# Patterns of Posting Behaviour in an **Online Cessation Community**

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## Improving online help to quit

Engagement with an online cessation support network (OCSN) is associated with higher smoking abstinence rates within webassisted tobacco interventions<sup>1,2</sup>.

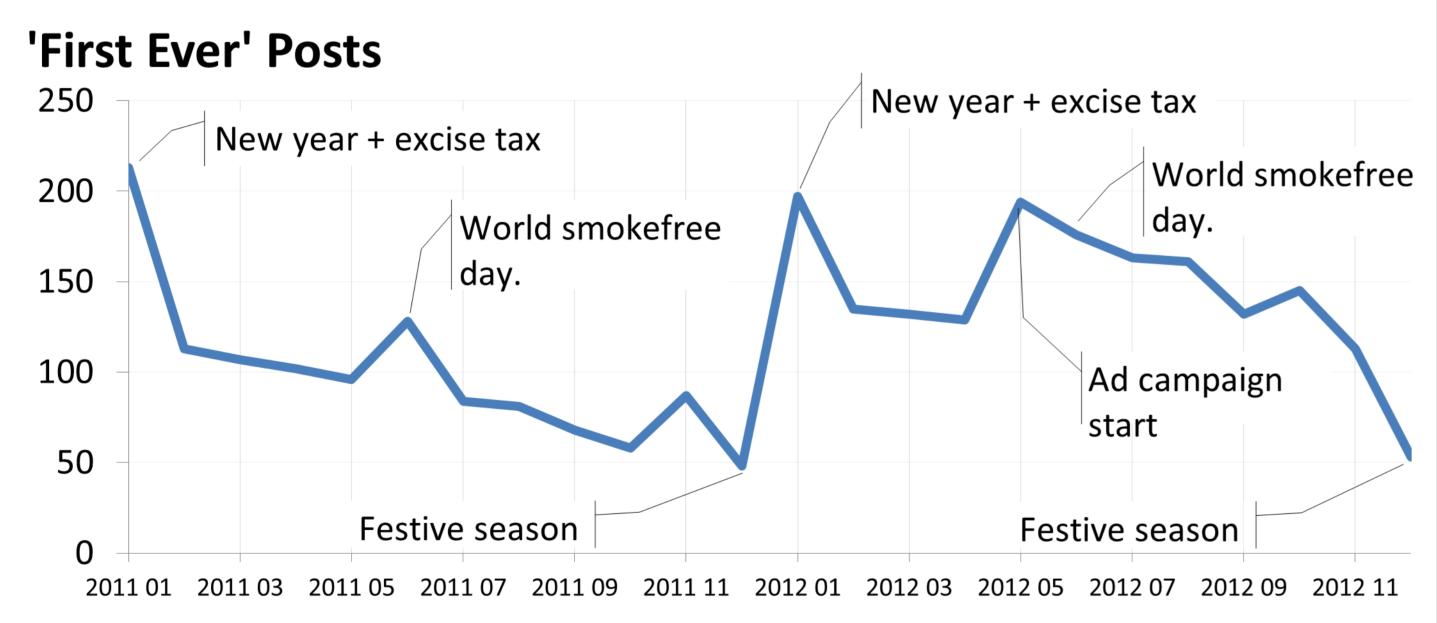
OCSNs also have wide reach, 24/7 availability and low marginal cost. Hence, improvements in their efficacy may have high value. Yet little is known about how OCSN users interact.<sup>3-5</sup> Such knowledge could inform development of innovations to increase individual engagement with the OCSN community, thus increasing the likelihood users become and remain smokefree.

We analysed the posting behaviour of quitters using NZs Quit blogs (maintained by Quitline) to inform future interventions.

Data included 134,663 OCSN interactions over 2011-12. Metrics covered aggregate network activity, user posting activity and longevity, and between-user commenting.

