

Making a difference to *Skin Disease* in Aboriginal Communities

Skin disease remains a major problem in remote Aboriginal communities, particularly among young children

- Household overcrowding, poverty, inadequate domestic water supplies and hygiene levels are underlying issues that affect the prevalence of skin sores and scabies. Work needs to continue on addressing these all-important factors to bring about long-term change.
- New research shows that changes to treatment protocols and better support for case management and follow-up can reduce the prevalence of skin disease in the immediate term, despite the underlying social and environmental factors.
- The trial of an outreach service connected to local health clinics, which employed community workers to carry out home visits, was successful in

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improving follow-up treatment and in reducing the prevalence of skin sores and infected scabies.

- The model of community workers carrying out home visits and follow-up skin checks could be applied to many childhood ailments, including ear disease, oral health and respiratory infections, which together impose a huge burden of disease on Aboriginal children.

Extending support: Community-based workers making home visits

- Most remote clinics do not have the capacity to provide outreach or follow-up home visits to support case management around skin disease. In response, the East Arnhem Healthy Skin project developed a successful network of community-based workers, who provided follow-up home visits after clinic attendance or where school screening detected skin sores or scabies. The workers provided an important link to families and households that helped to increase the likelihood of treatment and follow-up.
- In addition to support from staff at the local clinic, the workers received external support from a regional coordinator (an expert in skin disease from the Healthy Skin research team) and peer support through regular meetings with workers from other communities. These additional aspects were important because they provided professional and peer support from outside the clinic.

- The workers also completed an accredited training program specialising in skin issues (developed by the Healthy Skin team and funded by the Office for Aboriginal and Torres Strait Islander Health), which combined both on- and off-the-job learning strategies.
- The Northern Territory Department of Health and Family Services has funding to employ 40 new Aboriginal community worker positions. The training developed for the new recruits was based on the Healthy Skin training program.
- The Healthy Skin training program is now also being developed into an expanded, nationally accredited Certificate II in Child Health Research that will cover other child health priority areas including ear, respiratory, diarrhoeal, oral and skin diseases.

Improving treatment protocols

- Remote health clinics are effectively diagnosing and documenting the burden of disease attributable to skin sores and scabies. However, current protocols recommend only treating those with severe sores or those with six skin sores or more. This means many children diagnosed with skin sores are not being treated, and carry an unacceptably high level of infection.
- The protocol for treatment of skin sores is to be changed in the next edition of the *Central Australian Rural Practitioners Association (CARPA) Treatment Manual* to include treatment of any crusted or purulent skin sores.

Developing better treatments

- Current treatments for both scabies and skin sores do work, if correctly administered. However, treatments are not pleasant and uptake is unacceptably low.
- The existing recommended treatment for scabies is particularly time consuming and intrusive: it is expected that the entire household be treated with permethrin cream smeared over the entire body, that mattresses be put out in the sun, and linen and clothing washed. The entire treatment regimen is rarely followed in remote communities.
- Despite low treatment uptake, the Healthy Skin Program found that households where all contacts were adequately treated had a substantial reduction in the risk of ongoing scabies transmission (by a factor of six).
- Individuals were more likely to use the treatment if they had scabies, were female or came from a household where the burden of scabies was low.
- While household crowding did not predict whether treatment was used or not, it was clearly an environment predisposed to high levels of scabies transmission with an average of 15 persons per household.
- Better uptake of treatment and follow-up will occur if treatment protocols can be developed that are less unpleasant and more user-friendly. The Healthy Skin team is working on trials of better treatments for scabies and skin sores that include oral medications instead of topical applications or injections.

Future work

- A skin sore trial comparing a 3-day and a 5-day oral medication course with the current gold standard practice of a penicillin injection has been funded and will commence in September 2009.
- Ethics approval has also been obtained for a new scabies oral treatment trial using a 1-to-2 dose ivermectin tablet that has been used successfully in other countries to treat common scabies cases.
- At present ivermectin can only be prescribed in Australia by doctors under restricted conditions for people with crusted/Norwegian scabies—the most severe form of scabies—characterised by thickened crusts of skin containing thousands of scabies mites. Further research is needed to ensure safe treatment protocols for the adoption of ivermectin as a standard treatment in Aboriginal communities.
- One community has expressed an interest in participating in an ivermectin study as an alternative treatment to topical permethrin cream. The commencement of this study is currently subject to funding.
- To implement the ivermectin study, community-based workers will receive Senior First Aid Training and the Certificate II in Child Health Research. They will then be mentored by senior people in the community with extensive research experience. These qualifications will provide the trainees with greater employment opportunities across a range of health areas.

FREEING ABORIGINAL CHILDREN FROM SKIN INFECTIONS

In many remote Indigenous communities, five out of every 10 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, including acute and chronic kidney and heart diseases, for which Indigenous Australians have the highest reported rates in the world.

Skin infections and infestations are among the most common reasons for children in remote communities to present to primary health care centres. New research shows infections begin within the first months of life, with 70–80 per cent of children diagnosed with scabies or skin sores before they are one year old.

Scabies is an infestation of the skin by the mite *Sarcoptes scabiei*. The mites are tiny eight-legged parasites just $\frac{1}{3}$ of a millimetre long (invisible to the naked eye), which burrow into the skin to produce intense itching. They spread through close person-to-person contact.

In the 1930s, scabies infections were common among people living in poor communities throughout Australia, a condition of poverty and over-crowding. Now such infections are rare, and controlled. This should be achievable in Aboriginal communities too.

The full report and flipchart can be downloaded in PDF format or ordered from the CRC for Aboriginal Health website (www.crcah.org.au).

PUBLICATIONS

- Clucas, D., Carville, K., Connors, C., Currie, B., Carapetis, J. & Andrews, R. 2008, 'Disease Burden and Health-Care Clinic Attendances for Young Children in Remote Aboriginal Communities of Northern Australia', *Bulletin of the World Health Organization*, vol. 86, no. 4, pp. 275–80.
- La Vincente, S., Kearns, T., Connors, C., Cameron, S., Carapetis, J. & Andrews, R. 2009, 'Community Management of Endemic Scabies in Remote Aboriginal Communities of Northern Australia: Low treatment uptake and high ongoing acquisition', *PLoS Neglected Tropical Diseases*, vol. 3, no. 5, e444.