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Submission No. 029
(Dental Services)
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AMSANT

House of Representatives Inquiry: dental services for adults

Submission fro the Aboriginal Medical Services Alliance Northern Territory [AMSANT]

AMSANT is the peak body for community controlled health services in the NT. We are providing a brief submission to this Inquiry in order to make several key points and we also strongly support the more comprehensive NACCHO submission to this Inquiry.

AMSANT has 26 members right across the NT including in the most remote regions. Aboriginal Community Controlled Health Services [ACCHSs] provide comprehensive primary health care to their communities and are increasingly focused on prevention and health promotion as the funding base of ACCHSs has grown over the last five years to enable a wider reach of comprehensive primary services to be delivered. AMSANT believes that oral health should be part of comprehensive primary health care so that it is integrated with other health programs including health promotion and nutrition. More effective oral health promotion that is locally based and integrated is essential if we are to make a long term impact on oral health. Fluoridation is also crucial and we support NACCHO's recommendation that this be prioritised including in remote communities.

Given the high burden of disease, we believe that universal access to free oral health services is required for both children and adults. The current oral health system in the NT only has the capacity to respond to acute oral health problems – it cannot deliver a comprehensive integrated service and even high priority clients such as those with rheumatic heart disease face very long waiting times for review. This delay can obviously have severe health consequences. The primary health care reform process underway in the NT will lead to a greater capacity for ACCHSs to deliver oral health services as regionalised ACCHSs will have greater management and public health capacity compared to small ACCHSs or dispersed government clinics. ACCHSs have the advantage of having strong relationships with their communities enabling them to ensure good population reach of their programs including to people who are unlikely to visit a government visiting outreach services

Regional ACCHSs should be funded to provide oral health services where they have the capacity to do so and if the main impediment is lack of infrastructure, funding for dental infrastructure should be provided. As stated in previous submssions, an OATSIH commissioned draft report on remote dental service delivery was positive about the role of ACCHSs in oral health service provision but unfortunately, this useful report has not been publicly released.

Many ACCHSs in the NT are keen to provide dental services but are hampered by a lack of secure oral health funding. Previous sources of funding have reduced including the NTER funding that was available to ACCHSs for paediatric oral health services. Direct funding to ACCHSs under Stronger Futures has now largely ceased with little information available to the community controlled sector about provision of dental services through Stronger Futures funding. In addition, Medicare EPC items have been ceased but the NT government has not signed up to the Commonwealth offer of additional public dental funding to reduce waiting lists. This has left a significant funding gap which is leading to a reduction in dental service delivery—a very undesirable outcome given the high disease burden. There is also little available funding for dental infrastructure (although the committed funds

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for regional and remote dental infrastructure are very welcome) and little support for ACCHSs around recruitment and support of dental staff.

AMSANT welcomes the additional funding committed by the Federal government from 2014, to services for children and expansion of public dental funding for adults. It is crucial that this funding is weighted to recognise the higher disease burden among Aboriginal people and the cost of remote service delivery. The higher disease burden in Aboriginal people is well known and has been described in the NACCHO submission and in previous AMSANT correspondence to the Federal government on dental funding (see appendixes). The need to respond to the high disease burden in Aboriginal people was recognised in report from the National Dental Advisory Council released in 2012, although AMSANT did have concerns that there was not a coherent approach outlined in this report to improving Aboriginal oral health.

Considerable work has been undertaken by the Northern Territory Aboriginal Health Forum to provide an evidence base for the higher cost of service delivery in the remote NT contexts. The policy documen" "Indigenous access to core Aboriginal primary health care" states that the cost of service delivery for the most remote areas where a high proportion of the population does not speak English well is more than twice as high as the cost of service delivery for urban populations in the NT The formula used to calculate the quantum of additional funding received as part of the Expanding Health Service Delivery Initiative took into account both these factors (remoteness and English literacy).

AMSANT therefore contends that funding provided to states for oral health services should include a weighting for both Aboriginality and for remoteness as both will increase the cost of equitable service delivery. We also believe that the Commonwealth should provide funding directly to ACCHSs for dental service provision given that this is the successful funding model used for the rest of Aboriginal primary health care. This is especially critical at present given that the impasse between the Commonwealth and NT government has caused the NT to miss out entirely on additional funding to reduce dental waiting lists, whilst ACCHSs are also unable to access the Medicare EPC items.

As noted in previous correspondence to the Federal government, the maldistribution of the dental workforce is more marked than for the general workforce. Incentives, good conditions, training and support will all be required to attract and retain dental professionals to remote areas. Some of the training and professional development support is already being provided by the Northern Territory Government Oral Health Services but this could be expanded as ACCHSs take on a larger share of the workload.

The Medicare EPC items had a low uptake in the NT largely due to the maldistribution of the dental workforce and the low number of general practitioners in the NT. AMSANT believes that a substantial increase in long term funding for public sector dental services (including in ACCHSs) will be more effective than continuing to rely on a piecemeal and inequitable fee for service system. However, it is essential that the funding shortfall caused by the closure of these items is rectified immediately and, once again, we urge that the Commonwealth government directly fund ACCHSs to reduce dental waiting lists. We again urge that there is equitable funding for oral health services in the NT through weighted funding which allows for the higher disease burden in Aboriginal people and the significantly higher cost of remote service delivery. ACCHSs should also be prioritised for

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dental infrastructure funding. In addition, we strongly support NACCHO's recommendation that PATS funding be provided for transport for dental treatment. We know that people can get very sick and even die if urgent dental problems are not treated and it is grossly inequitable that remote Aboriginal people do not have access to urgent dental review when required or to dental treatment that is required in a hospital.

Attached to this submission is

1) Policy document "Indigenous access to core Primary health services" (which sets out the case for higher per capita funding levels for Aboriginal primary health care).
2) NTAHF endorsed core services framework
3) Letters to Ministers Roxon and Snowdon about dental policy and the establishment of the National Dental Advisory Council
4) Letter to Minister Plibersek outlining a response to the report from the National Dental Advisory Council

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Indigenous Access to Core PHC Services in the NT

2007

Mk 8.9

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Executive Summary

This paper demonstrates that increasing Indigenous access to core PHC services in all areas of the Northern Territory, leads to improved Indigenous health outcomes.

The current level of investment in community-based Indigenous PHC services from all government sources (Australian Government and Northern Territory Government) averages to about $1,970 per Indigenous person per year.

These resources are unevenly distributed between the twenty-one Indigenous health planning zones developed in the Northern Territory as a consequence of the limited roll out of the Primary Health Care Access Program (PHCAP) introduced nationally in 1999. Currently the most well resourced zones receive significant primary health care funding from both the Territory and Commonwealth governments with the larger part coming from the Commonwealth. The most under resourced zones receive most of their primary health care funding from the Territory.

Figures presented to the Northern Territory Aboriginal Health Forum in July 2007 indicate that the level of all-sources investment in Indigenous primary care services within remote PHCAP zones varies from around $1,227 per Indigenous person per year to around $2,550 Indigenous person per year. In the two urban zones of Darwin and Alice Springs, the figures are $638 and $1,667 per capita respectively.

The data suggests that the Indigenous community controlled health services in the zone with the most generous levels of investment in PHC services (that is, Katherine West where funding is around $2,550 Indigenous person per year) is able to:

- Demonstrate improved levels and quality of health care for patients with chronic diseases. Indeed, the data suggests that the quality of health care achieved by these Indigenous community controlled health services may exceed the quality of care achieved by 'mainstream' general practice elsewhere in Australia;

- Significantly reduce hospital admission rates for the population served by such a health service provider in comparison to other zones that are less generously funded.

This paper uses Katherine West Health Board (KWHB), the longest established zonal model community controlled health service, as a case study. The results achieved by KWHB are all the more noteworthy because they were achieved by an Indigenous community controlled health service that is unable to afford provision of the full range of community-based core PHC services. Despite this handicap, the Indigenous community controlled health service in this zone is well-established, and has achieved significant efficiencies and streamlining of its operations over the past decade.

In other zones, the picture of health service provision is less uniform and more diverse, often involving a mix of government and Indigenous community controlled health services. For the providers in such zones, achieving the efficiencies and outcomes demonstrated in the 'benchmark' zone will require an additional and sustained effort and increased investment. Experience in the "benchmark" zone indicates this additional effort and investment must be focused on both direct community-based service delivery and in the provision of critical service and enabler supports at regional and NT levels.

The best available estimates suggest that ensuring Indigenous access to the full range of core PHC services described in Appendix 1 requires at least $3,600 per Indigenous person per year.

The objective must be to ensure that all Indigenous residents can access the full range of community-based core PHC services.

The provision of the full range of core PHC services together with the regional and jurisdiction wide supports and enablers is estimated to require an investment in the order of $5,100 per annum across the remote PHCAP zones.

Only with access to these levels of additional investment in community based health care will health gains of the type described in this document be achievable across the Northern Territory.

In summary:

- It is estimated that to allow all remote PHCAP zones to develop a service profile to matches that of Katherine West will require average per capita funding for primary health care services to grow to $2,700 per annum. For a remote population of 40,000, this is equivalent to $108M less the currently available funds of $77.8M for an additional investment required of $30.2M. It is proposed that this the first phase of any future investment strategy.

- The second phase of the strategy will be to ensure the entire Indigenous population has access to the full range of core primary health care services. For remote zones, this will involve increasing the per capita investment in primary care services to between $3,600 and $4,000 per annum. In the Darwin urban zone, it is proposed to increase investment from the current level of $638 per capita to $2,000 per capita/annum. In the Alice Springs urban zone, it is proposed to increase investment from the current $1,667 per capita to $2,200 per capita/annum in. The urban zone costings reflect cheaper operating costs in towns in comparison to remote areas as well as an increased opportunity for referrals. The cost of this phase will therefore be:

    - In remote zones, the second phase involves increasing the per capita investment in primary care services by between +$900 and +$1,300 per capita above the levels proposed in the first phase (eg: $3,600 - $2,700 = $900 / $4,000 - $2,700=$1,300). For a remote population of 40,000, Phase 2 costs will be between $36M and $52M;

    - In the two urban zones, the additional investment required will be $19.6M. Increasing the per capita investment in the Darwin zone from $638 per annum to $2,000 per annum (+$1,362) for a population of 12,000 will cost $16.34M. In Alice Springs, funding will rise from the $1,667 to $2,200 per capita (+ $533). For an urban population of 6,100, the additional investment required will be +$3.25M.

- The final phase (Phase Three) seeks to strengthen & expand enabler or support services. The TWG is of the view that the majority of such services will be delivered at a regional or hub level. While such services are an essential part of comprehensive primary health care, services in this category are not usually funded by governments from within allocations attributed to primary health care services.

  Estimating the costs that might be associated with this phase is seen as problematic. However, a paper prepared for OATSIH in 2004 by Econotech[1] attempted to identify the amount that would need to be expended on Indigenous Australians to provide per capita relative expenditure relative to non-Indigenous Australians that reflected relative morbidities. That study proposed that, on a relative needs basis, "per capita spending on health services would need to be about 2.2 times higher for Indigenous Australians than

1 Econotech Pty Ltd, Costing Models for Aboriginal and Torres Strait Islander Health Services, OATSIH/Commonwealth of Australia, Canberra, 2004.

for non-Indigenous Australians". The study took the view that, "by inference, the 2.2 factor would also apply to primary health care"[2].

In comparison, the Australian Institute of Health and Welfare indicated that for the 2001-02 year (the most recent year for which published figures can be identified), the average expenditures per person in primary care were at 1.23:1 in favour of Indigenous Australians[3], a ratio that falls somewhat below the 2.2 factor proposed by Econotech.

The Econotech study also explores the additional costs involved in providing an Indigenous specific primary health care service in Urban, Rural, Remote and Very Remote situations. Econotech calculations indicate that, in per capita terms:

- it costs around 3.5 times more to deliver a universal Indigenous specific primary health care service in a Very Remote location compared to the cost of the same service in an urban location; and
- It costs around 2.2 times more to deliver a universal Indigenous specific primary health care service in a Very Remote location compared to the average (all-Australia) cost of delivering a universal Indigenous specific primary health care service across all spatial units.

- The most recent AIHW publication addressing expenditures on Indigenous health suggests the annual non-hospital cost of primary health care services for non-Indigenous Australians in the 2001-02 year is equivalent to $1,344.43 per capita[4]. Using the non-Indigenous to Indigenous multiplier suggested by Econotech, this indicates the average (all-Australia) annual cost of providing a national universal Indigenous specific primary health care service would be in the order of $2,958 per capita[5].

  Again using the Econotech multiplier to derive the estimated cost of such a service in a Very Remote location (eg: all remote PHCAP zones in the Northern Territory), the resulting calculation indicates a likely annual cost in the order of $6,508 per capita (using the 'Very Remote' cost multiplier)[6].

  It is assumed that the Econotech calculations include the system level enabler and support costs necessary to sustain the universal Indigenous specific primary health care service. On that basis, the balance of costs involved between the provision of core primary health care services and the universal Indigenous specific primary health care service defined by Econotech can be represented by the difference between the two figures (ie: $6,508 less $3,600/$4,000).

  Accordingly, it is estimated that the cost of Phase 3 will be between $2,000 and $2908 per capita for the remote zones.

  Over a remote Indigenous population of 40,000, the cost of Phase 3 would therefore be in the order of $80M to $116M in addition to the investment involved on both Phase 1 and Phase 2.

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2 Ibid, page ix

3 p9, AIHW, 2005, Expenditures on health for Aboriginal and Torres Strait Islander People 2001-02. Health and Welfare's Expenditure Series no. 23 AIHW cat. no HWE 30. Canberra: AIHW.

4 Ibid, Table 2.3, p10. The figure is derived by deducting hospitals expenditure from the total cost of non-Indigenous

5 ie: $1,344.43 x 2.2=$2,957.75

6 Econotech, 2004, Table 2, page x. The data in this table indicates a relationship of 2.2:1 between the "Cost per capita" of a universal Indigenous specific primary health care system in a Very Remote location compared to the "Overall" cost of such a service. The data suggests that the "Overall" figure represents the national average per capita cost.

These funding phases are summarised in the Table 1 below.

Table 1 – Phases of Funding

Funding	**Current**	**Phase 1** (increase funding to $2,700 per capita)	**Phase 2** (increase funding to between $3,600 & $4,000 in remote)	**Phase 3** (increase funding to $6,508 per capita in remote)
Existing Funding pa	$77.8M	$77.8M plus CPI	$77.8M plus CPI	$77.8M plus CPI
New Money Phase 1		+$30.2M	+$30.2M plus CPI	+$30.2M plus CPI
New Money Phase 2			+$39.25M to +$55.25M	+$39.25M to +$55.25M
New Money Phase 3				+$80m to $116M[7]
Total Indigenous Specific Primary Health care Investment	**$77.8M**	**$108M**	**$147.25M to $163.25**	**$227.25M to $279.25M**

7 These figures are based on 2001-02 values. A CPI adjustment would be required to bring these amounts to contemporary value in the year of implementation.

Introduction

The Technical Working Group that has developed this paper comprise of representatives from the Department of Health and Ageing (DoHA), the Aboriginal Medical Alliance Northern Territory (AMSANT) and NT Department of Health and Community Services (DHCS). The group comprises a mix of health professionals, policy specialists and health executives chosen by their respective organisations to serve on the Technical Working Group. The Technical Working Group had an initial face-to-face meeting in Darwin on 20 August 2007. Since then, communication has been primarily by e-mail exchange and telephone supplemented by ad-hoc meetings of certain group members to address particular issues.

The Technical Working Group set themselves the goal of defining the range and cost of services that a robust health service system delivering comprehensive Primary Health Care (PHC) services needs to provide to an Indigenous population living within a predominantly remote context. The group's initially direction was identify how to replicate the successes (and avoid the pitfalls) of the Indigenous Co-ordinated Care Trials (CCT) but to do so on a jurisdiction-wide basis and with necessary adjustments to systems and resourcing levels to suit contemporary circumstances. This exploration quickly identified the need for any new or additional PHC investment to (as a minimum), re-dress the wide disparities within per-capita funding levels that exist across the 21 Northern Territory PHC Access Program (PHCAP) zones. Among the remote PHCAP zones, those allocations (combined Commonwealth and Northern Territory Government inputs) currently range from a low of $1,227 (Southern Barkly) to a high of $2,550 per-capita (Katherine West)[8]. Within the urban PHCAP zones, the range is $638 (Darwin) to $1,667 (Alice Springs).

The Working Group modeled the ideal remote 'zonal' population of between 3,000-4,000 people and defined the range of core remote PHC services that, if provided to that population, would result in substantial health gain among that Indigenous population. The group identified the "benchmark" PHCAP zone as well as those critical "Service Support" or "Enablers" necessary to ensure the provision of community-based PHC services in remote settings.

