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WESTERN PROVINCE-NORTHERN AUSTRALIAN CLINICIANS NETWORK

Proposal to support Daru Hospital & South Fly regions of Western Province, PNG

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This document aims to briefly outline how northern Australian clinicians are ready to support health care and population health program delivery and the on going development of health care services in the Western Province of Papua New Guinea and especially at Daru Hospital and in the South Fly area.

Background and aims

The northern most region of the Australian state of Queensland, the Torres Strait, and the Western Province of Papua New Guinea share cultural and family links. The border in this area is governed by the Torres Strait Treaty between Australia and Papua New Guinea which includes the Torres Strait Protected Zone. The Torres Strait Protected Zone is the area within which traditional cross-border movement is recognised in accordance with the livelihood and way of life of the traditional inhabitants.

Like all of PNG the area of Western Province adjacent and incorporated into the Torres Strait Protected Zone is subject to a broad range of communicable and non-communicable diseases including HIV, malaria, STIs and tuberculosis. The Papua New Guinea National Health Plan 2001-2010 and the Medium-Term Expenditure Framework 2004-2006 have identified explicit priorities including:

- maternal and child health
- immunization
- malaria control
- HIV/AIDS
- water and sanitation programs.

A range of clinicians including specialist physicians and nurses (respiratory, infectious diseases and general internal medicine) currently provide services to far northern Queensland both in Cairns and to surrounding communities in the Cape York, Mt Isa and Torres Strait districts. This proposal addresses specifically how local northern Queensland clinicians may support health care in the Daru and the South Fly area of Western Province, Papua New Guinea without consuming or diverting existing remote health care resources in northern Queensland.

Proposal outline

It is proposed that a service comprising clinicians with experience providing health care in the north of Australia, PNG and elsewhere in our region and linkage with PNG clinicians support a regular and sustained service to Daru and the South Fly area. Specifically this service will facilitate the delivery and development of health care services and population health capacity in Daru and at Daru Hospital to support a sustainable, efficient and effective service that can meet the priorities outlined in the Papua New Guinea National Health Plan 2001-2010 and emerging infectious diseases threats. Additional opportunities would exist to support health care and health service development in the South Fly area in general through a combination of primary health care training and capacity building and regional clinical outreach.

Service

Whilst the composition, staffing and direction of such a service will reflect the priorities of the Papua New Guinea Department of Health, Daru Hospital and the local rural health service it is envisaged that there would be a sufficient clinician workforce to provide a **monthly service** to Daru. Where possible this would be based on the established specialist outreach model currently utilized successfully in far north Queensland. The current composition of this service would include **physicians, nurses and health workers** with expertise in **general internal medicine** as well as one or more of **respiratory medicine/tuberculosis**, **infectious diseases/HIV** or **cardiology/endocrinology**. This group of clinicians, all of whom currently have professional links with one another and share a similar clinical philosophy, would provide 1-2 personnel for each monthly visit. It is possible that this service could occur in partnership with similar services targeting outpatient services for sexually transmissible infections/HIV and mental health.

Subject to ongoing consultation with Papua New Guinea stakeholders this physician service could encompass:

1. **Clinical support** of local health provider at Daru Hospital and South Fly rural/primary health care services *(including ward rounds, outpatient clinics, inpatients consultations, specialist outreach clinics to rural/primary health care clinics)*
2. **Capacity building**:
   - staff training/education (primary health care, laboratory, hospital medical officer, undergraduate medical student and physician registrar)
   - participation in health service policy and protocol development initiatives as deemed appropriate
   - participation in quality assurance/continuous quality improvement and health-related research initiatives as deemed appropriate
   - diagnostic services including scope, quality assurance and linkages with regional reference centres.
3. **Communication/linkages/referral**
   - facilitating individual patient care/follow-up
     - between Daru Hospital and local outpatient/rural-primary health care
     - within the Torres Strait Protected Zone
     - with the Torres Strait Health District/Queensland Health - Northern Area Health Service
     - between Queensland and Western Province health care and population health services
   - facilitating possible linkages with organisations which may provide opportunities for additional capacity building (Australian-based NGOs and universities)

Structure

It is anticipated that this service would be trialed for a two-year period with six monthly activity reporting against agreed performance indicators encompassing frequency of service and clinical/education activity.

