

**Redemption of  
Quit Cards distributed through Quit Services,  
July – December 2007**

Judy Li

The Quit Group, New Zealand

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## Executive summary

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### Aims

1. To give an indication of the volume of nicotine replacement therapy (NRT) distributed through Quit Services, between July and December 2007.
2. To calculate the redemption and redeemer rate of quit cards<sup>1</sup> issued to Quit clients.
3. To compare demographics, smoking characteristics and Quit Services usage of clients who have redeemed at least one quit card.
4. To compare the redemption and the overall redeemer rates of quit cards distributed between July and December 2007, against the three preceding 6-month periods.
5. To give an overview on why some clients did not redeem their quit cards.

### Methods

1. Data from the Quit database and HealthPAC<sup>2</sup> were matched to identify the rate at which quit cards have been redeemed. Characteristics of Quit clients who have redeemed at least one quit card were compared (redeemer rate). Separate analyses were undertaken for Quitline and NRT Online clients where possible. The chi-square test was used to test the statistical significance of differences at the 95% level of confidence.
2. Data gathered from the New Quitline Service Evaluation were analysed to calculate reported redeemer rates and to identify the main reasons why some clients did not redeem their quit card(s).

### Results & Conclusions

The redemption and redeemer rates were 60% and 74%, both being lower than the three preceding 6-month periods. Findings from the Quitline Evaluation shed some light on why some clients did not redeem their quit cards; 1) they weren't ready (33%); 2) they already had NRT (28%); 3) they didn't get around to redeeming it/were too busy (28%) and 4) were using alternative methods or products to quit (23%).

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<sup>1</sup> Quit cards are cards that clients take to a pharmacy to exchange for NRT products for a small fee.

<sup>2</sup> HealthPAC (Health Payments, Agreements and Compliance) was formed from the merger of Health Benefits and the Shared Support Service Group within the Ministry of Health. They are responsible, among other things, for processing claims from pharmacists.

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## **Introduction**

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Since 2000, The Quit Group has distributed heavily subsidised nicotine replacement therapy (NRT) in the forms of patches and gum through the Quitline. From September 2008, subsidised lozenges also became available. An exchange voucher called a quit card is issued by a Quitline Advisor with the quantity and strength of NRT products printed on it. Quit cards entitle the card holder to redeem NRT products at a participating pharmacy. In October 2007, a new online ordering service was introduced by The Quit Group, providing an alternative channel for smokers to order quit cards through the Internet. The demand for subsidised NRT was high in 2007 with a total of 54,873 quit cards issued through both the Quitline and the online ordering service. Among them, 30,895 were issued between July and December 2007.

Section 1 of this report analyses the redemption and redeemer rates of quit cards issued between July and December 2007. An additional analysis is undertaken comparing the rates between clients who registered via the Quitline or the online ordering service (i.e. web clients).

Section 2 presents results from the Quitline Evaluation which involved just under 4,000 Quitline clients. This provides a self-reported redeemer rate and an indication of why some clients did not redeem their card(s).

## Section One: Actual Redemption

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In this section, the actual redemption and redeemer rate of quit cards issued by the Quitline and the online ordering service between July and December 2007 is reported. This analysis is part of on-going monitoring work and comparable data is available from January 2006.

### Method

Data were collected from two sources. First, quit cards (n=54,873) issued by the Quitline and the online ordering service between July and December 2007 were identified from the Quit database. Relevant information linked to these cards was also extracted. This included the quit card unique identification number (ID), NRT dosage, and characteristics of the card holder (i.e. Quitline and web clients).

A separate data file was gathered from HealthPAC. This file provided the ID of all quit cards that have been redeemed at a pharmacy, where the pharmacy had lodged a claim with HealthPAC between July 2007 and March 2008. This file contained all quit cards issued by The Quit Group via the Quitline, the online ordering service and the Quit Cards programme. The Quit Cards programme, managed by The Quit Group, allows approved health professionals<sup>3</sup> to issue quit cards to their clients. Redemption of quit cards issued via the Quit Cards programme is outside the scope of this report thus were not analysed.

These two data files gathered from the Quitline database and HealthPAC were matched to identify quit cards which had been redeemed and claimed. There doesn't seem to be a time limit for pharmacies to lodge a claim to HealthPAC. Data from HealthPAC showed that some pharmacies took up to one year to lodge a claim. As HealthPAC does not have immediate information on card redemption, this analysis reports on the redemption of cards issued some time ago, i.e. July to December 2007.

The redemption rate is the percent of the number of matching cards identified from the two datasets out of the total number of cards issued to Quitline or web clients. Characteristics of clients who had redeemed at least one quit card were also compared. In the comparison of card redeemers and non-redeemers, each quit card holder was only counted once to avoid double counting the card holder. Card holders who have redeemed at least one card were classified as redeemers versus those who have not

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<sup>3</sup> Health professionals can issue quit cards through the Quit Cards programme if they are a prescriber or have completed an approved training course on smoking cessation.

redeemed any cards, who were classified as non-redeemers. Quitline and web clients are reported separately to allow comparisons to be made between these two client groups.

