



Kidney Health Study

Screening Report

**Bourke, Brewarrina &
Walgett (North West)**

2015



The ARDAC Study

The ARDAC Study (**A**ntecedents of **R**enal **D**isease in **A**boriginal **C**hildren) is based at The Centre for Kidney Research at The Children's Hospital at Westmead and is investigating the early signs of kidney and cardiovascular disease in both Aboriginal and non-Aboriginal children in NSW. The first and second phase of the study has been conducted over thirteen years between 2002 and 2013 and has followed the health of more than 3,500 children from areas across NSW.

Originally recruited from schools, participants are now screened and recruited from a variety of touch points including high schools, colleges, local Aboriginal Medical Services and other community outreach networks.

Screening in Phase 2 of the study included measurement of height, weight, blood pressure, waist circumference and a urine test. The same measurements were taken in Phase 3 along with a questionnaire asking questions around lifestyle factors and family history of chronic disease.

The results of the first phase showed no difference in presence of markers for kidney and cardiovascular disease between Aboriginal and non-Aboriginal participants. Screening for Phase 2 took place between 2008 and 2013. This phase has found a difference is beginning to appear, particularly among Aboriginal girls. This change seems to be largely driven by obesity which is then impacting higher blood pressure and protein in the urine.

The success of the ARDAC study has been the result of the support and commitment from Aboriginal Health Workers (AHW's), Aboriginal Education Officers (AEO's), teachers, staff from the Aboriginal Medical Services, the Division of General Practice and a large number of participating schools and communities.

From 4th – 13th May we screened 74 participants from the Bourke, Brewarrina & Walgett area. These are the results of screening for 2015.

Screening locations:

| Location | Participants |
|---------------------------------------|---------------------|
| Bourke Aboriginal Medical Service | 4 |
| Bourke High School | 19 |
| Bourke PCYC | 3 |
| Brewarrina Aboriginal Medical Service | 11 |
| Brewarrina Central School | 11 |
| Brewarrina Youth Centre | 1 |
| Home visits | 2 |
| Lightning Ridge High School | 1 |
| Merriman Shearing School | 6 |
| Narromine High School | 1 |
| Walgett High School | 15 |
| Total | 74 |

Breakdown by location type:

| Location Type | No. of Participants | % |
|----------------------------|----------------------------|----------|
| High School | 47 | 64% |
| Aboriginal Medical Service | 15 | 20% |
| Vocational School | 6 | 8% |
| PCYC | 4 | 5% |
| Home Visits | 2 | 3% |

Breakdown by ethnicity:

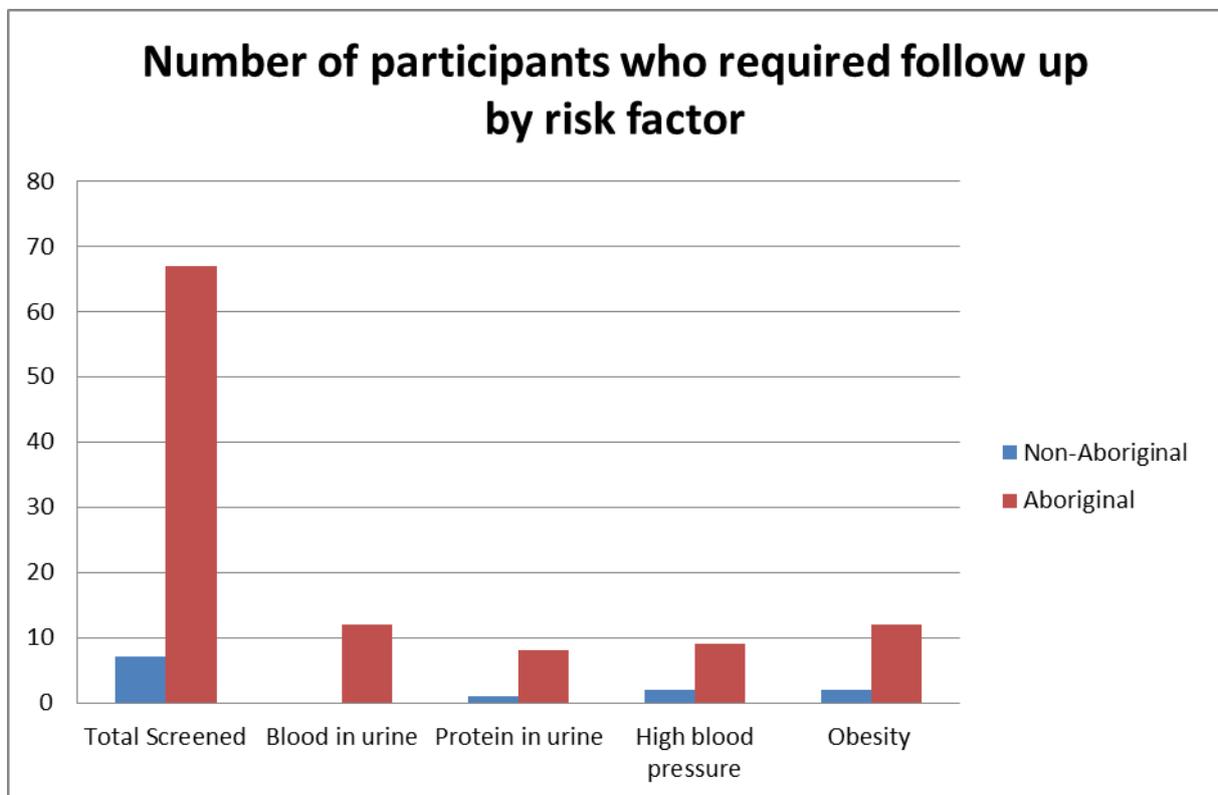
| Ethnicity | No. of Participants | % |
|------------------|----------------------------|----------|
| Aboriginal | 67 | 91% |
| Non-Aboriginal | 7 | 9% |

