

## Is routine alcohol screening and brief intervention feasible in a New Zealand primary care environment?

Heather Gifford, Sue Paton, Lynley Cvitanovic, John McMenamin, Chloe Newton

### Abstract

**Aim** To test the feasibility of a systemised ABC alcohol screening and brief intervention (SBI) approach in general practice in a New Zealand region.

**Method** Data were collected on patients over 15 years who had their alcohol status recorded using the AUDIT tool. A concurrent independent process evaluation was conducted to assess effectiveness of ABC alcohol SBI related training and implementation of intervention.

**Results** In an 8-month period, general practices in the Whanganui region documented alcohol consumption of 43% of their patients. Of the 43% of patients screened 24% were drinking contrary to ALAC's low risk drinking advice. Of these, 36% received brief advice or referral.

Success of the approach can be attributed to the use of the Patient Dashboard reminder software and linked alcohol recording form. Other success factors included the use of a clinical champion and project leader, education and training, funding for extra GP and nurse assessment time and linking of the ABC alcohol SBI approach to existing services.

**Conclusion** Primary care in Whanganui has demonstrated the capacity to routinely query patient alcohol use and offer brief advice. If the approach was more widely adopted, there is considerable scope for general practice nationally to address potentially harmful patient alcohol use.

Alcohol is the most commonly used recreational drug in New Zealand, with 85% of adults (aged 16–64 years) having had an alcoholic drink in the past year. The prevalence of risky drinking is high with alcohol-related harm continuing to be a social and health issue in New Zealand.<sup>1</sup> Brief intervention, in a primary health care setting, has been shown to be an effective way of motivating patients to reduce their risk of harmful drinking.<sup>2–4</sup>

To test this concept in a primary health care setting in New Zealand a systemised ABC alcohol screening and brief intervention (SBI) demonstration project was implemented, in general medical practices in the Whanganui region, from May 2010 to January 2011. The aim of the demonstration project was to test the applicability of an ABC SBI approach, with a focus on reducing alcohol related harm.

The ABC model was derived from experience with smoking cessation in primary care and involved (A) asking about alcohol use, (B) offering brief advice to those drinking in ways inconsistent with Alcohol Advisory Council of New Zealand (ALAC) low risk drinking advice, and (C) where appropriate providing, or referring for, counselling<sup>5</sup>.

The demonstration project was developed by the Whanganui Regional Primary Health Organisation (WRPHO), the umbrella for participating Whanganui general practices, in partnership with Te Kaunihera Whakatupato Waipiro o Aotearoa / ALAC.

Whakauae Research for Māori Health and Development (WRMHD) was commissioned by ALAC to undertake a process evaluation of the demonstration project. All partners in the project sought to determine whether a systemised ABC alcohol SBI intervention could be implemented effectively within a New Zealand primary health care setting. The information gathered was to potentially be used to inform wider implementation of ABC SBI style intervention services for alcohol harm reduction in other New Zealand primary care settings.

This paper provides a brief description of the ABC alcohol SBI intervention and presents key results from two data sources; PMS (Medtech)—data collected from 14 practices participating in the demonstration project—and qualitative data collected by WRMHD evaluation researchers.

## Methods

The demonstration project aimed to facilitate a change, within the WRPHO test site, in the way that alcohol was being addressed at primary health care level. Components of the intervention included systematising the recording of alcohol consumption, increasing patient knowledge of low risk drinking, and creating simple pathways by which to address potentially harmful alcohol consumption:

**A (Ask)**—patients attending clinical appointments at 14 WRPHO general practices and at the Whanganui Accident and Medical Clinic were asked by their GP, or practice nurse, about their drinking initially using the three-question AUDIT C screening tool.<sup>6</sup> A score of 4 for men and 3 for women would trigger the clinician to undertake the full standardised 10 question AUDIT screening tool<sup>7</sup>.