Resource Allocation Explanation

The Technical Working Group focused on service provision in the nineteen remote zones of the Northern Territory. The largely urban zones around both Alice Springs and Darwin are excluded from these calculations. However, the core services model described in this paper is directly relevant to the PHC services required by the Indigenous populations of both the Alice Springs zone (around 6,000 people) and the Darwin zone (around 12,000 people). While the per capita funding currently available to the urban zones tends to be lower than amounts available in many of the remote zones (the current Darwin per-capita allocation is currently at around $638 while Alice Springs is currently funded at around $1,667[9]), the quantum of funds necessary to achieve a desirable level of Indigenous health gain in an urban location is likely to be less costly than similar services delivered in a remote location. This is due to the economies of scale possible in an urban environment, and the ability to avoid the burden of costs associated with delivering services of equal range and quality in a remote setting. However, these cost "savings" are at least, in part, offset by the additional (and difficult to estimate) costs of servicing the volume of out-of-town visitors, who seek health services whilst away from home. Accordingly, it seems probable that a service based in Alice Springs could deliver the full range of core PHC services at a cost in the range of $2200 to $2500 per capita. Similarly, the same range of core PHC services delivered within the Darwin zone seems likely to cost somewhere in the range of $1500 to $1800 per capita. Funding the full range of core primary care services

8 Refer p3, Agenda Paper 8.1, July 2007 meeting of the NTAHF. Author: Dept of Health and Ageing.
9 Ibid

across the entire Indigenous urban population of some 18,000 persons is estimated to require an additional investment of around $15 million.

The current expenditure on Indigenous PHC services in remote zones across the Northern Territory by both the Australian and Northern Territory (NT) Governments (excluding service provision in both the Alice Springs and Darwin zones) is approximately $77.8m. On a per-head-of-population basis, this is equivalent to an average expenditure of $1,972 per capita for the 39,438 Aboriginal people living within the Northern Territory but outside the Darwin and Alice Springs PHCAP zones[10].

The resource allocation processes that have been used by funders of Indigenous PHC services in the Northern Territory over the last 10 years have led to the uneven distribution of funding across the remote zones. Based on figures presented to the NT Aboriginal Health Forum in July 2007, only one remote PHCAP zone (Tiwi) has access to a figure that is close to the "average" allocation (at $1,900). Eight remote (8) zones have access to amounts less than the average (the lowest being $1,227 in Southern Barkly) and nine (9) zones have access to amounts greater than the average.

The consensus within the Technical Working Group was that any reform of the Indigenous PHC system should:

- Firstly, ensure that residents of all remote zones had the opportunity to increase their level of access to PHC services to at least the level that occurs in the "benchmark" zone, that is, the zone that currently the highest level of funding, recognizing that this level of funding does not enable the delivery the full range of core PHC services; and

- Secondly, ensure that residents of all remote zones are able to access the full range of core PHC services within each zone.

The Technical Working Group:

- Identified a remote zone, Katherine West, in which range of primary health care services available could be demonstrated to offer a comprehensive range of services. This zone has access to the highest per-capita PHC funding annual allocation among any zone in the Northern Territory. Actual Katherine West Health Board per-capita expenditure in 2007-2008 was $2,700 pa[11]. The current PHC core funding to this zone is $2550 with expenditure in 2006-2007 being supplemented by the health board from reserves of Medicare income generated in previous years (the extent of current period supplementation is therefore around $150 per capita/per annum);

- Determined that the zone with the most comprehensive access to primary health care services (and the highest level of per-capita funding) should represent the "minimum funding benchmark" for all remote zones in the foreseeable future. This "minimum funding benchmark" level of funding is the 'target amount' to which all PHCAP zones should be funded, ahead of any rationalisation of zonal boundaries;

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10 This figure does not include the regional PHC expenditure from DHCS which includes the DMOs, managers, allied health, public health and other key resources. This regional expenditure is about $20 million across the NT and, if pooled would enable Alice Springs and Darwin to be included with some additional funding left over to maintain some aspects of the DMO service

11 The figures presented to the July 2007 of the NTAHF suggest that the Katherine West zone has an allocation of $3,200 per-capita per annum. Figures provided by Katherine West Health Board indicate this could be an over-estimate against known service population, and the actual amount available to PHC services is currently $2,700.

- Estimated the level of additional but core primary care servicing that would be required in all remote zones to enable an appropriate level of response to current levels of Indigenous morbidity. The Working Group agreed that provision of these additional services would involve funding beyond and in addition to the $2,700 per capita funding described in the "benchmark" zone;

- Proposed that it was reasonable to use the cost of providing the full range of core PHC services as a basis from which to estimate the additional investment that would be necessary to ensure full access to the core range of PHC services in each of the 19 remote zones in the Northern Territory;

- Agreed that measures to ensure the Indigenous residents of each of the zones is able to access the full range of core PHC services is not only a logical progression to the significant gains in Indigenous PHC that have occurred in the Northern Territory over the last 10 years, but is also a reasonable and practical measure that would assist in the objective of improving Indigenous health outcomes.

The Technical Working Group noted that the Katherine West zone with the highest current per capita funding rate had certain historical, organisational and service level characteristics that included:

- prior to 1998, there was only one zone level health service provider (NT Department of Health and Community Services or DHCS);

- since July 1998, service provision has moved to the point the majority of comprehensive primary health care provision to this population is either funded by or coordinated through the Katherine West Health Board (KWHB);

- the transition period in which both DHCS and KWHB offered services was relatively short and that the transfer of service level responsibility occurred in the context of negotiated agreements about both process and timing;

- a population of some 3,200 people scattered across some 162,000 square kilometres (2½ times the size of Tasmania);

- that since establishment, the KWHB has refined and streamlined its operations.

While noting the relative efficiencies of KWHB as a zone level health service organisation, the Working Group noted there are few other zones in which health service delivery involves only one health service provider (eg: Tiwi, Eastern Arrernte and Alyawarra/Anmatjere). Accordingly, the Working Group concluded that other zones in which there are multiple providers may require some years to achieve similarly refine and streamline their operations as an Aboriginal community controlled service before they achieve a level of efficiency that matches that achieved in Katherine West.

Core Services and a Systematic Care Model

The health care system historically evolved around the concept of infectious diseases. Accordingly, the systems that developed were structured to address a typical patient's episodic and urgent concerns (WHO, 2002). It follows that the model of PHC that was common until the mid 20th century emphasised treatment of acute rather than chronic conditions.

The increasing incidence of chronic morbidities since the mid 20th century demanded a change in PHC systems. The evidence indicates that 'health" systems for chronic conditions are most effective when they prioritise the health of a defined population rather than a individual patient

seeking care' (WHO, 2002, p44). The evidence tells us that a systematic population-based approach to health system design will have greater effect on the patient outcomes than individual care and will be far more financially efficient in the long run (Wagner, 1998, Wagner et al., WHO, 2002).

From Alma Ata in 1978, comprehensive *PHC* was accepted as a better model by most nations throughout the world. This model combines 4 core domains: clinical care and social and preventative programs, linkages, policy and advocacy, community engagement and community development and management and support services. In developing the cores services model we addressed each of these domain areas so that the PHC system has maximum potential for improved health outcomes.

Within the NT there has been a number of systematic population approaches to PHC services that can be shown to have resulted in health gain for the Indigenous population. Four examples are described below.

Example #1 Chronic Disease Related Hospital Admissions

The Northern Territory Indigenous Coordinated Care Trials began in 1997 (Tiwi Health Board) and 1998 (Katherine West Health Board). These trials had the objective of determining the extent to which a population-based model of PHC (involving initiatives such as: Indigenous community control, funds pooling and care planning) might offer increased health gains for Indigenous people within defined geographic boundaries who either:

- Experienced high levels of preventable chronic disease; or
- Were considered to be at significant risk of developing a preventable chronic disease.

Evaluations of the trials conducted in conjunction with the Menzies School of Health Research demonstrated that a combination of funds sharing, Indigenous control, and an emphasis on care planning is capable of producing measurable health gains within a remote Indigenous population.

The outcomes in the period of the trial are described in the Katherine West Coordinated Care Trial - Final Report, published by the Menzies School of Health Research in April 2000. The evaluation report describes four significant changes in existing PHC services that occurred during the live phase of the trial:

- employment of additional health staff in health centres;
- attracting more Aboriginal Health Workers into health centres;
- significant improvements in accessibility of primary care services in major communities, isolated outstations and cattle stations alike[12]
- employment of additional administrative support within health centres.

In their concluding remarks, the evaluators said that that the results of the trial:

- "can be seen in terms of greater Aboriginal control of health services, increased resources, increasing emphasis on preventative services, and more effective clinical

12 Refer p100, Katherine West Coordinated Care Trial-Final Report, Local Evaluation Team, April 2000, Menzies School of Health Research, Darwin, (source: www.menzies.edu.au/pls/portal30/docs/FOLDER/PUBLICATIONS/PAPERS/KWCCT_FINALREPORT.PDF)

practices". The evaluators went on to predict that: "These changes, if sustained, should lead to improved health outcomes in the future[13]".

- lead to increased efficiencies in service delivery characterised by[14]:
    - an increase of around 66% in the number of recorded number of service events in community health centres in the Trial area during the live phase (from 2,373 in July-September 1998 to 3,944 in October- December 1999);
    - From April 1999 through to December 1999, the number of hospital-based service events involving patients from Trial communities declined. The total number of such events fell from 686 in April-June 1999 to 559 in October-December 1999, a fall of 19%. The decline occurred among accident and emergency events, inpatient events, and patient travel episodes.

The theme of how an increased investment in PHC services can lead to a positive impact on hospital-based services was recently revisited by the Department of Health and Community Services. In unpublished data made available to the Technical Working Group, the authors compared hospitalization rates of those residing in the area serviced by the Katherine West Health Board with results from other health zones across the Northern Territory. The authors made the following remarks:

- Hospitalisations from NT remote areas increased considerably between 1999/2000-2005/2006, mainly driven by chronic diseases (Figures 1 and 4);
- With or without renal dialysis, chronic disease-related hospitalisations increased substantially between 1999/2000 and 2005/2006 (Figures 1 and 2);
- Chronic diseases in Central Australia substantially increased with hospitalisation rates now double the NT remote average (Figures 1 and 2). Half of this increase was due to new facilities for renal dialysis in Central Australia, and the other half was due to real increase in chronic diseases.
- Katherine West hospitalisations in perspective:
    - For chronic diseases, Katherine West did not have renal dialysis facility but have relatively higher chronic disease rates than the NT remote average and the other Top End except for Tiwi (Figures 1 and 2);
    - For chronic diseases, Katherine West hospitalisations were higher than the NT remote average in 1999/2000 but fall behind in 2005/2006 (Figure 2), with chronic disease hospitalisation rate without renal dialysis maintaining at the 1999/2000 level while the NT remote average increased by 50% during this period;
    - For non-chronic diseases, Katherine West marginally increased hospitalisation rate compatible with the NT remote average and the Top End figures (Figure 3);
    - Overall Katherine West total hospitalisation rates increased marginally but are still 40% below the NT remote average in 2005/2006 (Figure 4).

The full text of this paper is included as an Attachment. The charts that illustrate these conclusions are provided as excerpts below:

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13 Ibid, Refer paragraph 2, page 95 (Chapter 9).

14 Summarised from Chapter 9.1.9, Efficiency gains, p100.

Figure 1. Chronic disease related hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06

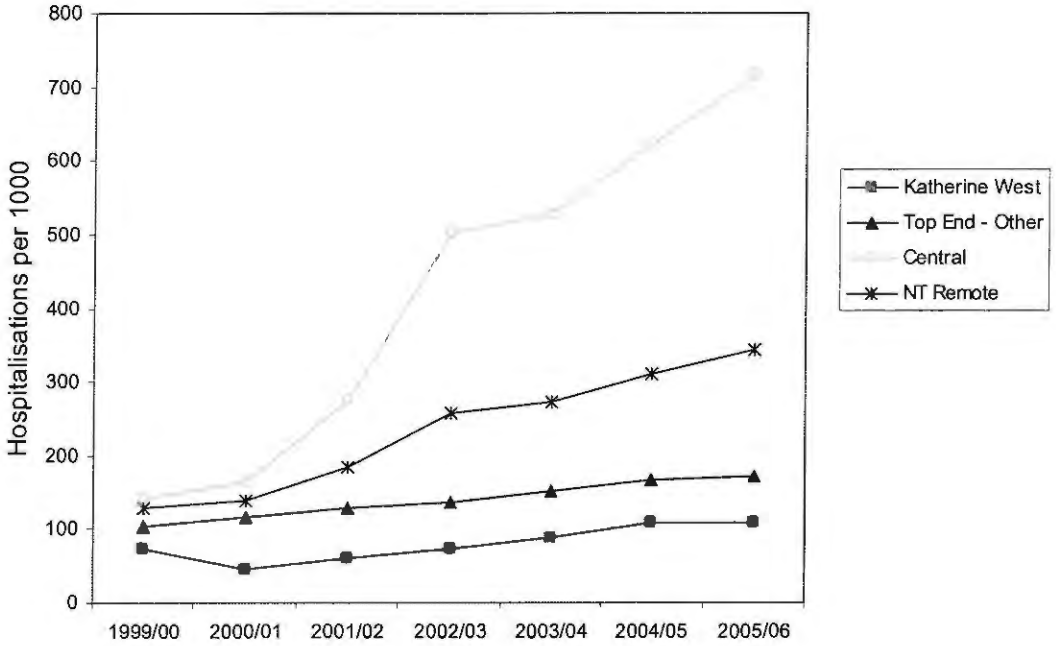


Figure 2. Chronic disease related hospitalisations (w/o renal dialysis) per 1000 population by NT Health Zones, 1999/00 to 2005/06

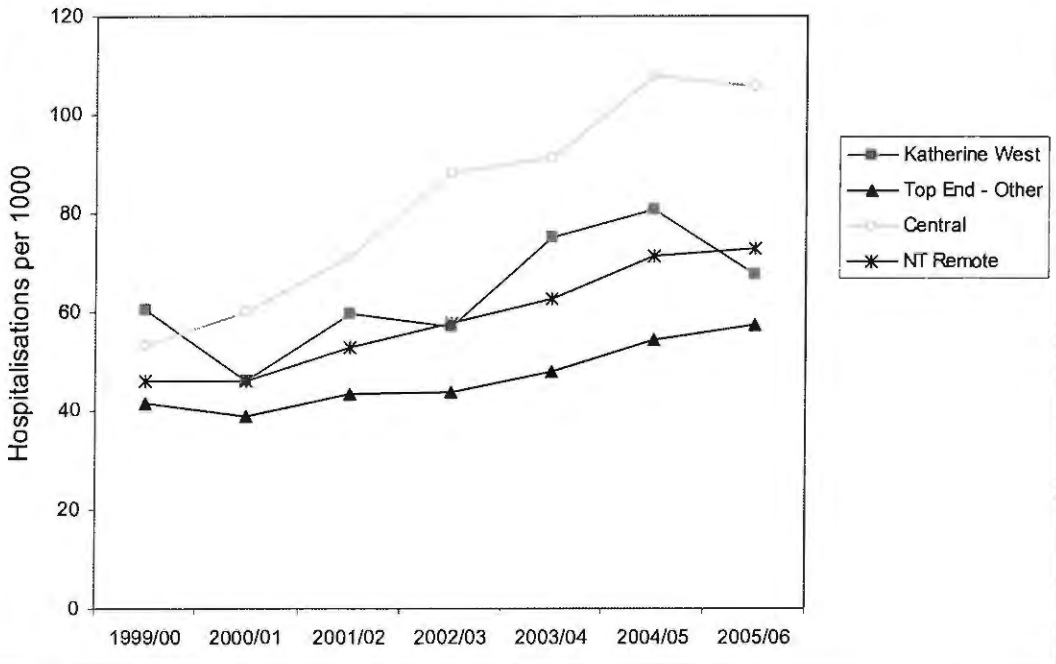


Figure 3. Non-chronic disease related hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06