This service would be independent of the Queensland Health. The involvement of a group of clinicians (here termed the **WESTERN PROVINCE-NORTHERN AUSTRALIAN CLINICIANS NETWORK**) rather than contracting a range of individual providers will ensure a sustainable service comprising specialists who all have experience working in this region either in Papua New Guinea, Torres Strait/Cape York or elsewhere in the region. A group rather than individuals will also ensure a sense of mutual responsibility and professional and personal support which will facilitate a reliable and sustainable service. In addition this will ensure a shared approach to clinical care, training/education and service development even if the individual visiting at any one time is different.

WESTERN PROVINCE-NORTHERN AUSTRALIAN CLINICIANS NETWORK

Background to a proposal to support Daru Hospital & South Fly regions of Western Province, PNG

Assoc Prof Graeme Maguire, School of Medicine and Dentistry, James Cook University, Cairns

This document seeks to provide a broad perspective on the nature of health and primary and secondary health care delivery and funding for Papua New Guinea with particular emphasis on Western Province. The information presented here has been utilised to inform the development of a proposed clinical and population health support and capacity building project to Daru Hospital and the South Fly River area by northern Queensland clinicians.

Papuans bringing diseases to north

Sean Parnell

A *HEALTH crisis is looming in* Australia's far north, where thousands of Papuans have been crossing the Torres Strait to access medical services, bringing with them disease and spreading fears of an HIV outbreak.

Queensland Health facilities are being overwhelmed by Papuans who arrive by boat from the impoverished western province of Papua New Guinea where tuberculosis, malaria and HIV are rife.

While malaria was largely eradicated from the Torres Strait in the 1950s, there have been regular cases of tuberculosis on the islands and one local has already been diagnosed as HIV-positive.

PNG is suffering an HIV epidemic and Australian authorities acknowledge a significant threat to the Torres Strait islander community, where the rate of sexually-transmitted infections has soared.

Local officials have called for all visiting Papuans to undergo compulsory health checks — the first major challenge to the free-crossing provisions of the Torres Strait Treaty of 1985.

"I think it's important to know who walks into our community, with what sort of sickness, and whether we can put preventative measures in place," said Saibai Island councillor Terry Waia.

A *joint government taskforce* is investigating the feasibility of compulsory health checks, but Queensland Health argues they might not be practical and federal Health Minister Tony Abbott expects "this is going to be an ongoing problem".

"I think it's highly unlikely that we will be able to insist on health checks for every PNG person arriving," Mr Abbott said. "Apart from anything else, what would the consequences of an adverse health check be, given the convention of free movement of the people?"

Despite a rise in government funding for Torres Strait health services, and an aid program in PNG's Western Province, the number of sick and dying Papuans fronting Queensland Health clinics continues to rise.

In 2004-05, Queensland Health treated 2299 Papuans at its island clinics, and had to airlift 156 to larger centres.

Director of medical services at Thursday Island John Vaughan said the numbers at the Saibai Island clinic alone would probably now average 1200 a year.

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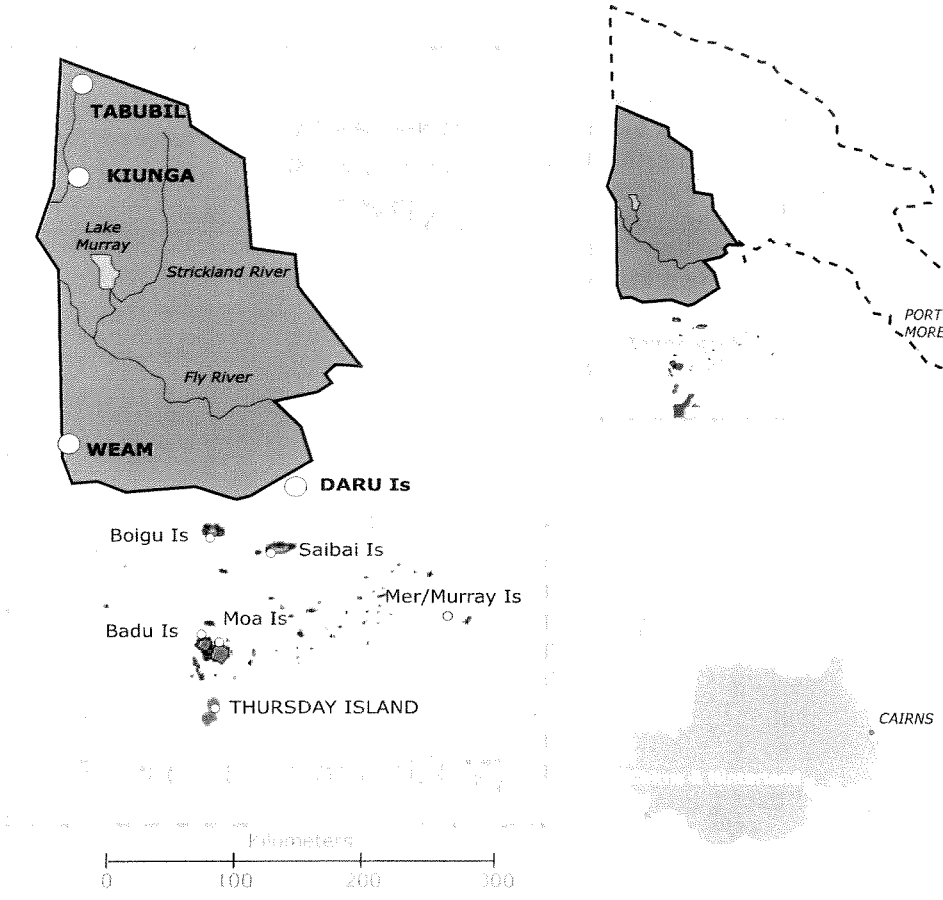
The Australian 11th June 2007

