

# Using finger-prick and lab HbA1c tests to simplify diabetes testing

## Why was this study done?

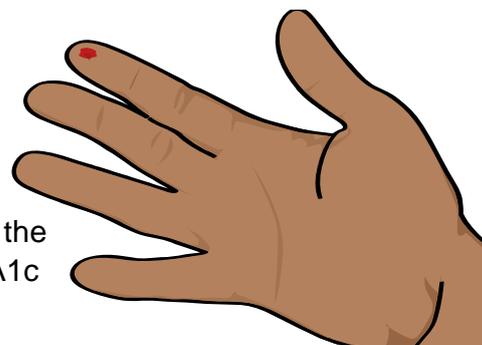
- Type 2 diabetes is too much sugar/glucose in the blood and is responsible for a lot of sickness in the Kimberley. If you have diabetes you may get very sick. You may get eye problems, you may get feet problems, you may need to go onto a machine (kidney problems), you may get heart problems, and you might not know you have it.
- If we find it early there are things that can be done to decrease the chance of these bad things happening (healthy eating, exercise, medications (tablets and insulin), regular check-ups).
- Before this study, to find out if someone has diabetes a blood sugar/glucose test was needed. This meant you needed to come to clinic fasted; have a blood test, drink a sugar drink and wait 2 hours; then have another blood test. This can delay diagnosis in remote communities.
- Being able to use a special finger-prick test that doesn't require fasting would make it quicker and easier to find out if you have diabetes. This special test is called HbA1c. However, before this study we were not sure if finger-prick testing of HbA1c was reliable enough to be used in this way. We also wanted to know if finger-prick and lab HbA1c tests are better at looking for diabetes than the sugar/glucose tests.

## How was this study done?

- Six sites took part in the study (Balgo health care clinic, Bidadanga clinic, Broome Regional Aboriginal Medical Service, Derby Aboriginal Health Service, Warmun health care clinic, Yuri Yungi Medical Service). Anyone who needed to be tested for diabetes using the sugar/glucose tests was asked if they would also have a finger-prick and lab HbA1c test at the same time.
- The finger-prick and lab blood tests were done by the same staff who normally did them.

## What did we find?

- 255 Aboriginal and Torres Strait Islander people enrolled in the study. We found that the results from the finger-prick HbA1c samples were similar to the lab blood HbA1c test results.
- Staff trained by other clinic staff 'on the job' performed as well as people with special training.
- We found that the new way of testing for diabetes using HbA1c was better than the existing way using sugar/glucose tests:
  - Many more people had a final result that took less time to get using finger-prick and lab HbA1c tests (98% had a result within a week) than the sugar/glucose tests (78% had a result within a week).
  - 20 people enrolled in the study had diabetes (they didn't know they had it!); the finger-prick and lab HbA1c test found 15 of these people; and told us that the other 5 were likely to become diabetic in the next five years (pre-diabetes). The sugar/glucose test only found 4 people with diabetes.



## What happens now?

- As a result of this study we have changed the way diabetes is tested in the Kimberley.
- Instead of the sugar/glucose tests, our advice is that the finger-prick HbA1c test is used to see if you have a normal result (screening for diabetes). If the result is not normal then clinic staff will take blood for a lab HbA1c test. This will make finding out if you have diabetes, quicker and easier.

## HbA1c levels – what do they mean if you don't know you have diabetes?

POC HbA1c Level		
High		You probably have diabetes: The Doc will do a lab HbA1c test today
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Medium	6.5 5.7	You may have pre-diabetes: The Doc will do a lab HbA1c test today
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Low		You are not likely to have diabetes: No HbA1c test for a year

**Many thanks to patients, staff & Council of participating services. Without your help this research would not have been possible.**

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