Cardiovascular disease risk assessment

What are the PHO Performance Programme indicators and how are they best achieved?

Tama tu, tama ora, tama noho, tama mate
The active person will be healthy, the inactive unhealthy

Supporting the PHO Performance Programme

The PHO Performance Programme

The PHO Performance Programme is a quality improvement initiative which aims to improve health and reduce inequalities amongst the enrolled population. The programme was introduced in January 2006.

Performance is measured against agreed indicators and the goals of the programme are to:

- Encourage and reward improved performance by PHOs in line with evidence based guidelines
- Measure and reward progress in reducing health inequalities by including a focus on high need populations

Performance indicators may change from year to year and some indicators are for information only and do not qualify for payments. Table 1 details the indicators that are currently funded.

See “Ischaemic cardiovascular disease: what are the PHO Performance Programme indicators and how are they best achieved?” BPJ 36 (Jun, 2011), for the previous article in this series.

Performance indicator for cardiovascular disease risk assessment

Cardiovascular disease (CVD) is the leading cause of mortality in New Zealand. Latest mortality statistics show that 45% of female deaths and 43% of male deaths in 2008 were caused by CVD.[1] Many cardiovascular related deaths are premature and preventable. The main benefit of assessing and recording the CVD risk for patients is to enable lifestyle choices and treatment options to be established early.

Indicator definition

The PHO Performance Programme indicator and target for CVD risk assessment is: **For 80% of the enrolled eligible population to have their CVD risk assessed and recorded in their patient notes within the last five years.**

This indicator was introduced 1 July 2008, and makes up 20% of a PHO’s performance payment (8% for achieving the target in the total population and 12% for achieving the target in the high needs population). CVD risk assessment has the greatest payment weighting of all the funded programme indicators.

Table 1: Funded PHO Performance Indicators for the period commencing 1 January, 2011

Chronic conditions	Cervical cancer screening
	Breast cancer screening
	Ischaemic cardiovascular disease detection
	Cardiovascular disease risk assessment
	Diabetes detection
	Diabetes follow-up after detection
	Smoking status
Infectious disease	Influenza vaccine in people aged over 65 years
	Age appropriate vaccinations for children aged two years
Financial	GP referred laboratory expenditure
	GP referred pharmaceutical expenditure

The high needs population is defined as Māori and Pacific peoples and people living in New Zealand deprivation decile 9 or 10 socioeconomic areas (most deprived). CVD affects this group disproportionately compared to other New Zealanders.

Population eligible for CVD risk assessment

The denominator for this indicator (i.e. what the results are measured against) is the number of enrolled people in the PHO who are eligible for a CVD risk assessment.

Populations included in CVD risk assessment indicator:[2]
Māori, Pacific and Indian subcontinent WOMEN aged 45–74
Māori, Pacific and Indian subcontinent MEN aged 35–74
All other ethnicities MEN aged 45–74
All other ethnicities WOMEN aged 55–74

This definition specifically relates to the PHO Performance Programme indicator and covers the majority of people recommended for CVD risk assessment. However, it is important to note that the New Zealand Guidelines recommend earlier assessment (from age 35 years for males and from age 45 years for females) for other high risk groups, e.g. those with a family history of CVD or high risk of developing diabetes.[3]

How to identify those eligible?

Recording of age, sex, ethnicity and socioeconomic data for enrolled patients is essential. This information quantifies non-modifiable risk factors associated with CVD, allowing the high needs population to be targeted.

Ethnicity codes can be recorded at the time of patient enrolment. The codes comprise two digits, e.g. 21 NZ Māori, 30–37 Pacific Islands and 43 Indian.

Deprivation Socioeconomic factors contribute to CVD risk and should be recognised when identifying people for CVD risk assessment. The Living Standards and Health Survey 2006/07 found that adults experiencing severe hardship were 60% more likely to have CVD than those who were not experiencing hardship.[4]

Patients living in the most deprived socioeconomic areas (decile 9 and 10) should be identified as high risk and targeted for CVD risk assessment.

Risk assessment tools

The risk assessment tools included in the New Zealand guidelines are based on Framingham data with New Zealand specific adjustments. The Framingham longitudinal heart study began in 1948 and is designed to identify common factors that contribute to CVD risk. Tools based on Framingham data are used internationally to perform CVD risk assessment.[5] When used, as outlined in the New Zealand guidelines, risk prediction can be performed with confidence for the majority of patients (see side bar "Over or underestimation of CVD risk").

