



foot scape

Newsletter

November, 2016

Welcome to the Footscape November newsletter. Children with lower limb development problems are at greater risk of suffering foot and leg pains, disengaging from physical activity and experiencing social exclusion. Orthoses (shoe inserts) are commonly utilised by Podiatrists in the management of such foot problems. However as they are expensive to purchase, poor socioeconomic groups can have difficulties affording this treatment option.

Accordingly Footscape initiated the *Children's Orthotic Project* in 2013 and has since developed partnerships with the following Community Health organisations that assist clients experiencing significant disadvantage throughout metropolitan Melbourne:

- cohealth
- Darebin Community Health
- Inner East Community Health
- Inner South Community Health Service
- ISIS Primary Care
- Manningham Community Health Services
- Merri Community Health Services
- Plenty Valley Community Health

Footscape is subsequently funding orthoses for financially disadvantaged children attending these services with foot pathology. An invitation is equally extended to all Primary and Community Health Organisations accredited with the Department of Health and Human Services, State Government of Victoria



From the
President

From the President

(continued)

(as listed on the website: <https://www2.health.vic.gov.au/primary-and-community-health/community-health/community-health-directory>) to partner with Footscape and operate the Children's Orthotic Project. This project is allowing 'at-risk' children to access orthoses and ensure their young bodies can grow and develop as healthy as possible.

This newsletter features a summation of the recently completed project evaluation focusing upon project methodology, result discussions and recommendations. A full report can be downloaded from the Footscape website.

*Anthony Lewis
President*

Children's Orthotic Project Methodology

Footscape devised core policies and procedures for the Children's Orthotic Project pilot phase before introducing and presenting the proposal to several accredited health service organisations in Victoria. Working parameters for practical implementation of the Children's Orthotic Project were determined and approved throughout all devised Memorandum of Understanding documentation. Key points of order pertained to:

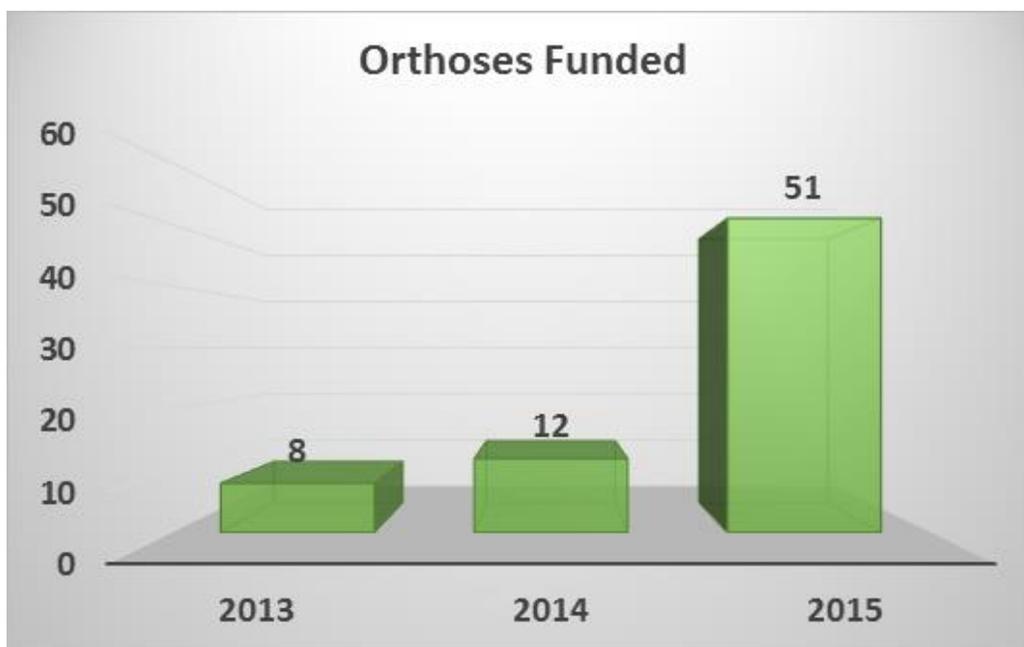
- a) Footscape would grant the partnering organisation funds to purchase orthoses for clients - under the age of eighteen - encountering foot related medical problems. No financial commitment was sought from the partnering organisation to implement the project.
- b) Personal details of a client (except for age) would not be released to Footscape. The client's UR identification number would be exclusively used for any communication between the partnering organisation and Footscape.
- c) Only clients classified by the partnering organisation as belonging to a low income family/household would be eligible for funding. As the Department of Health and Human Services (2015) model of income range classification (below) is universally adopted throughout Victorian health service organisations such cataloguing serves firstly as a valid and reliable model for Footscape to define financial disadvantage and secondly to establish consistency for practical implementation across partnering organisations.

