Deadly Ears - delivering remote healthcare during lockdown

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Service Improvement

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Close

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Summary

Rapidly building on existing experience in the delivery of telehealth capabilities in store-and-forward technology and a hybrid model, including face-to-face and telehealth care enabled the continuity of care to children with significant ear disease, hearing loss and associated impacts.
At the height of the pandemic the Deadly Ears Program was still able to deliver comprehensive and

integrated clinical services via telehealth and teleotology (where an Ear Nose and Throat (ENT) specialist reviews findings remotely).

Key dates

Mar 2020

Dec 2020

Implementation sites

Cherbourg, Doomadgee, Mornington Island, Mt Isa, Normanton, Northern Peninsula Area, Palm Island, Thursday Island, Torres Strait, Woorabinda, Hope Vale, Wujal Wujal

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Aim

To continue the delivery of care to children from remote Indigenous communities during the pandemic, despite not being able to offer children face-to-face appointments.
The primary objective was to offer care to children identified as a ‘high priority’ from the Deadly Ears specialist ENT clinic list. These were children who had significant recurrent middle ear disease and associated hearing loss.

Benefits

This method enabled the continuity of care to children with significant ear disease, hearing loss and associated impacts.
Importantly, a number of additional benefits were identified:

- Improvements in the skill and capacity of local clinicians supporting the service. The delivery of remote care required local clinicians to act as conduit between the program’s Brisbane-based clinicians and the local families. This required them to operate equipment freighted from Brisbane to each community. The assistance from local Aboriginal and Torres Strait Islander health workers with this put local families at ease.
- Anecdotal reports from local clinicians and families. There was generally positive (anecdotal) feedback from staff and families in local communities. Three locations receiving telehealth services had considerably higher attendance rates than the program’s past face-to-face clinical services, including one location where the local Nurse Unit Manager indicated telehealth was an approach that wouldn’t work in her community.

Background

The pandemic prevented a specialist outreach service from travelling to vulnerable Indigenous communities, resulting in avenues being explored to still deliver essential care.
The COVID-10 pandemic placed significant restrictions on the program’s ability to deliver care. Without alternatives, the period from March to December would have resulted almost no specialist care delivered by the program.

Solutions Implemented

The team rapidly built on some experience in the delivery of telehealth capabilities in store-and-forward (asynchronous) teleotology and previous trials undertaken with synchronous teleotology. These synchronous telehealth services were delivered in partnership with the local health staff in

each community, and included:

- ear and hearing assessments led by the Program’s nurses, audiologists and Aboriginal health practitioners and health workers
- confirmation of findings and recommendations via store-and-forward teleotology (where an ENT specialist logs onto the Queensland Child system and reviews the ear and hearing assessments and recommendations made by Deadly Ears nurses, audiologists, and Aboriginal health practitioners)
- where appropriate, assessments integrated consultations with the Program’s speech pathologists and occupational therapists
- joint telehealth appointments between audiologists from the Deadly Ears Program and Hearing Australia to review young children for hearing aid fitting in the same appointment where appropriate
- onward referral of children to relevant specialist services
- opportunities to build capacity of local primary health staff through their support of assessments of ears, hearing, and related developmental issues
- collaboration with other key health and education service providers (including early education and education providers).

Evaluation and Results

While face-to-face ENT services were not available (except for one clinic to Woorabinda during the period), the program still managed to deliver multidisciplinary care that included subsequent ENT review via teleotology plus additional care across a number of disciplines.
From March to December 2020, this process resulted in 389 high priority’’ Indigenous children accessing multidisciplinary care by the program. It tracked:

- delivery of care. Ear and hearing assessments, ENT reviews via teleotology, assessments by speech therapists (192)and occupational therapists (239)
- all 389 children received ENT reviews and assessments, overwhelmingly via teleotology, and audiology. It is worth noting that remote allied health assessments are much more complicated than those face to face. Given the volume of telehealth, it is significant that a hearing diagnosis was confirmed for over 90% of children seen at audiology. For 0-2 age group (very difficult to assess) the Program completed 57% of its audiology assessments. Speech pathologists also see younger children who are harder to assess, and they obtained findings for 70% of children seen. Occupational therapy obtained findings in 97% of children seen.
- In some notable clinics with historically poor attendance, there was 100% attendance for telehealth. In other communities, attendance was low.

Lessons Learnt

The Deadly Ears Program managed to test a range of service delivery approaches across a number of modalities within a short time frame (March-December 2020). The findings are summarised below:

- Store-and-forward teleotology is viable and should be expanded. Tele-audiology and teleotology offer the Program the ability to maximise high-value care as part of its ‘Ears and Hearing Clinics.’
- The delivery of face-to-face care remains an integral part of the program’s services. However, through the delivery of Ears and Hearing Clinics to effectively triage higher and lower-needs children, there will be a decrease in high-cost care as fewer lower-needs children will be sent to the program’s face-to-face ENT clinic and surgical services.
- The delivery of telehealth identified situations where face-to-face care is required in order to achieve the assessment outcome. Some examples include hearing assessment for young children aged 0-2 years who require community visual reinforcement audiometry assessment (VRA), and comprehensive speech pathology or occupational therapy assessments.
- Synchronous telehealth was able to be successfully delivered during the COVID-19 pandemic, with significant benefits like the upskilling of local staff who supported the program’s assessments, and higher attendance in some communities than previous face-to-face care.
- The efficiencies will also enable greater inclusion of speech pathology and occupational therapy for high-needs children. This will provide necessary support to address the profound effects of conductive hearing loss on communication, listening and participation.
- The efficiency and value for the families and the program through the delivery integrated appointments involving ear health assessments, audiology, speech pathology and occupational therapy. This essentially enabled a holistic approach acknowledging the wide-ranging developmental impacts for children and families stemming from chronic middle ear conditions.
- The routine review of key data relating to the program’s services and effectiveness are essential. This enables the service to respond to community and patient needs, flex resources towards areas of high need and away from those of low value (proportionate universalism) and continue to improve.
- The data obtained as part of the program’s activities - both before and during COVID-19 - underscore the importance of robust primary health management in accordance with the national otitis media guidelines. However, the capability of local primary health services remains inconsistent.
- In an effort to ensure that children with chronic middle ear disease continue to have their ear and hearing health managed in between specialist ENT clinics, the Deadly Ears Program needs to attempt to bridge the gap between primary health care and tertiary ENT care.
- Attendance at appointments varied greatly across locations, and despite our investigations there appears to be no consistent explanation for this other than local community variances such as the extent of support from local health staff.