ment policy that focuses on a healthy rural economy, many outback communities face a bleak future — a future characterised by continued poor health status of rural dwellers. Complementary local initiatives based on community empowerment will also be required to address specific problems.

Lastly, rural health matters because of the valuable lessons to be learned from the many innovative solutions that have arisen in response to the problems of rural health in Australia. The tyranny of distance, the deficit of resources and the passion of a number of dedicated practitioners to cater for the diverse geographical circumstances of non-metropolitan Australia have resulted in many innovative health sector responses, including the Royal Flying Doctor Service, multipurpose and regional health service models, and telemedicine. Nurse practitioners (a concept currently being trialled in several States) have been working effectively in Australia's remote communities for decades. Australia is a world leader in rural health education, particularly medical education.[7,8] Implementation of a true primary health care approach has long characterised the way healthcare is practised and delivered in many small outback communities, particularly by Aboriginal community controlled health services.[9] In summary, innovation born of both local need and community action is a hallmark of much rural and remote healthcare practice.

Strong rural and regional representation in setting national policy is imperative. Moreover, improved coordination between government departments and between different levels of government on issues affecting rural areas is required. Metropolitan-based clinicians, educators, policy-makers and those responsible for implementing health programs should at the very least have an awareness of the geographical, economic and cultural diversity of their constituents and patients. We in the medical profession can collectively continue to press for appropriate health infrastructure, improved access to education and economic opportunities for rural and remote communities.

The issue of how the "outback" is defined (whether in terms of "rural" or "remote" areas) is likely to be an ongoing debate, if for no other reason than its significance in terms of resource allocation and monitoring of health outcomes. What should not be in dispute, however, is the need for a distinctive "rural health" approach and national recognition of the valuable role in the Australian economy and psyche played by a healthy "outback" in all its diversity.

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Child sexual abuse revisited

Notification of abuse should trigger initiatives to prevent further abuse and ameliorate adverse consequences

THERE HAS BEEN CONCERN recently in Australia about the sexual abuse of children by those in authority. Clearly, we expect such people to behave better. However, child sexual abuse is much more likely to involve the ordinary people comprising a child's family and their friends.

In 1990 the World Health Organization Global Burden of Disease project[1] identified 10 risk factors that, if averted, would reduce the burden of disease by a third (eg, malnutrition, poor sanitation, unsafe sex). For the next revision of the risk estimates, the WHO Collaborating Centre at St Vincent's Hospital, Sydney, was asked to prepare a report on the prevalence and impact of child sexual abuse on health status around the world.[2] Here, we comment on the situation in Australia.

Child sexual abuse can be subdivided into three levels of severity. Non-contact abuse includes sexual solicitation or exposure by an older person; contact abuse involves genital touching or fondling; and penetrative abuse includes oral, anal or vaginal intercourse by an older person.

Prospective studies of the prevalence of child sexual abuse are ethically and legally difficult. Thus, all data are from retrospective reports of men and women asked about their experience of unwanted sexual activity before the age of 18 years. However, establishing the validity of retrospective

reports is not easy — only a minority of children who have experienced child sexual abuse report it to their parents, and only a minority of these parents report the abuse to the authorities. Furthermore, unreliable recall represents a threat to the validity of the results. However, follow-up studies show that a false-negative rather than a false-positive bias is the rule.[3]

Methodological factors like the type of sample used and the number of questions asked to ascertain abuse may also compromise the validity of results. Accordingly, for the WHO study, such method factors were statistically controlled for.

Seven studies of child sexual abuse have been performed in Australia.[4-12] The adjusted prevalence estimate in males was 5.1% and in females 27.5%, which corresponds with rates in comparable countries. The rates for contact plus penetrative abuse were two-thirds of these (ie, 3.6% in males and 17.9% in females). The onset of abuse occurs at a mean age of 10 years, with most starting before age 12. The abuser is a family member in about 40% of cases, and is known to the child in 75% of cases. The abuser is usually male, mean age 32 years.

Child sexual abuse is more frequent in families beset by other adversity, and it is difficult to determine the cause of any increased rate of mental disorders in the presence of an aggregation of risk factors. Two reports of a twin study[11,12] that was able to control for the effect of family environment showed increased rates of anxiety, and depressive and substance-use disorders in the abused twin. Rates of suicide attempts were also increased in the abused twin.

Child development studies in other countries, in which the family environment was measured independently of sexual abuse or mental disorder, have generated similar results.[13,14] People who report contact or penetrative abuse in childhood have double the normal rates of mental disorders and suicide attempts. Attributable risk calculations suggest that 11% of depression in women and 3% of depression in men could be attributed to contact or penetrative abuse in childhood. Quite apart from increased rates of mental disorders, children who have experienced sexual abuse continue for years to show significantly more distress and disturbed behaviour.[8] A minority of children are able to surmount this type of adversity and remain unaffected. For those who do not the sequelae can be serious, with great societal costs.

What can be done? Teachers and doctors are required to report sexual abuse that comes to their notice. However, this system has the potential to encourage a "don't ask, don't know" attitude. At the same time, it does serve notice to abusers that they are at risk of discovery. In some States, criminal record checks required of anyone who works with children have removed any suggestion that child sexual abuse will be tolerated or excused. Conviction of offenders is not simple, even in the minority of cases in which there is clear medical evidence, as, apart from the child, there are usually no witnesses. Nevertheless, the change in the judicial attitude to child sexual abuse is expected to result in a reduction in incidence.

Notification of abuse should trigger other initiatives to prevent further abuse and ameliorate any adverse consequences. Firstly, help for the mother/carer to keep the child safe from further abuse, whether achieved by health visitor support, family counselling, or physical relocation of the family; and secondly, treatment for the child to ensure that disturbed and dysfunctional behaviours and the increased risk of mental disorders do not occur.

A recent review of controlled studies of treatment for sexually abused children has provided preliminary evidence that the sequelae can be minimised in the short term.[15] It is clear, however, that not all abused children benefit and more research is needed. The management of such children should be driven by science and not simply by compassion.

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