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Progress of the Northern Territory Emergency Response Child Health Check Initiative:

Final report on results from the Child Health Check and follow-up data collections

**Indigenous Determinants and Outcomes Unit,
Australian Institute of Health and Welfare**

**Office for Aboriginal and Torres Strait Islander Health,
Australian Department of Health and Ageing**

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Responsibility for the report remains with the Department of Health and Ageing.

Abbreviations

ABS	Australian Bureau of Statistics
ACCHOs	Aboriginal Community Controlled Health Organisations
AIHW	Australian Institute of Health and Welfare
AMSANT	Aboriginal Medical Services Alliance of the NT
BMI	body mass index
CHC	Child Health Check
CHCI	Child Health Check Initiative
CRANA	Council of Remote Area Nurses of Australia
dB	decibels
DoHA	Department of Health and Ageing
EARHSP	East Arnhem Regional Skin Project
ENT	Ear, Nose and Throat
FACS	Family and Community Services
GAA	Growth Assessment and Action
Hb	haemoglobin
HRN	Hospital Registration Number
HSAK	Northern Territory's Healthy School-Age Kids
ID	Identification
PHC	Primary Health Care
MBS	Medicare Benefits Scheme
NT	Northern Territory
NT DEET	Northern Territory Department of Employment, Education and Training
NT DHF	Northern Territory Department of Health and Families
NTER	Northern Territory Emergency Response

Summary

This is the third and final progress report on the Child Health Check Initiative (CHCI). It builds on two previous progress reports published in May and December 2008 and provides further information on the extent to which children who received a Child Health Check (CHC) under the Northern Territory Emergency Response (NTER) received the follow-up services they need. The questions answered in this report include:

1. What proportion of children in NTER prescribed areas who were eligible to receive CHCs actually received these checks?
2. What health conditions were identified among Indigenous children who had CHCs?
3. What health services are needed for Indigenous children in NTER prescribed areas as identified by referrals received at CHCs?
4. To what extent have Indigenous children who had a CHC received the follow-up services they need?
5. What is the extent and type of unmet or continuing need for services among Indigenous children in the prescribed areas?

Key findings

1. Of 16,259 children aged 0–15 years in the prescribed areas of the NTER, 10,605 (65%) had at least one valid CHC between 10 July 2007 and 30 June 2009 for which the AIHW received data. A further 4,000 checks were provided under the Medicare Benefits Schedule, but data on these children are not included in this report.
2. During the health checks, about 97% of children had at least one health condition or risk factor identified and 99% received some form of management for their health conditions. The most common health conditions were oral health problems (43%), ear disease (30%) and skin problems (30%).
3. Over three quarters (76%) of children who had a CHC lived in households where a smoker was present.
4. Among children who had a CHC, 70% received at least one referral for a health condition. The most common referral types were primary health care (39%) and dental (35%).
5. Of 7,797 children who had a complete chart review for their first CHC, 36% required further follow-up for a health condition.
6. There were 3,517 children who received an audiology check and 54% had some hearing loss.
7. There were 3,355 children who received a dental check and 54% had treatment for untreated caries.
8. Comparisons of the data over time show that most health conditions had fairly high to reasonable recovery rates. The appearance of new cases of common conditions in the target population after the first CHC, however, indicates that these conditions continue to highly prevalent among these children. This reinforces the knowledge that improving health outcomes for Indigenous children requires not only short-term treatment of health conditions, but also longer term initiatives to address underlying causes of ill health such as socio-economic disadvantage, housing conditions and education levels.

These findings will inform an evaluation of the Child Health Check Initiative to be completed by June 2010.

Overview

This is the third and final progress report on the Child Health Check Initiative (CHCI), which commenced in July 2007 as part of the Australian Government's Northern Territory Emergency Response (NTER) to the *Little children are sacred* report by the NT Board of Inquiry into the Protection of Aboriginal Children from Sexual Abuse. The CHCI was one component of the health-related measures under the NTER and included funding for CHCs and follow-up service delivery.

The Australian and NT Government's continuing commitment to a number of measures commenced under the NTER is set out in the Closing the Gap in the Northern Territory National Partnership Agreement, which was signed in July 2009.

During 2008–09, funding for CHC Primary Health Care follow-up service delivery was integrated with the Expanding Health Service Delivery Initiative (EHSDI) which commenced on 1 July 2008 and is now funded until 2011–12. Australian Government funding for follow-up dental services commenced in 2007–08 and was also extended until 2011–12. Australian Government-funded hearing and Ear, Nose and Throat (ENT) specialist follow-up commenced in 2007–08. Specialist ENT follow-up care will continue until 2009–10.

