receive. This is a particularly pertinent

factor to consider in the context of the Salvation Army Reintegration Programme and any improvements that may be suggested.

Strengths and Limitations

This was a small pilot study and the first of its kind in New Zealand, therefore the survey questions were previously untested. The strengths of our study include the open-ended dynamic design with snowball sampling, which allowed a wider variety of responses from those who have been in prison, those who work with ex-prisoners and also those in policy and advocacy roles. Our study was one of very few New Zealand studies focusing on health of ex-prisoners and, although limited in scope, it raises some important issues. It provides novel insights into the determinants of smoking cessation in a vulnerable population, and may inform efforts to increase equity in smoking cessation outcomes. Our research partnership with The Salvation Army provided an invaluable resource. Through their Reintegration Programme, we were able to access their clients to complete our survey interviews with ex-prisoners.

This study tested an online survey investigating ex-prisoners' smoking patterns. The survey was planned extensively but when implemented, did not perform as expected. One of the main issues was missing results. There were 13 survey responses received but at least 18 clients reportedly completed the survey. A possible reason for these missing results may have been that the questions were answered but not submitted. For instance, responders who were non-smokers needed to complete the subsequent questions around smoking habits, in order for the survey to be submitted. This may have been mitigated by having each question appear only as the previous one is answered, and a "no" response to "have you ever been a tobacco smoker?" resulting in survey completion. This method would have required a different online platform as this is not possible in Google Forms.

Another issue was that some survey questions were ambiguous and could have been interpreted differently depending on the length of the ex-prisoner's sentence. One of these questions was "Did you smoke tobacco while in prison?" The population of ex-prisoners we included in the study had been in prison for varying lengths of time, therefore some may have referred to the period before the legislation was introduced in their answer. To mitigate this issue in the future, it would be important to be more specific in the survey as to whether they smoked in prison before the smokefree legislation was introduced in 2011, after this, or both. This was able to be determined from those who consented to the follow-up phone interview.

A question about ex-prisoners' desire for more or less smokefree supports in and out of prison would have been a useful addition to our survey. This would provide useful data to identify those groups of ex-prisoners who most want support and also identify if there is a desire for increased smokefree support within prison.

Because of the short timeframe of the project, and need to obtain fast-track Category B ethics, interviews with Salvation Army clients were limited to being over the phone. This could have potentially decreased the richness of our data due to the loss of non-verbal cues and decreased flow of conversation. The interviews were conducted in a semi-structured manner which allowed flexibility and resulted in participants expressing what was important to them. The qualitative

data gained from the interviews provides an insight into understanding the behaviours and needs of the clients, which could not have been gained to the same depth using quantitative research. In order to minimise reporting bias, confidentiality was assured so that clients felt comfortable disclosing their experiences.

Having the caseworkers facilitating the survey may have biased ex-prisoners' answers, and the purpose and importance of the study may not have been adequately expressed, resulting in less incentive to participate. On the other hand, a trusting relationship between Salvation Army workers and clients may have increased client's incentive to participate. Also support from caseworkers may have helped overcome any literacy issues, which was a potential issue in the prison population. Finally, we cannot discount the effect of volunteer bias as clients were given the choice to participate, and so those who did might have had an increased interest in smoking cessation support and more positive views about smokefree prisons. However, given the variety of responses received, this seems unlikely to have had a significant impact.

Another limitation was that although we were able to assess inequities between ex-prisoners and the general population, we did not have a large enough sample to assess inequities between ex-prisoners. We know that Māori and Pacific Islanders are overrepresented in smoking statistics, (69) but we were not able to critically analyse this in our study, therefore there is scope in this area for further research. Our equity suggestions are based on current knowledge of disparities in New Zealand and the limited data from our study.

Recommendations

The literature review and results of our study demonstrate that there is room for improvement for reintegration programs as well as prisoner and ex-prisoner health. We have developed recommendations based on the Ottawa Charter to target each of the five principles set out in this agreement: healthy public policy, supportive environments, community action, personal skills, and reorienting health services.

1. Building healthy public policy

Our research into the area of smoking within prisons highlighted that while the prevalence of smoking within prisons appears to have decreased, that access to tobacco products, including cigarettes, is still possible. We recommend reviewing and re-focusing the smokefree prisons policy to deliver it in a way that is more holistic and caters towards prisoners' long term smoking cessation goals. Furthermore, since this was a pilot study, we suggest further research into smoking among prisoners and ex-prisoners with greater sample sizes, and specifically focusing on how this in particular affects Māori and Pacific Island people, who make up a significant proportion of the prison population. Lastly, since the last Prisoner Health Survey was conducted in 2005, we suggest this is repeated to get up-to-date data on the health of this vulnerable population, and assess how the smokefree legislation may be impacting on their health.