Papua New Guinea and Western Province

Papua New Guinea has an estimated population of approximately 5.9 million, with almost 87% living in rural areas. Around 800 languages are spoken and each language group has a distinct culture. The national capital is Port Moresby situated on the central south coast of the country. There are large sociocultural differences between and within provinces. The official languages are English, Pidgin and Motu.

Western Province is one of 19 provinces that comprise Papua New Guinea. It is a coastal province in the southwest of the country that borders the Indonesian province of Papua to the west and the Torres Strait region of the Australian state of Queensland to the south. The provincial capital is Daru, on the island of Daru. The largest city in the province is Tabubil. Western Province is the largest province in Papua New Guinea by area. It covers 99 300 km^2 or approximately half the area of Victoria. There are 153 304 inhabitants (2000 census). Approximately 20 000 people live on Daru and 60 000 additional people in the surrounding southern Fly area. There are several large rivers that run through the province including the Fly River and its tributaries including the Strickland and Ok Tedi rivers. The largest lake in Papua New Guinea, Lake Murray, is also in Western Province.



Health situation

The health status of Papua New Guineans, the lowest in the Pacific region, steadily improved during the 1980s before declining in the 1990s. The estimations of mortality and morbidity patterns in the population are very approximate, as data are almost entirely facility-based and laboratory confirmation of clinical diagnoses is rare. Life expectancy (2000) is estimated to be 52.5 years for men and 53.6 years for women, and 15% of a woman's lifetime is estimated to be affected by some form of disability or morbidity. The infant mortality rate is estimated to be 64 per 1000 live births (2000 census) compared with 82 in 1991 and 72 from the 1981 National Census. In comparison Australia's infant mortality rate was estimated at 4.7 per 1000 live births in 2006. According to UNICEF, only four countries in the world have failed to improve the mortality rate among children under five years since 1980: Burma, Niger, Zambia, and PNG. The high child mortality rate is attributed to collapse of health service structure, law and order problems, closure of aid posts, deteriorating roads, and inadequate administrative assistance and support.

Communicable diseases remain the major causes of morbidity and mortality in all age groups. However, significant progress has been made in some areas. In 2000, the country was declared poliomyelitis-free. In addition, the national leprosy elimination target of less than one case per 10 000 population was reached. However, around 50% of all mortality is still due to communicable diseases. Malaria is the leading cause of all outpatient visits and the third leading cause of hospital admissions and deaths, and is now endemic in every province, including those that were once malaria-free. Malaria mortality rates for 2004 were estimated to be 10.6 per 100 000. Together, malaria and pneumonia account for one-third of all recorded deaths. Tuberculosis incidence is also rising and the rate per 100 000 population is estimated to be 95.30 compared with an Australian rate of 5.3 per 100 000 per year in 2005.

Papua New Guinea was declared to have a generalized HIV/AIDS epidemic in 2003, the main mode of transmission being heterosexual. HIV prevalence among women attending antenatal clinics is between 0.6% and 3.7% (2005). The incidence of other sexually transmitted infections is also rising. The high incidence of sexual assaults on women contributes to their risk of contracting an STI.

In 2004 National immunisation coverage for infants ranged from 50% (measles/oral polio vaccine) to 74% (TB-BCG). According to figures in the National Health Plan, vaccination coverage averaged 64% for diphtheria–tetanus–pertussis and 60% for measles, while, in the Western Province, these proportions were only 30% and 27%, respectively.