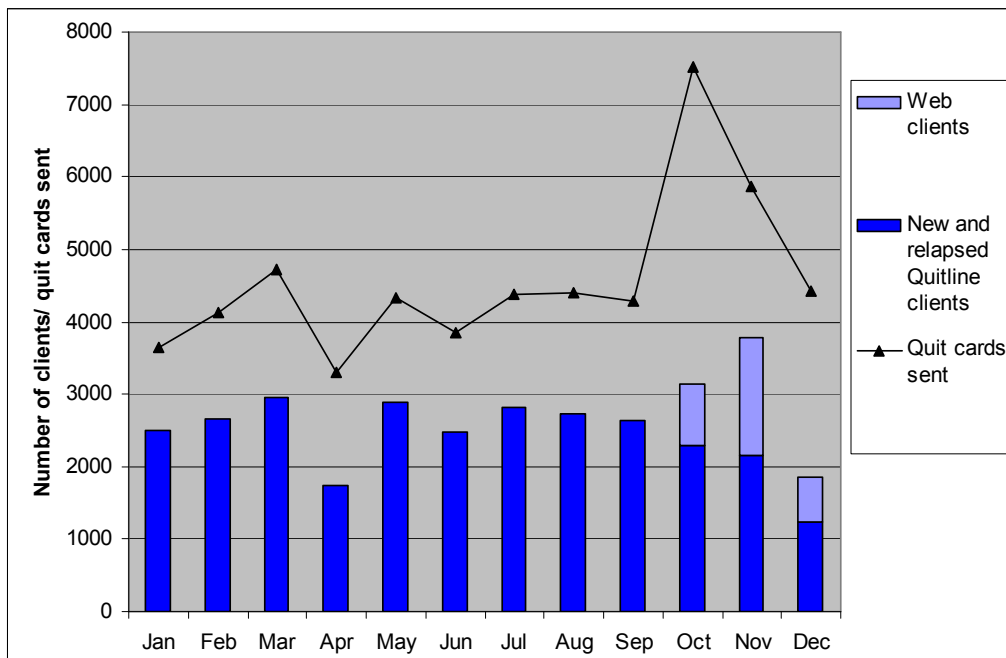
Statistical differences in redemption rate and redeemer rate were calculated using the chi-square test, at the 95% level of confidence. For comparison purposes, data from 2006 are included in some tables.

## Results

During the period of July to December 2007, a total of 30,895 quit cards were issued via the Quitline and the web service (Quitline = 26,129 and web = 4,766). During the first three-months of the web service, 73% of the quit cards were issued by the Quitline and 27% were issued by the web service.

The number of quit cards sent varied each month (Figure 1). The number of cards sent roughly reflected the number of registered Quitline and web clients in that month.

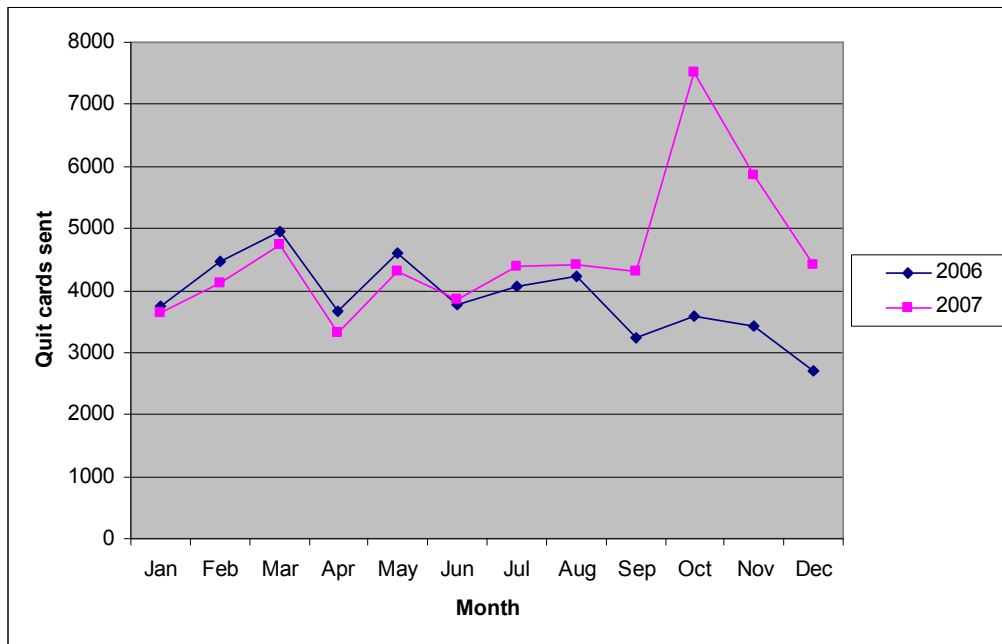
Figure 1: Number of registered Quitline and web clients and quit cards sent, 2007<sup>4</sup>



<sup>4</sup> The web service for subsidised nicotine replacement products was launched on 1 October 2007.

Comparing the number of quit cards in 2007 with the previous year, the introduction of the new web service and the new policy of sending out two cards on initial Quitline registration clearly had an impact on the number of quit cards sent (Figure 2). In the first month these were introduced (i.e. October 2007), the total number of cards sent by The Quit Group was double the figure of the previous year.