The Heart Foundation "Know Your Numbers" programme is a useful tool for engaging patients and motivating change. It shows the lifetime risk trajectory and how high risk can be improved with lifestyle interventions and treatment. Patients need to know their blood pressure and cholesterol ratio (total cholesterol/HDL cholesterol) to participate online.

Risk assessment tools that are available online or can be integrated into the practice management system include:

- New Zealand cardiovascular guidelines handbook: www.nzgg.org.nz
- National Heart Foundation: www.knowyournumbers.co.nz
- *bestpractice* Decision Support (registration required): www.bestpractice.net.nz
- Predict (registration required): www.enigma.co.nz (key word "medical")

Ways to optimise CVD risk assessment and recording of data

- Invite eligible patients to make an appointment by post.
- "Flag" eligible patients and allocate more time in appointments to undertake the assessment along with their current concern. Many of the assessment tools have a function to tag alerts to patient files.
- When time permits, consider opportunistic assessment. The Practice Nurse can action alerts and invite patients for an assessment.
- Use other parameters such as non-fasting blood samples to perform risk assessment, rather than lose an opportunity for CVD risk assessment. Adopting a "one stop shop" policy is an efficient use of both the patient and clinicians' time.
- Undertake an audit of patients with known CVD, to ensure their risk has been recorded within the last five years. There are several population audit tools available that can automate this process.

Patient understanding is key

Many risk factors contributing to CVD can be modified by the patient themselves, such as; smoking, physical activity, diet, lipid levels, blood pressure, alcohol intake, stress and obesity.

Education and support are required to enable patients to reduce their CVD risk. This may involve lifestyle changes or adherence to pharmacological treatment for hypertension, abnormal lipid levels or diabetes. It is also important to acknowledge the role of non-modifiable factors such as family history (see sidebar "Different world views").

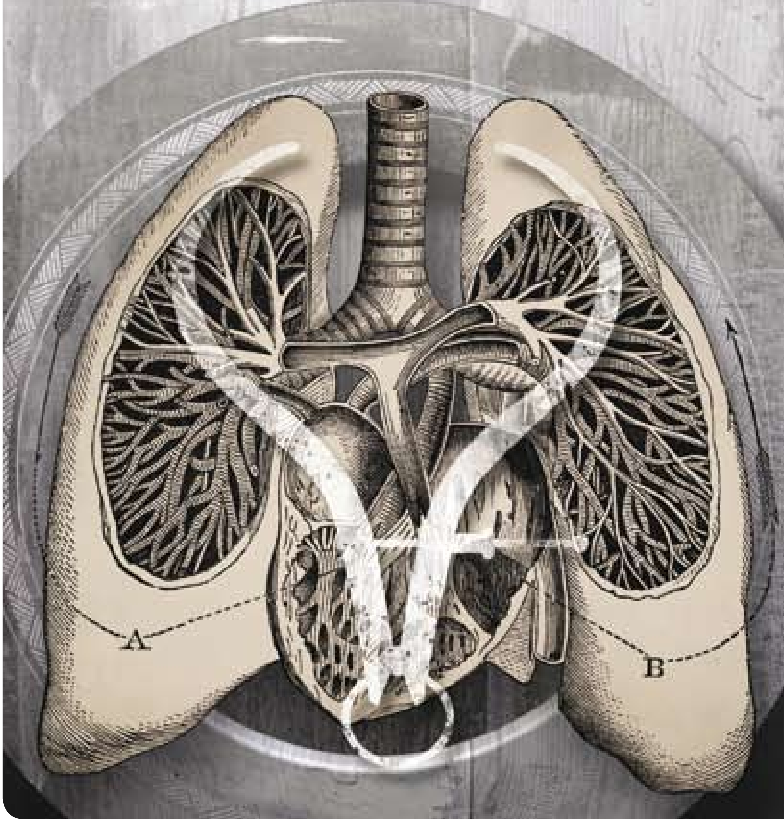
To improve health outcomes in terms of CVD risk reduction for Māori, consider the importance of health literacy. The patient and their whānau must be able to access, understand and act on information about their CVD risk. Make sure patients have knowledge about the medicines they are prescribed and the lifestyle interventions they should undertake. This in turn allows the patient and

Over or underestimation of CVD risk?

The New Zealand guidelines are based on Framingham data that has been adjusted to account for the Māori, Pacific and Indian populations. However, this adjustment tends to overestimate risk for the New Zealand European population by up to 5%.[6]

There are other risk assessment tools available. Regardless of which one is used, it is an important prompt to identify at risk people. Interpreting the calculated CVD risk then requires clinical judgement to relate the significance of other patient factors that the risk calculator does not take into account, such as deprivation.

