

## **The RHD Endgame Strategy: Evidence Brief #7**

### *Active case finding of skin sores through skin screening and outreach programs*

Since the 1990s, a number of research and service delivery projects in Australia have explored the feasibility and impact of skin health initiatives in remote communities. These have generally included efforts to address scabies and skin sores simultaneously. Some have been based on active case finding, others on a 'treat all' approach to manage scabies infections. Examples include:

#### **East Arnhem Health Skin Project**

Between 2004 to 2007, a research team undertook mass drug administration of topical 5% permethrin in five remote Aboriginal communities in the NT to reduce the prevalence of scabies and impetigo.<sup>1</sup> Upon receiving a diagnosis of scabies, children aged under 14 and household contacts were provided with permethrin.<sup>1</sup> Children with pyoderma or impetigo were referred to the clinic for treatment, and flipchart health promotion materials were developed to increase awareness and understanding among the community. Impetigo prevalence reduced from 46% at baseline to 32% at three months and 35% at three years. Scabies prevalence was 16% at baseline, 13% at three months and 16% at three-year follow-up.<sup>1</sup>

#### **Integrated skin, scabies, trachoma and APSGN screening**

Acute post-streptococcal glomerulonephritis (APSGN), a kidney disease, can occur after Strep A skin infections. Following a localised community outbreak in 2011, the Northern Territory Centre for Disease Control undertook a large-scale interventional program to screen children for skin sores or kidney disease and to provide treatment to prevent further cases of APSGN in a remote community.<sup>2</sup> Preparation for screening involved a large public health response including television and radio broadcasts delivered in Aboriginal languages, involvement of Elders and family members reiterating the need for screening via letters, and engagement with Aboriginal Health Workers.<sup>2</sup>

Across a five-day period, 540 children aged 12 months to 17 years were screened for signs of kidney disease, skin sores and scabies.<sup>2</sup> Where infection was identified, treatment was undertaken.<sup>2</sup> Personal hygiene messages encouraging clean hands and faces were delivered alongside screening.<sup>2</sup> A reported strength of the program was an incentive for participation; a sought-after toy was provided to children, particularly those who required treatment with an injection of BPG.<sup>2</sup>

#### **Minjilang Scabies Project**

A scabies control program using 5% permethrin cream was undertaken in the NT community of Minjilang in the mid-1990s.<sup>3</sup> Community members were initially examined for scabies and skin sores, with treatment cream offered to all those older than two months of age. Seven follow-up visits were made at varying intervals over the ensuing 25 months, during which people were re-examined, and new cases of scabies treated (including household contacts).<sup>3</sup> The prevalence of scabies was reduced from 29% before the program to less than 10% during the entire follow-up period.<sup>3</sup>

## SToP Trial

The SToP Trial (See, Treat, Prevent skin sores and scabies) began in the Kimberley in 2019.<sup>4</sup> SToP aims to reduce skin sores in school-aged children by 50%. The SToP trial combines surveillance of skin conditions, health promotion, environmental health, and an evidence-based treatment package. The trial will run for five years, with preliminary results expected in 2022.<sup>5</sup>

## Summary

There is good evidence that comprehensive outreach-based skin health programs can be effective in reducing the prevalence of scabies and skin sores,<sup>6,7</sup> and can have a number of benefits relative to other service delivery models. For example, the control of scabies requires treatment of all household contacts and via outreach programs, contacts may be more likely to be identified on home visits than at schools, clinics or community events. Furthermore, reducing recurrent scabies infection in a community requires identification and treatment of people with crusted scabies. People with crusted scabies may be unwell, stigmatised or unable to seek healthcare and outreach to households may offer the best opportunity to identify people with crusted scabies.

Household outreach programs vary in their acceptability, especially as some initiatives report difficulty finding private spaces to conduct skin checks and deliver injections.<sup>2</sup> These must be considered and managed on a case by case basis. Home visits provide an opportunity for health promotion and information about other solutions (isolating clothes and bedding) and may improve integration with environmental health services where problems with household infrastructure are identified.

Feasibility of household outreach for skin health programs has been demonstrated in a number of project implementation models. There are costs and disruptions associated with providing this service outside a health setting, but these may be balanced by increased case detection and improved treatment. Community engagement, planning and technical support for program delivery are critical to success. The Northern Territory Healthy Skin Program<sup>8</sup> provides some recommendations about how planning and community engagement can be conducted, advising a three-month planning period.

Well-designed household outreach programs have the potential to strengthen relationships between clinic and community. Other medical conditions or environmental health issues may be identified in addition to skin-related care, and programs may reach people least able or least likely to attend the clinic.

Risks that need to be considered include the provision of healthcare outside of clinical environments making the management of complications more difficult (for example, management of anaphylaxis following benzathine benzylpenicillin injection). The safety of healthcare workers also requires special attention outside the clinical environment, including risks in transport, from dogs or violence.<sup>2</sup>

### Recommendations

- Comprehensive healthy skin outreach programs should be included in primary prevention strategies of ARF in settings with a high burden of skin infection.
- Primary health clinics should be supported by national stakeholders for RHD, to:
  - Work with other stakeholders to develop technical guidelines for how these programs are delivered;
  - Support jurisdictions to develop local implementation plans; and
  - Develop data standards and recommendations for evaluation and monitoring.
- There must be community leadership and primary healthcare resourcing in the implementation of these programs.

## About the END RHD CRE

In 2014, The End Rheumatic Heart Disease Centre of Research Excellence (END RHD CRE) was established to address the urgent need for a comprehensive, evidence-based plan to eliminate rheumatic heart disease across Australia.

Bringing together leading experts from 16 institutions across Australia and backed by a grant from the National Health and Medical Research Council (NHMRC), the CRE has synthesised the collective experience of communities, clinicians, Aboriginal Community Controlled Health Organisations, and government and non-government organisations – as well as more than 25 years of research – to tackle this need head on.

The result is *The RHD Endgame Strategy: The blueprint to eliminate rheumatic heart disease in Australia by 2031*. Outlining the best existing evidence-based strategies to prevent new cases of RHD in Australia and improve the lives of those already living with the disease, The RHD Endgame Strategy was launched in October 2020 and can be viewed at [telethonkids.org.au/rhd-endgame](https://telethonkids.org.au/rhd-endgame).

## Acknowledgements

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## References

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