AUDIT, the Alcohol Use Disorders Identification Test, was developed by the World Health Organization as a tool to identify persons with hazardous and harmful patterns of alcohol consumption; the tool was developed and evaluated over a period of two decades, and it has been found to provide an accurate measure of risk across gender, age and cultures. The AUDIT was administered during routine consultations or during planned medicals and health checks. Alcohol use was recorded in a structured format using a clinical recording template (Medtech advanced form) which automatically updated classification with reference to ALAC's low risk drinking advice, recorded readiness to change in the clinical progress notes and linked to a referral process;

**B (Brief Advice)**—patients identified as drinking contrary to low risk drinking advice were offered brief feedback about this along with low risk drinking information; and,

**C (Counselling)**—clinicians had the option of providing further assessment of a patient's drinking using a structured 10-point electronic questionnaire (available as part of the clinical recording template and also linked to the ALAC website). The questionnaire classifies at-risk, problem or dependent drinking which is then linked to advice and other educational resources. Subsequent management included the provision of further clinical appointments within the practice, or referral to an alcohol counsellor, to the Alcohol Drug Helpline or to specialist alcohol and other drug services, including a local kaupapa Māori mental health services provider.

Clinicians included asking about alcohol use as part of routine nursing or medical checks and as opportunities arose during consultations. A subsidy payment was available for assessment of patients whose reported alcohol use necessitated completion of the 10-question AUDIT tool. A further subsidy payment was available for providing subsequent alcohol counselling within the practice. Intervention training participation was part of a service level agreement between the WRPHO and individual practices; clinicians were provided with specific training to equip them to screen patients for alcohol consumption and provide brief advice as part of the ABC alcohol SBI intervention.

Training included the purpose of screening, administration of ABC screening, completion of the advanced clinical form, communication skills /motivational interviewing and the use of brief

intervention skills. Three training options were available; professional development workshops delivered by outside consultants, locally facilitated inter-professional education meeting sessions and small group/peer learning support in the practice setting.

The Patient Dashboard clinical reminder system,<sup>8</sup> which WRPHO practices use to monitor and record key individual patient health data, provided the technical platform support for implementation of the ABC alcohol SBI approach. The demonstration project involved the development of a clinical alcohol recording template (Medtech advanced form) accessed through the Patient Dashboard, allowing the recording of information obtained by A (asking), recording that B (brief advice) had been given and providing access to the AUDIT questionnaire, a comprehensive assessment guide, if required and to subsequent referral forms.

The WRPHO collected data which included the number of patients over 15 years who had their alcohol status recorded using the AUDIT tool, number of patients over 15 who had their alcohol status recorded and were drinking contrary to low risk drinking advice, and number of patients who were drinking contrary to low risk drinking advice and were given brief advice. Data was gathered using the claims database and a population health reporting tool (Dr Info).

Independent of the data being collected by the WRPHO a process evaluation was conducted to assess effectiveness of the training component, factors influencing provider participation, and factors influencing implementation of the project in particular relevance, ownership, impact on work and linkages with other providers with respect to referrals.

The evaluation used a primarily qualitative approach to data collection and analysis supplemented by the limited use of quantitative methods. Included in the evaluation were analysis of project documentation, a learning support / training survey, key informant interviews and key informant survey.

Document review focused on the demonstration project proposal, the project plan and progress implementation reports to ALAC prepared by the WRPHO. The project goal, objectives, planning and implementation processes relevant to the project were identified through this review.

Before developing the learning support/training survey tool, the evaluators met with the WRPHO's ABC alcohol SBI demonstration project co-ordinator and project champion to review design related options for maximising survey response rate. It was agreed that brevity and simplicity of the tool would be critical factors impacting on survey participation.

The monthly Whanganui Inter-Professional Education meeting for health professionals in primary care, hosted by the WRPHO, was selected as an appropriate avenue for administering the survey; 18 training surveys were completed and returned during one of these meetings. The co-ordinator also followed up with the WRPHO's two practice facilitators who then canvassed practices for further recruitment and completion of the training survey. Another two surveys were completed as a result of this making a total of 20. 12 GPs, six practice nurses and two others (one Plunket nurse and one unspecified) completed the learning support/training survey.