For further information see "Assessing cardiovascular risk: what the experts think" BPJ 33 (Dec, 2010).



Different world views

Māori and Pacific peoples have a greater risk of experiencing adverse cardiovascular events.[7] Findings from a study in Te Tai Tokerau (Northland) found that Māori patients were aware of the genetic component and family trends associated with cardiovascular disease, but they generally had less understanding of the impact of lifestyle factors on risk.[9]

However, if health professionals focus on the modifiable risk factors without first acknowledging the non-modifiable factors, there is a risk of inadvertently blaming the individual for their situation. This can prevent a trusting relationship from being formed.

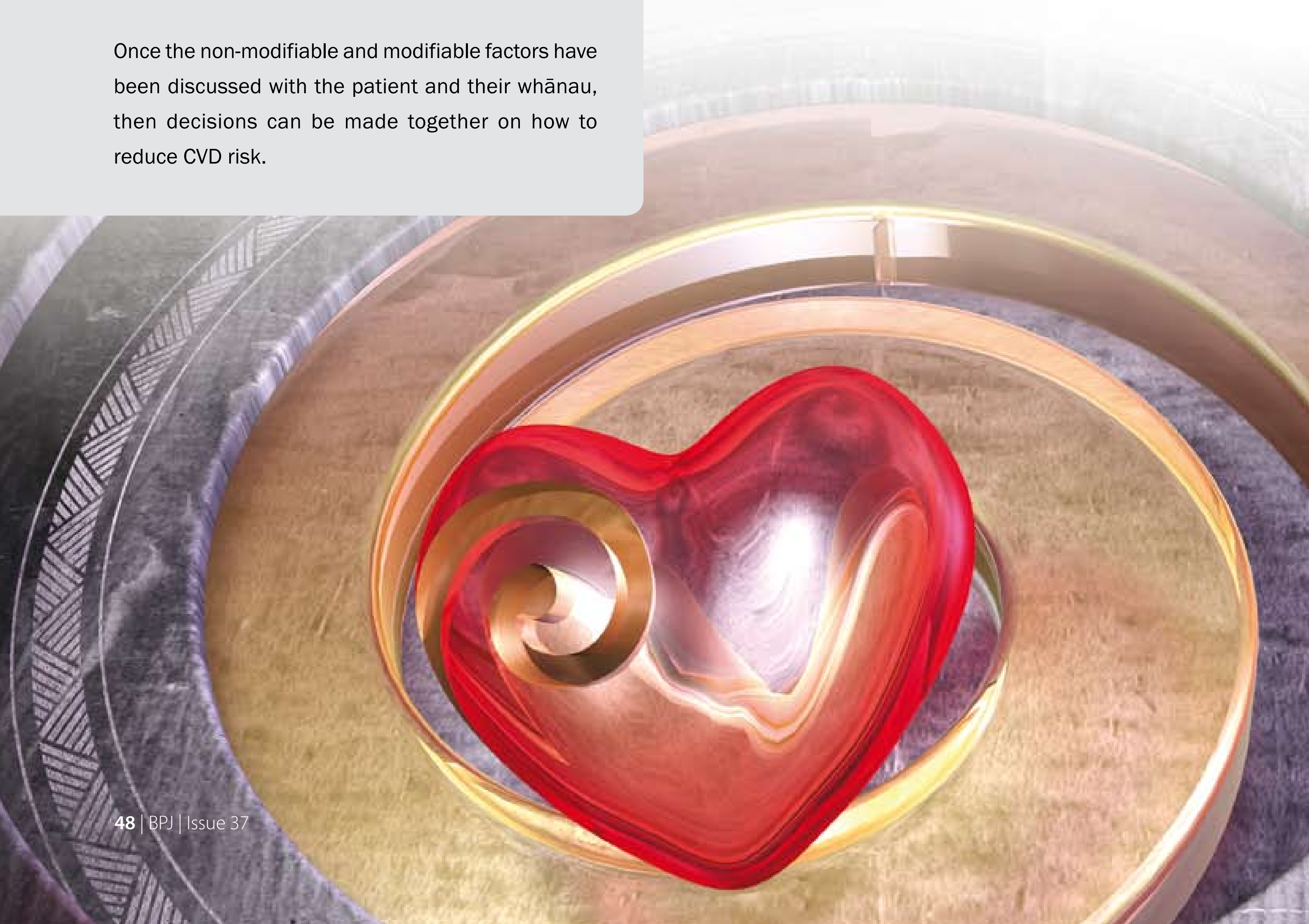
An effective relationship with the patient helps health professionals to explain the influence of behaviour. It is important to understand that patients may feel a sense of powerlessness to change cardiovascular outcomes due to their family history.

