Controlling HIV in Indigenous Australians

We know what to do, but doing it is the challenge

In 1992, the late Fred Hollows warned of the catastrophic effects that HIV would have in remote Indigenous communities. His trademark candour caused considerable stir, and a number of important initiatives were implemented, such as the Tri-state HIV/STI Project in Central Australia and the National Indigenous Australians’ Sexual Health Strategy. However, it would be hard to argue that HIV is widely believed to be a priority in Indigenous health 13 years later.

Until now, the prevalence of HIV in the Indigenous community has been considered similar to that in the non-Indigenous community. In this issue of the Journal (page 124), Wright et al present evidence of a higher rate of HIV among Indigenous people in Western Australia than in the non-Indigenous population. They report that, while the rate of HIV notifications in the non-Indigenous population declined between 1985 and 2002, it increased in the Indigenous population. The difference in risk for Indigenous women was striking — 39% of all female HIV notifications in WA since 1994 have been for Indigenous women, giving an Indigenous : non-Indigenous age-standardised rate ratio of 18. In contrast, the rate ratio for Indigenous males was 2. Wright et al also confirmed the marked differentials in risk of other sexually transmitted infections (STIs) in the Indigenous population — with Indigenous : non-Indigenous age-standardised rate ratios of 242 for syphilis, 77 for gonorrhoea and 16 for chlamydia. The data in this study are likely to predominantly reflect the situation in rural and remote regions of WA, and the authors acknowledge the difficulties of interpreting surveillance data. Nevertheless, the findings demand attention.

Health-seeking behaviour based on the presence of genital symptoms or awareness of risk is limited in many Indigenous communities...

The opportunity costs of a local HIV epidemic are considerable: HIV does not just affect the individual who is infected — sexual partners are also at risk, and transmission can occur antenatally and during breastfeeding. Ongoing risk behaviour after a diagnosis of HIV is documented, driven by psychiatric and substance abuse-related factors. The medical system is compelled to react to the presence of HIV infection in a particular community. In one remote community, this required an increase in the staff of the local public health unit from three to eight, and other programs fell by the wayside (unpublished data). This migration of resources may be one of the major costs of an HIV epidemic in remote Indigenous Australia.

Evidence from Africa suggests that STI control early in an HIV epidemic may be effective in limiting the spread of HIV, but this strategy is less useful once the HIV epidemic is established. Good STI control requires a coordinated program that addresses health promotion, diagnostic and screening services, rapid access to appropriate treatment and locally appropriate contact tracing. This is not easy, nor cheap, but it is possible — as seen with a successful program in Central Australia. Others have also implemented relatively effective programs.

Primary care providers can use a...
Welcome to the era of CKD and the eGFR

Estimating glomerular filtration rate using a simplified formula will lead to a vast increase in detection of chronic kidney disease in Australia

In patients with chronic kidney disease (CKD), the degree of reduction in the glomerular filtration rate (GFR) is closely linked to the development of complications of CKD, and GFR is the best index for classifying the severity of the disease. In 2002, a US working party produced a five-stage classification of CKD, with guidelines for management according to stage, based largely upon GFR (Box). The classification is logical and simple and has enjoyed worldwide endorsement. However, one problem has impeded widespread usage of the classification — most clinicians do not measure or calculate GFR.

Why estimate GFR?
The gold standard for measurement of GFR is kidney clearance of inulin, but this method is a research tool and not practical for clinical practice. GFR may be accurately measured by determining the clearance rate of exogenous radioisotopes, such as radio-labelled Cr51-EDTA. Alternatively, the measurement of 24-hour creatinine clearance provides a reasonable, though less accurate, approximation. Both methods are inconvenient, time-consuming and costly. Serum creatinine concentration is widely used as a surrogate marker of GFR, but is crude and unsensitive. For example, among the nationally representative AusDiab cohort of 11,247 Australian adults, 11.1% had elevated serum creatinine levels whereas 11.2% had a calculated GFR < 60mL/min.2

Because of these anomalies, much effort has been directed at deriving formulas that use serum creatinine level together with other clinical variables, such as age, sex and weight, to yield an accurate estimated GFR (eGFR). The abbreviated MDRD (Modification of Diet in Renal Disease) formula for deriving eGFR has been extensively validated in US populations and is endorsed for the classification of CKD.1 The inputs required for the (predominantly white) Australian population are serum creatinine level, age and sex (the performance of the formula is less satisfactory among people of Chinese origin,3 and thus possibly others of Asian ethnicity, and is untested among Indigenous Australians). Thus, all data required for calculating eGFR using the abbreviated MDRD formula are currently provided on the typical pathology request form, making automated reporting of eGFR potentially feasible.

The growing burden of CKD
The burden of CKD has long been underappreciated. Stage 5 CKD (end-stage kidney disease [ESKD]), which requires dialysis or transplantation to prevent death from kidney failure, provides the most obvious burden of CKD, as dialysis and transplantation are highly visible and enormously costly health problems. Earlier stages of CKD are more prevalent and may be even more costly than ESKD. Projections based on data from the AusDiab survey suggest that 1.4 million Australian adults (11.4% of the non-institutionalised population) had CKD stages 3–5 in 2000.2 Of these, 11,660 (<1%) were living on dialysis or a functioning kidney transplant.4 For the 99% with CKD who were not receiving dialysis or had not had a transplant, two major consequences have become apparent: increased risk of developing ESKD and increased cardiovascular risk compared with the normal popula-

Competing interests: FJB is Chair of the HIV/AIDS and Sexually Transmissible Infections Subcommittee of the Australian Government’s Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis.


Francis J Bowden
Professor of Medicine, Australian National University
Director, Canberra Sexual Health Centre, Canberra Hospital
Woden, ACT
frank.bowden@act.gov.au

MJA • Volume 183 Number 3 • 1 August 2005

117