It was also intended to carry out ten to 12 key informant interviews, using a semi structured interview schedule, with a majority of these being with GPs and practice nurses. However, only eight interviews were secured within the evaluation timeframe with GPs and practice nurses being particularly difficult to access. As a result of this, it was decided to offer GPs the opportunity to instead complete open-ended, self-administered surveys designed around the content of the interview schedule. Five of these surveys were sent out to GPs who had previously indicated a particular interest in the evaluation work. Of these two were completed and returned. In total, six GPs and practice nurses were included amongst the key informants along with four alcohol and other drug personnel/demonstration project strategic players.

Data from all sources – documentation review, surveys and key informant interviews – were analysed using an inductive thematic analysis approach. Themes were reviewed and categorised by the research team and used to answer the research questions outlined previously. The results distilled from the various data sources were presented back to informants for comment and review, at which point they were further clarified.

## WRPHO results

In the 10 months, from 01 May 2010–28 February 2011, WRPHO practices ‘Asked’ and recorded the alcohol consumption of 43% of patients aged over fifteen years, with one practice recording alcohol status of 74% of their patients. 24% of patients whose consumption was recorded were drinking contrary to low risk drinking advice. Of these, 36% received brief advice or referral to a specialist service.

35 practitioners (17 GPs and 18 nurses), representing 35% of the WRPHO workforce, completed either an AUDIT or Full Assessment with a patient. 492 patients were administered the AUDIT and 48 full assessments were recorded.

Almost 40% of those administered the AUDIT were 45–64 years, with 30% being between 24 – 44 years. These results are broadly representative of demographics of general practice in the Whanganui region.

62% of those administered the AUDIT were European, 34% were Māori and 4% were of other ethnicities. Of those administered the AUDIT 69% were men. The substantially higher rate of administration to men requires further exploration to determine the role of gender in this context. Investigation of the composition of the AUDIT sample was not however, a focus of this study.

When an AUDIT is completed, referral outcomes are automatically recorded in the clinical notes if the referral option is activated. The chart below (Table 1) uses the World Health Organisation (WHO) zones and recommended intervention,<sup>9</sup> and compares this with the scores of the 492 AUDITs recorded.

**Table 1. WHO Audit Tool**

RISK LEVEL (WHO)	Recommended Intervention	AUDIT Score	Number within Zone	Percent of results
Zone 1	Alcohol education	0–7	129	26%
Zone 2	Simple advice	8–15	266	54%
Zone 3	Simple advice plus brief counselling and continued monitoring	16–19	52	11%
Zone 4	Referral to specialist for diagnostic evaluation and treatment	20–40	45	9%

It is of note that practitioner’s referral behaviour, without prompt, closely mirrored the interventions recommended by WHO. 81% were not referred or declined referral, 11% were referred for further follow-up (advice plus monitoring) and 9% were referred for specialist counselling/ treatment.

Importantly the data indicates that 80% of drinking behaviours could be addressed in a single consult, with brief advice, or through education about the effects of alcohol.

Data collected by the WRPHO demonstrated lower rates of ‘asking’ for Māori compared to non-Māori. In Table 2 below this has been compared to GP service utilisation rates in the year 2009/2010. This data shows that Māori present less often than NZ European. This means there is less opportunity to screen or assess patients in

general practice. However, even when data is adjusted for presentation Māori were less likely to be ‘asked’ (53% compared to 60%). In addition to the lack of opportunity to screen it is possible that patients presenting less often may present with more serious medical complaints leaving less time for clinicians to carry out routine health screening. Of those Māori that were screened a higher number were identified as drinking contrary to low risk drinking advice (40%) when compared to non-Māori (21%). This is consistent with other data.<sup>10</sup>

**Table 2. Patient utilisation of Audit C**

<b>Ethnicity</b>	<b>% pop with alcohol recorded (AUDIT C)</b>	<b>% pop who have seen GP in year</b>	<b>Utilisation adjusted % of patients having alcohol recorded</b>
NZ European/Pakeha	46%	77%	60%
Maori	36%	67%	53%
Other	36%	75%	48%

### **Process evaluation results**

This demonstration project achieved the intended outcomes (as described in the project plan) in the timeframe initially agreed. The plan was implemented with very little change required in practice. There were minor changes to the IT programme in response to clinical feedback and a more major change around training for the intervention. 100% uptake of the demonstration project by GP practices was noted in the evaluation.