Figure 2: Number of quit cards sent, 2006 and 2007

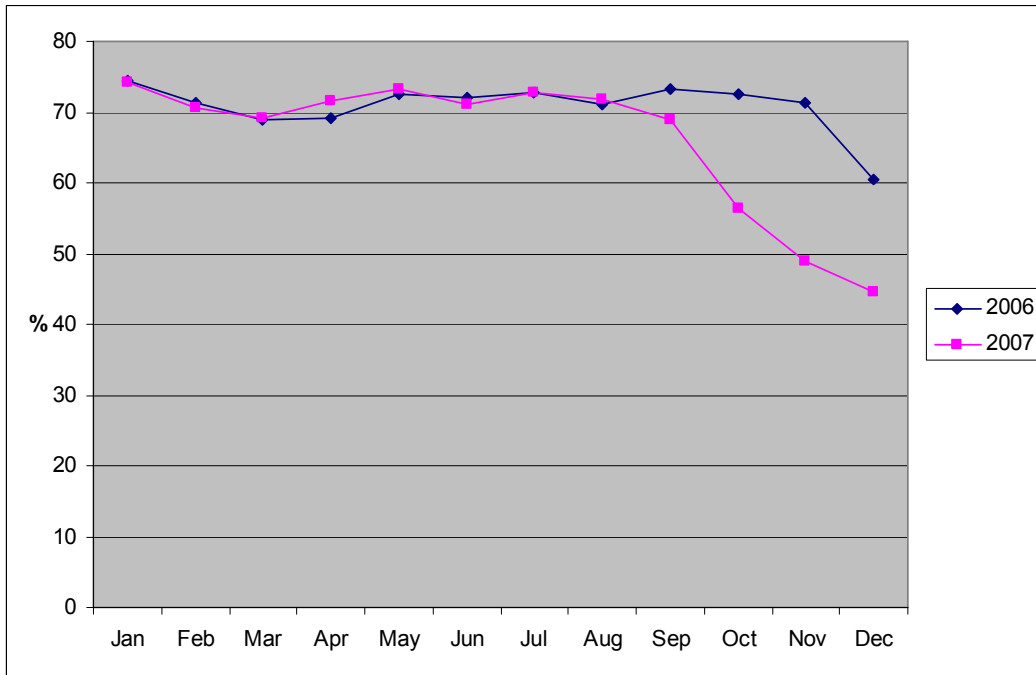


The overall redemption rate of cards issued in the July-December period was 60%; the lowest since data matching began in January 2006 (Table 1). When looking at the rates on a month-by-month basis, the rates in 2006 and 2007 were comparable between January and September with a dramatic drop from October 2007 (Figure 3). The timing coincided with the introduction of the web ordering service and the new policy of sending two cards after the first initial Quitline service contact.

Table 1: Number and redemption rate of quit cards distributed, 2006 - 2007

	Jan-Jun 2006	Jul-Dec 2006	Jan-Jun 2007	Jul-Dec 2007
Total cards issued	25,195	21,258	23,978	30,895
Total cards redeemed	17,963	15,030	17,154	18,412
Redemption rate	71.3%	70.7%	71.5%	59.6%

Figure 3: Redemption rate of quit cards issued, 2006 and 2007



A closer investigation comparing the redemption rates by the distribution source of the quit cards suggests that the rate was in fact lower for web clients (Table 2). In addition, cards distributed via the Quitline were a lot less likely to be redeemed between October-December 2007 than preceding months from January 2006.

Table 2: Number and redemption rate of quit cards distributed, Oct-Dec 2007

	Quitline	Web Services	Overall
Total cards issued	13,047	4,766	17,810
Total cards redeemed	7,093	2,002	9,095
Redemption rate	54.4%	42.0%	51.1%

During July to December 2007, over 80% of quit cards distributed entitled the card holder to patches. The redemption rate of cards for patches was significantly higher than cards for gum (Table 2). This difference was found in both Quitline and web clients.



Table 3: Type of NRT

	Redemption %		
	Quitline clients	Web clients	Overall
Patches	64.4%	43.4%	61.1%
	Base = 21,748	Base = 3,947	Base = 25,695
Gum	55.1%	35.3%	52.0%
	Base = 4,381	Base = 819	Base = 5,200
Total	62.8%	42.0%	59.6%
	Base = 26,129	Base = 4,766	Base = 30,895
	Quitline p-value < 0.001	Web p-value < 0.001	

Among all cards sent between July and December 2007, 51% were sent to clients who had not received a quit card from the Quitline previously<sup>5</sup>. There was a procedural change around October 2007 where two cards were sent to most (if not all) Quitline clients following the first contact with the service. Before this time, Quitline clients were sent one card following their first call and a subsequent card during a follow-up support call approximately three weeks later. The fact that almost all new clients received their first and second cards ever issued by Quit at that same time, may explain the similar redemption rates of the first and second card (Table 4). This is in contrast to previous analyses which showed that the second card was significantly less likely to be redeemed than other cards.

Table 4: Number of cards ever issued by Quit

	Redemption %		
	Quitline clients	Web clients	Overall
1 Card	58.9%	41.4%	54.0%
	Base = 11,294	Base = 4,340	Base = 15,634
2 Cards	57.1%	41.5%	56.6%
	Base = 4,853	Base = 171	Base = 5,024
3 Cards	67.1%	51.7%	66.5%
	Base = 3,736	Base = 143	Base = 3,879
4+ Cards	71.8%	53.6%	71.5%
	Base = 6,246	Base = 112	Base = 6,358
Total	62.8%	42.0%	59.6%
	Base = 26,129	Base = 4,766	Base = 30,895
	Quitline p-value < 0.001	Web p-value < 0.01	

<sup>5</sup> These callers may or may not have received a quit card from a Quit Card provider through the Quit Cards programme.