	Low	Medium		High
Individual	< \$36,438	> \$36,438	< \$79,514	> \$79,514
Couple	< \$55,770	> \$55,770	< \$106,298	> \$106,298
Family (one child)	< \$61,647	> \$61,647	< \$111,941	> \$111,941
(plus \$5,877 per additional child)				

Victorian Department of Health and Human Services model of income range classification

- d) A client successfully acquiring orthoses should not have a further application considered for a twelve month period, unless extenuating circumstances are relevant.
- e) Distributed monies are intended to cover the full cost of an orthoses purchased.
- f) Monies should not be utilised to attend to delivery costs.
- g) It is expected that orthoses purchased will be either customised or off-the-shelf design. However custom made orthoses may be obtained if extenuating circumstances are apparent.

As orthoses need to be replaced regularly as a child grows, this form of therapy may represent a substantial financial burden to families with young children. Therefore in the event orthoses are indicated cost-effective options would normally need to be considered. In their research Whitford and Esterman (2007) demonstrate that there was little difference between custom made orthoses and prefabricated devices with respect to measured outcomes. The authors conclude the more affordable customised or prefabricated alternative as being preferable to reduce costs. Similarly Evans (2008) recognises only a small percentage of paediatric cases require custom made orthoses and recommends a selection of many low-cost generic devices that provide good positional support and relief of presenting symptoms. The researcher notes that whilst prefabricated devices are not as durable this is seldom an issue as foot growth frequently demands change before material collapse.



Orthoses funded during the project

ⁿ Accordingly a client management option that Podiatrists may offer and issue a cheaper, more basic orthotic device that can be afforded by the client is ethically correct and practically achievable. As such Footscape anticipated Podiatrists from our partnering organisations to acquire orthoses in a customised/off-the-shelf/prefabricated design. Nonetheless custom made orthoses could still be obtained if clinical presentation dictated. Powell et al (2005) clarifies children with rheumatoid arthritis have been found to benefit from customised foot orthoses whilst Evans (2010) highlights such devices accommodate gross asymmetries including unilateral clubfoot and hemiplegia.

h) Podiatrists would be afforded the responsibility of acquiring, dispensing and monitoring the client's orthoses. It remained the responsibility of the partnering organisation Podiatry Department to ensure the orthoses purchased with funds awarded by Footscape be deemed appropriate in the management of their client.

A project assumption is that tertiary qualified Podiatrists registered with the *Australian Health Practitioner Regulation Agency* employed by our partnering organisations are competent in managing the paediatric foot. Whilst it is beyond the capacity of this evaluation to critique clinical decision making and longitudinal client outcomes for each funded orthoses, a basic appraisal of the strengths and confidence levels of participating Podiatrists is appropriate. Particularly as there is long standing debate over whether or not to use orthotic therapy in the treatment of paediatric pes planus. Such debate centres on the fact that there is no way to distinguish between the flatfeet that will become symptomatic and the flatfeet that will remain asymptomatic throughout a client's life. Rome et al (2010) summate the argument is ongoing with no gold standard for treating children.

For children with pes planus, treatment is often sought by parents and provided by well-intentioned health care practitioners concerned about preventing future morbidity. After all intervention with foot orthoses has few side effects. Kane (2015) articulates devices are presumed to prevent excessive pronation, provide neuromuscular re-education and normalise body mechanics, alleviate symptoms and prevent deformity, and/or help shape the child's developing arch. However, Evans (2008) highlights this is where clinical concern arises. The author questions whether such an abnormal physiologic feature will become symptomatic and indeed the justification of providing treatment 'just in case' from a preventive point of view. In their study Pfeiffer et al (2006) found that approximately ten per cent of children were using some form of orthotic device despite only one to two per cent were being symptomatic. The researchers put forward that greater than ninety per cent of the treatments were unnecessary.

Conflicting opinions pertaining to the intervention of paediatric pes planus do exist in literature. Rome et al (2010) explain that whilst some experts consider pes planus to be normal in early childhood and that the condition usually resolves spontaneously without treatment other experts

suggest treatment of the flexible form of pes planus is necessary as it may lead to disability and joint damage. The authors lament a lack of good quality studies that have evaluated non-surgical interventions for paediatric pes planus.

As pes planus represents the clinical picture for a variety of aetiologies Yeagerman et al (2011) put forward that health professionals must provide an appropriate treatment course for each individual. It is therefore anticipated participating Podiatrists in the Children's Orthotic Project are conducting suitable paediatric assessments based upon evidence based practice to make clinical judgements. Evans (2008) endorses the American College of Foot and Ankle Surgeons consensual agreement for the diagnosis and treatment of paediatric flatfoot. This document firstly recommends the taking of a thorough and structured history, including age, family history, symptoms, trauma, activity, systems review and previous treatment. Secondly clinical examination then explores arch shape with weightbearing, range of motion, tender areas, gait and diagnostic studies. In the event foot orthoses are prescribed and issued, participating Podiatrists should concurrently be considering further conservative (non-surgical) interventions as part of developing an overall client management care plan. Rome et al (2010) outline such interventions extend to advice, stretching, footwear selection and modifications, activity modifications, manipulation, serial casting, appropriate weight reduction and anti-inflammatory medications.

- i) Footscape and each respective community health service partnering organisation would be responsible for reviewing the derived Memorandum of Understanding parameters described above. In the majority of established working relationships the project period was deemed to be twelve months before an evaluation would be conducted.