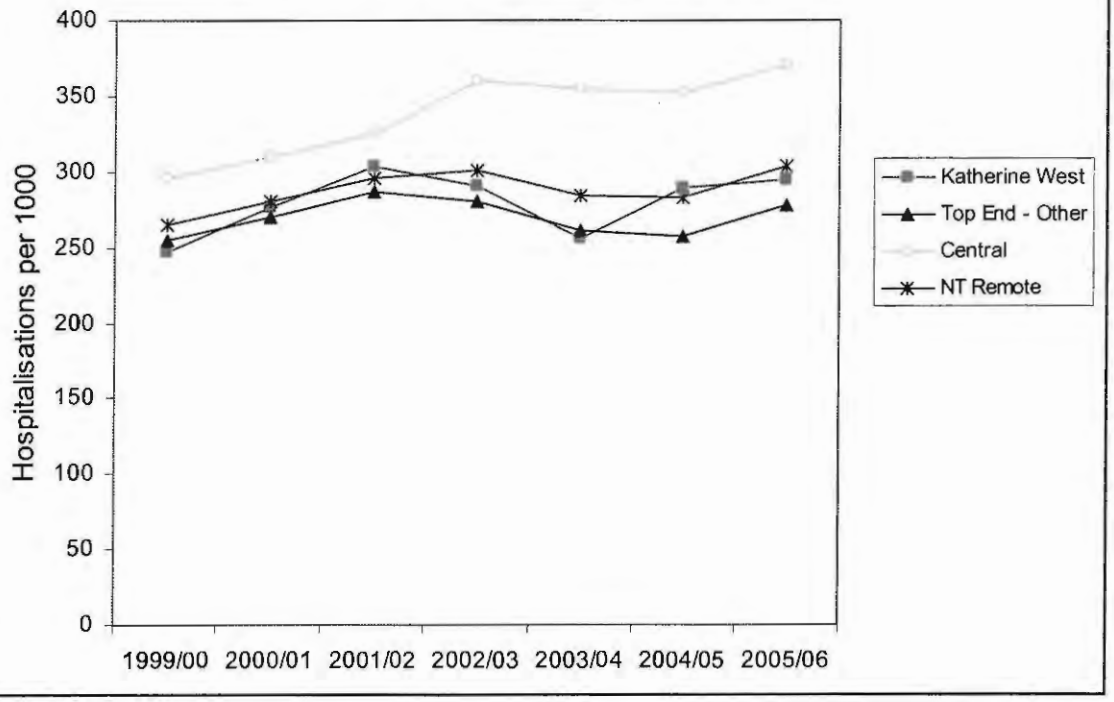
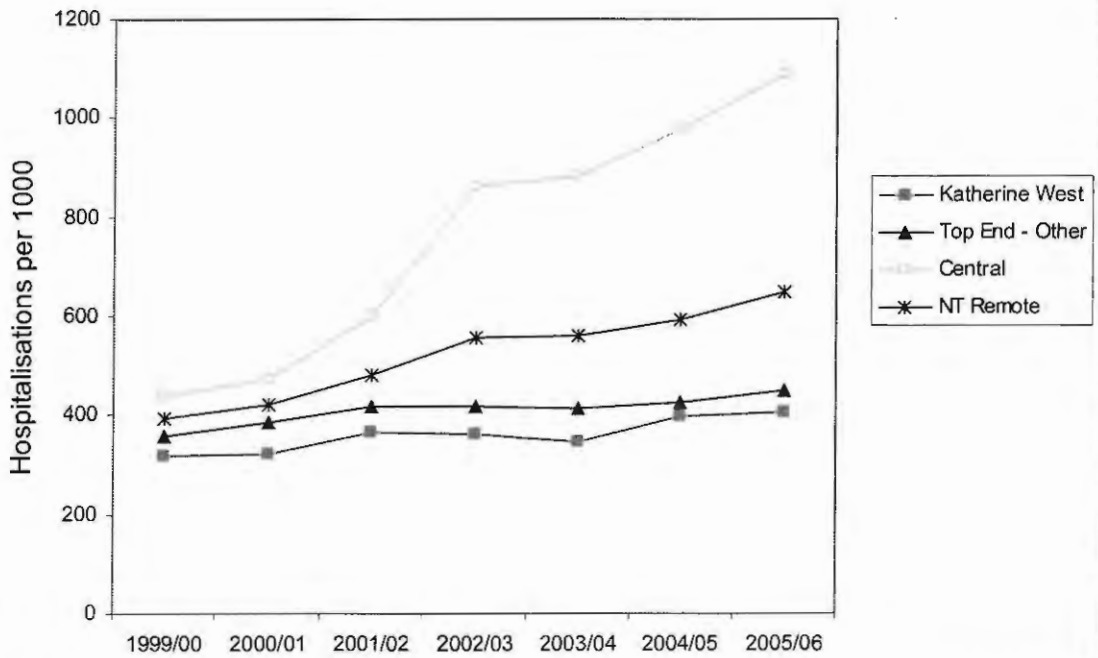


Figure 4. Total hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06



These recent DHCS results supports the Coordinated Care Trials' Local Evaluation prediction that increased investment in PHC services leads to reduced hospitalization rates over time. This data shows an initial drop in chronic disease hospital admission when resources were

increased during the CCT period, and a further drop from 2004/2005. The further drop in Hospital admission rates from 2004/2005 is commented on below.

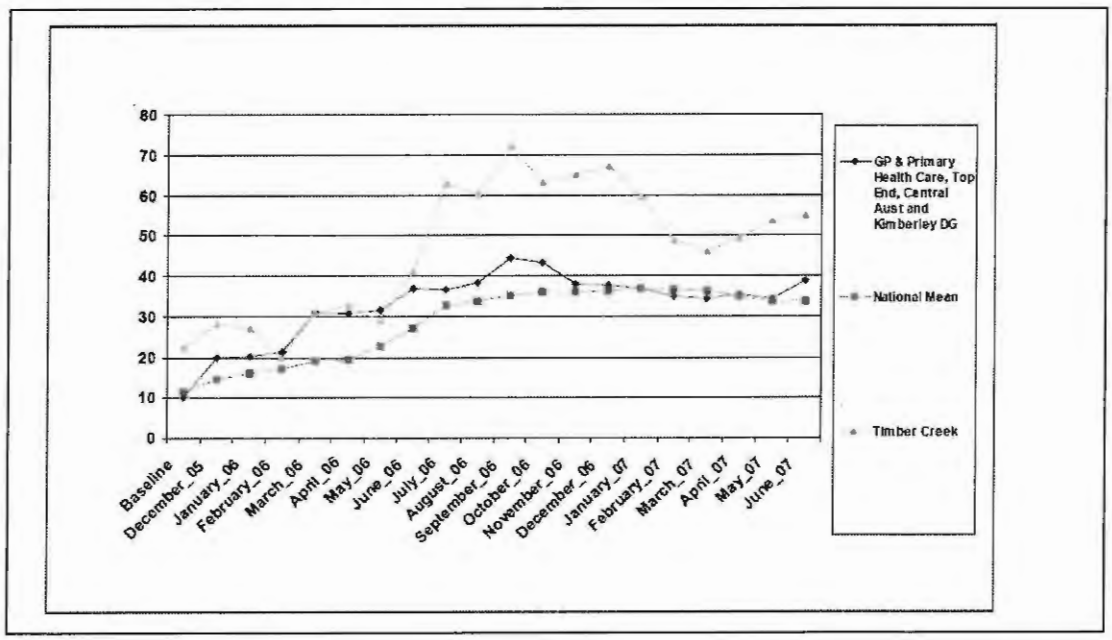
Example #2 Katherine West National Primary Care Collaboratives Data

The Working Group proposes that a significant improvement in the key health indicators of diabetes in the service population is a proxy for the ability of that service to meet the primary care needs of its wider population. In the Katherine West zone, the efforts of the PHC team reveals a health gain by increasing the percentage of their diabetes patients with HbA1c <= 7% and Cholesterol <4mmol/l (see Figure 2 and 3 below). Further more there was improved Blood Pressure Control (BP) control <+ 130/80 mm which was not to able to be obtained in the less well resourced ABCD study sites.

Katherine West Health Board health centres have participated in two waves of the National Primary Care Collaboratives (NPCC) program. Katherine West achieved impressive results in chronic disease management when matched against mainstream General Practice means. The data presented here is from Timber Creek and area, part of Katherine West.

The diabetes data below represents a group of about 200 clients.

Figure 5: Percentage of Patients with Diabetes with BP <=130/80 mm
Source National Primary Care Collaboratives



.Figure 6: Percentage of Patients with Diabetes withHBA1C <=7%. Source National Primary Care Collaboratives

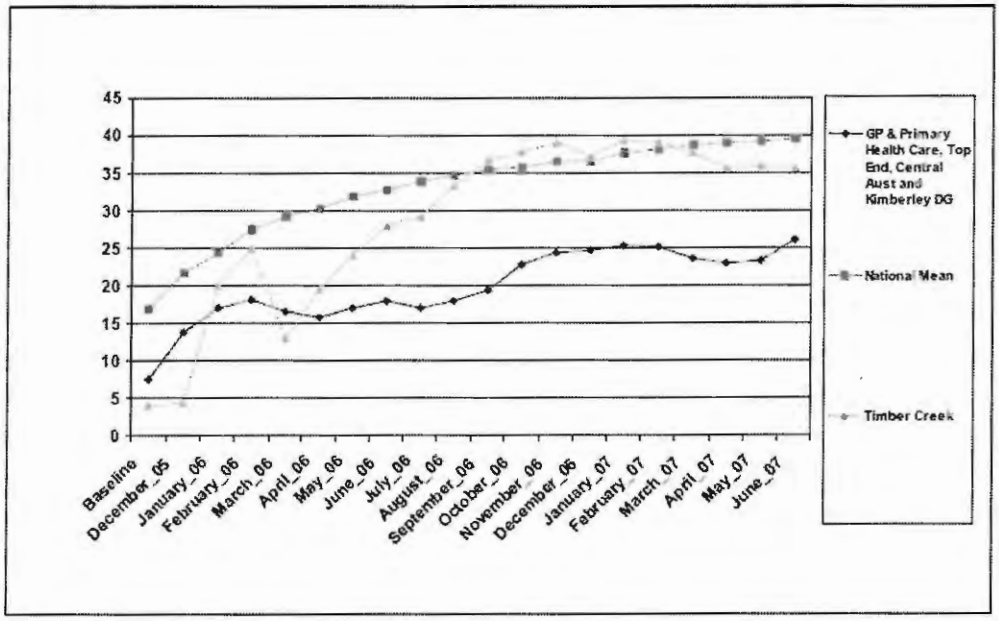
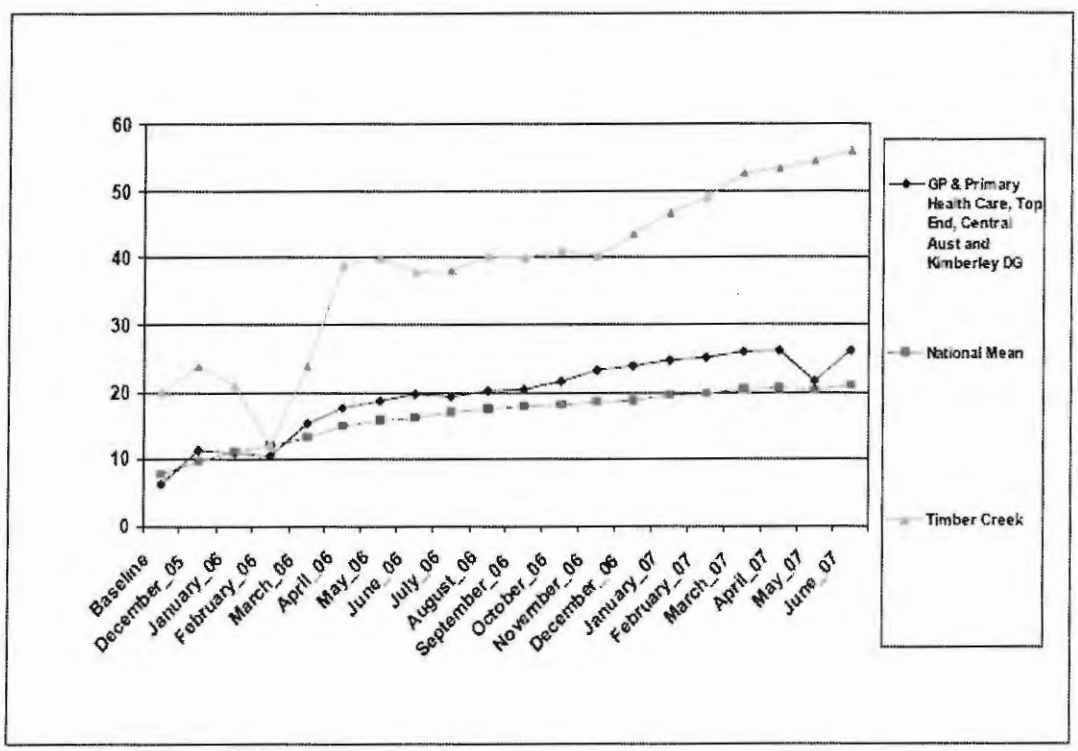


Figure 7: Percentage of Patients with Diabetes with Cholesterol <4mmmol/l. Source National Primary Care Collaboratives.



This data clearly demonstrates the ability of a regional community controlled health service, resourced at the Katherine West level, and with good systems in place, to deliver outcomes in the quality of diabetes care exceeding mainstream Australian General Practice.

It is notable that the period in which Katherine West has fully implemented improved data management and participated in the Collaboratives program has coincided with a drop in chronic disease hospital admissions.

Example #3 Audit and Best Practice in Chronic Disease.

The Audit and Best Practice for Chronic Disease (ABCD) project is an action-research based project began in 2002 under the auspices of Menzies School of Health Research. The project uses quality improvement processes to enable local service providers to assess and improve organisational systems and activities around the prevention, early detection and management of chronic diseases amongst predominantly Indigenous Australians.

ABCD focused on how to improve the delivery of services for:

- Prevention and early detection of chronic illness in the adult Indigenous population; and
- Care of people known to have diabetes.

After two annual cycles of the Continuous Quality Improvement (CQI) intervention, the twelve participating Aboriginal remote health centre sites remain actively engaged in the project, and have achieved impressive improvements in several key indicators of the quality of chronic illness care, including:

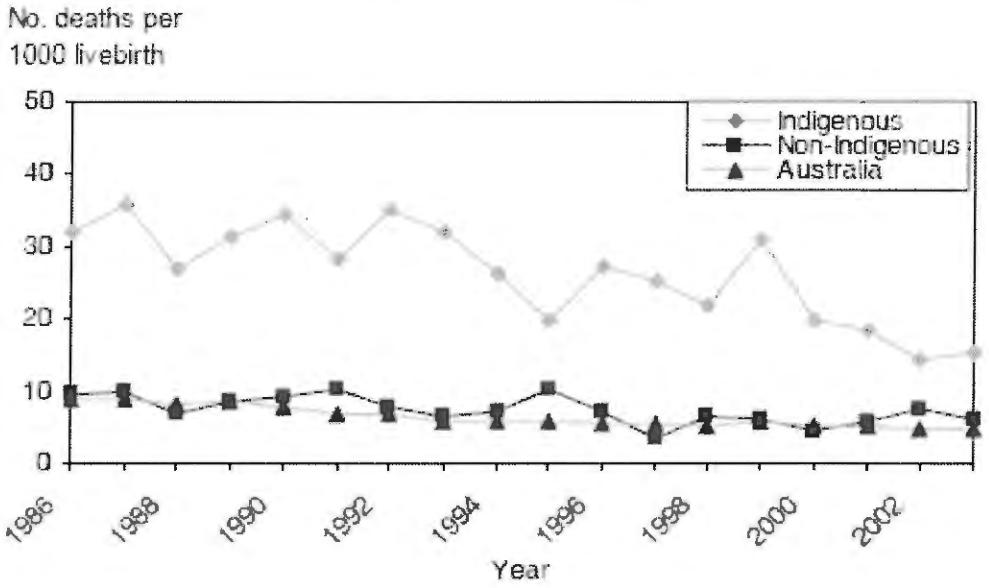
- improvements in all key aspects of health delivery systems to support chronic illness care in almost all participating sites;
- Improvements in care processes with examples including:
    - improvement in percentage of scheduled diabetes services delivered from 30% at baseline to 52%;
    - improvement in the proportion of people with diabetes with a record of a BP check within 3 months from 63% at baseline to 76%;
    - improvement in the proportion of people with diabetes with a record of an HbA1c check within 6 months from 41% at baseline to 72%.
- Intermediate outcomes of care:
    - improvement in the proportion of people with diabetes whose most recent HbA1c check was <7%, from 19% at baseline to 28%;
    - improvement in the proportion of people with diabetes whose most recent total cholesterol was <4.0mmol/L, from 23% at baseline to 30%.

These intermediate outcomes are associated with significant reductions in cardiovascular risk.

Example #4 Ante Natal Care

The third initiative involved increased investment and focus on ante-natal care across the Northern Territory. This has contributed to halving Indigenous infant mortality rates from 1986 to 2003 (refer Figure1 below). Despite these significant gains, the current Northern Territory infant mortality rate is still twice the national average.

Figure 8: NT Infant Mortality, 1986 – 2003 Source: HGPU, DHCS



Core Primary Health Care Services in Remote Northern Territory: The Context

The consensus among the Technical Working Group was that service populations of less than 3000-4000 Indigenous persons were unlikely to ensure the economies of scale needed to sustain the service. If this rationale were to be applied across the existing 19 remote Northern Territory Indigenous health planning zones agreed by the Northern Territory Aboriginal Health Forum, some zone amalgamations would be necessary to achieve the desired service population base.

Consistent with a population health/public health approach, the core PHC services described in this paper do not target any single disease. Instead, the aim is to develop the potential to maximise health gain through a simultaneous effort to deliver tailored services to each of four broad age cohorts (early years, adolescence, family years, grand-parent years) and across a general services category. The nature and scope of services provided to each age-based cohort reflects the best evidence and/or the best practice within PHC services while maintaining the flexibility to respond to community or regional level innovations or priorities.