## Opportunities in repeated patterns

Low activity periods such as the festive season and the end of the week suggest opportunities for targeted messaging at potential times of high relapse risk.

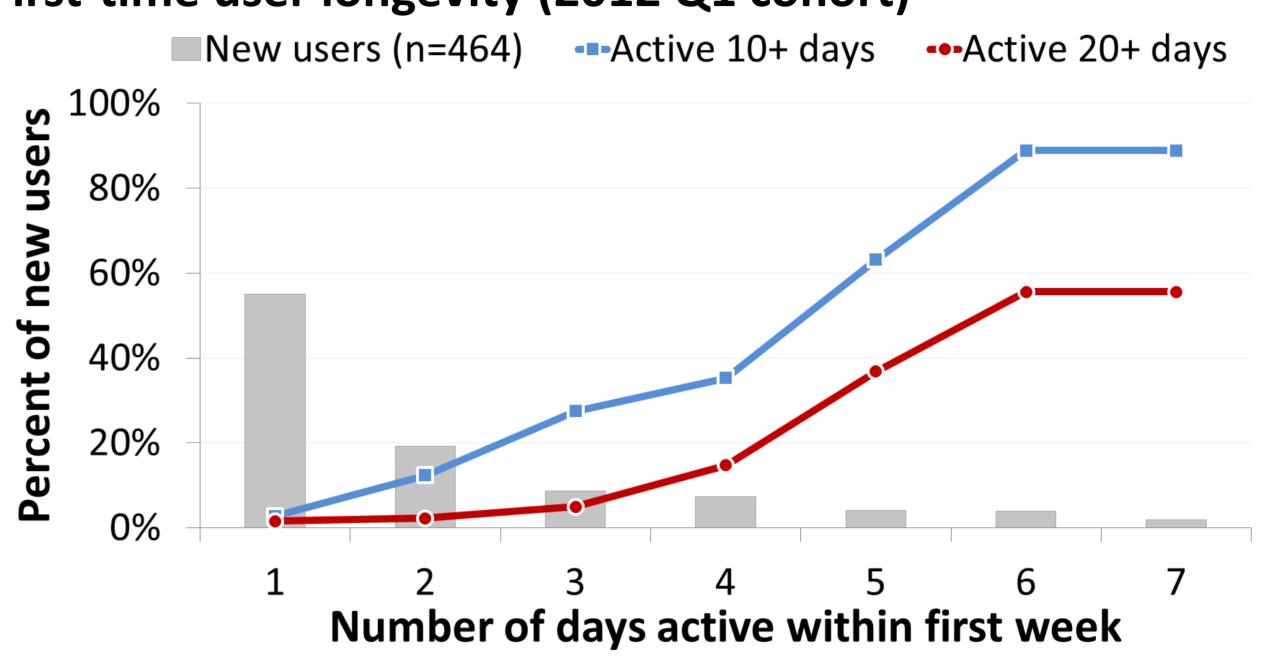


#### Average activity by weekday (posts + comments)

	M	T	W	T	F	S	S
2012 Q1	193	191	194	188	182	127	136
2012 Q2	329	320	287	335	316	197	190
2012 Q3	314	325	324	307	268	181	206
2012 Q4	312	310	307	316	276	192	191