This section of the analysis focuses on the characteristics of clients who redeemed a quit card. Clients who were sent a card between July and December 2007 were categorised into two mutually exclusive groups (i.e. a client can only be in one group): redeemers or non-redeemers. Redeemers are those who redeemed at least one of the cards they received, and non-redeemers are those who did not redeem any cards issued between July and December 2007.

The percent of clients who were a redeemer is 74% (aka redeemer rate), suggesting a reasonably high proportion of clients redeemed at least one card they received (Table 5). However, there was a dramatic drop from the 80% redeemer rate achieved since 2006. The redeemer rate was a lot lower for web clients than Quitline clients (Table 6).

Table 5: Number of clients issued a quit card and redeemer rate

	Jan-Jun 2006	Jul-Dec 2006	Jan-Jun 2007	Jul-Dec 2007
Total clients	15,916	13,048	15,018	16,526
Redeemer rate	80.8%	80.6%	81.5%	73.8%

Table 6: Number and redeemer rate of quit cards distributed, Oct-Dec 2007

	Quitline	Web Services	Overall
Total clients	14,339	2,187	16,526
Redeemer rate	76.0%	59.6%	73.8%

Tables 7-16 present the characteristics of redeemers, including demographic and smoking characteristics and their usage of the Quitline service in the past.

Ethnicity is prioritised by Māori, Pacific people, and non-Māori non-Pacific. The proportion of Pacific callers who redeemed at least one card was the lowest of the three ethnic groups, at 56% (Table 7). This is followed by Māori (64%) and non-Māori non-Pacific (78%). Tables 8 and 9 show there was no gender difference in the redeemer rate, in both the overall cardholder population and in each ethnic group. There was a positive relationship between redeemer rate and age, showing that the older the client was, the more likely he/she was a redeemer (Table 10).

Table 7: Ethnicity

	Redeemer %		
	Quitline clients	Web clients	Overall
Māori	65.8% Base = 3,469	46.4% Base = 317	64.2% Base = 3,786
Pacific	56.3% Base = 549	56.3% Base = 87	56.3% Base = 636
Non-Māori non-Pacific	80.4% Base = 10,321	62.1% Base = 1,783	77.8% Base = 12,104
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value < 0.001	Web p-value < 0.001	

Table 8: Gender

	Redeemer %		
	Quitline clients	Web clients	Overall
Male	76.6% Base = 6,546	60.7% Base = 1,069	74.4% Base = 7,615
Female	75.4% Base = 7,793	58.6% Base = 1,118	73.3% Base = 8,911
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value >0.05	Web p-value >0.05	

Table 9: Ethnicity and Gender<sup>6</sup>

		Redeemer %		
		Quitline clients	Web clients	Overall
Māori	Male	66.4% Base = 1,327	47.9% Base = 117	64.9% Base = 1,444
	Female	65.5% Base = 2,142	45.5% Base = 200	63.8% Base = 2,342
Pacific	Male	55.2% Base = 288	51.3% Base = 48	53.3% Base = 336
	Female	57.5% Base = 261	60.4% Base = 39	59.7% Base = 300
Non-Māori non-Pacific	Male	80.7% Base = 4,931	62.8% Base = 913	77.9% Base = 5,844
	Female	80.3% Base = 5,390	61.5% Base = 870	77.7% Base = 6,260
Total	Male	76.6% Base = 6,546	60.7% Base = 1,069	74.4% Base = 7,615
	Female	75.4% Base = 7,793	58.6% Base = 1,118	73.3% Base = 8,911
		Maori Quitline p-value >0.05 Pacific Quitline p-value >0.05 Non-Maori non-Pacific Quitline p-value >0.05	Maori Web p-value >0.05 Pacific Web p-value >0.05 Non-Maori non-Pacific Web p-value >0.05	

<sup>6</sup> Quitline callers with an unidentified gender are excluded from this table and the associated chi-square tests.

Table 10: Age

	Redeemer %		
	Quitline clients	Web clients	Overall
<15	46.7% Base = 15	40.0% Base = 5	45.0% Base = 20
15-24	58.8% Base = 1,820	40.9% Base = 247	56.7% Base = 2,067
25-44	75.7% Base = 7,326	62.1% Base = 1,431	73.4% Base = 8,757
45-64	81.7% Base = 4,369	62.5% Base = 477	79.8% Base = 4,846
65+	87.8% Base = 804	55.6% Base = 27	87.8% Base = 831
Unidentified	20.0% Base = 5	- Base = 0	20% Base = 5
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value <0.001	Web p-value <0.001	

The redeemer rate by District Health Boards (DHBs) varied between 67% and 84%. The DHB with the lowest redeemer rate was Counties Manukau and the one with the highest redeemer rate was West Coast DHB.