Key motivators for participation ranged from responding to the perceived expectation that all practices would take part as members of the PHO, through to the much more commonly cited interest in influencing positive change around acknowledging and dealing with patient alcohol issues. Financial incentives, while considered by some to be a necessary component of the intervention, were not cited as being the critical motivator for participating clinicians. These incentives were however, considered necessary to secure additional clinical time to carry out the intervention. Without financial incentives, the time necessary to implement the intervention becomes a cost against the practice which needs to be met in some other way.

In relation to this, practice configuration appeared to play a role in ease of implementation; those practices that had a wellness focus and protected nurse time for health screening were able to implement all components of the intervention with ease. While this type of practice configuration was considered ideal for implementation, key informants generally took the view that the A, and even the B, phases of the ABC alcohol SBI intervention were able to be implemented without significant impact on existing workload. Previous exposure to brief intervention practice such as the ABC tobacco intervention, had prepared practices for this type of approach and helped facilitate both uptake and implementation. Practice infrastructure such as integrated IT support and familiarity with IT programmes including Medtech and Patient Dashboard allowed for quick uptake and reporting.

Patient participation in the intervention was also a key factor in uptake. Patients were considered more likely to be compliant with the A (ask) phase of the intervention than

with the B and C phases, as these were seen to be potentially more intrusive and more likely to elicit a defensive or negative response from the patient. Overall the opportunity to engage patients in a discussion about alcohol was reportedly well received and it appears from the demonstration project that this is acceptable practice from a patient perspective; however, it is desirable that this result is tested directly with patients. Doing so was however outside the scope of the evaluation.

Clinical leadership was a critical feature contributing to project success. Particular attributes of project leadership included extensive knowledge of the evidence in brief intervention in primary health care, passion and commitment to reducing alcohol harm, credibility as a leader and allocated time and funding set aside for working to embed the project within the wider PHO setting. The importance of clinical leadership, in all phases of the demonstration project, cannot be overestimated. In order to secure colleague 'buy-in', in the first instance, and maintain intervention momentum ongoing clinical leadership is non-negotiable.

A further positive development influenced by project implementation was improved referral processes to specialist alcohol and other drug (A&OD) services. One service indicated that the project had resulted in there being more useful information contained in referrals received from primary care practitioners. This allowed alcohol and other drug clinicians to progress their work with clients with less delay and to focus that work more appropriately from the outset. It was also noted that, since project implementation, referrals had been better targeted to the services being offered by the A&OD sector.

The most significant challenge to project implementation identified was the non-alignment of the formal component of the training to the needs of the project; the externally contracted professional development workshops were considered least useful and face to face training in the practice setting the most useful. Key issues identified were the importance of ensuring availability of skills based as opposed to theory based training. This included an emphasis on individual coaching as well as the opportunity for 'hands on' exposure to the use of both tools and methods in a supervised setting.

Implementing the interpersonal component of the intervention, in tandem with the IT component, was challenging for some primary care practitioners. Alcohol use patterns are influenced by social and cultural factors and can be an emotive issue for both practitioner and patient. Repositioning alcohol use patterns as a health consideration, which the intervention attempted to do, requires a shift in consciousness, for both practitioner and patient which may be fraught with difficulties. High risk alcohol use is normalised in many New Zealand social settings including those familiar to people from across all social demographics. Exploring patients' alcohol use patterns, particularly at the instigation of the practitioner, was not always easy for practitioners especially given that, in some instances, they may have been personally unfamiliar with low risk drinking practices and environments.

