Blood from a finger-prick is OK to test for diabetes

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 need to go onto a machine (kidney problems), you may get eye problems, you may get feet problems, you may get heart problems, and you might not know you have it!

Current advice to find out if someone has diabetes says that a lab blood sugar/glucose test is needed. This can delay diagnosis in remote communities. Being able to use finger-prick testing would make it quicker and easier to find out if you have diabetes. However before this study we were not sure if finger-prick testing was reliable enough to be used in this way.

How was this study done?
Seven sites took part in the study (Bidyadanga clinic, Broome Regional Aboriginal Medical Service, Derby Aboriginal Health Service, Kalumburu clinic, Kimberley Satellite Dialysis Centre, Lombadina clinic and Oombulgurri clinic). Anyone having a lab blood sugar/glucose test at any of these sites was asked if they would also have a finger-prick test at the same time. The finger-prick and lab blood tests were done by the same staff who normally did them.

What were the results?
200 people were enrolled in the study. 36 of these results were not included, mainly because no lab blood sample had been taken at the same time as the finger-prick sample. We found that the results from the finger-prick sugar/glucose samples were similar to the lab blood test results.

Finger prick sugar/glucose levels – What do they mean?

<table>
<thead>
<tr>
<th>Sugar/glucose</th>
<th>You probably have diabetes: The Doc will do another sugar/glucose test later (lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High 12.2</td>
<td></td>
</tr>
<tr>
<td>Medium 5.5</td>
<td>You may have diabetes: The Doc might do another sugar/glucose test (lab)</td>
</tr>
<tr>
<td>Low</td>
<td>You do not have diabetes: No sugar/glucose test for a year</td>
</tr>
</tbody>
</table>

Based on these results the current diabetes guidelines are going to change to include the use of finger-prick testing. This will make finding out if you have diabetes, quicker and easier.

Many thanks the patients who took part in this study and to all the clinical staff who collected the data. Without your help this research would not have been possible.

This study was a joint project between the Kimberley Aboriginal Medical Services Council, The WA Rural Clinical School and the WA Country Health Service – Kimberley. If you have any questions or comments please direct them to Dr Julia Marley at KAMSC (email Julia.Marley@uwa.edu.au, phone (08) 9193 6043).