2. Create supportive environments

We propose increasing the availability of long-term smoking cessation supports, such as NRT, counselling services such as Quitline, behavioural therapy and peer support. Some key informants suggested supports are currently available to prisoners, to varying extents, however given the reports of low uptake from the clients, the delivery and access to these services needs to be further assessed. We also suggest that these are offered for longer periods of time, beyond the reported three months, extending into the reintegration period, as this will help ensure continued smoking cessation. Nicotine abstinence is not sufficient for many people to maintain long term smoking cessation, so it is important offer these services early to prevent relapse.

3. Strengthen community action

Many of the clients in our study commented on the difficulty of remaining smokefree after release when they were returning to friends and whānau who smoked. Reintegration programmes need a whānau ora approach to their services, as they are not only reintegrating the ex-prisoner into the community, but also reuniting the whānau with the ex-prisoner. Enlisting the help and services of marae and other community support groups will ensure long term integration and inclusion of ex-prisoners into their community, which will have positive health impacts, including continued smoking cessation, as well as reduced recidivism.

4. Develop personal skills

To assist the prisoners with integrating back into society, we suggest providing a "discharge pack" upon release. This would include a supply of NRT to ensure the first few weeks of reintegration are covered, as well as smoking cessation pamphlets and contacts to local providers of smoking cessation services. This information aimed at increasing the ex-prisoners' health literacy, needs to be presented in a way that will be engaging and suitable to their level of education. It would also be important to incorporate an equity assessment in the development of these, to ensure Māori needs are being represented. This is especially important since not only are they over-represented within the prison population, but are also, within the general population, more likely to be smokers. Therefore it is pertinent that we target our support towards Māori.

It was reported among the client participants that little support was offered in the way of connecting with a local GP practice upon release, so access to healthcare is often poor during reintegration. To rectify this, an appointment with a GP could be made prior to release from prison for within the first week of reintegration. This is important for continued smoking cessation, as well as improving general health. Help with transport to these appointments should be provided, for example, in the form of taxi vouchers.

5. Reorient health services

Currently, the primary focus of reintegration programmes is on reducing rates of recidivism. However, we suggest incorporating a focus on health in order to strengthen

these programmes. This includes training staff so that they have an increased knowledge of referral avenues and confidence to start health conversations with their clients. For example a routine part of pre-release process could be for caseworkers to ask prisoners about their smoking status and intention to become or remain smokefree post-release, with additional support made available to those who indicate smokefree intentions.

Furthermore, according to the Department of Corrections, the main goal for implementing smokefree prisons was for the health of the employees in terms of second-hand smoke exposure. We suggest reorienting this to include both prisoner and staff health. We believe that this will also have a flow-on effect to encompass all areas of prisoner health, and not only smoking. This may involve modifying the legislation and/or its implementation to make it favourable to the prisoners, so that they too will be more motivated to quit, rather than just "having" to, and so will also improve the success of the legislation.

Lastly, smoking cessation training should be offered to all reintegration and prison staff. Behavioural therapy and group support are important for maintaining smoking cessation, and initiating it. Training staff working with ex-prisoners will equip them with valuable tools, as this support is most effective when supplied by trained individuals.

Future research recommendations

This study has highlighted future avenues and direction for continued research. There is a real opportunity to work with this vulnerable population, to address their health needs, reduce health inequities, and ultimately work towards a smokefree Aotearoa 2025.

1. Evaluate smoke-free prisons

Firstly, as this was a pilot study and the methods were largely untested, possible alterations to the methods have been suggested. Ideally, the study should be repeated taking into consideration the suggested alterations, with larger numbers of participants over a longer period of time. This would also allow more information to be gathered to more definitively explore how widespread smoking in prisons still is, and what proportion of prisoners relapse post-release.

2. Māori health disparities

The Salvation Army Reintegration Programme clients were not ethnically representative of the general prison population. Therefore a thorough comparison of the smoking status between Māori and non-Māori was not possible. Further research is needed in this area to evaluate the inequities and assess ways of reducing them.

3. Repeat the Prisoner Health Survey

The last Prisoner Health Survey was conducted in 2005. In order to improve the

understanding of the health needs of prisoners and how this has changed over time, particularly in relation to evaluation of the smoke free legislation, a further survey should be conducted. This may further investigate smoking status among the population studied, and may be extended to include ex-prisoners to assess how these health needs change over time.

4. Assess different methods of intervention

This study suggested possible areas of improvement for delivery of programmes for smoking cessation and relapse prevention. Future research is indicated about how best to implement the different forms of support both within prison and during reintegration, as this was a knowledge gap identified.

