

# ACE-PREVENTION PAMPHLETS

## PAMPHLET E: THE INDIGENOUS HEALTH SERVICE DELIVERY TEMPLATE

### 1. MAIN MESSAGES

- The Indigenous Health Service Delivery (IHSD) Template has been developed to overcome lack of Indigenous specific evidence for use in economic evaluations
- The IHSD Template allows evidence of intervention costs and effectiveness collected from mainstream services to be adapted so that interventions can be evaluated as if delivered from an Aboriginal Community Controlled Health Service (ACCHS)
- The IHSD Template identifies and values the additional components involved in the delivery of health interventions via ACCHS compared to mainstream GP practice
- IHSD Template values reveal greater costs associated with providing interventions via ACCHS due to the comprehensive nature of these services. This is accompanied by improved Indigenous access to health services, illustrated by higher rates of Indigenous utilisation of ACCHS and adherence to treatments prescribed compared to mainstream GP practice
- As a result, the ACE-Prevention economic evaluations are made more relevant to the Indigenous population for use in priority setting within the Indigenous context

### 2. BACKGROUND

In ACE-Prevention, separate economic evaluations have been performed for the Indigenous and general Australian populations to account for differences in the target disease burden, the prevalence and distribution of harmful exposures, the way in which health interventions are delivered and their effectiveness. These differences need to be taken into account in the conduct of economic analyses; in particular in the identification, measurement and valuation of intervention costs and benefits.

Qualitative evidence suggests a 'best practice' model of primary healthcare delivery for Indigenous populations is based on self-determination and community control, epitomised by the ACCHS model of comprehensive primary health care. For this reason, the ACE-Prevention project set out to evaluate the impact of delivering interventions to the Indigenous population via this health service type. However, there was a lack of quantitative evidence of effectiveness for interventions delivered from ACCHS on which to base economic evaluations. To overcome this, the IHSD Template has been developed.

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FOR FURTHER INFORMATION

[WWW.SPH.UQ.EDU.AU/BODCE-](http://WWW.SPH.UQ.EDU.AU/BODCE-)

ACE-PREVENTION



*"The Aboriginal and Torres Strait Islander component of ACE-Prevention was supported by the Cooperative Research Centre for Aboriginal Health (CRAH). In January 2010, the CRAH was refunded by the CRC Program and renamed the Cooperative Research Centre for Aboriginal and Torres Strait Islander Health (CRCATSIH), and incorporated into The Lowitja Institute – Australia's National Institute for Aboriginal and Torres Strait Islander Health Research.*

### 3. THE INDIGENOUS HEALTH SERVICE DELIVERY (IHSD) TEMPLATE

The IHSD Template is comprised of components which describe the additional activities provided by ACCHS compared to mainstream GP practice, and their impacts on the cost of delivering interventions and their benefits on health for the Indigenous population. These can be described in terms of the differences between the two service types and are detailed in Box 1. The Template transforms mainstream effectiveness data so that economic evaluations can be performed on interventions *as if* they were delivered from an ACCHS. Information used to construct the IHSD Template has been obtained from the public literature, along with interviews with people working within the ACCHS sector.

#### **Box 1. The Indigenous Health Service Delivery (IHSD) Template components**

Differences in how health interventions are delivered between ACCHS compared to mainstream GP practice

- **Basic health intervention delivery characteristics:**
  - Role substitution – a patient may be seen by an Aboriginal Health Worker or a nurse in addition to, or instead of, a doctor
  - Compliance management – e.g. medication dosing and appointment recalls
  - Staff training activities – e.g. cultural in addition to professional training for non-Aboriginal staff
  - Emphasis on home visits
  - Time spent on paperwork, case conferencing and the management of complex medical conditions
  - Seeing of other family members as part of routine consultations
- **Population health, social and community activities:**
  - Provision of other services – e.g. social work and counselling
  - Provision of services usually provided by outside agencies – e.g. financial and housing assistance
  - Health promotion and community development activities
  - Provision of a community space
- **Management and governance structures:**
  - Presence of a community management board and the associated need for community capacity building in management
  - Additional management resources required for overseeing larger staff numbers and multiple projects
- **Patient transport services**
  - Provision of transport for patients to and from appointments
- **Provision of services to a large remote population**
  - Out of hours emergency care
  - Outreach services
  - Housing and relocation costs for staff
  - Additional costs associated with pharmaceutical and pathology services
- **Differences in rates of Indigenous utilisation of services and adherence to treatments** when interventions are delivered from ACCHS compared to mainstream GP clinics
- **Differences in future cost offsets** (cost savings) for future treatment of Indigenous compared to non-Indigenous patients