Although the CHCI was specifically funded by the Australian Government, the whole health system of the Northern Territory has been involved in the effort to offer Child Health Checks (CHCs) to over 16,000 children in remote communities, and to respond to the large number of referrals generated by those checks.

This report builds on two previous progress reports published in May and December 2008 to provide further information on the extent to which children who received a CHC under the NTER have received the follow-up services they need. The data in the report reflect the continuing transition over the period since December 2008 from a focus on CHCs, to a sustained focus on increased primary health care and specialist service delivery in response to referrals from those checks, as well as the pre-existing unmet need for services.

This report will inform an independent evaluation of the CHCI and the EHSDI which commenced in June 2009 and which will report by June 2010. The evaluation consultants will assess the impact of the CHCI and the EHSDI on the trajectory of the NT health system with regard to child health and primary health care development. The CHCI component of the evaluation will focus on the impacts of the CHCs in terms of coverage, diagnosis of health conditions, effectiveness of follow-up services, and impacts on service delivery, health status and treatment.

The evaluation consultants will draw on this report and other data sources to produce a CHCI interim quantitative evaluation report. The final evaluation report will then draw together the quantitative and qualitative aspects of the CHCI evaluation, including findings from a small number of case studies. The Evaluation Design Report is available on the Australian Government's Department of Health and Ageing's website at www.health.gov.au.

The evaluation is being conducted within scope of an agreement to undertake monitoring and evaluation activity relating to the expansion and reform of the Northern Territory primary health care system, endorsed by the NT Aboriginal Health Forum partners. These are the Northern Territory Department of Health and Families, the Aboriginal Medical Services Alliance of the Northern Territory and the Australian Government Department of Health and Ageing.

One key plank of this new system – the Northern Territory Aboriginal Health Key Performance Indicators – has reached its first milestone, with the vast majority of primary health care providers in the jurisdiction reporting against 12 indicators between August and October 2009. These data will play an important role in monitoring key aspects of the primary health care system. Public reporting of these data will be possible once the data are of sufficient quality.

Data quality

The data in this report come from the following five data sources used to monitor the implementation and impact of the CHCI:

- the Child Health Check data collection
- the Chart Review data collection
- the Audiology data collection
- the Dental data collection
- the Northern Territory Department of Health and Families data warehouse.

Information about each data source is provided at the start of the relevant chapter. There are important differences between the five sources of data available that need to be considered when interpreting the data.

The report includes data available to the Australian Institute of Health and Welfare (AIHW) on services provided up to 30 June 2009. Due to time lags in data processing and transmission, this understates the number of services actually provided to children at that point in time.

Data from the CHCs about the proportions of children with various health conditions are not rigorous scientific estimates of disease prevalence. Readers interested in how the CHC data compare with other data sources are directed to Appendix 3 of the May 2008 NTER CHCI progress report. A list of these data sources is given in Appendix 6 of this report.

Progress since the last report

In the 11 months between 17 October 2008 (the data cut-off date for the December progress report) and the analysis cut-off date for services provided up to 30 June 2009, an additional 1,226 valid CHCs had been entered into the NTER CHC database at the AIHW. This is a relatively small number compared with the 9,943 provided in the period from July 2007 to October 2008 because most children in the target group were offered a CHC in that earlier period.

A comparison of data from the December progress report with data in this report shows the following:

- The overall pattern of the most common health conditions and risk factors identified through the CHC remains largely unchanged: 76% of children live in a household with a smoker; 43% have at least one type of oral health condition; 37% have a reported history of recurrent chest infection; 30% have at least one type of skin condition; 30% have ear disease of some kind; and 16% of children have anaemia.

- The pattern of referrals also remains largely unchanged, with 70% of children having at least one referral. Thirty-nine per cent of children were referred to primary health care follow-up; 35% to dental follow-up; 14% to tympanometry and audiology services; 12% to a paediatrician; and 10% to an Ear, Nose and Throat specialist.
- The amount of audiology services delivered more than doubled between the two reports: from 1,323 to 3,517 children who received at least one audiology service; from 1,627 to 4,495 in the number of occasions of service provided; and from 20% to 44% in the proportion of children with an audiology related referral at their CHC who had received at least one audiology check.
- For the 719 children who received more than one audiology check, there were encouraging signs of improvement between their first and latest check.
 - The proportion of children with no hearing loss increased from 25% at the time of their first check to 31% at the time of their latest check.
 - The proportion of children with hearing loss in both ears decreased from 46% at their first check to 42% at their latest check.
 - The proportion of children with a moderate (15%) and mild (29%) degree of hearing impairment at their first check decreased at their latest check (to 11% and 25%, respectively).
- The amount of dental services delivered more than doubled between the two reports: from 1,529 to 3,355 children who received at least one dental service; and from 1,900 to 5,106 in the number of occasions of service provided.
- Thirty-eight per cent of children who were referred for dental care from their CHC had been seen at least once.