The incidence of noncommunicable diseases is rising. Cases of tobacco- and alcohol-related illness appear to be increasing, while data from Port Moresby Hospital suggest that diabetes and hypertension are also on the rise. The three leading cancers in Papua New Guinea – oral, hepatic and cervical – have largely preventable causes.

Health services

Health services are provided by government and church providers (both of which are financed primarily from public sector funds); by enterprise-based services (e.g. the mines); by a small, modern private sector; and by traditional healers (undocumented amount). Within the public sector, management responsibility for hospitals and rural health services within provinces is divided. The National Department of Health manages the 19 **provincial hospitals**, while provincial and local governments are responsible for all other services (health centres and subcentres, rural hospitals and aid posts), known collectively as "**rural health services**".

Rural health services are poor and deteriorating. A National Functional and Expenditure Review in 2001 described the health system in rural areas as being in a state of "slow breakdown and collapse, currently being saved from complete collapse by donors". The review stated, "About 600 rural facilities are closed or not functioning effectively. Where services remain, the breadth and qualityof services is diminishing."

The nurse-to-population ratio is 55:100 000 compared with 98:100 000 in Australia in 2001. An additional 600 nurses, 600 community health workers and 100 midwives are estimated to be needed to fill vacant posts, and current production rates are insufficient to fill the gap. The doctor-to-population ratio is 13 per 100 000, with the majority in Port Moresby compared with 242 per 100 000 in Australia in 1996.

Health expenditure and funding

Overall health spending is falling despite receiving a high share of government funds. Total health expenditure as a share of GDP rose steadily from 3.2% to 4.4% between 1997 and 2001. However, total health expenditure per capita fell from US$ 32 in 1997 to US$ 24 in 2001. In comparison in 2004 the OECD average for health expenditure as a percentage of GDP was 8.9% with Australia spending 9.2% of GDP on public and private health care. For Australia this equated to US$ 2876 per capita or 120 times the per capita spending of Papua New Guinea. About 70% of recurrent provincial health budgets were allocated to salaries in 2000.

Papua New Guinea receives significant levels of official development assistance (ODA), estimated to have amounted to US$ 203 million, or 7.2% of GNP in 2001. The health sector receives around 15% of total ODA. Over the last five years, ODA for health has fluctuated, but has been around 24% (2004) of total health spending.

Papua New Guinea has relatively few development partners. According to statistics provided by the Organisation of Economic Co-operation and Development (OECD), 96% of ODA for health in 1998-2000 was from Australia. A major new source of funds for health was assured in 2005 with the signing of an agreement for a US$ 30 million grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). In 2004, the Fund committed US$ 20 million over five years for malaria control.

National Health Plan and Priorities

The **National Health Plan 2001-2010** and the **Medium-Term Expenditure Framework 2004-2006** have identified some explicit priorities. These include:

- maternal and child health
- immunization
- malaria control
- HIV/AIDS
- water and sanitation programs.

The Government is focusing its efforts on improving child health and reducing malaria, tuberculosis and AIDS through specific programs. The **malaria** control strategy received a major injection of funds from GFATM in 2004. In the area of **tuberculosis** control, the DOTS program is gradually expanding: it is currently operational in 8 of 19 provinces. Reasons for the somewhat slower-than-planned expansion of DOTS include a number of system constraints common to other disease control program: central-level staffing; weak infrastructure and support services; and delays in access to funds, which limit training, supervision and other local level support.

Child health is being tackled through improved immunization and the **integrated management of childhood illness (IMCI)** approach. Both DOTS and IMCI are seen as entry points for strengthening district health services more generally.

Western Province (Papua New Guinea) and Queensland (Australia)

The northern most region of the Australian state of Queensland, the Torres Strait, and the Western Province of Papua New Guinea share a border and cultural and family links which predate the formal creation of either country. The border in this area is governed by the **Torres Strait Treaty** between Australia and Papua New Guinea. This was signed in December 1978 after six years of negotiation, and entered into force on 15 February 1985. The Treaty primarily concerns matters of **sovereignty** and **maritime boundaries** in the Torres Strait. It defines the border between Australia and Papua New Guinea and provides a framework for the management of the common border area. As well as defining boundaries, the Treaty protects the traditional way of life of the inhabitants and is one of the earliest international agreements to reflect a greater environmental awareness.