This may result in some variation in the way core services roll out in different zones. However, the characteristics of current health service delivery arrangements may differ from zone to zone across the remote areas of the Northern Territory. The Working Group consensus is that core PHC services in all remote areas of the Northern Territory should ultimately aim to achieve:

- Indigenous community control of the health service. While not all locations within remote areas of the Northern Territory are yet at a point where implementation of a community controlled model is possible, it is expected that the document "*Pathways to Community Control*" being developed by DHCS on behalf of the Northern Territory Aboriginal Health Forum will form the "blueprint" for future service development;
- Comprehensive PHC service delivery. Evidence shows that this will achieve maximum health gain and reduction in disease burden;

- Multidisciplinary service provision (typically involving teams comprising medical officer, Aboriginal Health Workers, Remote Area Nurse together with Allied Health professionals and administration support); with agreed benchmark ratios of practitioners-to-population for each discipline within each zone;
- Access to extended clinical roles including acute care services, population health services, accident and emergency responses and secondary and tertiary care providers including a system of visiting specialists;
- Access to health teams able to:
    - safely respond to the complex health needs of a small, highly mobile and dispersed Indigenous population with poor health status;
    - maintain their relevance and competence is a cross-cultural context in which many of the service population have minimal skills in either speaking or writing the English language;
    - operate in locations subject to extreme isolation, extreme climatic conditions and with few or non-existent public transport services;
    - maintain operational effectiveness in conditions of geographic, professional and social isolation; and
    - maintain operational effectiveness in situations where team members may be subject to rapid turnover with the potential to disrupt program continuity (CRANA, Humphreys, Wakerman and Lenthall, cited: Smith, 2004a).

The Working Group favoured purchase of enhanced services using a shared resource allocation model with contributors drawn from among the various services funders - Commonwealth, Territory, Aboriginal Medical Services, local government, and non-government organizations (NGOs) as part of a joint strategic approach to health gain within the service population.

It is expected that the shared resource allocation approach will be supported by joint strategic planning processes and consensus among the parties (Commonwealth, AMSANT, Northern Territory) with regard to programs and program design that are consistent with the implementation of the core remote PHC service.

Core Remote Primary Health Care: applying experience and evidence to enhance service delivery

In detailing core PHC services and system enablers, the Technical Working Group drew on:

- years of practical experience endeavouring to provide sustainable, evidence-based, safe and appropriate services in remote settings; and
- key evidence-based clinical protocols and guidelines ie Central Australian Rural Practitioners Association Standard Treatment Protocols (CARPA), NT Standard Immunization Schedule, OATSIH STI Manual, Womens Standard Treatment Manual, and Health Insurance Commission Health Check Guidelines.

The following table details:

- The Core Services that can be purchased with a funding level of $2,700 per capita based on current expenditure in the "benchmark" health zone.

- The additional Core PHC Services that the Working Group identified as required, but which would require additional funding beyond the $2,700 "benchmark" allocation (in red text). The Technical Working Group's preliminary calculations suggest these additional core services could be purchased with an additional funding investment of around $900 per capita. Together with the "benchmark allocation of $2,700, this additional investment would increase the total per-capita cost of services to around $3,600.

The core PHC service model does not assume that all core services can be delivered from any or each remote community site. The nature, complexity, cost or level of demand for some services requires a consensus to be developed about which services will be delivered "on-site" by a community-based multi-disciplinary PHC team (or the management and/or administrative resources needed to support those services), and services that are appropriately delivered at a zonal or even a regional level.

The current configuration of populations and services across the vast geography of the Northern Territory are likely to guide initial considerations of how best to arrange these services. Detailed arrangements will require separate negotiation at the provincial level. However, as a general guide, the following principles will guide service provision:

Community level

Provision of individual, family and community level PHC services and resources designed to reduce or avoid the risk of illness, treat acute conditions (including accident and emergency situations) and promote best practice management of chronic conditions in partnership with the patient and their family.

Regional Level

Provision of more specialised and/or complex services requiring patient access to services on an episodic or periodic basis. Technology at this level is less portable, and requires access to equipment, consumables or expertise (often all three) not usually found at community level.

Jurisdictional Level

Highly complex or specialised services, where it is generally appropriate to take the patient to the service-rather than to take the service to the patient. Technology is centralised (eg: laboratory-based), and not able to be easily transported. Services of more than one specialty may be required to appropriately respond to patient needs.

Core Remote Primary Health Care: Appendix 1

Applying experience and evidence to enhance service delivery

The following table represents services considered to be core PHC services. The services are arranged to respond to the needs of person as they move through the broad phases of life (eg: early years, adolescents, family years, grandparent years).

Legend

Black Text – Phase 1	Core PHC services or enablers that can be provided with funding of $2,700 per capita per annum; or other available health and community service funding
Red Text – Phase 2	Core PHC services that cannot be delivered within annual PHC funding of $2,700 per capita but can be delivered up to $3600
Blue Text Phase 3	Required services that need to be strengthened or expanded. The majority of these services will be delivered at a regional/Hub level. Services are an essential part of comprehensive PHC but are not usually funded by governments from within funding allocations attributed to PHC services. Accordingly, funding for services described in blue text will need to be made available from within non-PHC programs or agencies.
Green Text	Services that need to be strengthened or expanded, that are not normally part of comprehensive PHC services

Community based PHC Services for Population of 3000-4000	PHC regional Hub Services, or Support Services /Enablers	Non -PHC Services or Support Services/Enablers
Early Years 0-15		
Ante-Natal Care (as per Women's Standard Treatment Manual)		Birthing services -(community-based or hospital)
Ante-Natal Education (individual and group education on breastfeeding, nutrition, healthy living environment, parenting, oral hygiene, etc)		Access to paediatric services
Post-Natal Care for mother and baby	Access to Dental Services	
Intensive Home Visitation Services		
Immunisation (as per NT Standard Immunisation Schedule)	Partnerships with community childcare centres, preschools	
Growth and Development Assessments/follow-up (as per CARPA p110)		Access to FACS assessment and case management for children requiring FACS intervention
Age appropriate education		Access to regional audiological services and support programs in schools
Four year screening (esp hearing /development)	Relationship/partnership with DEET and Health	
Ear program providing daily ear toilet for up to 10 days	Access to community-based support for children at risk and families requiring intensive support to care for their children eg: crisis support; follow up activities and case work with vulnerable children;	

	linkages with support services; individual/group interventions; assistance with non-home placement; support for kinship carers.	
Video otoscope for every health centre		Access to early childhood development and pre-school activities to promote and support the physical, social, emotional and cognitive development of young children, encourage socialisation and to prepare children and families for school. Including, as a minimum, set up/support of playgroups and/or child play and outdoor activities and assoc parenting activities.
Treating underlying infections ears, skin, chest		
Working with families of vulnerable children		
Healthy School-Age Kids Program, health promotion in the school and community setting		
Ear health program at school		
Chronic disease management and care planning	Disability services for kids - support for community-based rehabilitation	
Adolescents Years		
STI/BBV programme, including individual education, screening, management, contraception, (as per CARPA p237 and OATSIH STI Management Manual)		Access to sexual health and protective education in schools Access to juvenile diversion programs Transition to adult roles education eg Home economics, cultural responsibilities
Family Planning education and advice	Relationship/partnership with NT police	
Promote and support access to youth development activities including coping skills, problem solving strategies and self esteem training		Access to Driver Education Programs Access to sport/recreation programs and youth workers. Promote self esteem and alternate life choices
Immunisation (as per NT Standard Immunisation Schedule)	Access to community-based support for young people at risk and young people and families requiring intensive support, including: - crisis support, follow up activities and case work with vulnerable young people and young people at risk and their families, linking young people and their families to supports/services, undertaking as appropriate individual and group interventions, and facilitation of out of home placements and support	

	for kinship carers	
Skilled counselling and harm minimisation health education, specifically: smoking, Alcohol, Cannabis, Volatile Substances and other drugs, Mental Health including grief, self harm. (Could be funded from new ATOD and Mental Health funding). Positive parenting programs	Psychologist for supervision of counsellors and visiting services to communities in the zone / region.	Access to FACS Assessment and case management for young people requiring FACS intervention
Family Years		
Targeted health services for well Men and Women		Residential rehab services
Annual Adult Health Checks, (Item Numbers: 704, 706, 710 and 712) (as per HIC guidelines and CARPA p260,Brief interventions for Alcohol and Tobacco CARPA p 264.)		
Comprehensive **Anti Smoking programs** including access to nicotine RT/pharmacotherapy	Environmental Health Services	
Chronic Disease Management and Care planning (Item Numbers: 721, 723, 725, 727, 729,and 731) and self-management support		
Case management of advanced kidney disease, including care planning GFR less than 30	ATOD Treatment and support services	Access to specialist ATOD services
Multi strategy **healthy lifestyle programs** with public health coordinators and community-based workers	Access to Dental Services	
STI/BBV program, including individual education, screening, management, contraception, (as per CARPA p237 and OATSIH STI manual)	Access to male staff	
Immunisation (as per NT Standard Immunisation Schedule)	Pharmacy Supply including s100 tendering	
Supply of prescribed **chronic disease medication** (including blister packs)		Access to visiting Pharmacists, to carry out Home Medicine Reviews, education for clients on chronic medication, and in-service for staff (drug usage, storage, ordering). and health centre pharmacy audits
Skilled counselling including CBT, and harm minimisation health education, specifically:	Psychologist for supervision of counsellors and visiting services to communities in the zone /	Interpersonal violence unit - for perpetrators and victims (skilled counsellors, psychologists)

smoking, Alcohol, Cannabis, Volatile Substances and other drugs, Mental Health, self-harm and Nutrition. (Could be funded from new ATOD and Mental Health funding). Could also provide PPP and alcohol rehab after-care.	region.	
Grandparent Years		
Home Medicine Reviews (as per HIC)	Access to Dental Services	
Annual Health Checks, greater than 55 years		Access to a range of individualised community care services inc: meals, home help, centrebased day activities/day respite, and personal care.
Access to **counselling, information and advocacy**		Enhanced coordination for expanded tailored home assistance and community care support services (HACC, CACP, Flexible Aged Care
Immunisation (as per NT Standard Immunisation Schedule)		Access to Aged Care Assessment Team (ACAT) for relevant people over 50 years of age
Frail elderly programs including home visiting, care and coordination of HACC programs		Access to Respite: home/host family based or through participation in centre based day activities
Clinical care to residential aged care facilities		Community access, socialisation and recreation – assistance with accessing and participating in community, social and recreation activities eg to and from and participating in social activities and events, shopping.
Home based palliative care support		Access to equipment for mobility and independent living – TIME Scheme
	Access to regular visits from specialist nursing, allied health trans disciplinary therapists and specialist behavioural educators	
	Implementation of regular therapy and allied health plans (including strength resistance training) including appointment of case managers for people with complex needs	
		Respite/support for Grandparents looking after grandchildren
		Age-appropriate sports and Recreational programs
	Access to elder-abuse / neglect awareness programs	
General Services		

PHC service management including coordination with external agencies (health and other),cultural advice , reporting and compliance, grant submissions		
Professional support and leadership		Access to interpreter services
Governance support and community engagement (boards, community meetings and planning etc)	Facilitate pathways to community control	
Policy and advocacy	Policy and advocacy	
Public Health specialist advice and planning	Access to allied health services (nutrition, OT, Speech Pathology, Physiotherapy, podiatrists,) Access to Health Promotion teams/health resources	
Access to 24 hour Emergency care –medical retrieval tasking and evacuations	Implementation of Allied Health Care Plans with case managers for people with complex disabilities.	
		Expanded regional health transport to enable access to referred services
Local transport and coordination of transport		
Access to telecommunications (email, satellite phone, phone and fax).		Access to equipment through disability support funds and TIME Scheme.
Regular scheduled maintenance at Health Centres eg quality control	Routine maintenance and servicing of standard equipment including equipment pool for loan to local health services	
Practice Quality Control and Assurance – Accreditation of Health Centres	Expanded access to visiting allied health trans disciplinary assessment and therapy services.	
Establish staffing levels that provide staff the time to attend training and in-services	Access to Palliative Care service available as required, in-service for all health staff, workshops for community members Coordination and support for student placements Recruitment and orientation support AHW Trainers and support	
Administration support to organise patient transport, bookings to referred services, follow ups, correspondence and answer phones and provide general reception duties.	Expanded visiting optometrist scheme	Visiting radiographer/ultrasonography services Medicare + extra plus access to training
Cleaning and environmental support to maintain the health centre environment to national standards		Access to day programs to promote community participation and alternatives to employment for people with a disability
Disease control programs eg trachoma, TB		Access to support from specialist branches to

		support PHC eg CDC to assist with prevention and management of environmental-related conditions eg scabies, rotavirus
Access to Health Centre programs at agreed times, including extended hours in 'larger communities'.	Access to diabetic retinopathy screening service (inc Retinal cameras)	
Environmental health programs	Access to Dental Services.	
Local quality coordination (eg: collection of KPIs for remote PHC agreed at the NTAHF). Provision of analysed and described information back to local councils, health committees and other relevant forums and service providers.	Relationship/partnership with Community Councils, store, clubs,	
Hospital Liaison /discharge services		Access to Hospital in the Home services
Mental health screening, assessment, treatment and interventions	Mental health support and recovery activities	
Individual and Community-based responses to mental health promotion, prevention and early interventions	Access to mental health and generic counselling services; Mental health visits and critical and disaster response visits.	Access to Psychiatric Specialists
A comprehensive health and community service information system, including population register, medical and case records and a recall system to support health activities and social interventions; a chronic disease register and recall system to support the management of chronic diseases; and data collection to enhance evaluation and quality assurance and In-servicing		
On-going and timely technical support and upgrades for Information system.		
Provision of pathology services including point of care		Renal/peritoneal dialysis services
Provision of pharmacy system and services		
Provision of simple radiology services (ultrasound, chest and limb x-rays). Partially funded from PATS budget.		
Staff support cell (OH and S, IR advice, HRM, quality management, asset management, IT)		
Support for traditional medicine/healers to complement Western medicine		

NT Wide Services		
24 Hours emergency medical consultation by phone		Community-based housing for resident and visiting health and support staff, especially AHW housing.
Emergency Evacuation: NT Aero med services and RFDS linkages and relationships with local services		
Clinical Protocol development eg CARPA		
Patient travel including issues of regional transport		
System wide policy and planning		
Undergraduate and post graduate education		
Coordination of student placement		
Program Development and Coordination: Maternal Child Health, Preventable Chronic Disease, Nutrition,		
Access to all Specialist Medical services		
Access to specialty services eg TB, Wound management, continence		
Epidemiology		
Quality/standards		
NT Aboriginal Health Worker (AHW) Association		
Induction/orientations are appropriate in content and length		
Funding for research and development of an oral health screening tool for children which could be used by remote health practitioners.		
Specialised PHC reporting and analysis capacity: -back to zones and communities -NT wide -national reports		

Summary of Resource Requirements

Black	Red	Blue
The first implementation phase involves ensuring that each remote zone in the Northern Territory has access to the range of services currently available in the "benchmark" zone. This will require: • Provision of additional resources to allow each zone to be funded at $2,700 per capita per annum; • Re-structuring of health programs in remote zones to ensure access to the "benchmark" range of PHC services. The cost of this phase will be: Indigenous Population of remote zones = 40,000 Multiply population by $2,700 (benchmark zone funding) = $108M ***Less*** Value of current funding = $77.8M Phase 1 additional funds required = $30.2M (recurrent). The provision of +$30.2M is estimated to be the minimum investment required to ensure the Indigenous populations in all remote zones are able to access the range of primary health care services currently available in the Katherine West Zone (the benchmark zone). Some additional costs may be incurred in bringing health systems and health infrastructure to the standard currently available in Katherine West.	Phase Two aims to ensure the entire Indigenous population has access to the full range of core primary health care services. In remote zones, the cost is difficult to estimate. A 2004 study by OATSIH estimated the cost at around $5,100 per capita per year (98-99 values). The initial TWG estimate is around $3,600 in remote zones, around $2,000 per capita in Darwin and around $2,200 per capita in Alice Springs. Urban zone costings reflect cheaper operating costs and increased opportunity for referrals. For remote zones, the increase in per capita costs for this phase is around +$900 per capita. For a population of 40,000, this represents a requirement for an additional investment of $36M. ***Plus*** For Darwin - population of 12,000 - the aim will be to increase service access by increasing funding from the current $638 per capita to $2,000 (+1,362). The extra investment required is +$16.34M. ***Plus*** In Alice Springs - population 6,100 - better service access will require an increase from the current $1,667 per capita to $2,200 (+ $533). The extra investment required is +$3.25M. This phase will cost $56M (in addition to Phase #1 costs).	Phase Three will strengthen & expand enabler or support services. Most services will be delivered at a regional or hub level. While such services are a key support for comprehensive PHC, services of this type are not usually funded from within allocations attributed to PHC services. Accordingly, funding for services in blue text will need to be found from within non-PHC programs or agencies. However, estimating the cost support & enabler services is problematic. A 2004 OATSIH study said that on a relative needs basis, Indigenous PHC services cost about 2.2 times more than those for non-Indigenous Australians. This study showed the cost of PHC services in a very remote area would also be 2.2X the average national cost. AIHW 01-02 data shows PHC services for non-Indigenous Australians costs $1,344 per capita. Using the OATSIH multipliers: • an Indigenous specific PHC service will cost $2,958 pc; • the cost in remote NT will be $6,508 per capita ***less*** the cost of the core primary health care services defined in Phase 2 (ie: $6,508 - $3,600). Phase 3 costs will be around $2,000 per capita. In a population of 40,000, the Phase 3 cost will be around $80M in addition to the costs of Phases 1 & 2.

