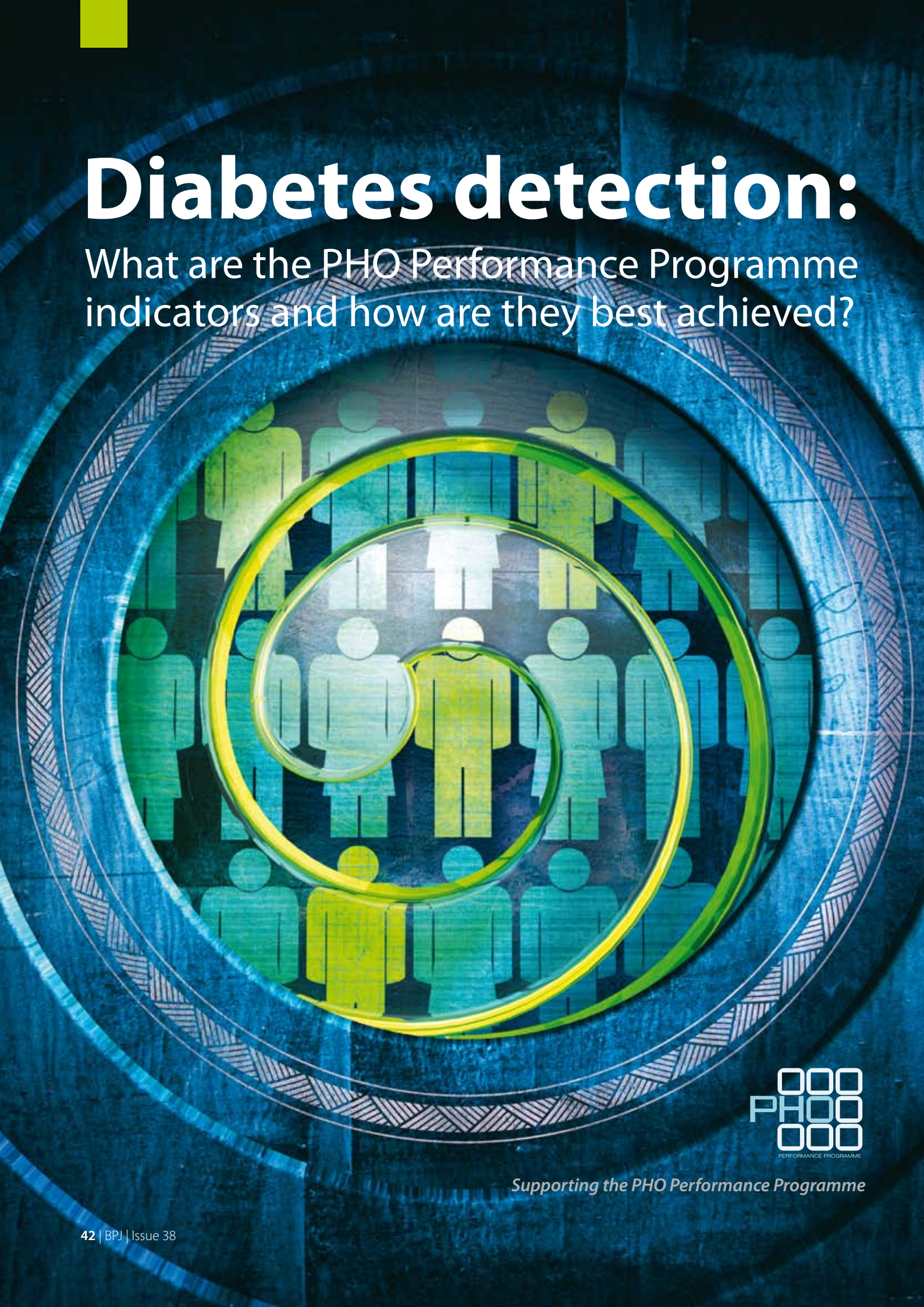
Diabetes detection:

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



Supporting the PHO Performance Programme

What is the PHO Performance Programme?

The purpose of the PHO Performance Programme is to improve equality and health outcomes for everyone accessing primary healthcare in New Zealand. Performance based payments are made to PHOs to improve key indicators, which are reviewed annually.[1] Not all indicators attract funding, however, as some are provided for information only. Those indicators that are currently funded are shown in Table 1. Performances are measured against ideal practice, adjusted to take into account factors such as ethnicity and age that may differ between regions. In order to be eligible to enter the programme a PHO must meet and then continue to fulfil the following prerequisites:[1]

- Minimum 85% ethnicity recording
- Minimum 70% valid NHI numbers on patient registers
- Compliance with the fees agreement
- Signed PHO agreement
- Complete practitioner information
- Complete PHO reporting
- Approved PHO performance plan

See "BPJ 36 (Jun, 2011) and BPJ 37 (Aug, 2011) for previous articles in this series.