For the relevant IHSD Template components listed in Box 1, values have been determined for both the additional costs involved each time a patient visits an ACCHS compared to a mainstream GP practice, and also for the differences in rates of Indigenous utilisation and adherence for the health service types. A ratio of the differences in future cost offsets for the Indigenous compared to the non-Indigenous population has also been established, and these are all shown in Tables 1 and 2. Additional costs have been attributed to a single 'encounter' with a health service practitioner, as this then allows the intervention costs to be adjusted according to the number of health practitioner visits that are involved in the 'event pathway' for an intervention. Calculated costs exclude services not directly related to health care delivery that may be provided by ACCHS such as legal services.

Table 1. The additional costs of IHSD Template components

| IHSD Template component category                   | Additional cost per ACCHS patient encounter           |
|--|---|
| Basic health intervention delivery components      | \$16.67-\$31.57<br>(depending on consultation length) |
| Population health, social and community activities | \$9.28  |
| Management and governance                          | \$3.87  |
| Patient transport services                         | \$47.01   |
| Services to remote regions                         | \$5.50  |

Table 2. IHSD Template values (average across all services)

|  | Mainstream GP services | ACCHS     |
|--|------------------------|-----------|
| Short consultation cost                          | \$ 30.85               | \$ 113.18 |
| Indigenous utilisation rate (cf. non-Indigenous) | 60.0 %                 | 73.2 %    |
| Indigenous adherence rate (cf. non-Indigenous)   | 77.8 %                 | 95.7 %    |
| Cost-offsets ratio (Indigenous : non-Indigenous) | 1.19                   | 1.19      |

The IHSD Template values shown in Table 2 reveal that the costs of providing consultations via ACCHS are higher than in mainstream GP practices, primarily due to the comprehensive nature of these services. In particular, the provision of patient transport contributes approximately 50% of the additional cost (see Table 1). In addition, improved access to health services for the Indigenous population is illustrated by higher rates of Indigenous utilisation of ACCHS and adherence to treatments compared to mainstream GP services, thereby increasing intervention effectiveness when delivered from ACCHS. Cost-offsets are greater for the Indigenous population irrespective of which health service type is used, indicating increased disease treatment costs for Indigenous patients due to greater co-morbidities and severity of disease, and therefore greater potential cost-savings as a result of interventions.

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## 4. USING THE IHSD TEMPLATE

The IHSD Template has been trialled in a few economic evaluations in the prevention of diabetes, cardiovascular and renal disease, and these results are detailed in the Indigenous population results pamphlets as part of this series. The data for these interventions taken from mainstream GP services are adapted to the ACCHS setting using the IHSD Template values from Table 2 prior to economic evaluation. For example, if an intervention entails one short GP consultation, the cost of \$30.85 for mainstream GP services is substituted to \$113.18 in the event pathway when delivered from an ACCHS. Similarly, the utilisation of health services by the Indigenous population is taken to be 60.0% for mainstream GP services, increasing to 73.2% for ACCHS. Therefore, the IHSD Template allows the resulting cost-effectiveness ratios to take these differences in treatment costs, utilisation and adherence rates into account when economic evaluations are performed. This is in addition to differences in Indigenous population demographics and disease risk which are adjusted for separately in the modelling of health outcomes. As a result, the ACE-Prevention economic evaluations are made more relevant to the Indigenous population for use in priority setting within the Indigenous context.

For more information on this topic area, please visit website [www.sph.uq.edu.au/bodce-ace-prevention](http://www.sph.uq.edu.au/bodce-ace-prevention)

## PAMPHLETS IN THIS SERIES

### Methods:

- A. The ACE-Prevention project
- B. ACE approach to priority setting
- C. Key assumptions underlying the economic analysis
- D. Interpretation of ACE-Prevention cost-effectiveness results
- E. Indigenous Health Service Delivery

### Overall results

1. League table
2. Combined effects

### Indigenous population results

1. Cardiovascular disease prevention
2. Diabetes prevention
3. Screening and early treatment of chronic kidney disease

### General population results

1. Adult depression
2. Alcohol
3. Blood pressure and cholesterol lowering
4. Cannabis
5. Cervical cancer screening, Sunsmart and PSA screening
6. Childhood mental disorders
7. Fruit and vegetables
8. HIV
9. Obesity
10. Osteoporosis
11. Physical activity
12. Pre diabetes screening
13. Psychosis
14. Renal replacement therapy, screening and early treatment of chronic kidney disease
15. Salt
16. Suicide prevention
17. Tobacco