Service Demands and Gaps in a Typical Zone
Tobacco Smoking

Smoking is one of the greatest single risk factors for health, and is estimated to cause 10 per cent of the total Australian burden of disease. In the Northern Territory, between 1986 and 1995, nearly 20 per cent of adult deaths (persons aged 15 years and over), and 3% of hospital admissions for persons aged 15 years and over have been directly attributed to smoking.

Smoking is a major risk factor for vascular disease especially with co-existing diabetes.

Maternal smoking is associated with increased risk of abortion, low birth weight of the infant and increased risk of asthma and respiratory diseases in childhood.

Between 2000 and 2004, nearly one in three Indigenous mothers and one in five non-Indigenous mothers reported smoking during early pregnancy (Table 1).

Table 1 NT Smoking Status of Pregnant Women
(Source: DHCS Health Gains Unit)

Northern Territory, 2000-2003

Indigenous status	2000[a]	2001[a]	2002[a]	2003[b]
Indigenous	34.6	39.9	35.4	43.1
non-Indigenous	18.6	19.4	20.3	20.3

Notes: In each year there were approximately 20 per cent of women without a recorded smoking status. The true smoking rates was likely to be higher than reported.
a. Smoking status was recorded in first trimester of pregnancy.
b. Smoking status was recorded at the first antenatal visit.
Sources: Stewart ML and Li SQ. Northern Territory Midwives Collection: Mothers and Babies 2000-2002. DHCS, 2005, and Laws PJ, Grayson N & Sullivan EA 2006. Smoking and Pregnancy. AIHW Cat. No. PER 33.

For the **NT Indigenous** population aged 18 years and over:

- In 2004/05, more than half (55.9 per cent) Indigenous NT adults were current smokers. This is 1.8 times the NT non-Indigenous prevalence, and 2.6 times the national prevalence.
- Within the Indigenous population, two-thirds of males were current smokers (64.9 per cent) and almost half the females (47.8 per cent).
- The proportion of smokers among NT Indigenous people varied with age group. The highest proportion of male smokers were those aged from 35 to 44 years (74.6 per cent), while for females the peak age group for smoking was the 25 to 34 years age group (55 per cent).
- Smoking prevalence varied with remoteness and was different for males and females. Smoking was more common in Indigenous males living in remote (69.2 per cent) than non-remote areas (42.2 per cent). For women the pattern was the opposite with much higher smoking rates in non-remote (69.4 per cent) than remote areas (43.8 per cent).

Table 2 Prevalence of Smoking by Sex Northern Territory, 2004/05

Indigenous status	Male	Female	Persons
	Crude prevalence (%)		
Indigenous	64.9	47.6	55.9
non-Indigenous	32.3	30.2	31.3
	Age-standardised prevalence (%)		
Indigenous	62.1	44.0	52.4
non-Indigenous	31.8	29.3	30.2
Total	**37.6**	**33.4**	**35.3**

Table 3 Age-standardised smoking prevalence, Northern Territory and Australia, 2004/05

Sex	Northern Territory (%)	Australia (%)	Ratio
Males	37.6	24.1	1.6
Female	33.4	20.0	1.7
Person	**35.3**	**22.0**	**1.6**

Sources: NATSIHS, 2004/05 ABS Cat. No. 4715.0.55.005 and 4715.7.55.005; 2004 National Drug Strategy Household Survey, (special tables)[5] and National Health Survey, 2004/05 ABS CAT. No.4364.0
Note: The age-standardised prevalence for Australia was estimated using age-specific smoking rates of the Australian population aged 18 years and above adjusted to the Australian standard population (2001).

An increased investment in Ante-natal education involving fathers and families- along with skilled counselling and harm minimisation health education, specifically: Smoking, Alcohol, Cannabis, Volatile Substances and other drugs -would significantly impact on the smoking rate and have a beneficial health gain across the age groups from birth onwards.

Oral Health

Figures from the Australian Research Centre for Population Oral Health show that the incidence of dental caries in children is rising in Australia. The number of decayed teeth for 5 year olds rose from 1.04 in 1999 to 1.20 in 2001 (latest available figures). In the 2001 survey, five-year olds in the Northern Territory had the worst decay rate in Australia at 1.38 cavities per child. The yet to be released 2002 figures show average number of decayed teeth in five-year olds rising to 1.86. These figures are considered to under-represent the picture for Indigenous children.

There is a four-fold increase in caries experience between the ages of 12 and 21 years.

Children under 10 years, particularly those at socio-economic disadvantage and Indigenous children are substantially more likely than other age groups to be hospitalised for dental conditions. Most of this is for extractions of teeth with gross dental caries. Hospitalisation is more than 3 times for rural/remote children.

Contributing factors include lack of fluoride; poor nutrition; excessive consumption of sugary foods and drinks; poor oral hygiene practices.

A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment. Oral disease impacts on eating, sleep, work and social roles.

The economic impact of dental caries is comparable to the other main diet-related conditions of heart disease and diabetes. The release of bacterial toxins and inflammatory products are linked to:

- low birth weight and preterm birth, and
- an increased risk of preventable chronic diseases including:
  - Coronary heart disease and stroke;
  - Diabetes ;
  - Chronic obstructive airways disease;
  - Rheumatic heart disease;
  - Renal disease.

The current barriers to examining and treating all children in the Northern Territory include:

- Gaining access to children aged between 18 months and 4-5 years who are known to have a high rate of decay. As they don't attend school they are rarely seen by visiting dental staff.
- Poor attendance at school by children aged 4-15 who are not examined by dental teams or screened by other health professionals.

Remote Central Australian Department of Health and Community Services data collected in 2006 estimated that 63% of children did not access the NT Oral Health Service. Extrapolating from the 2006 dataset, for every 100 children who do access the service:

- 40 will need no treatment
- 73 fillings will be provided
- 7 extractions will be provided
- 64 fluoride treatments will be provided
- 38 fissure seals will be provided
- 81 follow up/additional service events will be required but not able to be completed

These findings imply a total number of 303 services are required for every 100 children, excluding the initial examination (ie: total services 403). Approximately 74% of the children who were seen had their treatment completed, and another 26% require additional service events. Because of lack of naturally occurring fluoride in Top End water supplies, oral health service needs are expected to be higher again in the Top End.

It is proposed an oral health promotion officer be available at each hub to build capacity around prevention and early detection of oral diseases in schools, early child care centres and in the remote PHC centres. Additional oral health teams, made up of dentists, dental assistants and

dental hygienist, are also required in the Hub Centres to provide outreach early intervention and treatment services.

Hearing Loss

Hearing loss is significantly worse in Indigenous communities than in the wider population. Hearing loss in the first few years of life has major implications for speech and language development and learning. These negative effects are likely to be multiplied in Aboriginal children, many of whom have to adapt to an educational environment where the language and culture differs from that of their home environment.

The hearing loss associated with chronic otitis media in Aboriginal paediatric populations is generally less than 60 dB. (A hearing loss of more than 20 dB may have significant negative social consequences and a loss of 35 dB almost certainly will.) Children presenting with perforated eardrums, particularly those with bilateral Chronic Suppurative Otitis Media (CSOM), experience significantly worse hearing loss than those with otitis media with effusion. Half of those children with bilateral CSOM experience hearing loss of greater than 35 dB, and very few escape without some residual loss.

Developmental, educational, and vocational consequences are compounded by continued poor access to therapy, hearing aids, special teachers, classroom sound-field systems, and other rehabilitative programs.

Hearing loss, and its impact on education, exacerbates the disadvantages generally faced by Indigenous people and increases their risk of coming into contact with the criminal justice system. Poor education and unemployment were important indicators for contact with the judicial system and were common features among the 99 deaths investigated by the Royal Commission into Aboriginal Deaths in Custody.

The plan is to invest in a school based ear health programs to address CSOM including teachers and families in educative, treatment and prevention activities.

Mental Health

Mental health relates to emotions, thoughts and behaviours and encompasses social, psychological and biomedical aspects. Therefore, to fully understand mental health a broad multifactorial and multidisciplinary approach is required.

The Indigenous view of mental health is a holistic one, 'not just the physical wellbeing of the individual but the social, emotional, and cultural wellbeing of the whole community".

The prevalence on mental illness is difficult to establish, and the main reliable source of information about mental illness in the NT is hospital inpatient data. Hospitalisation data provide an incomplete picture of mental illness, and includes only episodes of mental illness that are serious enough to put people in hospital. Some severe episodes of mental illness are treated in the community including suicide attempts. One remote NT community had 135 attempted suicides in a twelve month period, all of which were managed by locally based staff.

The hospitalisation of NT non-Aboriginal people with mental illness changed little between 1979 and 1997, increasing slightly for males and decreasing somewhat for females. By contrast, NT Aboriginal people, both men and women, were hospitalised at considerably higher rates between 1993 and 1997 than they had been in the 1980s. The increasing hospitalisation rate of NT Aboriginal people for mental illness may be because Indigenous people are suffering more mental health problems, or because mental illness is now being better recognised and treated.

The former proposition is supported by data that suggests increasing numbers of NT Aboriginal people are committing suicide. Increased rates of substance misuse and increased pressure on traditional Aboriginal culture may also be playing a part.

The high levels of physical ill health in the Aboriginal community are likely to render Aboriginal people more vulnerable to mental health problems, as do issues such as unemployment, socio-economic status and housing. Stress may cause a range of mental illnesses including depression, other affective disorders and psychosis.

Table 4 NT Mental Illness hospital admission rates 1993 to 1997

	Male		Female	
Mental Disorder	NT Aboriginal	NT non-Aboriginal	NT Aboriginal	NT non-Aboriginal
Schizophrenia	168	142	109	52
Alcohol & drug psychoses	202	58	59	17
Other psychoses	124	61	78	42
Adjustment reactions	57	79	48	70
Affective disorders	34	55	32	69
Other non-psychoses	38	23	36	31
Neuroses	19	38	28	39
Dementia	17	33	19	46
Personality disorders	17	36	6	27
Paranoia	16	21	13	13
Total	692	544	427	405

Notes: Age-adjusted hospital separation (admission) rates per 100,000 people, by principal diagnosis, standardised to Australian 1991 population

Data: Epidemiology Branch, THS

Self-inflicted injury was the principle diagnosis for 645 hospital admissions (235 Aboriginal and 410 non-Aboriginal) to NT public hospitals between 1993 and 1997. Of the 410 non-Aboriginal people, 45% were also diagnosed with a non-psychotic mental illness, 22% with alcohol or drug dependence/misuse and 9% with a psychotic illness.

Mental illness was diagnosed less often in Aboriginal people hospitalised with self-inflicted injury, and alcohol or drug dependence/misuse was more common than other forms of mental illness. Of the 235 Aboriginal people hospitalised with self-inflicted injury, only 19% were also diagnosed with a nonpsychotic mental illness and 6% with a psychotic illness, but 35% were diagnosed with alcohol or drug dependence/misuse (THS 1999).

The plan is to invest in improved mental health screening, assessment, treatment and interventions for men and women to address the increasing levels of mental illness and self harm. There will be a focus on individual and community based responses to mental health promotion, prevention and early interventions. Fundamental to this is the inclusion of skilled counsellors, capable of delivering CBT and Aboriginal family support workers as part of community based comprehensive primary health care. There will also need to be a psychologist as part of the team for a service population of 3000 to 4000 people. This service model will enable a comprehensive suite of services to address mental health and alcohol and other drug problems.

Conclusion

The provision of resources to primary health care services and systems has a direct impact on the health outcomes achievable by those services and those systems.

This paper is able to demonstrate that increasing resources to remote primary health care services in the Northern Territory has resulted in improved health outcomes for the populations in the favoured zone.

The Technical Working Group believes that the results that have been achieved in the Katherine West zone can be replicated in the remaining eighteen remote zones across the Northern Territory.

However, history shows that merely increasing resources in the absence of opportunities to grow health systems is likely to result lead to inefficiencies.

For this reason, it is proposed that any increase in resourcing for primary health care must be:

- carefully staged or phased over a period of time; and
- that zone boundaries are adjusted to provide an Indigenous population of between 3,000 and 4,000 persons

Phase 1

The initial stage will involve an increase in annual funding to all remote PHCAP zones to an amount equivalent to $2,700 per capita

A per capita funding of around $2,700 is able to purchase the staff[15] and the operational costs required to deliver core PHC services to a remote Indigenous population of approximately 3000-4000 Indigenous persons living in a remote location within the Northern Territory. The funding allocation of $2,700 per capita also provides:

- Sufficient funding to cover essential corporate support including a Chief Executive Officer, clinical managers and essential health centre and office support staff such as cleaners, finance and human resource;
- Associated corporate and service delivery costs such as supplies, transport, rental, essential services, insurance and the running of the Governance Board.

What is not included in this calculation are:

- Non-clinical costs associated with measures required to enable the Indigenous community (however "community" might be defined) to participate in matters of health decision making at the local, regional or jurisdictional level[16];

15 Estimated to include: 16 Remote Area Nurses, 15 Aboriginal Health Workers, 5 Aboriginal Trainees, 4 Medical Officers, 1 Allied Health Professional, 1 Environmental Health Officer, 2 Program Professional Staff and a Medical Administrator.

16 Both Katherine West and Tiwi Indigenous Coordinated Care Trials were supported with both direct funding support (non-trial administration) and indirect support ($60,000 in discretionary funds provided to the CCT Program Manager located in the NT OATSIH Office).

- The costs of important health related programs not considered to fall within the realm of what is defined as PHC, but the provision of which is considered essential to health gain within the Indigenous populations of the Northern Territory;

- An additional measure of funding associated with the additional costs associated with "start-up" or establishment costs involved in the implementation phases of establishing a regionally based Indigenous community controlled model of PHC delivery;

- The costs associated with coordination of both health and non-health related services to ensure the potential health gains available from successful cross-sector integration are obtained in full-measure;

- Costs associated with the establishment and operation of the health technology required to enable PHC practitioners to achieve higher levels of efficiency in remote locations. Typically, the health technology involved is associated with installation and ongoing operation of communications and information technology required to sustain remote Medicare billing, allow operation of patient information and recall systems and computer-based management information and decision support systems;

- Costs associated with upgrading the physical health infrastructure required to support a modern technically-oriented, multidisciplinary and culturally appropriate PHC service. This is particularly relevant in circumstances where much of the 'bricks-and-mortar' infrastructure in remote areas was designed for a different era when service populations were smaller, where staffing was less generous, and where clinical teams were less generously endowed than modern circumstances demand.[17];

- The cost of trauma and trauma service responses to accidents involving the increasing numbers of travellers now visiting remote locations and involved in serious road traffic accidents or similar unforeseen events. With the Commonwealth Government's decision to rescind the permits previously required to enter upon Aboriginal Land, it is expected the demand for such services will increase. Indigenous PHC services are not funded (or structured) in a way that allows services to be easily re-focussed away from the demands of Indigenous health. However, the reality is that in many remote locations, there is no other alternate provider of health services;

- Costs associated with what is currently a town based on-call and emergency retrieval functions managed by the Department of Health and Community Services from within the Department's Acute Care Division. These are essential "enabler" and support functions for remote primary health care services irrespective of which PHC provider is involved;

- Costs associated with patient assisted travel. Although eligibility for patient assisted travel is under active debate, costs associated with the current Patient Assisted Travel Scheme (PATS) are managed by the Department of Health and Community Services from within the Department's Acute Care Division.

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17 It should also be noted that few Commonwealth sourced programs over the last ten years that target provision of additional physical infrastructure have made recurrent provision for ongoing repair and maintenance (R+M) of that infrastructure. OATSIH program protocols appear to favour either a one-off annually-based approach to R+M funding or a policy of not funding R+M with the inevitable result that economic life of the asset is foreshortened (refer Indigenous Health and Infrastructure Program-Structure and Fitness for Purpose Review; Executive Report produced for DoHAC by Ove Arup and Partners, March 2000, Section 5.2.2, page 16-17). With many of these assets being established in extremely harsh desert or tropical coastal environments, it is suggested that these approaches have added to the "hidden costs" of health program delivery in northern Australia.

- Costs associated with overcoming the shortfall in the number of Doctors in remote areas of the Northern Territory[18]. Opinions about the "ideal" doctor:patient ratio (DPR) vary. However, the *Darwin Statement*[19] published in April 2005 by GPPHCNT in conjunction with NT Department of Health and Community Services, AMSANT, the Department of Health and Ageing; Top End Division of General Practice; the Central Australian Division of PHC and NT General Practice Education Ltd suggested that "*effective PHC requires one Full Time Workload Equivalent (FTWE) GP working in Aboriginal primary health care, for every 800 Aboriginal people across the NT*". In October 1993, the Rural Doctors Association of Australia recommended that "*in communities where the practitioner is providing in patient, emergency and after-hours services a full time practitioner per 750 patients would be appropriate*". While such ratios seem somewhat generous in the current climate, the extent to which DPRs in the 1:750 or 800 range are identified as desirable by a wide range of health authorities suggests ratios of this order represent an acceptable 'industry' benchmark. In November 2005, the publication *Australian Doctor* reported DPRs in selected locations around the country. For the federal electorate of Lingiari (the most remote seat in the NT), the DPR was quoted as 1:2861. In the more populous seat of Solomon, the DPR was a more favourable 1:2155. For the 40,000 Indigenous people resident in remote zones of the Northern Territory, a DPR of 1:800 would be equivalent to having a remote primary health workforce that included 50 full-time doctors working in the remote Northern Territory.