Table 11: District Health Board

	Redeemer %		
	Quitline clients	Web clients	Overall
Northland	77.5% Base = 617	55.4% Base = 74	75.1% Base = 691
Waitemata	75.6% Base = 1,388	64.1% Base = 262	73.8% Base = 1,650
Auckland	73.7% Base = 1,401	50.4% Base = 258	70.0% Base = 1,659
Counties Manukau	68.3% Base = 1,277	56.3% Base = 158	67.0% Base = 1,435
Waikato	75.5% Base = 1,328	56.2% Base = 185	73.1% Base = 1,513
Bay of Plenty	78.7% Base = 837	62.5% Base = 136	76.5% Base = 973
Lakes	74.1% Base = 498	70.8% Base = 48	73.8% Base = 546
Tairāwhiti	70.6% Base = 136	58.8% Base = 17	69.3% Base = 153
Taranaki	78.2% Base = 440	61.2% Base = 49	76.5% Base = 489
Hawke's Bay	77.9% Base = 638	62.5% Base = 72	76.3% Base = 710
Whanganui	78.2% Base = 261	61.1% Base = 36	73.1% Base = 297
Mid Central	77.6%	51.9%	73.9%

	Base = 629	Base = 106	Base = 735
Wairarapa	74.6% Base = 142	83.9% Base = 31	76.3% Base = 173
Capital and Coast	76.0% Base = 825	60.1% Base = 168	73.3% Base = 993
Hutt Valley	78.0% Base = 615	64.9% Base = 114	76.0% Base = 729
Nelson Marlborough	77.8% Base = 419	55.8% Base = 43	75.8% Base = 462
West Coast	85.0% Base = 173	73.3% Base = 15	84.0% Base = 188
Canterbury	77.3% Base = 1,496	61.6% Base = 229	68.2% Base = 1,725
South Canterbury	79.9% Base = 174	66.7% Base = 30	77.9% Base = 204
Otago	80.8% Base = 746	61.3% Base = 111	78.3% Base = 857
Southland	74.0% Base = 296	57.8% Base = 45	71.8% Base = 341
Unidentified	100.0% Base = 3	- Base = 0	100.0% Base = 3
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value <0.001	Web p-value <0.05	

The next few tables present the smoking characteristics of redeemers. In Table 12, callers were grouped by the type of tobacco they normally smoke; tailor-made cigarettes only, roll-your-own (RYO) only, a mix of tailor-made and RYO, and Other (i.e. cigar, pipe, or any combination of different tobacco type except for tailor-made and RYO). Results were different for Quitline and web clients. Quitline clients who smoked other tobacco products were more likely to be a redeemer, while there was no difference in tobacco type on redeemer rate for web clients.

Table 12: Tobacco type

	Redeemer %		
	Quitline clients	Web clients	Overall
Tailor-made cigarettes	78.3% Base = 7,041	59.4% Base = 1,310	75.3% Base = 8,351
Roll-your-own (RYO)	75.4% Base = 6,073	61.3% Base = 683	73.9% Base = 6,756
Both Tailor-made and RYO	64.5% Base = 1,161	55.1% Base = 185	63.2% Base = 1,346
Other	87.5% Base = 64	55.6% Base = 9	83.6% Base = 73
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value < 0.001	Web p-value >0.05	

Tables 13 and 14 present the level of nicotine dependency of redeemers, and suggest there was no difference on redeemer rate by nicotine dependency.

Table 13: Time to first cigarette after waking

	Redeemer %		
	Quitline clients	Web clients	Overall
Within 30 mins	76.2% Base = 10,488	59.7% Base = 1,617	74.0% Base = 12,105
30 mins or more	75.4% Base = 3,851	59.3% Base = 570	73.3% Base = 4,421
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value >0.05	Web p-value >0.05	

Table 14: Intensity of inhaling

	Redeemer %		
	Quitline clients	Web clients	Overall
Heavily	75.2% Base = 5,931	61.2% Base = 787	73.5% Base = 6,718
Moderately	76.9% Base = 7,187	59.1% Base = 1,302	74.2% Base = 8,489
Lightly	74.5% Base = 1,221	53.1% Base = 98	72.9% Base = 1,319
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526
	Quitline p-value > 0.05	Web p-value >0.05	

Relapse is a normal phase of the quitting process. Therefore, a significant portion of clients in this sample were repeat users of the Quitline or web service (41% overall). The data suggests that repeat Quitline clients were significantly more likely to redeem at least one quit card than first time Quitline clients (Table 15). However, redeemer rate was the same for first time and repeat web clients.

Table 15: First time or repeat clients

	Redeemer %		
	Quitline clients	Web clients	Overall
First time clients	70.8% Base = 7,617	59.4% Base = 2,059	68.4% Base = 9,676
Repeat clients	81.9% Base = 6,722	62.5% Base = 128	81.5% Base = 6,850
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526

Table 16 shows that Quitline clients who registered to any Quit service at least a year prior were significantly more likely to be a redeemer than those who registered within the last twelve months (Table 16). However, for web clients, years lapsed since they were first registered with any Quit service was not related to redemption.