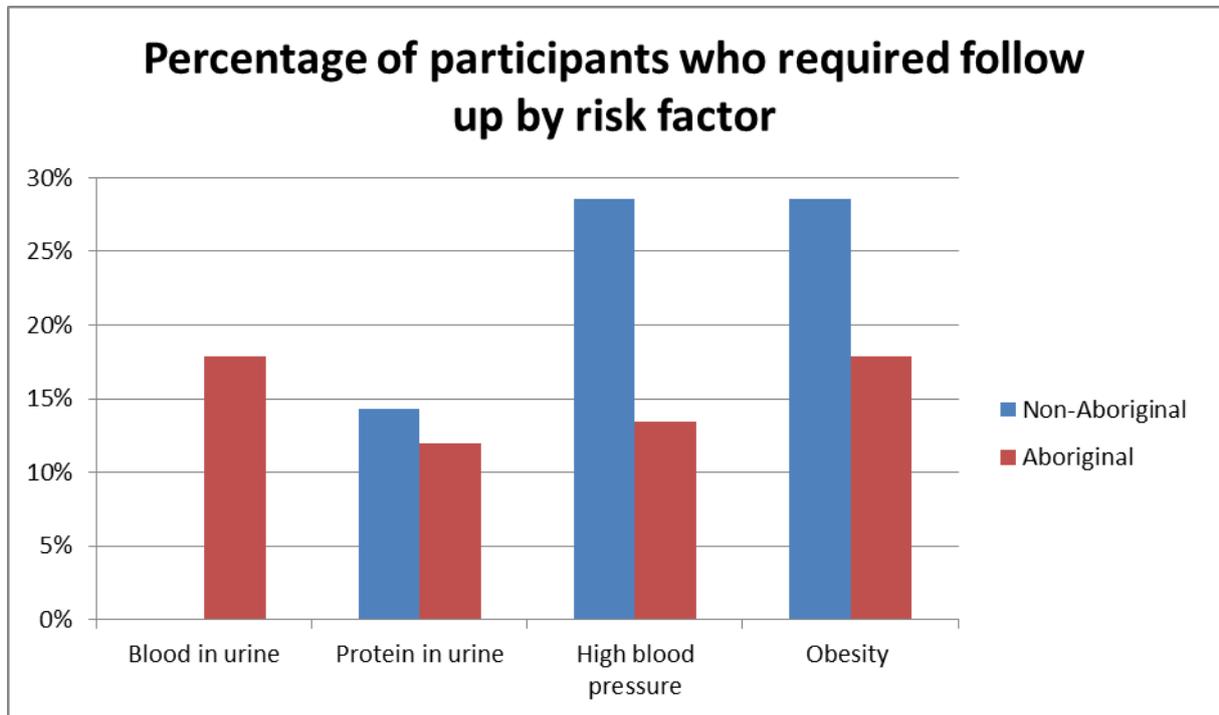
Breakdown by age:

| Age | Total | Aboriginal | Non-Aboriginal |
|------------|--------------|-------------------|-----------------------|
| 15 | 9 (12%) | 8 (12%) | 1 (14%) |
| 16 | 23 (31%) | 22 (33%) | 1 (14%) |
| 17 | 19 (26%) | 16 (24%) | 3 (43%) |
| 18 | 8 (11%) | 7 (10%) | 1 (14%) |
| 19 | 6 (8%) | 6 (9%) | 0 |
| 20 | 5 (5%) | 4 (6%) | 1 (14%) |
| 21 | 5 (7%) | 4 (6%) | 1 (14%) |

Breakdown of screening results:

| Screen | Measure | Total | Aboriginal | Non-Aboriginal |
|---------------------|--|----------|------------|----------------|
| Blood in urine | $\geq 1+$ (25 cells/uL) excluding menstruation | 58 | 12 (18%) | 0 |
| Protein in urine | urine $\geq 1+$ (30mg/dL) | 9 (12%) | 8 (12%) | 1 (14%) |
| High Blood Pressure | systolic blood pressure > 95% for age | 11 (15%) | 9 (13%) | 2 (29%) |
| Obesity | Body Mass Index SDS >2 | 14 (19%) | 12 (18%) | 2 (29%) |

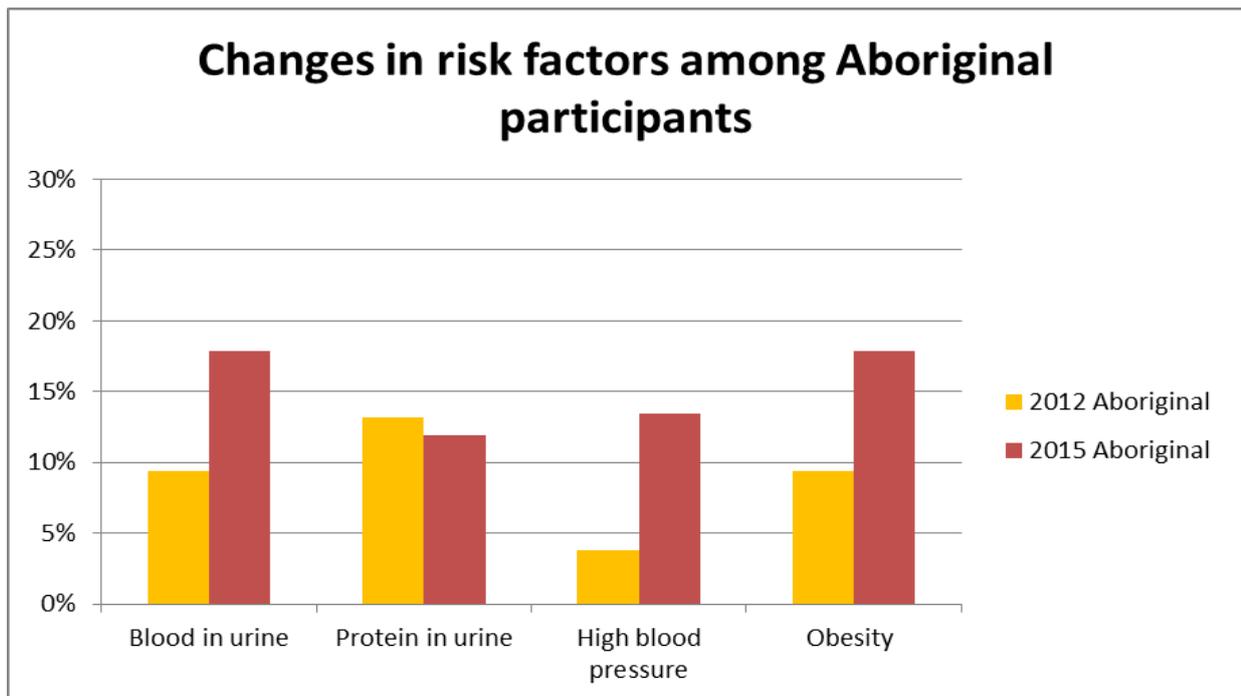




Due to the disproportionately low number of non-Aboriginal participants screened it is not surprising that higher proportions of risk factors were identified and are therefore not particularly significant as a comparison.