Phase 2

Phase 2 will involve increasing the funding available for the provision of primary health care services in remote zones to a level that will enable Indigenous residents to access the full range of core primary health care services. It is estimated that the annual cost will be around $3,600 per capita.

Phase 3

Phase 3 involves ensuring all the enabler, support and system level coordination services required to ensure the maximum efficiency of primary health care are in place. Because this often includes services and functions that are not always identified in government budget appropriations for primary health care, estimating the cost of these services has presented the greatest challenge to the Technical Working Group.

Accordingly, our best estimate has been developed from a combination of data and methodologies drawn from publications by both OATSIH and AIHW. These data show that it is reasonable for the remote zones of the Northern Territory to aspire to an annual funding level for primary health care services that is in the order of $6,508.

It is clear that to move from the current average funding level of $1,970 per capita to $6,508 is a significant undertaking. It is essential that mechanisms are put in place to ensure that funding is used carefully and wisely and for the purpose of improving Indigenous health outcomes.

The cost in real terms is daunting. Phase 1 will cost around $30.2M. Phase 2 will cost around $56m. Phase 3 will cost around $80M.

In considering the issues above, the experience of establishing and operating the Indigenous Co-ordinated Care Trials within the Northern Territory is informative. In the case of both Health Boards, the Department of Health and Ageing recognised the need to allocate additional

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18 The emphasis on Doctors in this dot point is not to understate the need to also increase health workforce in other professional streams including Aboriginal Health Workers, Remote Area Nurses and Allied Health professionals.

19 Refer: http://www.gpphcnt.org.au/www/index.cfm?itemID=136andprint

governance and trial 'set up' funding, both in the pre-trial period, and in the subsequent live phase period. This funding was instrumental in enabling the fledgling regional health boards to establish the community controlled structures, processes and protocols needed to establish and continue meaningful community level participation in the affairs of the health board.

It is expected that any reform of current PHC delivery arrangements at the current time, particularly arrangements which favour the establishment of regionally-based Indigenous community controlled health services, would require a similar and additional investment in:

- The establishment and development of governance capacity within health zones, however those zones are defined geographically;

- An expanded capital infrastructure required to support an expanded range of health services in locations where clinic facilities were designed for the health needs of a different era and where staff accommodation is often severely limited.

The Working Group formed the view that funding of around $3,600 per capita would:

- Enable the provision of the basic core primary care services (described in black text in the preceding table); and

- Provide the ability to purchase those additional programs required to deliver improved care coordination from prevention, through to early intervention, treatment and management within the wider definition of core services (described in blue text in the preceding table).

In addition, the working group identified a range of services that sit outside the PHC envelope, that are usually funded through a range of other sources that, if appropriately integrated through skilled leadership and coordination, could be expected to provide a multiplier-effect to the health gains possible by offering improved access to PHC services alone (described in red text).

The paper prepared for OATSIH in 2004 by Econotech[20] study proposed that, on a relative needs basis, "per capita spending on health services would need to be about 2.2 times higher for Indigenous Australians than for non-Indigenous Australians". The study took the view that, "by inference, the 2.2 factor would also apply to primary health care"[21].

In comparison, the Australian Institute of Health and Welfare indicated that for the 2001-02 year (the most recent year for which published figures can be identified), the average expenditures per person in primary care were at 1.23:1 in favour of Indigenous Australians[22], a ratio that falls somewhat below the 2.2 factor proposed by Econotech.

The Econotech study also calculated that, in per capita terms, it costs around 3.5 times more to deliver a universal Indigenous specific primary health care service in a Very Remote location compared to the cost of the same service in an urban location.

The most recent AIHW publication addressing expenditures on Indigenous health suggests the annual non-hospital cost of primary health care services for non-Indigenous Australians in the 2001-02 year was equivalent to $1,344.43 per capita[23]. Using the non-Indigenous to

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20 Econotech Pty Ltd, Costing Models for Aboriginal and Torres Strait Islander Health Services, OATSIH/Commonwealth of Australia, Canberra, 2004.

21 Ibid, page ix

22 p9, AIHW, 2005, Expenditures on health for Aboriginal and Torres Strait Islander People 2001-02. Health and Welfare's Expenditure Series no. 23 AIHW cat. no HWE 30. Canberra: AIHW.

23 Ibid, Table 2.3, p10. The figure is derived by deducting hospitals expenditure from the total cost of non-Indigenous

Indigenous multiplier suggested by Econotech, this indicates the average annual cost of providing a national universal Indigenous specific primary health care service would be in the order of $2,958 per capita[24].

Again using the Econotech multiplier to assess the likely cost of such a service in a Very Remote location (such as all the remote PHCAP zones in the Northern Territory), the resulting calculation indicates a likely annual cost in the order of $6,508 per capita (using the 'Very Remote' cost multiplier)[25].

On that basis, the balance of costs involved between the provision of core primary health care services and the universal Indigenous specific primary health care service defined by Econotech can be represented by the difference between the two figures (ie: $6,508 less $3,600).

Over a remote Indigenous population of 40,000, the cost of Phase 3 would therefore be in the order of $80M addition to the investment involved on both Phase 1 and Phase 2.

24 ie: $1,344.43 x 2.2=$2,957.75

25 Econotech, 2004, Table 2, page x. The data in this table indicates a relationship of 2.2:1 between the "Cost per capita" of a universal Indigenous specific primary health care system in a Very Remote location compared to the "Overall" cost of such a service. The data suggests that the "Overall" figure represents the national average per capita cost.

References

ABS 2006, National Aboriginal and Torres Strait Islander Health Survey: 2004-05. ABS Cat. No. 4715.7.55.005.

ABS, National Health Survey: Summary Results, ABS Cat.No.4364.0. 7. Stewart ML and Li SQ. Northern Territory Midwives Collection:

AIHW 2002, Australia's health 2002, Australian Institute of Health and Welfare, Canberra.

AIHW 2002a, Australia's children: Their health and wellbeing 2002, Australian Institute of Health and Welfare, Canberra.

AIHW: 2005. 2004 National Drug Strategy Household Survey: special tables (unpublished data).

AIHW: 2005. 2004 National Drug Strategy Household Survey: Detailed Findings. AIHW cat. no. PHE 66. Canberra: AIHW (Drug Statistics Series No.16).

ANC 2000, National competency standards for the registered nurse, Australian Nursing Council, Dickson ACT.

Aust Indigenous HealthInfoNet 2002, Summary of Indigenous health, Australian Indigenous HealthInfoNet, Perth. Retrieved: 14.2.2003.
www.healthinfonet.ecu.edu.au/html/html_home/home_home.htm

Barker, D 1991, The untrauterine environment and adult cardiovascular disease, Ciba Found Symp, vol. 156, pp. 3-10.

CARPA 2003, CARPA Standard Treatment Manual, Central Australian Rural Practitioners Association, Alice Springs.

Condon,J. 2001, The Health and Welfare of Territorians, Department of Health and Commmunity Services.

d'Abbs, P., Togni, S., Fitz, J., Bailie, R., Adsett, S., Del Fabbro, L., Wales, N., Deeble, J. Jirtangku Miyrta: Katherine West Coordinated Care Trial-Final Report, MSHR, Darwin, 2000.
http://www.menzies.edu.au/pls/portal30/docs/FOLDER/PUBLICATIONS/PAPERS/KWCCT_FINALREPORT.PDF

Econotech Pty Ltd, Costing Models for Aboriginal and Torres Strait Islander Health Services, OATSIH/Commonwealth of Australia, Canberra, 2004.

Mathers CD, Vos ET, Stevenson CE and Begg SJ. The Australian Burden of Disease Study: measuring the loss of health from diseases, injuries and risk factors. MJA 2000; 172: 592-596.

Measey ML, d'Espaignet ET and Cunningham J. Adult morbidity and mortality due to tobacco smoking in the Northern Territory, 1986-1995. Territory Health Services, Darwin, 1998.

Mothers and Babies 2000-2002. DHCS, 2005.

Laws PJ, Grayson N and Sullivan EA 2006. Smoking and Pregnancy. AIHW Cat. No. PER 33.

White V, Hill M, Siahpush M and I Bobevski, 2003. How has the prevalence of cigarette smoking changed among Australian adults? Trends in smoking prevalence between 1980 and 2000. Tobacco Control 2003; 12:ii67.

MSHR, James Cook University, Apunipima Cape York Health Council AMSANT, NT Department of Health and Community Services, Queensland Health, University of Queensland, 2006. Educating to improve population health outcomes in chronic disease 2006, A curriculum package to integrate a population health approach for the prevention, early detection and management of chronic disease when educating the primary health care workforce in remote and rural northern Australia.

Menadue J, 2007. Breaking the Commonwealth/State impasse in health: a coalition of the willing, New Matilda.com.

Extract of DoHA paper presented to NTAHF-July 2007

Zone Name	Population 2001-02	Total per capita	Priority 2006/07
Darwin	12,008	$638	1
Sth Barkly	996	$1,227	2
Sth East Arnhem	2,422	$1,396	3
North East Arnhem	6,454	$1,434	4
West Arnhem	2,326	$1,514	5
South East Top End	1,310	$1,524	6
Western Arrernte	1,292	$1,625	7
Alice Springs	6,104	$1,667	8
Maningrida	2,160	$1,679	9
Warlpiri	1,637	$1,816	10
Top End West	2,900	$1,909	11
Tiwi	2,293	$1,990	12
Alyawarra-Anmatjere	1,221	$2,034	13
Luritja Pintupi	1467	$2,051	14
Katherine East	5,347	$2,291	15
Eastern Arrernte Alyawarra	741	$2,349	16
Central Barkly	1,658	$2,536	17
Pitjanjatjara	1429	$2,834	18
Anmatjere	976	$2,952	19
Northern Barkly	530	$3,054	20
Katherine West	2,279	$3,266	21

Katherine West Hospitalisations Compared with the Other NT Remote Regions

Department of Health and Community Services, Northern Territory

Background:

In this analysis, the term chronic disease refers to hypertension, diabetes, ischaemic heart disease (IHD), renal diseases and chronic obstructive pulmonary disease (COPD), which are particularly prevalent in remote Indigenous communities in the Northern Territory (NT). The chronic diseases are prolonged illness, rarely curable and very costly to manage. The acute manifestations of the chronic disease often result from poor access to adequate primary health care. In the NT, the acute manifestations of the chronic diseases consumed about 40-56% of public hospital resources, causing disability and premature death for many NT Australians. The NT remote Indigenous communities had considerably higher prevalence rates across all five chronic diseases than the national health survey figures. At ages 50 years and over, hypertension and renal diseases prevalence rates in NT remote communities reached above 50%, diabetes 40%, COPD 30% and IHD over 25%.

Figure 1. Chronic disease related hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06

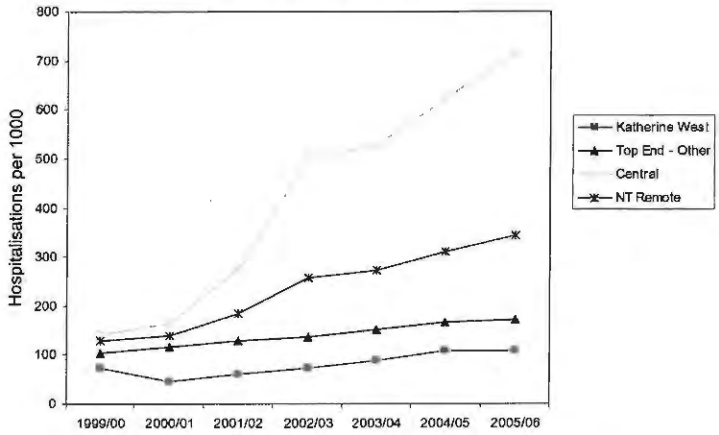
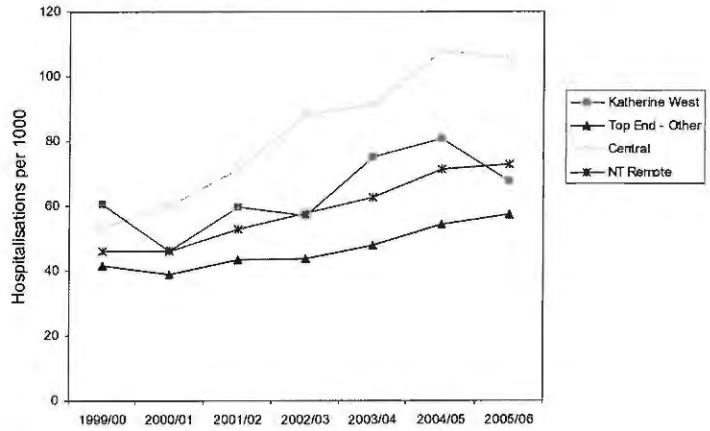


Figure 2. Chronic disease related hospitalisations (w/o renal dialysis) per 1000 population by NT Health Zones, 1999/00 to 2005/06



Method and Data Sources

Hospital morbidity data between 1999/2000 and 2005/2006 were used with residential locality codes mapped to NT Health Zones. The NT Health Zone 2001 population was used for calculation of hospitalisation rates.

Results

- Hospitalisations from NT remote areas increased considerably between 1999/2000-2005/2006, mainly driven by chronic diseases (Figures 1 and 4)
- With or without renal dialysis, chronic disease related hospitalisations increased substantially between 1999/2000 and 2005/2006 (Figures 1 and 2)
- Chronic diseases in Central Australia substantially increased, now with hospitalisation rate double the NT remote average (Figures 1 and 2). Half of this increase was due to new

facilities for renal dialysis in Cantral Australia and the other half was due to real increase in chronic diseases.

- Katherine West hospitalisations in perspective:
  - For chronic diseases, Katherine West did not have renal dialysis facility but have relatively higher chronic disease rates than the NT remote average and the other Top End except for Tiwi (Figures 1 and 2).
  - For chronic diseases, Katherine West hospitalisations were higher than the NT remote average in 1999/2000 but fall behind in 2005/2006 (Figure 2), with chronic disease hospitalisation rate without renal dialysis maintaining at the 1999/2000 level while the NT remote average increased by 50% during this period.
  - For non-chronic diseases, Katherine West marginally increased hospitalisation rate compatible with the NT remote average and the Top End figures (Figure 3).
  - Overall Katherine West total hospitalisation rates increased marginally but still 40% below the NT remote average in 2005/2006 (Figure 4).

Figure 3. Non-chronic disease related hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06

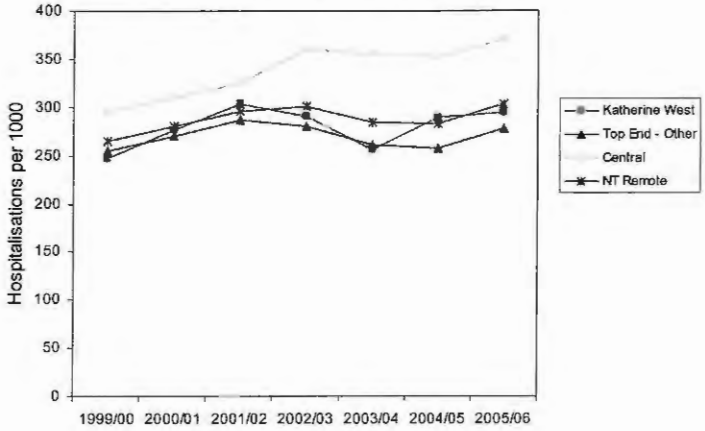


Figure 4. Total hospitalisations per 1000 population by NT Health Zones, 1999/00 to 2005/06