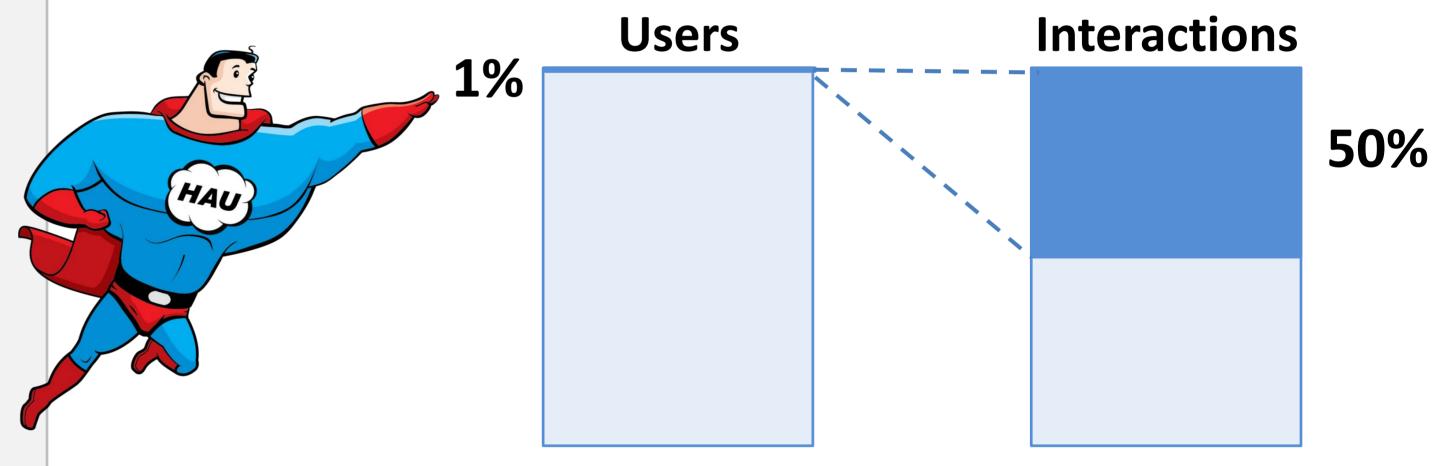
## Many new users quickly disengage

First-time user longevity (2012 Q1 cohort)



Users who interacted on only one day during their initial week were very unlikely to remain active for 10 or more days. This group represents the majority (55%) of those who commenced activity in the cohort examined.

## Highly Active Users (HAUs) are key



In 2012, 23 HAUs (750+ interactions) drove 50% of total community interactions. One person interacted over 6,000 times. In contrast, 846 Minimally Active Users (MAUs: 1-2 posts each) made up 41% of total users but only 1.3% of interactions.

### Potential directions for interventions

Our exploratory results suggest interventions to:

- Offering quitters smokefree tips near the end of the week or during festive periods may reduce relapse;
- Re-engaging quitters who post infrequently during their first week may promote greater interaction and more successful quit attempts;
- Re-activating those who cease posting may stimulate more frequent and, ultimately, more successful quit attempts;
- Directing HAUs' activity toward these aims may support and amplify OCSN success as their involvement in, and endorsement of, intervention innovations may be crucial.

#### Literature cited

[1] Gravitas Research and Strategy Limited. The Quit Group service longitudinal client survey six month follow-up. Auckland, New Zealand. Accessed 23 May, 2013. Available from: http://www.quit.org.nz/file/six-month-survey-full-report-final.pdf

[2] Richardson A, Graham AL, Cobb N, et al. Engagement promotes abstinence in a web-based cessation intervention: Cohort study. J Med Internet Res 2013;15(1):e14.

[3] Cobb NK, Graham AL, Byron MJ, et al. Online social networks and smoking cessation: a scientific research agenda. J Med Internet Res 2011;13(4):e119.

[4] Cobb NK, Graham AL, Abrams DB. Social network structure of a large online community for smoking cessation. Am J Public Health

[5] van Mierlo T, Voci S, Lee S, et al. Superusers in Social Networks for Smoking Cessation: Analysis of Demographic Characteristics and Posting Behavior From the Canadian Cancer Society's Smokers' Helpline Online and StopSmokingCenter.net. J Med Internet Res 2012;14(3):e66.

#### We would like to acknowledge

The Quit Group, and Hayley Guiney (Analyst) in particular, for their assistance and insights during the data collection and interpretation of results for this project.

See more research at <a href="http://aspire2025.org.nz">http://aspire2025.org.nz</a>





2010;100(7):1282-1289.