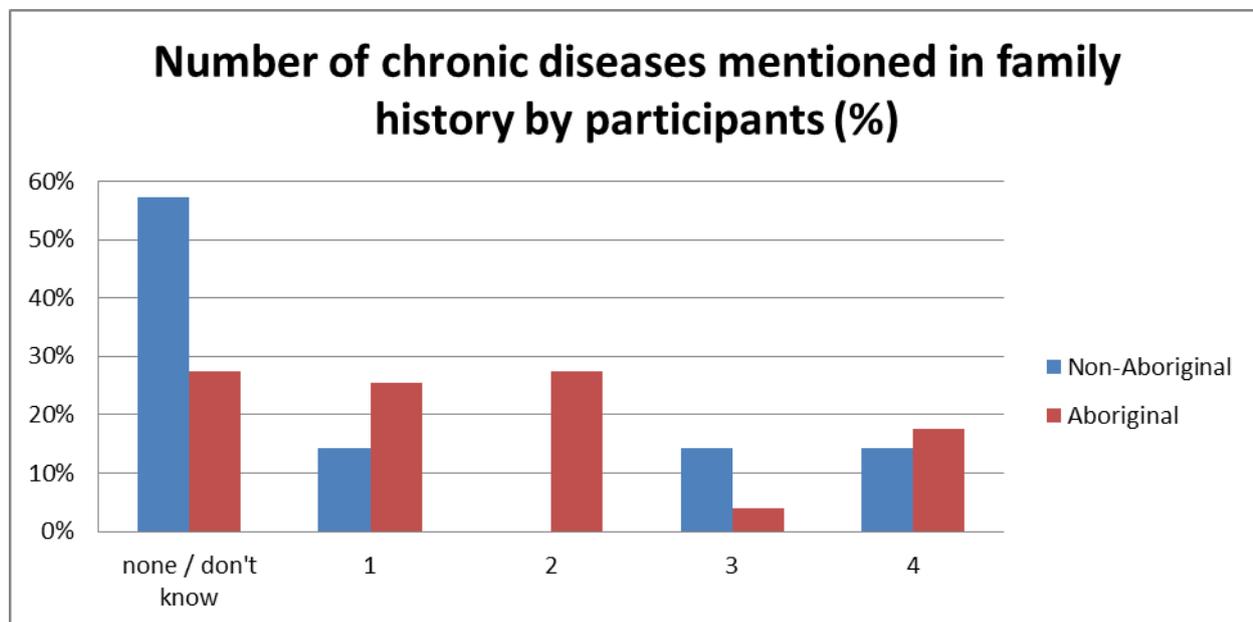
Interestingly, despite this uneven balance, Aboriginal participants still had much higher rates of blood in urine (excluding girls who were menstruating) than non-Aboriginal participants.

A comparison with the 2012 screening data (where participants were aged 12 to 16 years) shows an increase of most risk factors among Aboriginal participants.