Table 16: Years since first registering with any Quit service

	Redeemer %		
	Quitline clients	Web clients	Overall
Within 1 year	71.6% Base = 8,856	59.3% Base = 2,093	69.2% Base = 10,949
1-2 years	81.0% Base = 1,377	73.3% Base = 15	80.9% Base = 1,392
3-4 years	82.3% Base = 1,123	68.3% Base = 41	81.8% Base = 1,164
5+ years	84.4% Base = 2,983	63.2% Base = 38	84.2% Base = 3,021
Total	76.0% Base = 14,339	59.6% Base = 2,187	73.8% Base = 16,526

Quitline p-value <0.001      Web p-value >0.05

## **Section Two: Self-reported Redemption and Reasons for Non-redemption**

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During 2007 and 2008, a longitudinal study was conducted to evaluate the Quitline service. During the study, 3,969 Quitline clients were interviewed over the phone twice; 3 weeks and 6 months after their Quitline registration. The respondents include both first-time and repeat clients, with boost samples of Māori, Pacific and youth. Self-reported redemption rate of quit cards was not available from this study, however self-reported redeemer rate is available to allow for a comparison against the actual redeemer rate reported in Section One.

### **Method**

During March 2007 and April 2008, a total of 3,969 Quitline clients participated in the study at 3 weeks with a response rate of 85%. SPSS 16.0 was used for the analysis. Data reported in this section is derived from the 3-week survey.

Participants were categorised as redeemers or non-redeemers in the same manner as outlined in Section One. Characteristics of redeemers and non-redeemers are compared. Participants who had not exchanged all their quit cards 3 weeks after registering with the Quitline were asked why they hadn't done so. This is summarised in the results section and the results are weighted by age, gender, ethnicity and caller type (new or repeat callers) of all clients registered during the survey recruitment period.

### **Results**

A large majority of participants (n=3,266) were sent at least one quit card and 95% of them indicated they had received at least one (n=3,097). Among those who had received a card, 82% indicated they had redeemed at least one card (n=2,553) (Table 17). Overall, self-reported redeemer rate was significantly higher than the actual redeemer rate. When looking at self-reported data only, the redeemer rate was not significantly different by client characteristics except for ethnicity (Tables 18-24).



Table 17: Number of clients issued quit card and redeemer rate, actual and self-reported

	Actual (Jan-Jun 2007)	Actual (Jul-Dec 2007)	Self-reported (Mar 2007–April 2008)
Total clients	15,018	16,526	3,097
Redeemer rate	81.5%	73.8%	82.4%

Table 18: Ethnicity

	Redeemer %	
	Actual	Self-reported
Māori	65.8% Base = 3,469	77.1% Base = 792
Pacific	56.3% Base = 549	72.2% Base = 133
Non-Māori non-Pacific	80.4% Base = 10,321	85.0% Base = 2,172
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value < 0.05

Table 19: Gender

	Redeemer %	
	Actual	Self-reported
Male	76.6% Base = 6,546	83.9% Base = 1,413
Female	75.4% Base = 7,793	81.2% Base = 1,683
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value > 0.05

Table 20: Ethnicity and gender<sup>7</sup>

		Redeemer %	
		Actual	Self-reported
Māori	Male	66.4% Base = 1,327	78.9% Base = 284
	Female	65.5% Base = 2,142	76.2% Base = 509
Pacific	Male	55.2% Base = 288	78.1% Base = 73
	Female	57.5% Base = 261	64.4% Base = 59
Non-Māori non-Pacific	Male	80.7% Base = 4,931	85.7% Base = 1,056
	Female	80.3% Base = 5,390	84.3% Base = 1,116
Total	Male	76.6% Base = 6,546	83.9% Base = 1,413
	Female	75.4% Base = 7,793	81.2% Base = 1,683

Maori p-value > 0.05  
Pacific p-value > 0.05  
Non-Māori non-Pacific p-value > 0.05

Table 21: Age

	Redeemer %	
	Actual	Self-reported
<18	53.9% Base = 228	65.6% Base = 96
18-19	48.2% Base = 500	61.7% Base = 128
20-29	65.4% Base = 3,335	76.6% Base = 666
30-39	73.8% Base = 4,660	83.0% Base = 786
40-49	76.9% Base = 3,911	86.2% Base = 689
50-59	80.3% Base = 2,340	87.7% Base = 438
60-69	85.7% Base = 1,159	93.1% Base = 231
70+	85.5% Base = 393	90.3% Base = 62
Unidentified	20.0% Base = 5	- Base = 0
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value > 0.05

<sup>7</sup> Quitline callers with an unidentified gender are excluded from this table and the associated chi-square tests.

Table 22: Tobacco type

	Redeemer %	
	Actual	Self-reported
Tailor-made cigarettes	78.3% Base = 7,041	85.1% Base = 1,405
Roll-your-own (RYO)	75.4% Base = 6,073	81.4% Base = 1,353
Both Tailor-made and RYO	64.5% Base = 1,161	75.9% Base = 307
Other	87.5% Base = 64	75.0% Base = 8
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value > 0.05

Table 23: Time to first cigarette after waking

	Redeemer %	
	Actual	Self-reported
Within 30 mins	76.2% Base = 10,488	83.3% Base = 2,199
30 mins or more	75.4% Base = 3,851	80.5% Base = 897
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value > 0.05

Table 24: First time or repeat clients

	Redeemer %	
	Actual	Self-reported
First time clients	70.8% Base = 7,617	80.8% Base = 2,343
Repeat clients	81.9% Base = 6,722	87.4% Base = 754
Total	76.0% Base = 14,339	82.4% Base = 3,096

p-value > 0.05

Survey participants were asked why they had not redeemed their quit card(s). Reasons are summarised in Table 25. The reasons identified by at least 20% of the respondents were that they: 1) weren't ready to quit; 2) already had some products; 3) didn't get around to redeeming it or were too busy and 4) were using alternative methods or products to quit.