Ethics

Firstly, smokefree prisons are a utilitarian paternalistic approach with which many will not be satisfied. However it is deemed to be for the greater good of the prison population and staff, and society as a whole. Upon release, prisoners need to be helped in different ways, and taking a communitarianism approach during the reintegration period will result in the best outcomes for ex-prisoners to remain smokefree. The ex-prisoners are one piece in a wider network of their social situations. Factors within their community, including other people's smoking status, their own living situation and stress, contribute to the personal decision of whether or not to smoke. Therefore, there is a need to target all of these factors to create a healthy environment to assist people to remain smokefree, or promote smoking cessation.

Furthermore, ex-prisoners are in a vulnerable position as they reintegrate into a society that may have changed significantly since they were last a part of it. It is important to support their autonomy and empower them to develop personal skills to make choices that will benefit both their own health and the health of society.

When implementing the above recommendations, we need to assess how they can be delivered equitably, while also incorporating cultural considerations. Māori are over-represented among the prisoner population; an already marginalised group. Using assessments such as the HEAT tool (70) allow us to ensure that those who need the services the most, have access to them.

Conclusion

This pilot mixed-methods study and accompanying literature review allowed us to explore issues surrounding tobacco use in ex-prisoners. Our findings suggest that prisons are not yet completely smokefree, and many ex-prisoners continue to smoke after release, despite many wanting to be smokefree. Important factors that influence the success of continued smoking cessation were highlighted, including the social environment to which ex-prisoners return, psychological stresses they are exposed to, costs, and duration of their sentence. While clients

within the Salvation Army Reintegration Programme expressed satisfaction towards the service, this programme does not actively incorporate smoking cessation supports, and this programme is not universally available to all ex-prisoners. Currently we are missing an opportunity to solidify smokefree behaviours in prison and during reintegration, and the Salvation Army Reintegration Programme and other similar programmes provide a potential opportunity to help this marginalised population sustain a smokefree lifestyle. Although our study was limited with regards to numbers, the findings were pertinent and consistent with the literature. Based on the above conclusions, we have proposed a series of recommendations, based on the principles of the Ottawa Charter.

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Appendix 1

Client Initial Online Survey

- 1. I agree to take part in this project
 - a. Yes
 - b. No
- 2. Age:
- 3. Gender:
- 4. Ethnicity:
- 5. How long were you (most recently) in prison for?
 - a. 2 to 3 years
 - b. 2 to 4 years
 - c. 4 to 5 years
 - d. 5 years or more
- 6. How long have you been out of prison?
 - a. Less than 2 weeks
 - b. 2 to 4 weeks
 - c. 1 to 3 months
 - d. 3 to 6 months
 - e. More than 6 months
- 7. Have you ever been a tobacco smoker? (If no, we thank you for your time, but do not require you to complete any further questions.)
- 8. Were you a tobacco smoker at the time you (most recently) entered prison?
 - a. Yes
 - b. No
- 9. How many years did you smoke tobacco for?
 - a. Less than 1 year
 - b. 1 to 3 years
 - c. 3 to 5 years
 - d. 5 to 10 years
 - e. More than 10 years
- 10. How much tobacco cigarettes did you smoke per day? (If used roll your own please estimate).
 - a. Less than 10
 - b. 10 to 20
 - c. 20 to 30
 - d. More than 40
- 11. Did you smoke tobacco while in prison?
 - a. Yes
 - b. No

12.	Were	you	smoke-free	when	you left	prison?
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- a. Yes
- b. No
- 13. Are you currently a tobacco smoker?
 - a. Yes
 - b. No
- 14. Do you want to be smokefree?
 - a. Yes
 - b. No
- 15. Are you willing to participate in a short follow up interview over the phone?
 - a. Yes
 - b. No
- 16. If so, please provide a suitable contact number and you will be contacted by a member of our research group over the next few days.

Contact number:

Appendix 2

Client Phone Semi-Structured Interview Schedule

1. Obtain verbal consent

2. Smoking status in prison and what smoking cessation support they received there

Tell me about your smoking history?

If you wanted to, could you have smoked in prison?

Did you start smoking again after leaving prison?

If so, how long were you smokefree for?

What kind of supports did you receive in prison to stop smoking? (nicotine patches? counselling?)

Tell me about your support after prison

3. Assessing their wants and goals in relation to smoking status and what they feel they need to achieve these

What are your thoughts about being smokefree?

- Before conviction?
- During your sentence?
- After release?

(If applicable) What extra help would you like for being smokefree?