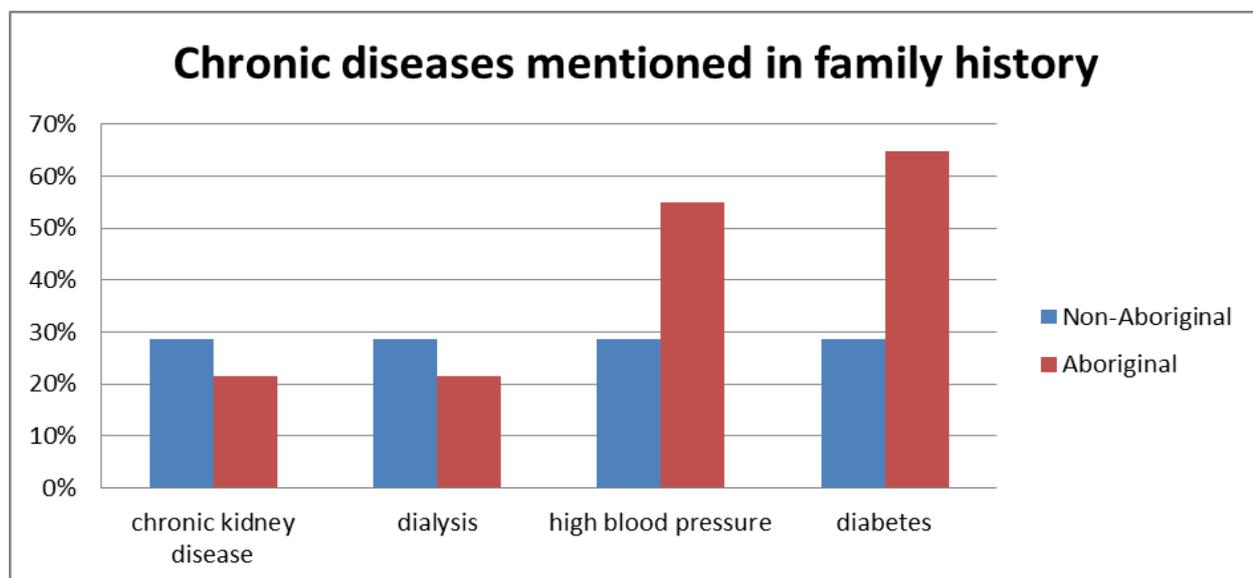


Insights from Questionnaire

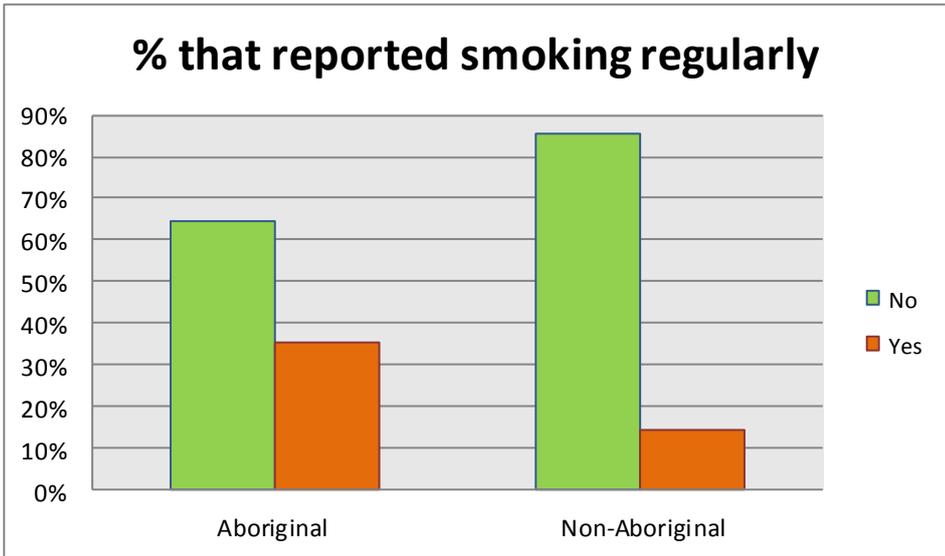
The following results were collated from the questionnaire which was completed by all participants aged 16 years and over around lifestyle and family history of chronic disease.