The reasons given for not redeeming patches and gum were different. In terms of the reasons related specifically to the products, it appears that there were more respondents commenting on their negative perception or experience with gum than patches (11% vs 1%).

Table 25: Reasons for not redeeming quit cards, by type of products offered by the Quitline

Reasons	Patches Base = 453 %	Gum Base = 210 %
<b>Wasn't ready</b>		
Wasn't ready to quit	27.6	18.1
Stress related reasons	4.6	1.9
Have not set or passed the quit date yet	2.9	0.5
Waiting for partner/family/friend to quit together	1.3	0.5
Was told by Quit Advisor to wait or to cut down first	1.3	1.4
	<b>37.7</b>	<b>22.4</b>
 <b>Already had the products</b>		
Had products from Quit/ someone I know/ purchased over-the-counter	<b>32.5</b>	<b>17.6</b>
 <b>Didn't get around to it/ too busy</b>		
Didn't get around to it/ too busy	<b>30.7</b>	<b>21.9</b>
 <b>Using other alternatives/ methods to quit</b>		
Didn't want to use the products	8.6	11.4
Haven't needed it yet/ cold turkey	5.5	7.1
Requested the quit cards just in case it is needed	4.6	3.3
Wanted to use patches first/ instead	0.0	6.2
Using another cessation alternative	1.5	1.0
	<b>20.3</b>	<b>29.0</b>
 <b>Financial reasons</b>		
Financial reasons	<b>11.7</b>	<b>10.0</b>
 <b>Problems related to the quit cards received</b>		
Lost the card	5.1	1.9
Need a different dosage	2.9	0.5
Delay in arrival of quit card/ just arrived	1.5	0.5
Card expired	0.9	1.0
Errors in details on card	0.7	0.5
	<b>11.0</b>	<b>4.3</b>
 <b>Problems related to the redemption process</b>		
Couldn't find or get to a participating pharmacy	4.6	4.8
Pharmacy didn't have stock	4.2	1.0
	<b>8.8</b>	<b>5.7</b>
 <b>Already quit</b>		
Already quit	<b>8.4</b>	<b>8.6</b>
 <b>Concerns about the products</b>		
Pregnant/ medical conditions	2.9	2.9
Negative perception towards or experience with the products	0.9	10.5
Want to have full knowledge/ info about products before using	0.9	0.0
	<b>4.6</b>	<b>13.3</b>
 <b>Relapsed</b>		

Relapsed	<b>2.0</b>	<b>0.5</b>
<b>Other reasons</b>		
Other reasons	<b>17.9</b>	<b>13.8</b>

## **Conclusion**

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This report extends the findings from previous reports on quit card redemption with the inclusion of recent Quitline evaluation results. This is also the first time a redemption analysis has been undertaken since the new web ordering service was introduced in October 2007.

In conclusion, the overall redemption and redeemer rates for the 6-month period of July – December 2007 were 60% and 74%; both being lower than the three preceding 6-month periods.

However since the number of quit cards being distributed has increased dramatically (i.e. a 29% rise from 23,978 for the first six months of 2007 compared to 30,858 for July-December 2007), the absolute number of cards being redeemed increased from 17,154 to 18,412. The increase in the absolute number of quit cards redeemed may infer an increase in the use of NRT by smokers wanting to quit.

## Appendix

Extra statistical analysis for significance<sup>8</sup>

Table 1: Number and redemption rate of quit cards distributed, 2006-2007

	Jul-Dec 2006		Jan-Jun 2007		Jul-Dec 2007	
	Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
Jan-Jun 2006	0.6	(-0.2, 1.4)	-0.2	(-1.0, 0.6)	11.7	(10.9, 12.5) ***
Jul-Dec 2006			-0.8	(-1.6, 0.0)	11.1	(10.3, 11.9) ***
Jan-Jun 2007					11.9	(11.1, 12.7) ***

Table 2: Number and redemption rate of quit cards distributed, Oct-Dec 2007

	Web	
	Differences (%)	95% CI
Quitline	12.4	(10.8, 14.0) ***

Table 3: Type of NRT

	Gum	
	Differences (%)	95% CI
Patches	9.1	(7.6, 10.6) ***

Table 4: Number of cards ever issued by Quit

	2 Cards		3 Cards		4+ Cards	
	Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
1 Card	-2.6	(-4.2, -1.0) **	-12.5	(-14.2, -10.8) ***	-17.5	(-18.9, -16.1) ***
2 Cards			-9.9	(-11.9, -7.9) ***	-14.9	(-16.7, -13.1) ***
3 Cards					-5.0	(-6.9, -3.1) ***

Table 5: Number of clients issued quit card and redeemer rate

	Jul-Dec 2006		Jan-Jun 2007		Jul-Dec 2007	
	Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
Jan-Jun 2006	0.2	(-0.7, 1.1)	-0.7	(-1.6, 0.2)	7.0	(6.1, 7.9) ***
Jul-Dec 2006			-0.9	(-1.8, 0.0)	6.8	(5.8, 7.8) ***
Jan-Jun 2007					7.7	(6.8, 8.6) ***

Table 6: Number and redeemer rate of quit cards distributed, Oct-Dec 2007

	Web	
	Differences (%)	95% CI
Quitline	16.4	(14.2, 18.6) ***

Table 7: Ethnicity

	Pacific		Non-Māori non-Pacific	
	Differences (%)	95% CI	Differences (%)	95% CI
Māori	7.9	(3.8, 12.0) ***	-13.6	(-15.3, -11.9) ***
Pacific			-21.5	(-25.4, -17.6) ***

<sup>8</sup> All p-values are corrected by Bonferroni's Correction.