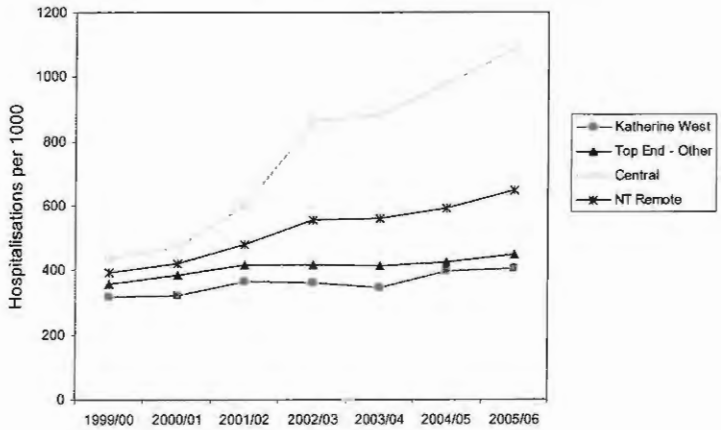
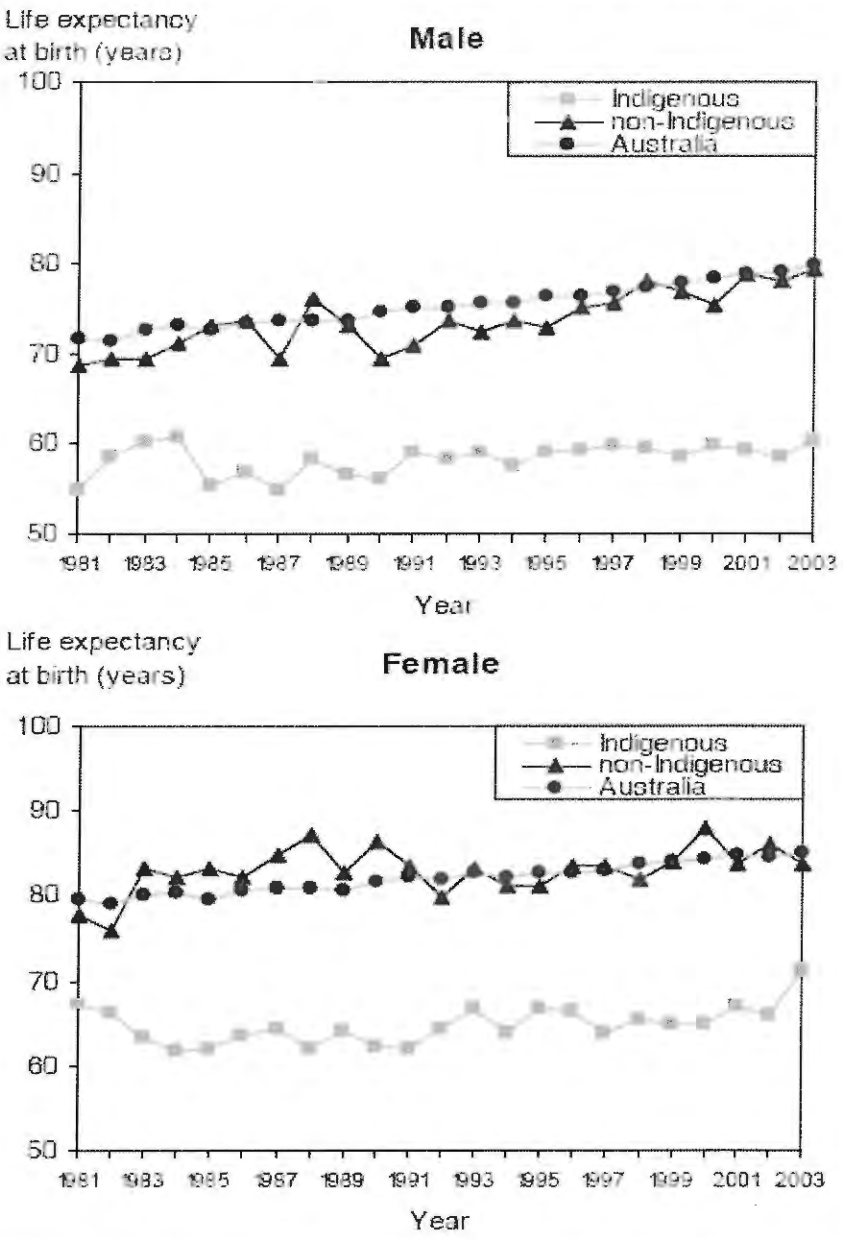


Figure 1: Life expectancy at birth, 1981-2003



Northern Territory Government

AMSANT

Australian Government
Department of Health and Ageing

Northern Territory Aboriginal Health Forum

Core functions of primary health care:

a framework for the Northern Territory

SUMMARY

Prepared for the NTAHF by

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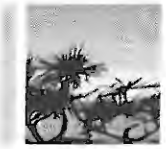
October 2011



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STRUCTURE OF THE CORE FUNCTIONS OF PRIMARY HEALTH CARE FRAMEWORK FOR THE NORTHERN TERRITORY

Domain 1: Clinical Services

Services delivered to individual clients and/or families, in both clinic and home / community settings, including treatment, prevention and early detection, rehabilitation and recovery, and clinical support systems.

- **1.1 Treatment**
- **1.2 Prevention & early intervention**
- **1.3 Rehabilitation and recovery**
- **1.4 Clinical support systems**

Domain 2: Health Promotion

Non-clinical measures aimed to improve the health of the community as a whole. Health promotion includes a range of activities from building healthy public policy to providing appropriate health information and education, and encourages community development approaches that emphasise community agency and ownership.

- **2.1 Building healthy public policy**
- **2.2 Creating supportive environments**
- **2.3 Supporting community action and development**
- **2.4 Health information, education and skills development**
- **2.5 Orienting health services towards health promotion**
- **2.6 Evidence and evaluation in health promotion**

Domain 3: Corporate Services & Infrastructure

Functions to support the provision of health services, including the availability and support of well-trained staff, financial management, infrastructure, information technology, administration, management and leadership, and systems for quality improvement across the organisation

- **3.1 Management and leadership**
- **3.2 Workforce and HR management**
- **3.3 Staff development, training and education**
- **3.4 Financial management**
- **3.5 Administrative, legal & other services**
- **3.6 Infrastructure and infrastructure management**
- **3.7 Information technology**
- **3.8 Quality systems**

Domain 4: Advocacy, Knowledge & Research, Policy & Planning

Includes health advocacy on behalf of individual clients, on local or regional issues, or for system-wide change; the use of research to inform health service delivery as well as participation in research projects; and participation in policy and planning processes (at the local / regional / Northern Territory and national levels)

- **4.1 Advocacy**
- **4.2 Knowledge and research**
- **4.3 Policy and planning**

Domain 5: Community Engagement, Control & Cultural Safety

Processes to ensure cultural safety throughout the organisation, engagement of individual clients & families with their own health & care, participation of communities in priority setting, program design & delivery, and structures of community control & governance.

- **5.1 Engaging individual clients with their health and care**
- **5.2 Supporting community participation**
- **5.3 Governance and community control**
- **5.4 Cultural safety**

DOMAIN 1: CLINICAL SERVICES

Services delivered to individual clients and/or families, in both clinic and home / community settings, including treatment, prevention and early detection, rehabilitation and recovery, and clinical support systems.

AH KPIS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

1.1 Treatment

- First contact treatment of illness and injury
- Continuing management of chronic illness
- 24 hour after hours on-call service,
- Provision of essential drugs
- Palliative care treatment
- Ensure access to / provision of oral health services
- Ensure access to / provision of 24 hour emergency care
- Ensure access to specialist treatment services
- Ensure access to / provision of allied health treatment services

FURTHER READING

Centre for Remote Health (2009). Core services across the lifepsan: a brief consultancy conducted by the Centre for Remote Health to contribute to the ongoing refinement of the DHF Core Primary Health Care Services Initiative. Northern Territory Department of Health and Families.

Northern Territory Aboriginal Health Forum (Technical Working Group) (2007). Indigenous access to core primary health care services in the Northern Territory.

System Performance and Aboriginal Policy Division (Josif D) (2008). Universal Core Service Framework, Performance Indicators and Workforce Implications. Northern Territory Department of Health and Families. Darwin

Prevention and early intervention

- Maternal health services including:
  - antenatal care
  - ensuring access to birthing services
  - postnatal care
- Child health services
- Screening and early detection of disease
- Chronic disease management and prevention of complications
- Immunisation programs
- Communicable disease control
- Support for & coordination with health promotion approaches
- Brief interventions
- Old people's checks

1.3 Rehabilitation and recovery

- Care for clients following treatment or discharge from hospital or other institution (with support from external specialised services)
- Use of case-management / case coordination approaches
- Adequate support for patients during rehabilitation and recovery

1.4 Clinical support systems

- Comprehensive health and family wellbeing information system
- Quality systems
- Pharmacy services
- Ensure access to visiting specialist and allied health services
- Ensure access to hospital, diagnostic or specialist services through referrals
- Ensure access to / provision of training, education and support
- Availability and maintenance of appropriate health service infrastructure
- Provision and maintenance of standard medical equipment
- General administration support for clinical services

DOMAIN 2: HEALTH PROMOTION

Non-clinical measures aimed to improve the health of the community as a whole. Health promotion includes a range of activities from building healthy public policy to providing appropriate health information and education, and encourages community development approaches that emphasise community agency and ownership.

AH KPIS: 17, 18, 19

2.1 Building healthy public policy

- Participate appropriately in building public health policy including:
  - action on the social determinants of health
  - building alliances
  - participating in forums for positive change

FURTHER READING

Baum, F. (2007). The new public health (third edition). Oxford, Oxford Univeristy Press.

Northern Territory Department of Health (2011). Health Promotion Strategic Framework 2011 - 2015. NT Department of Health. Darwin.

Rose, G. (1985). "Sick individuals and sick populations." International Journal Epidemiology 14: 32–38

The International Union for Health Promotion & Education (2002). Evidence of Health Promotion Effectiveness. Shaping Public Health in a New Europe. A Report for the European Commission.

World Health Organization (1986). Ottawa Charter for Health Promotion. First International Conference on Health Promotion

2.2 Creating supportive environments

- Establish core workplace policies and practices
- Integrate health promotion principles in organisational policies and practices
- Advocate at the local community level to address determinants of health, including:
  - identification of illness or risk factors in the community
  - work with other organisations on to local strategies to reduce health risk
  - work with other organisations on appropriate enforcement

2.3 Supporting community action & development

- Community involvement in the identification of health needs and prioritising and planning of health services
- Support for the community to make informed decisions
- Mechanisms for feedback to community on health service performance,
- Involvement of the community in evaluation of the organisation and health programs
- An inclusive approach that ensures that all groups in a community are given a chance to participate
- Support for development of local capacity
- Employment of local Aboriginal community members
- Ensure access to / provision of training and support for staff in participative approaches to service delivery

2.4 Health information, education and skills development

- Development and provision of appropriate group health education
- Development and provision of appropriate community information
- Involvement of local Aboriginal staff and community members
- Address cross-cultural issues
- Address language and literacy issues
- Awareness and use of health literacy and 'strength-based' approaches

2.5 Orienting health services towards health promotion

- Organisational, clinical and public health leadership that is committed to community prevention approaches
- Recruitment of health professionals trained or experienced health promotion and public health,
- Recruitment, training and support of local Aboriginal staff
- Maintenance of sufficient infrastructure and resources for community prevention programs
- Ensure access to / provision of training to support health promotion approaches,
- Ensure access to specialist advice and support for health promotion staff

2.6 Evidence and evaluation in health promotion

- Ensure health promotion programs take account of the evidence and principles for success
- Ensure the local community decision-makers are informed about what evidence exists for addressing issues they identify
- Use health promotion continuous quality improvement and/or planning and evaluation approaches
- Build evaluation into all stages of health promotion approaches

DOMAIN 3: CORPORATE SERVICES & INFRASTRUCTURE

Functions to support the provision of health services, including the availability and support of well-trained staff, financial management, infrastructure, information technology, administration, management and leadership, and systems for quality improvement across the organisation

AH KPIS: 13, 14, 15, 16

3.1 Management and leadership

- Management and leadership that supports effective, accountable and flexible service delivery models, including:
  - motivating and supporting staff
  - supporting accountability
  - supporting Aboriginal leadership & management styles
  - effective partnerships between management, corporate and health professional leadership
- Coordination with external agencies
- Systems to support management and service delivery leaders
- Succession planning
- Sound management of resources, systems, programs and projects
- Risk management processes
- Participation in planning implementation of system development processes at local, regional and Territory levels

FURTHER READING

AMSANT (Aboriginal Medical Services Alliance Northern Territory). "Administration Manual for Aboriginal Primary Health Care Services in the Northern Territory." http://www.amsantmanual.com/03aboriginalhealth.html.

Dwyer, J., O'Donnell K, et al. (2009). The Overburden Report: Contracting for Indigenous Health Services. Darwin, Cooperative Research Centre for Aboriginal Health.

Silburn, K., A. Thorpe, et al. (2010). Taking Care of Business: Corporate Services for Indigenous Primary Healthcare Services. Darwin, Cooperative Research Centre for Aboriginal Health.

Wakerman, J., J. Humphreys, et al. (2006). A systematic review of primary health care delivery models in rural and remote Australia 1993-2006, Australian Primary Health Care Research Institute.

3.2 Workforce and HR management

- Effective and appropriate staff recruitment processes
- Staff induction and orientation
- Staff support
- Industrial relations
- Systems to cover planned and unplanned leave and other vacancies
- Staff performance management and appraisal systems
- Workforce planning
- Policies and practices to support a healthy, safe, non-discriminatory and productive workplace environment
- HR processes that encourage and support Aboriginal employment
- Processes to manage rehabilitation of injured or ill staff and workers' compensation matters
- Monitoring and internal reporting on key workforce indicators
- Ensure access to staff support services
- Support for student / trainee placements as part of health workforce development

3.3 Staff development, training and education

- Ensure access to / provision of education, training and development for all staff, including:
  - Aboriginal Health Worker education
  - Continuing Professional Development for professional staff
  - Professional development for managers in HR and management skills
  - Continuing staff development for non-professional staff
- Performance appraisal processes that identify staff training and development needs
- Ensure access to / provision of ongoing training and support in cultural safety
- Ensure access to / provision of training of health staff in the management and presentation of major illnesses
- Staffing arrangements that provide staff the time to attend training and in-services

3.4 Financial management

- Strong and transparent financial management systems
- Accurate and timely financial reporting
- Preparation of meaningful financial reports for Aboriginal governing bodies
- Management of complex set of accounts with multiple funding sources, including:
  - monitoring spending and budget compliance
  - payroll and staff entitlements
  - maximising opportunities for income generation
  - financial delegation processes
  - billing processes
  - procurement processes
  - purchasing of clinical services
  - assistance with development of funding submissions

3.5 Administrative, legal & other services

- System for the development, dissemination and update of organisational policies and procedures
- Document and data management
- Local services support
- Systems to support organisation of patient transport, bookings to referred services, and follow ups
- Support for organisational change and development processes
- Dealing with one-off or ad hoc requests for information
- Support for governing body processes
- Clearly defined requirements and processes regarding medico-legal risk
- Public affairs, media and marketing
- Ensure access to / provision of legal services

DOMAIN 3: CORPORATE SERVICES & INFRASTRUCTURE

3.6 Infrastructure & infrastructure management

- Adequate and appropriate health service infrastructure
- Ensure access to / provision of adequate and appropriate accommodation for staff
- Infrastructure and assets management
- Infrastructure repairs and maintenance
- Tenancy management
- Ensuring health service buildings meet appropriate design and safety standards
- Ensure access to / provision of transport and coordination of transport for clients
- Advocacy as required on public infrastructure

3.7 Information technology

- Appropriate and reliable IT systems
- Systems and processes to enable connectivity and information sharing with other health providers
- Telecommunications
- Management of IT contracts and service level-agreements
- IT systems planning
- Hardware and software maintenance and upgrades
- Ensure access to / provision of technical IT training and support

3.8 Quality systems

- Quality systems, including support for Continuous Quality Improvement (CQI) processes across the organisation,
- Building capacity for CQI
- Establish and support effective processes for clinical governance
- Ensure access to / provision of support for clinical and organisational accreditation processes
- Encourage and support staff to develop, maintain and participate in professional networks
- Provision of appropriate health information to governing Boards, local councils, health committees and other relevant forums and service providers
- Developing documents and processes to support community input into CQI processes
- Appropriate and effective systems and processes to identify report and manage incidents and 'near misses'

DOMAIN 4: ADVOCACY, KNOWLEDGE & RESEARCH, POLICY & PLANNING

Includes health advocacy on behalf of individual clients, on local or regional issues, or for system-wide change; the use of research to inform health service delivery as well as participation in research projects; and participation in policy and planning processes (at the local / regional / Northern Territory and national levels)

AH KPIS: 17

4.1 Advocacy

- Advocate for the health of individual clients
- Advocate at the local community level
- Participate appropriately in public health advocacy to support positive system-wide change

FURTHER READING

Chapman, S. (2001). "Advocacy in public health: roles and challenges." Int J Epidemiol 30(6): 1226-1232.

Commonwealth of Australia (2001). Better Health Care: Studies in the successful delivery of primary health care services for Aboriginal and Torres Strait Islander Australians. Canberra.

Dwyer, J., K. Silburn, et al. (2004). National Strategies for Improving Indigenous Health and Health Care. Canberra, Commanwealth of Australia.

National Health and Medical Research Council (2003). Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research. Canberra.

Laycock, A., D. Walker, et al. (2011). Researching Indigenous Health: A Practical Guide for Researchers. Melbourne, The Lowitja Institute

Northern Territory Aboriginal Health Forum (2010). NT Regionalisation of Aboriginal Primary Health Care Guidelines: Supporting o Pathway to Regional Aboriginal Community Control. Department of Health and Aging - NT Department of Health and Families - Abariginol Medical Services Alliance of the Northern Territory.

4.2 Knowledge and research

- Assess requests for and negotiate participation in external research processes
- Participate in external research processes (where appropriate)
- Develop local community priorities for research
- Carry out or commission applied research
- Ensure access to / provision of expertise to interpret research, evidence and 'best practice'
- Participate as necessary in strategic collaboration to set priorities for Aboriginal health research

4.3 Policy and planning

- Organisational planning processes
- Service delivery planning at local level
- Participation in regional health planning processes
- Participation in Northern Territory and national policy development processes
- Support health service staff to participate in planning and policy development processes
- Ensure community input into policy and planning processes

DOMAIN 5: COMMUNITY ENGAGEMENT, CONTROL & CULTURAL SAFETY

Processes to ensure cultural safety throughout the organisation, engagement of individual clients and families with their own health, participation of communities in priority setting, program design and delivery, and structures of community control and governance.