Additionally, implementing the B and C phases of the intervention particularly for those practitioners unfamiliar with the addictions field of practice and lacking the necessary skills and / or confidence in the use of motivational interviewing and basic counselling was identified as challenging.

## Discussion

In 10 months, WRPHO practices ‘asked’ and recorded the alcohol consumption of 43% of patients aged over 15, with one practice recording alcohol status of 74% of their patients. It was found that almost a quarter of these patients were drinking contrary to ALAC’s low risk drinking advice. Of these, 36% received brief advice or referral to a specialist service. All these patients had the link between their health and their drinking brought to their attention.

Achieving this rate of screening in a relatively short timeframe demonstrates that the intervention is feasible and indicates that high levels of screening could be expected with interventions carried out over the longer term. The rates of screening and referral achieved in the demonstration project are higher than normal in general practice settings without focused interventions on screening for alcohol misuse. Rates for screening and intervention as low as 4–28% have been noted in other studies<sup>10,11,12,13</sup>

While lower rates of screening for Māori were demonstrated when compared with non-Māori over half of those presenting at general practice were screened.

Encouraging better access to routine health screening for Māori patients will be a critical factor in reducing the high rates of problem drinking for Māori.

Māori have reported elsewhere wanting help on alcohol misuse but not receiving it.<sup>14</sup>

Barriers included a range of psychosocial factors (e.g. fear and social pressure), and organisational barriers (e.g. not knowing where to go and lack of transport).

Removing barriers and working in partnership with advocacy organisations and Māori providers may go some way to increasing screening rates for Māori.

The higher rates of male screening in this demonstration project requires further investigation and trends should be noted in any possible wider roll out of the intervention. Due to low numbers of Pacific people residing in Whanganui, we are unable to comment on the intervention for Tagata Pasifika populations.

This ABC alcohol SBI approach could be considered low intensity and demonstrates that, with support and resources, GPs and practice nurses can include alcohol use in the consultation agenda. The outcome from the WRPHO demonstration project suggests that primary care is well positioned to lead the way in motivating patients to consider, and reduce, the risk of alcohol related harm. Enhancing confidence and competence for practitioners with well targeted training in alcohol brief intervention is likely to increase the screening rates in general practice.

It is probable that the outcomes could be duplicated by other PHOs. The success of the project is primarily attributed to the use of the Dashboard reminder software and linked alcohol recording form. These tools are available as shareware with costs to other PHOs limited to licensing and local software adjustments. Other factors impacting on the successful implementation of the ABC alcohol SBI approach included the use of a clinical champion, the role of a project leader, the availability of education and training, funding for extra GP and nurse assessment time and the linking of the approach to other existing services.

In this demonstration project, a primary care region has demonstrated the capacity to routinely ask about patient alcohol use and offer brief advice. If the approach was

more widely available, there is considerable scope for general practice to address alcohol use throughout New Zealand.

**Competing interests:** None declared.

**Author information:** Heather Gifford, Director, Whakauae Research for Māori Health and Development, Whanganui; Sue Paton, Early Intervention Manager, Alcohol Advisory Council of New Zealand, Wellington; Lynley Cvitanovic, Senior Researcher, Whakauae Research for Māori Health and Development, Whanganui; John McMenamin, General Practitioner, Wicksteed Medical Services Whanganui Regional PHO, Whanganui; Chloe Newton, Project Co-ordinator, Wicksteed Medical Services, Whanganui Regional PHO, Whanganui

**Acknowledgements:** This demonstration project and process evaluation were funded by Kaunihera Whakatupato Waipiro o Aotearoa / the Alcohol Advisory Council of New Zealand (ALAC).

**Correspondence:** Dr Heather Gifford, Community House, Ridgeway Street, Whanganui, New Zealand. Fax: +64 (0)6 3476772; email: [heather.whakauae@xtra.co.nz](mailto:heather.whakauae@xtra.co.nz)

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