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 for z-test H<sub>0</sub>: Row - Column = 0 and 95% CI of (Row - Column )

Table 8: Gender

	Female	
	Differences (%)	95% CI
Male	1.1	(-0.2, 2.4)

Table 9: Ethnicity and Gender<sup>9</sup>

Māori Male - Female		Pacific Male - Female		Non-Māori non-Pacific Male - Female	
Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
1.1	(-2.0, 4.2)	-6.4	(-14.1, 1.3)	0.2	(-1.3, 1.7)

Table 10: Age

	15-24		25-44			45-64		65+	
	Differences (%)	95% CI	Differences (%)	95% CI		Differences (%)	95% CI	Differences (%)	95% CI
<15	-11.7	(-33.6, 10.2)	-28.4	(-50.2	-6.6)	-34.8	(-56.6, -13.0)**	-42.8	(-64.7, -20.9)***
15-24			-16.7	(-19.0	-14.4)***	-23.1	(-25.5, -20.7)***	-31.1	(-34.2, -28.0)***
25-44						-6.4	(-7.9, -4.9)***	-14.4	(-16.8, -12.0)***
45-64								-8.0	(-10.5, -5.5)***

Table 11: District Health Board<sup>10</sup>

DHB	Redeemer %	Differences (%)	95% CI	
Northland	75.1	1.3	(-2.1,	4.7)
Waitemata	73.8	0.0	(-2.2,	2.3)
Auckland	70.0	-3.8	(-6.2,	-1.5)***
Counties Manukau	67.0	-6.8	(-9.4,	-4.3)***
Waikato	73.1	-0.7	(-3.1,	1.7)
Bay of Plenty	76.5	2.7	(-0.1,	5.5)
Lakes	73.8	0.0	(-3.7,	3.8)
Tairāwhiti	69.3	-4.5	(-12.2,	3.2)
Taranaki	76.5	2.7	(-1.2,	6.6)
Hawke's Bay	76.3	2.5	(-0.7,	5.8)
Whanganui	73.1	-0.7	(-6.0,	4.5)
Mid Central	73.9	0.1	(-3.2,	3.4)
Wairarapa	76.3	2.5	(-4.2,	9.2)
Capital and Coast	73.3	-0.5	(-3.4,	2.4)
Hutt Valley	76.0	2.2	(-1.0,	5.4)
Nelson Marlborough	75.8	2.0	(-2.1,	6.0)
West Coast	84.0	10.2	(4.7,	15.8)**
Canterbury	68.2	-5.6	(-8.0,	-3.3)***
South Canterbury	77.9	4.1	(-1.8,	10.1)
Otago	78.3	4.5	(1.6,	7.4)**
Southland	71.8	-2.0	(-6.9,	3.0)
Unidentified	100.0	26.2	(8.9,	43.5)
Total	73.8	-	-	-

Table 12: Tobacco type

	Roll-your-own (RYO)		Both Tailor-made and RYO		Other	
	Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
Tailor-made cigarettes	1.4	(0.0, 2.8)	12.1	(9.4, 14.8)***	-8.3	(-16.8, 0.2)
Roll-your-own (RYO)			10.7	(7.9, 13.5)***	-9.7	(-18.3, -1.1)
Both Tailor made and RYO					-20.4	(-29.3, -11.5)**

<sup>9</sup> Quitline callers with an unidentified gender are excluded from this table and the associated chi-square tests.

<sup>10</sup> The redeemer rate of each DHB compared with the overall redeemer rate.



Table 13: Time to first cigarette after waking

	30 mins or more	
	Differences (%)	95% CI
Within 30 mins	0.7	(-0.8, 2.2)

Table 14: Intensity of inhaling

	Moderately		Lightly	
	Differences (%)	95% CI	Differences (%)	95% CI
Heavily	-0.7	(-2.1, 0.7)	0.6	(-2.0, 3.2)
Moderately			1.3	(-1.3, 3.9)

Table 15: First time or repeat clients

	Repeat clients	
	Differences (%)	95% CI
First time clients	-13.1	(-14.4, -11.8) ***

Table 16: Years since first registering with any Quit service

	1-2 years		3-4 years		5+ years	
	Differences (%)	95% CI	Differences (%)	95% CI	Differences (%)	95% CI
Within 1 year	-11.7	(-13.9, -9.5) ***	-12.6	(-15.0, -10.2) ***	-15.0	(-16.6 -13.4) ***
1-2 years			-0.9	(-3.9, 2.1)	-3.3	(-5.7 -0.9) *
3-4 years					-2.4	(-5.0 0.2)