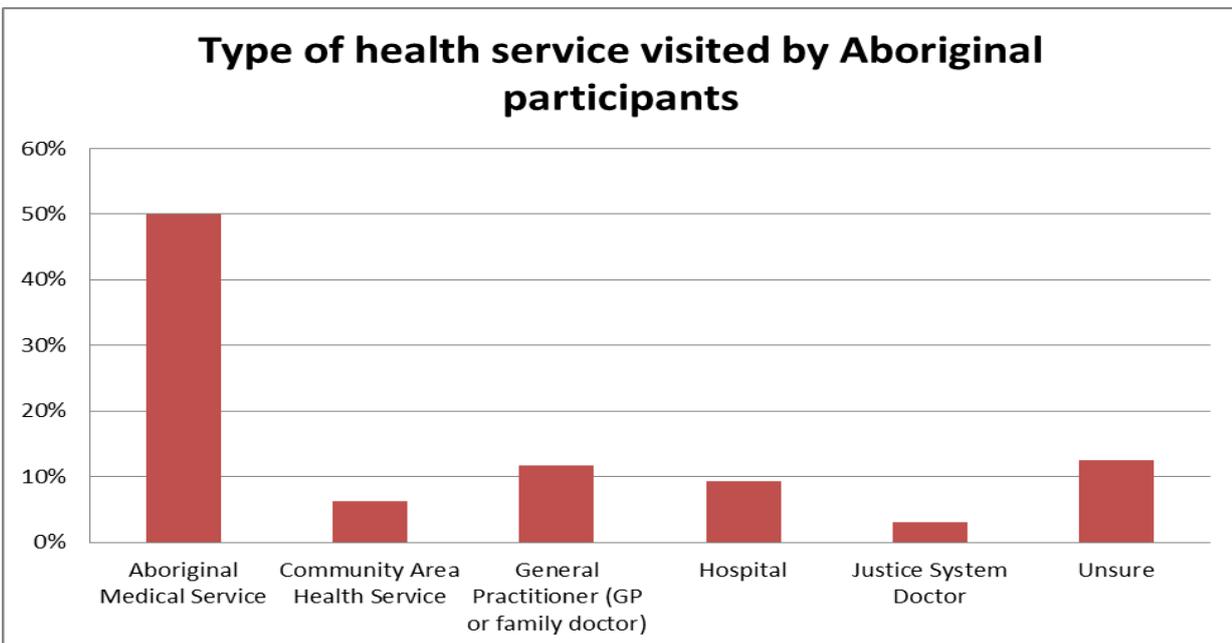
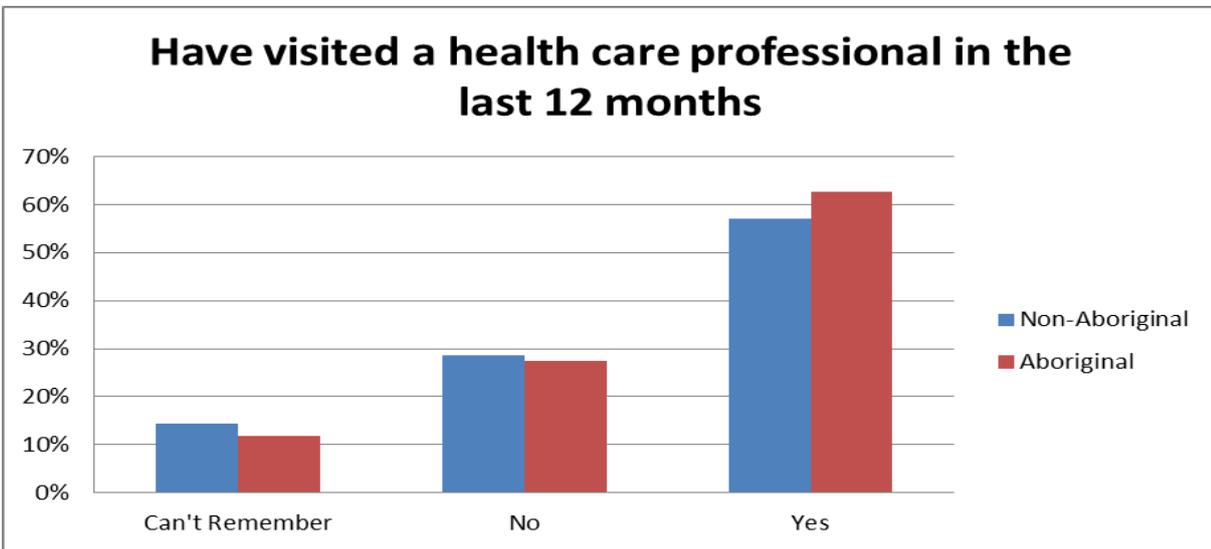
Awareness and presence of either a family member with chronic kidney disease, on dialysis, high blood pressure and/or diabetes was much higher among Aboriginal participants with over half (52%) listing awareness of at least one or two of these conditions.



Over 50% of Aboriginal participants sited knowledge of a family member having either diabetes (65%) or high blood pressure (55%).



Smoking rates among Aboriginal participants was much higher



A large proportion of Aboriginal participants had attended a health care practitioner in the last 12 months and 50% of those attended an Aboriginal Medical Service

Referral

Participants have been referred to their local doctor, or the Aboriginal Medical Service (pending their consent) for further investigation if one or more of the following were found during the screening;

- **High blood pressure**
- **Obesity**
- **Blood, protein or albumin in their urine**

Participants who required follow-up also received instructions with their screening results.

Contact Us

If you have any questions about screening or results please contact us on:

Free call: 1800 005 846

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