Once the non-modifiable and modifiable factors have been discussed with the patient and their whānau, then decisions can be made together on how to reduce CVD risk.

their whānau to feel more confident about their ability to manage their CVD risk and to interact with their healthcare providers.

It is important not to stop at the CVD risk assessment

A study involving over 1500 patients in an Auckland PHO found that CVD risk assessment could be undertaken with good results, however, those found to have increased CVD risk were not always followed through. Māori were found to be significantly more likely to be at high CVD risk than non-Māori. Of those at high CVD risk, 78% were prescribed medicine for blood pressure lowering, 72% for lipid management, 65% for anti-platelet and 50% were prescribed all three treatments. However, among those with either diabetes or established CVD, 66% were not meeting blood pressure or lipid management recommendations.[8]



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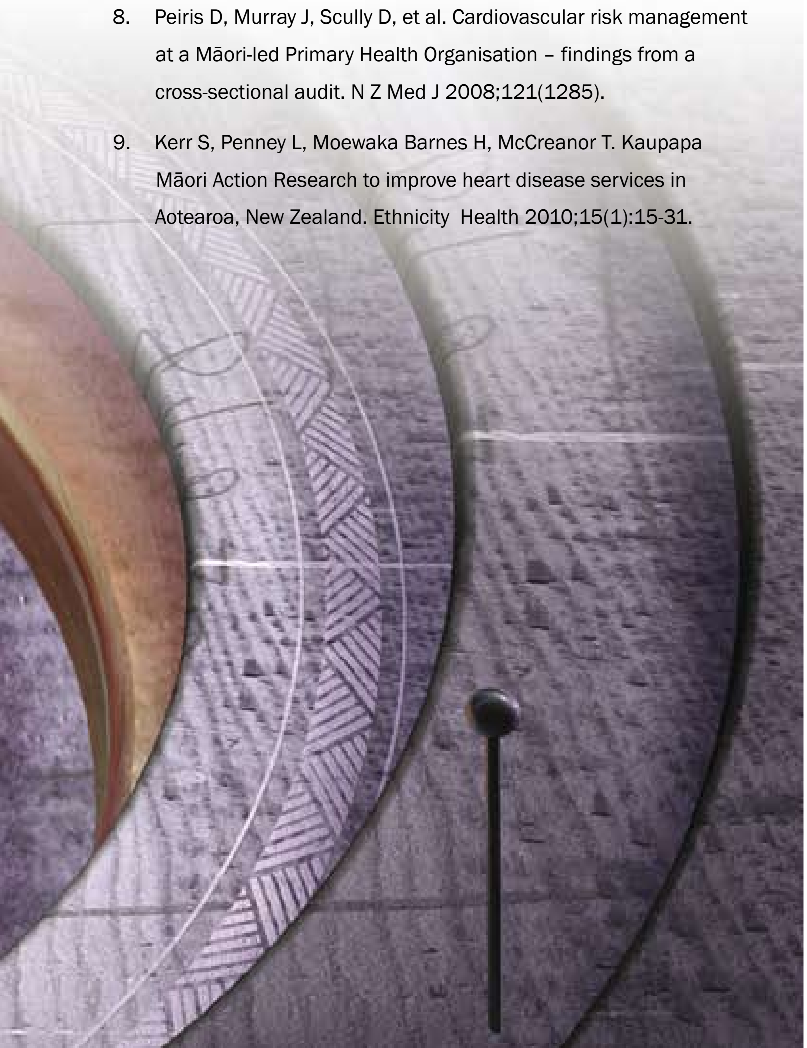

Your Heart forecast™

The Your Heart Forecast tool can now be launched from *bestpractice* and is automatically populated from data extracted from the practice management system and/or entered by the clinician in *bestpractice*.

The tool shows patients:

- Their current risk (where they are now)
- How it relates to a peer with ideal risk factor control and same CVD risk (their cardiovascular age)
- What would happen to their risk as they get older and made no changes (their heart forecast)
- What would happen to their risk if they made healthy lifestyle changes, for example, stopped smoking.

The Your Heart Forecast tool was designed by Drs Sue Wells and Andrew Kerr, at the University of Auckland, and supported by the Heart Foundation, to help doctors communicate cardiovascular risk.

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