What is your opinion on enforced smokefree prisons?

4. Expectations and experiences of post prison supports to stay smokefree

When you were in prison, what did you think would make it easier or harder for you to be smokefree on the outside?

Now looking back, how did this pan out?

5. Factors that influence their smoking status

What kind of role do you think stress plays in your smoking?

- Before conviction?
- During your sentence?
- After release?

6. Expectations and experience of the salvation army reintegration programme

Do you think the Salvation Army has helped you re-join the community after prison? Tell me how they have done this

What did you expect from the salvation army reintegration programme?

- In general?
- In terms of smoking?
- Did they meet your expectations? (if not, why not?)

Do you feel that the Salvation army has helped you to remain smokefree?

7. Their environmental exposure to smoking from others (at their home, in their family, in their social circles, at work)

Does anyone who lives with you smoke?

Do people around you smoke?

- Family?
- Friends?
- Co-workers?

What effect do you think smoking has on your health?

Is there something else you would like to talk about?

Appendix 3

Key informants Semi-Structured Interview Schedule

1. Role

Who they are and how they relate to smoking cessation and/or prisons Is helping ex-prisoners have a healthy lifestyle part of your job description?

2. Efficacy of smokefree prisons

How are smokefree prisons working?

3. Smoking cessation support provided in prison

What supports are in place for tobacco smokers in prison?

Are these supports effective?

What do you think it works well?

What is your opinion on smoking cessation training, if you have received any?

4. Reintegration period

What supports are in place for tobacco smokers after prison?

Any services you refer to in the community?

Are these supports effective?

What do you think the Salvation Army reintegration programme could do better?

Do you think there is continuity between healthcare in prison and after prison?

5. Barriers long-term smoking cessation

Do you believe it is common for prisoners to return to smoking upon release?

What barriers do you perceive to prisoners remaining tobacco smokefree post-release?

What do you think are the main reason for relapse?

What do you think is the most influential factor on a prisoner's cigarette smoking status post release?

Appendix 4 - Raw Client Survey Data

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Are you willing to participate in a short follow-up interview over the phone?	Yes	Yes	N _o	No	Yes	Yes	Yes	No	N _o	N _o	No No	<u>8</u>	S S
Do you want to be smoke-free?	Yes	Yes	Yes	Maybe	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes
Are you currently a tobacco smoker?	Yes	Yes	N _o	Yes	S S	Yes	<u>8</u>	Yes	Yes	<mark>0</mark>	2	Yes	N _o
Were you smoke-free when you left prison?	Yes	<u>8</u>	Yes	<u>N</u>	Yes	Yes	Yes	No	<u>8</u>	Yes	Yes	8	Yes
Did you smoke tobacco while in prison?	Yes	Yes	<u>8</u>	No No	N _O	Yes	No No	Yes	Yes	Yes	<u>N</u>	Yes	No
How many tobacco cigarettes did you smoke per day?	10 to 20	20 to 30	10 to 20	20 to 30	More than 40	20 to 30	20 to 30	Less than 10	Less than 10	20 to 30	Less than 10	10 to 20	Less than 10
How many years did you smoke for?	1 to 3 years	More than 10 years	More than 10 years	More than 10 years	More than 10 years	5 to 10 years	More than 10 years	More than 10 years	5 to 10 years	More than 10 years	Less than 1 year	More than 10 years	Less than 1 year
Were you a tobacco smoker at the time you (most recently) entered prison?	Yes	Yes	N _o	N _O	_Q	Yes	Yes	Yes	N _o	Yes	<u>8</u>	Yes	No No
Have you ever been a tobacco smoker?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No No	Yes	<u>8</u>
How long have you been out of prison?	1 to 3 months	More than 6 months	3 to 6 months	3 to 6 months	1 to 3 months	2 to 4 weeks	1 to 3 months	2 to 4 weeks	Less than 2 weeks	1 to 3 months	1 to 3 months	2 to 4 weeks	2 to 4 weeks
How long were you (most recently) in prison for?	5 years or more	5 years or more	2 to 3 years	2 to 3 years	2 to 3 years	2 to 3 years	5 years or more	2 to 3 years	3 to 4 years	5 years or more	4 to 5 years	2 to 3 years	4 to 5 years
Ethnicity	Caucasian	Maori	Fijian	Arabic	New Zealand European	Maori	NZ	Cook island Maori	Maori	European	European	Maori	Maori
Gender	male	Male	Male	Male	Male	Female	male	Male	Male	Male	Male	Male	Male
Age	30	4	53	28	22	20	53	30	26	49	31	36	35
Survey	-	7	က	4	2	9	7	œ	6	10	7	12	13
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