

# Healthy Skin Prevents Chronic Disease in Remote Communities

In some remote communities, up to half of all Aboriginal children can be affected by skin infections that are now rare in the broader Australian population. These skin infections are linked with serious diseases later in life such as kidney disease and the deadly rheumatic heart diseases.

In some communities, Aboriginal babies are regularly being treated for scabies and skin infections from their first few months of life. It is one of the most common reasons for them to be seen at a health service.

In the 1930s, scabies were common in poor communities throughout Australia. Now they are rare and controlled. This should be possible for Aboriginal communities too.

For further information, please contact the Cooperative Research Centre for Aboriginal Health Healthy Skin Program Leaders **Associate Professor Ross Andrews**, Menzies School of Health Research (Email: ross.andrews@menzies.edu.au) and **Dr Christine Connors**, NT Dept of Health & Community Services (Email: christine.connors@nt.gov.au). For more information on the CRCAH Healthy Skin Program please contact the Healthy Skin Program Manager **Arwen Pratt** (Email: arwen.pratt@crcah.org.au).

## Skin problems in remote Aboriginal communities: The facts

- Skin infections and infestations are among the most common reasons for children in remote communities to present to Primary Health Care Centres. (These include both Aboriginal community controlled health services and government-run clinics.) This begins within the first months of life, and more than 60% of children will have been treated for scabies or skin disease before they are one year of age.
- In remote Aboriginal communities, scabies is often endemic; for example, in the Northern Territory up to 50% of children and 25% of adults are infested at some times.
- Scabies and skin infections in childhood have been linked with the extreme rates of end-stage renal failure in Aboriginal adults. Also Streptococcal skin infection is linked with acute rheumatic fever (ARF) and rheumatic heart disease (RHD).
- Compared to non-Indigenous Northern Territorians, Aboriginal people in the NT are:
  - 124 times more likely to get rheumatic fever;
  - 27 times more likely to die of rheumatic heart disease (frequently at a much younger age);
  - 40 times more likely to be hospitalised with strep-related kidney disease; and
  - 5 times more likely to get strep flesh-eating bacteria.

## The CRC for Aboriginal Health's Healthy Skin Program

Because scabies and skin disease have such severe implications in remote Aboriginal communities, the Cooperative Research Centre for Aboriginal Health has made Healthy Skin one of its five major programs of work.

The Healthy Skin Program builds on many years of work carried out by CRC for Aboriginal Health partners—Menzies School of Health Research, Queensland Institute of Medical Health Research, the NT Department of Health and Community Services and The University of Melbourne. The CRC for Aboriginal Health has invested more than \$1.3m into the program, and partner organisations have brought in many millions more of in-kind projects. The program currently has five projects, many of which are either near complete or completed.

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## Key research findings

The East Arnhem Healthy Skin project identified a previously undocumented burden of scabies and skin infections starting within the first few months of life. We believe this to be the first study to demonstrate the early age at which scabies is first acquired by almost all infants in this setting. By the time they are one year of age, 63% and 69% of children had presented with scabies and skin sores, respectively.

- Appropriate prevention and treatment strategies should encompass early infancy to reduce the high burden of infectious diseases in this population.
- Further research into safe and effective treatments for scabies in children is needed. Mites are starting to show resistance to the current common treatment (permetherin), which could mean that this treatment will become increasingly less effective.
- We know that household overcrowding, access to adequate quantities of water, high humidity, education, implementation of personal hygiene and continuing socioeconomic disadvantage are all important factors that increase the risk of these infections.
- Dog scabies are not the same as human scabies so treating the dogs will not reduce the burden of scabies in humans.
- Treating communities in isolation is unlikely to produce a sustainable decrease in scabies due to the high mobility of families and between regions.
- The use of locally trained workers to provide home visits/outreach services to follow up households individually has been a successful component of the research. There were two parts of this approach that contributed to its success: the outreach/home visiting approach, and the formal and on-the-job training provided to give workers a level of expertise in dealing with skin problems.

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## Strategies for change

- Invest in early childhood programs to enable effective treatments and follow-up, including the use of home visiting programs with local community workers.
- Invest in adequate housing to reduce overcrowding, and increase access for personal hygiene practices.
- Continue investment in research on more effective treatments and potential vaccines.



## REFERENCES

- Clucas, Danielle B., *et al.* 2008, 'Disease Burden and Health-care Clinic Attendances for Young Children in Remote Aboriginal Communities of Northern Australia', *Bulletin of the World Health Organization (BLT)* [epub ahead of print] DOI: 10.2471/BLT.07.043034. Available at: <<http://www.who.int/bulletin/volumes/86/07-043034.pdf>>.
- Pasay, C., *et al.* 2006, 'A PCR-based Assay to Survey for Knockdown Resistance to Pyrethroid Acaricides in Human Scabies Mites (*Sarcoptes scabiei* var *hominis*)', *Am J Trop Med Hyg*, 74:649–57.