It is important to note that NTER CHCI follow-up dental and audiology services are available to all children less than 16 years of age living in the prescribed areas, regardless of whether they had a CHC. Children who were previously identified with an oral health problem or an ear disease, however, were more likely to receive these follow-up services than those who were not identified with such a problem. This indicates that services are appropriately biased towards those children with an identified need.

The follow-up services required by children who had a CHC go well beyond the primary health care, hearing and dental services funded by the Australian Government under the NTER. Data from the NT DHF show that 1,526 children who had a CHC referral had received 3,485 hospital services by 30 June 2009, mainly in outpatient clinics but including paediatrician, internal medicine, ENT, orthopaedic, optometrist and allied health services.

Some of these services could have been as a result of a direct referral from a CHC, or as a result of referrals initially made to a primary care provider that subsequently led to secondary and tertiary services. In addition, some of these services may have been unrelated to a specific referral from a CHC or conditions identified during a CHC.

Each of the data collections indicate that children have a continuing high need for services, even after receiving some form of follow-up care. In the CHC collection, there are 159 children who have had two child health checks. Although the numbers are too small to draw strong conclusions, when the results are compared across the two checks, the rate of recovery from the health conditions found at the first check seems reasonable. For example, 91% of skin sores and 74% of anaemia had resolved between checks. The overall prevalence of ear disease and oral health problems among the children at the second check, however,

remained largely unchanged because of the appearance of the same conditions in different children.

A need for continuing follow-up care was also identified for 76% of children who had an audiology check and 35% of children who had a dental check. When the Chart Review collection is also considered, almost half the children (46%) received an additional referral for follow-up services after their initial round of referrals at their Child Health Check. These new referrals were for a familiar pattern of conditions with ear disease, oral health, skin conditions, anaemia and growth problems being the most common. At the time of the completion of the chart review process, 36% (2,820) of children had conditions requiring further action with dental, primary health care, audiology and ENT services at the top of the list.

Conclusions

When the status of follow-up for children who had referrals from their Child Health Check is considered as a whole, three conclusions may be drawn.

First, a large volume of follow-up services – particularly primary health care, dental and audiology service – have been provided to thousands of children living in some of the most remote areas of Australia. This has required a major expansion of all aspects of service delivery from physical infrastructure such as hearing booths and clinics, to workforce recruitment and training, to logistics and accommodation. The Australian Government Department of Health and Ageing will continue to monitor dental and ENT follow-up as part of the Closing the Gap Northern Territory National Partnership Agreement.

Second, there was a considerable number of outstanding referrals from CHCs at 30 June 2009, though many of checks were completed more than 12 months previously. This underlines a continuing need for capacity building for high-demand, specialised services (dental care, paediatric specialist services and Ear Nose and Throat specialist services), as well as lower-demand specialised services (speech therapy and ophthalmology).

The third conclusion relates to the continuing high need for services among children who had received at least some form of follow-up care by 30 June 2009. This high level of continuing need, despite the delivery of various forms of initial follow-up care, underlines the need for long-term expansion in health care services in the Northern Territory and the challenge of turning investment into improved health outcomes for Indigenous children. However, difficulties in reducing the prevalence of many health conditions point to the need to address broader social determinants of health - education, employment, income, housing, nutrition, tobacco and alcohol use.

This report is the third and final in this series of CHCI progress reports. The transition to a sustainable, long-term approach to monitoring and reporting on primary health care system performance is underway as part of a long term plan for system reform in the Northern Territory. This is proceeding under the Northern Territory Aboriginal Health Forum and its partner organisations: the Northern Territory Department of Health and Families, the Aboriginal Medical Services Alliance of the Northern Territory and the Australian Government Department of Health and Ageing.

The Child Health Check Initiative and the Expanding Health Service Delivery Initiative are being independently evaluated during 2009–10 with a final evaluation report due in June 2010. This evaluation will inform future monitoring and evaluation activity.