PHO performance indicator for diabetes detection

Diabetes detection indicator definition

The PHO performance indicator and target for diabetes detection is: **For 90% of enrolled patients with diabetes, to have been identified and coded within their patient notes.**

The purpose of the diabetes detection indicator is to determine what proportion of a PHO's population estimated to have diabetes has been diagnosed. The number of patients coded with diabetes is divided by the estimated prevalence of diabetes (the denominator) within that PHO.

The estimated prevalence of diabetes within any PHO is derived from a national calculation of diabetes prevalence, which is then adjusted to take into account individual PHO differences in age, gender and ethnicity. The national prevalence data estimate is the number of people within New Zealand who have had diabetes related health service contact, divided by the number of people in New Zealand, either enrolled with a PHO or having had contact with the New Zealand health service, from 1 July 2009 to 30 June 2010.[1]

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

This may mean that in some cases, individual practices with excellent detection methods, may not appear to be meeting the target if the actual prevalence of diabetes in their patient population is significantly less than that estimated for their PHO. Conversely, some practices may have estimated detection rates of over 100%.

Diabetes detection comprises 9% of a PHO's performance payment (3% for achieving the target in the total population and 6% for achieving the target in the high needs* population).

Conditions defined as diabetes

For the purpose of the PHO Performance Programme indicator, the term "diabetes" includes:

- Type 1 diabetes
- Type 2 diabetes
- Diabetes that could be either type 1 or type 2, but is clinically indeterminate

N.B. Gestational diabetes is excluded.

How should a diagnosis of diabetes be recorded?

To allow retrieval of information, electronic Read codes should be entered into the Patient Management System (PMS).

Consultations coded with a "diabetes mellitus" root Read code of C10. count towards achieving the PHO Performance Programme target. The Read codes which are most commonly used, in practice, are outlined in Table 2.

N.B. Read codes C10A. (malnutrition-related diabetes) and C10B. (steroid-induced diabetes) are not eligible for counting towards the target.

* High needs is defined as Maori and Pacific peoples and people living in New Zealand Deprivation Decile 9 or 10 socioeconomic areas (most deprived)

Table 2: Commonly used Read codes for diabetes for the PHO Performance Programme[2]

Description	Root Read Codew
Type I Diabetes mellitus	C108.
Type II Diabetes mellitus insulin dependent	C1089
Type II Diabetes Mellitus non-insulin dependent	C109.

For a list of all Read codes that are identified for the PHO Performance Programme see "Code Mappings for data transfer specification and clinical performance indicator data format standard document." Available from: www.dhbnz.org.nz/Site/SIG/pho/Technical-Documents.aspx

Who should be tested for diabetes?

Testing to detect pre-diabetes, or type 2 diabetes, should be considered in:

- People with symptoms of diabetes
- People at high risk of diabetes (see below)
- People having a cardiovascular risk assessment

Factors associated with an increased risk of diabetes include:

- Maori, Pacific, Asian or Indian ethnicity
- Age over 40 years
- Family history of type 2 diabetes (parent or sibling)
- Increased BMI and/or central obesity
- Impaired glucose tolerance or impaired fasting glycaemia
- Adverse lipid profile (especially low HDL and high triglycerides)
- High blood pressure
- History of gestational diabetes or have given birth to an infant weighing over 4 kg
- Polycystic ovary syndrome
- Taking medicines such as steroids or some antipsychotics

Fasting plasma glucose is the recommended initial test for detecting diabetes. Opportunistic (non-fasting) measurement of HbA_{1c} is appropriate if compliance with a fasting test is a barrier (Table 3).[3]

Table 3: Detecting diabetes[3]

Fasting plasma glucose result	Action
≥ 7.0 mmol/L	Repeat fasting plasma glucose, two results at this level constitute a diagnosis of diabetes
6.1 – 6.9 mmol/L	Request an oral glucose tolerance test (OGTT), indicates impaired fasting glucose
5.5 – 6.0 mmol/L	Request an OGTT if at high risk of diabetes
≤ 5.4 mmol/L	Retest in five years or earlier if risk factors, normal result

HbA_{1c} result	Action
≥ 6% (42 mmol/mol)	Measure fasting plasma glucose

See "Detecting diabetes", bpac^{nz} (Jul, 2008) for further information about testing.

References:

1. DHBNZ. PHO Performance programme. Indicator definitions. Version 5. Available from: www.dhbnz.org.nz/Site/SIG/pho/Operational-Documents.aspx (Accessed Aug, 2011).
2. DHBNZ. Code mappings for data transfer specification and clinical performance indicator data format standard document. Version 0.6. Available from: www.dhbnz.org.nz/Site/SIG/pho/Technical-Documents.aspx (Accessed Aug, 2011).
3. New Zealand Guidelines Group (NZGG). New Zealand cardiovascular guidelines handbook. NZGG: Wellington; 2009.