AH KPIS: 18, 19

5.1 Engaging individual clients with their health and care

- Awareness and use of health literacy approaches
- Employment and support of local Aboriginal staff
- Use of self-care approaches for clients, involving family where appropriate
- Training for primary health care staff in self-care / self-management approaches and health literacy
- Appropriate and accessible client and community feedback mechanisms

FURTHER READING

Dunbar, T., N. Benger, et al. (2008). Cultural security: perpsectives from Aboriginal people, Aboriginal Medical Services Alliance Northern Territory (AMSANT) / Northern Territory Department of Health and Families

National Health and Medical Research Council (2006). Cultural competency in health: A guide for policy, partnerships and participation. Canberra, Commonwealth of Australia

Northern Territory Aboriginal Health Forum (2008). Pathways to community control: an agenda to further promote Aboriginal community control in the provision of Primary Health Care Services.

Northern Territory Department of Health and Community Services (NT DHCS) Aboriginal cultural security: an outline of the policy and its implementation. Systems Performance and Aboriginal Policy Unit. Darwin.

Wallerstein, N. (2006). What is the evidence on effectiveness of empowerment to improve health? Copenhagen, WHO Regional Office for Europe. Health Evidence Network report.

World Health Organization (2008). The world health report 2008 : primary health care now more than ever.

COMMUNITY ENGAGEMENT, CONTROL & CULTURAL SAFETY

5.2 Supporting community participation

- Community involvement in the identification of health needs and prioritising and planning of health services
- Support for the community to make informed decisions
- Mechanisms for feedback to community on health service performance
- Involvement of the community in evaluation of the organisation and health programs
- An inclusive approach that ensures that all groups in a community are given a chance to participate
- Support for development of local capacity to maximise community members' ability to participate
- Employment of local Aboriginal community members
- Ensure access to / provision of training and support for staff in participative approaches to service delivery

5.3 Governance and community control

- Appropriate and functional membership criteria, election processes and community Governance processes
- Board processes that encourage community participation, respond to community needs, and ensure appropriate feedback to the community
- Compliance with formal requirements of regulators and funding agreements
- Ongoing orientation and training for all Board members
- Board processes that encourage governance that is flexible and capable of change
- Reporting systems to enable the Board to meet its contractual / statutory obligations and to support its role in strategic direction setting
- Support for the Board for business and other complex functions
- Board oversight of cultural safety of the organisation and its programs
- Community development approaches to increase the numbers of community members able to take up Board positions
- Ensure access to / provision of training for staff working with Boards

COMMUNITY ENGAGEMENT, CONTROL & CULTURAL SAFETY

5.4 Cultural safety

- Organisational commitment to achieving culturally safe health care
- Employment of local Aboriginal people and the valuing of their role and advice
- Cultural orientation for non-Aboriginal staff
- Cultural safety policies
- Monitoring and evaluation of the effectiveness and appropriateness of cultural safety policies and orientation processes
- Inclusion of cultural competence as part of staff performance appraisal processes
- Attention paid to communication and language issues
- Accessible and appropriate client and community feedback mechanisms
- Sustainable mechanisms for gaining high level advice on cultural matters affecting service delivery

Definitions of
Northern Territory Aboriginal Health
Key Performance Indicators (AH KPIs)

1. Number of episodes of health care and client contacts.

2. Timing of first antenatal visit for regular clients delivering Indigenous babies.

3. Number and proportion of low, normal and high birth weight Indigenous babies.

4. Number and proportion of Indigenous children fully immunised at 1, 2 and 6 years of age.

5. Number and proportion of children less than 5 years of age who are underweight.

6. Number and proportion of children between 6 months and 5 years of age who are anaemic.

7. Number and proportion of clients aged 15 years and over with Type II Diabetes and/or Coronary Heart Disease who have a chronic disease management plan.

8. Number and proportion of resident clients aged 15 years and over with Type II Diabetes who have had an HbAlc test in the last 6 months.

9. Number and proportion of diabetic patients with albuminuria who are on ACE inhibitor and/or ARB.

10. Number and proportion of Indigenous clients aged 15 to 55 years who have had a full adult health check.

11. Number and proportion of Indigenous clients aged 55 years and over who have had a full adult health check in the past 12 months.

12. Number and proportion of women who have had at least one PAP test during reporting period.

13. Report on unplanned staff turnover (where possible by occupation) over each 12 month period.

14. Report on recruits (excluding locums) completing an orientation and induction program, including cultural awareness.

15. Report on overtime workload.

16. Report on quality improvement systems including the use of best practice guidelines; eg CARPA.

17. Report on service activities (position papers, collaborative meetings and services, published papers, policy submissions, participative research).

18. Report on community involvement in determining health priorities and strategic directions through any of the following: health boards; steering committees; advisory committees; community councils; health councils.

19. Show evidence of appropriate reporting to community on progress against core PIs.

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1 November 2011

The Honorable Nicola Roxon
Minister for Health
MG 50
Parliament House
Canberra ACT 2600

Cc Warren Snowdon

Dear Minister Roxon

AMSANT is pleased that the Government has established the national Dental Health Advisory Council, given that there are major barriers to accessing dental care for disadvantaged Australians including most Aboriginal people. We agree with the government that the dental Medicare Dental EPC items should be abolished as they are entrenching rather than reducing inequitable access to dental care (Harford et al, 2010). AMSANT believes that the teenage dental health check Medicare Item should also be removed as it is poorly targeted towards those who can least afford dental care and have the highest need.

The unmet need for oral health services in Aboriginal people has been noted in dental surveys in both children and adults in the NT and nationally (Jamison et al, 2006, Jamieson et al, 2007, AIHW 2011, Williams et al, 2011). The Medicare EPC items have done very little to increase access to oral health care for Aboriginal people in remote areas. AMSANT is not along in expressing concerns about the inequity of the Scheme. The National Rural Health Alliance has highlighted in a position paper from 2009 that people aged 25-44 were half as likely to visit a dentist if they lived in a rural as opposed to an urban area (National Rural Health Alliance). Expenditure on dental EPC items from November 2007 to August 2008 varied from $1,431,604 per 100 000 population in NSW to $15,363 per 100 000 population in the Northern Territory. The enormous disparity in per capita expenditure is partly due to the severe maldistribution of dentists in Australia with critical shortages in rural areas, and an almost total lack of private dentists in remote areas.

The child health check initiative component of the Northern Territory Emergency Response highlighted the very high level of unmet need for oral health services in the Northern Territory with dental referrals being the most common single referrals made after child health checks (Allan and Clarke, 2010). The current remote dental service in the NT largely responds to emergencies as it is not resourced to provide a comprehensive dental health service to all children. Although the surge in capacity provided by the dental component of the CHCI has undoubtedly benefited many children , the population health effect of this increased treatment

will be quite minimal within a few years if the capacity of the oral primary health care system is not substantially increased.

During the planning phase of the follow up to the child health checkups, experienced dentists in the NT advised AMSANT that all children should be referred to oral health services given the very high level of pathology in Aboriginal children and their concern that primary health care clinicians are not skilled at identifying children who have high priority dental needs. Due to constraints in capacity, the child health check initiative relied mainly on primary health care teams to identify children with dental pathology although other children had some access to enhanced dental care provided by the NTER dental teams. The dental health data showed that children who were referred from clinicians to dentists after a child health check had the same level of pathology as those children who accessed NTER dental teams without being referred from a child health check (AIHW 2009, AIHW 2011). This finding confirms the dentist's view that all children require regular access to regular dental checkups given that primary health care clinicians did not identify those with the highest need. As discussed previously, the current service is largely targeting emergencies identified by primary health care clinicians. Although an emergency serviee is necessary, it is certainly not sufficient to improve population oral health.

AMSANT agrees with the government that the best way to improve access to dental care would be to expand public dental funding. This funding should be weighted for the proportion of Aboriginal people in each jurisdietion (with an Aboriginal person receiving a multiple rate per capita of funding of a non Aboriginal person) with a similar weighting for the proportion of the population living in rural and remote regions. Under the previous planned expansion of public dental funding, the NT was only scheduled to receive a little over its proportion of the Australian population (1%). This would have been very inequitable given the high burden of dental disease in the Aboriginal population and the very high cost of service delivery in remote areas, where the majority of Aboriginal people in the NT live.

The extent of the funding increase required to provide reasonable dental services in the Northern Territory was reviewed in a recent report on oral health service models commissioned in the NT. AMSANT has not seen the final report (which has not yet been publicly released) but a large increase in funding was recommended in the draft report that AMSANT reviewed. We hope that this useful and timely report can be released soon so as to stimulate policy action in this important but neglected area.

In the short term it will be difficult to expand the public dental system quickly as the great majority of dentists are in private practice. Remote areas and Aboriginal people should receive priority for service expansion given the high degree of unmet need. Public dental systems in urban and regional areas could be supplemented by a voucher system allowing people who require care and are a high priority to receive dental care at private dental surgeries. This system was introduced in the 1990s through the Commonweal Dental Program.

If the dental Medicare items are not abolished, compensatory funding should be provided for Aboriginal dental services and for public dental services in remote regions given that there is

likely to be very little benefit to Aboriginal people as a whole or to people in remote areas from the continuation of dental EPC items.

ACCHSs are ideally placed to provide oral health services within a comprehensive primary health care framework. Many ACCHSs provide oral health services and the recent review of oral health service models in remote regions found that dental services in ACCHSs are more likely to provide culturally secure services, integrate oral health within a comprehensive PHC framework and provide services to those with the highest need compared to government provided oral health services. Funding should be delivered to ACCHSs for oral health services where ACCHSs have the capacity to provide it. If ACCHSs do not have the necessary infrastructure (e.g. dental surgeries) but otherwise are able to demonstrate that they have the capacity to deliver this specialized service, infrastructure funding should also be provided.

The formation of a National Advisory Council on dental health to provide high level expert advice to the government is a useful first step towards reforming dental care. However, it is disappointing that there is no representation from the Aboriginal primary health care community controlled sector on this group. We request that the community controlled sector be urgently consulted about the need for dental health reform.

We look forward to your reply to this letter at your earliest possible convenience and would be happy to discuss this matter with you or your advisors in person.

Yours sincerely

John Paterson
Chief Executive Officer
AMSANT

References

AIHW and OATSIH (2009): *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* accessed at. http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-nt#Progress

AIHW (2011); *Dental Health of Indigenous Children in the Northern Territory. Findings from the Closing the Gap Program* accessed at accessed at.
http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-nt#Progress

Allan and Clarke (2010). *Evaluation of the Child Health Check Initiative and Expanding Health Service Delivery Initiative. Accessed at* http://www.allenandclarke.co.nz

Biggs A: *Dental benefits for chronic conditions: an update.* Accessed at http://www.aph.gov.au/library/pubs/bn/2008-09/Dental_Benefits.htm

Harford J, Ellershaw A and Spencer J (2010). *Trends in access to dental care among Australian adults.* AIHW Dental Statistics and Research Unit .Research report 47.

Jamieson LM, Armfield JM & Roberts-Thomson KF 2006. *Oral health inequalities among indigenous and nonindigenous children in the Northern Territory of Australia.* Community Dentistry and Oral Epidemiology 34(4): 267-76.

Jamieson LM, Armfield JM & Roberts-Thomson KF 2007. *Oral health of Aboriginal and Torres Strait Islander children.* AIHW cat. No. DEN 167. Canberra: Australian Institute of Health and Welfare (Dental Statistics and Research Series No. 35).

Jamieson LM, Sayers SM & Roberts-Thomson KF 2010b. *Clinical oral health outcomes in young Australian Aboriginal adults compared with national-level counterparts.* Medical Journal of Australia 192(10): 558-61.

National Rural Health Alliance: *Health reform. Note Eight.* http://nrha.ruralhealth.org.au/reform/?IntContId=14814&IntCatId=42

Williams S, Jamieson L, MacRae A, Gray C (2011) *Review of Indigenous oral health.* Retrieved [access date] from http://www.healthinfonet.ecu.edu.au/oral_review

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14 May 2012

Minister Plibersek.
Minister for Health
Parliament House
Canberra

Dear Minister

AMSANT is pleased to see that the budget has included a major increase in public dental funding and some welcome initiatives to address the maldistribution of the dental workforce. It is also very pleasing to see the oral health needs of Aboriginal people highlighted in the budget papers and that dental health for children has received attention in the Stronger Futures package . However, we were disappointed that the Stronger Futures funding does not address the oral health needs of adults.

The report released by the National Advisory Council on Dental Health has recommended a major shift in dental service provision based on the premise that it is a core part of comprehensive primary health care. This includes the acceptance that universal services are required that can offer prevention including capacity for two yearly checkups.

However, we believe there are still major shortcomings in this report which should be addressed.

The need for expanded services to Aboriginal and Torres Strait Islander people was highlighted several times in the report. As the report noted, the very high needs of children in the NT has been documented in the AIHW reports on dental treatment provided through the CHCI and follow up component of the NTER.

It is essential that comprehensive high quality and culturally secure oral health services that include prevention are provided to Aboriginal people if we are to close the gap in oral health. There was, however, little recognition in the report of the important role Aboriginal Community Controlled Health Services [ACCHSs] are already playing in dental service provision to their communities. A recent draft report on remote dental service provision in the Northern Territory was very positive about the role of ACCHSs in providing oral health services that are integrated into comprehensive primary health care. Unfortunately this draft report (that AMSANT has reviewed as part of the reference group providing advice to the consultants) has not yet been released by OATSIH. The advantages of provision of dental health services by ACCHSs outlined in the report include a more integrated approach, including to health promotion and prevention and better capacity to target high need groups for dental services (e.g. people with

rheumatic heart disease or other complex chronic disease, or people who are generally reluctant to attend mainstream services but who are more likely to attend in an Aboriginal space).

However, we believe that there needs to be recognition of the significantly higher cost of providing services to Aboriginal people generally given the extreme disease burden, and to remote areas in particular. In remote regions, distances/transport make service provision considerably more demanding on workforce and naturally less efficient than a fixed clinic and therefore much more expensive to deliver sustainably. We believe that the cost of oral health service provision should be calculated through a funding formula that weights both for Aboriginality and remoteness. In 2006, the total dental workforce (excluding specialists) in major cities is 75.1 per 100,000 populations. In order to realistically provide regular care in remote regions, the ratio needs to be at least double the national average. The distribution of public sector funding between state and Territories should be calculated taking into account the proportion of population who are Indigenous and the proportion of the population who live in remote areas.

The NT has the lowest ratio of oral health professionals to population along with Tasmania. Therefore increasing service provision will require a major increase in the dental workforce in remote areas. The relocation grant to dentists is welcome but it is critical that this includes public sector dental professionals as they provide nearly all of the services in remote areas. The relocation grants to dental professionals taking up positions in very remote areas should be significantly higher than those working in rural areas given the demanding nature of the work.

AMSANT believes that the Medicare dental items have contributed very little to improving dental services in remote areas. The teenage dental voucher scheme and the chronic disease items, for instance, have had very little uptake in remote communities and have increased the inequity in service provision to this very high needs group given the high national expenditure on these items and the very limited uptake in remote regions. We would be concerned if capped Medicare benefits were introduced without significant additional public sector funding for remote areas as this will severely disadvantage rural and remote areas. Public sector dental services are the only realistic way to provide dental services in these areas for the foreseeable future.

As noted already, AMSANT is pleased that dental health has received increased funding under the Stronger Futures Package and the budget. The dental component of the CHCI certainly provided much needed services to children in remote communities, but we do have concerns about an outreach model that targets only children especially if this is children only from prescribed communities. AMSANT believes that the most effective way to increase service delivery is through expansion of existing services in a holistic model that targets the whole population. Adults also have very high dental needs which are chronically neglected and which thus impact severely on their health and well being. We hope that ACCHSs who have demonstrated capacity to provide oral health services continue to receive funding as part of the expansion of public dental services in the budget and Stronger Futures, given the advantages of integrating oral health into comprehensive primary health care. Also as noted in the recent

review of models for remote dental service provision, a reliance on fly-in-fly-out models of service delivery is expensive, relies heavily on locums who often lack experience and cultural knowledge and who occasionally may not be suited to remote dental service provision.

The report on remote dental service provision in the NT suggests that Medicare Locals could provide innovative ways to provide services to hard to reach groups which could include Aboriginal people. A niche approach to hard to reach groups will not be adequate to provide universal accessible dental services to remote regions. At this stage, the "brief" to Medicare Locals does not include a specific reference to "hard to reach" groups needing dental care, and there is no apparent suggestion that Medicare Locals will receive extra funding for this purpose.

In our view, what is required is realistic funding weighted for the disease burden and the cost of providing services in remote and very remote areas along with a commitment to fund ACCHSs to provide dental services in remote communities when ACCHSs have the capacity to support dental services. We urge you and your department to tackle this issue as part of your approaches to dental health for Aboriginal people.

Yours sincerely

Paula Arnol
Chairperson
AMSANT

Ref: Dentists, specialists and allied practitioners in Australia. Dental Labour Force Collection in Australia. 2006 . Balasubramanian M, Teusener