The Torres Strait Treaty establishes the: Seabed Jurisdiction Line, Fisheries Jurisdiction Line and **the Torres Strait Protected Zone**. The Torres Strait Protected Zone is the area within which traditional cross-border movement is recognised in accordance with the livelihood and way of life of the traditional inhabitants. This allows traditional people from both countries the ability to move freely (without passports or visas) within the zone for the purpose of traditional activities. Under the Treaty these include activities on land (such as gardening, food collection and hunting), activities on water (such as fishing), ceremonies or social gatherings and traditional trade. Business dealings and employment for money are not allowed as traditional activities under the Treaty. The **Torres Strait Protected Zone** incorporates the territorial sea boundaries between the islands of Aubusi, Boigu and Moimi and Papua New Guinea and the islands of Dauan, Kaumag and Saibai and Papua New Guinea.

A **Health Framework Agreement**, involving the Government of Papua New Guinea, Commonwealth Department for Health and Ageing, the Torres Strait Regional Authority (a local representative body supported by the Commonwealth of Australia) and the Queensland Department of Health has been designed to provide a coordinated approach to improved health infrastructure and service delivery in the region. One of the challenges for the framework is supporting the free movement provision under the Torres Strait Treaty, which allows traditional visitors arriving at an Australian island access to Australian (Queensland) health services. According to the Australian Department of Immigration and Multicultural and Indigenous Affairs (now known as the Department of Immigration and Citizenship) the number of people traveling under the Treaty is estimated to be in the order of 10,000 per annum, of which approximately 4,000 seek access to health clinics on the islands.

The Torres Strait Health District has been providing medical assistance to PNG nationals in its outer island health centres over the past 20 to 30 years. The outer island health centres in the north western group (Boigu, Saibai, Dauan, Yam, Mabuiag and Badu) are more accessible to PNG residents who live in coastal villages than the PNG operated health centre in Daru Island.

Approximately 150 Papua New Guineans require medical evacuation to either Thursday Island or the mainland for specialist treatment each year. The main conditions for which transfer to Thursday Island are complication of pregnancy, injuries, respiratory conditions, tuberculosis and malaria. The Commonwealth Government provides funding to Queensland Health to offset costs incurred for Papua New Guinea medical evacuations.

Recent discussions have occurred between parties associated with the Health Framework Agreement including the Papua New Guinea Department of Health, Western Province provincial hospital and rural health representatives, AusAid and Queensland Health regarding increasing the capacity of Papua New Guinea health services adjacent to the Torres Strait Protected Zone with the ultimate aim of reducing the need for residents of the Papua New Guinea area of this Zone to access Australian-based services. Additional considerations include limiting the burden and transmission of communicable diseases across the Zone into either Australia or Papua New Guinea including HIV, tuberculosis (including multi-drug resistant tuberculosis) and arthropod-borne diseases and to enhance the clinical surveillance of new and emerging infectious diseases.

Conclusion

The Western Province of Papua New Guinea and the Torres Strait region of Queensland, Australia share a border and population that is covered by an international treaty allowing traditional people from both countries the ability to move freely between adjacent areas of each country. Papua New Guinea and especially Western Province is facing a combination of new and increasing communicable and non-communicable diseases in a setting of limited health resourcing, staffing and coordination of health services. This occurs in the setting of challenges to public health on both sides of the border including HIV and tuberculosis and ongoing utilisation of Australian health facilities and resources by Papua New Guinean nationals covered by the Torres Strait Treaty as it pertains to the Torres Strait Protected Zone.

Opportunity are being explored to facilitate the improved capacity of Daru Provincial Hospital and the rural health services of the South Fly area to meet the needs of local residents in partnership with the Papua New Guinea Department of Health, the Western Province Rural Health Service and Australian official development assistance through AusAid. This should involve the participation of Australian clinicians in providing direct clinical support and participation in longer-term health service training, communication and other capacity building initiatives.

Bibliography

Naraqi S, Feling B, Leeder S. Disease and death in Papua New Guinea: Infectious diseases are still the dominating cause of death (editorial). MJA: 178 (6); 7-8
2000 National Census. National Statistical Office (NSO)
Papua New Guinea Demographic and Health Survey. National Statistical Office (NSO)
Millennium Development Goals Progress Report for Papua New Guinea 2004. Government of Papua New Guinea and United Nations in Papua New Guinea, 2004.
Papua New Guinea National Department of Health Information System, Monitoring and Research Branch
Papua New Guinea National Health Plan 2001-2010 (volume II)
Discharge Reports 2000, Monitoring and Research Branch
Annual Health Sector Review, national report.: 2001 performance report. Department of Health, 2001.
Australian Bureau of Statistics: www.abs.gov.au
Agreements, Treaties and Negotiated Settlements Project: www.atns.net.au
Australian Treaties Library: www.austlii.edu.au/au/other/dfat/treaties/