Editorials

Violence is a health issue

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Violence was once seen as the exclusive domain of the police and the criminal justice system but this is no longer the case. Social, political and behavioural scientists, as well as mental and public health specialists, are taking a very active interest in the questions it raises. WHO's release of the first *World report on violence and health* this month makes this point dramatically with its detailed analysis of the world situation and recommendations for action (*1*).

The Inter American Development Bank and the World Bank currently consider violence and insecurity to be the major obstacles to development. In the Region of the Americas, 14.2% of gross national product (GNP) — US$ 168 billion — is lost or transferred because of violence, and 1.9% of GNP is lost in human capital, an amount equivalent to the region's total expenditures on primary education (*2*).

In health terms, intentional violence is the first cause of death in many countries of the region and it is estimated that there are 120 000 homicides a year, and 3 days per person per year are lost to violence. The poor, and young males are the most affected (see the revealing study by Butchart et al. in this issue of the *Bulletin*, pp. 797–805). Additionally, 30–60% of all emergency visits to hospitals are due to violence. Although there has been a substantial increase in the knowledge of the biology and neurochemistry of violent behaviour, little practical application is available at present. About 60% of all violent acts, whether murders, child abuse, family abuse, assaults, or felonies, are associated with the consumption of alcohol (*3*).

Contrary to the expectation that there would be a strong link with genetic factors, through neurochemistry to behaviour, it turns out that these factors themselves are profoundly influenced by experience. In addition to the role of alcohol, perhaps the most important general insight of recent years has been the recognition that life experience can shape brain chemistry in significant ways, and that experience and neurophysiology form a seamless web (*3*). The importance of early childhood exposure to violence has been recently stressed. Children exposed to family violence have a higher risk of violent behaviour during adolescent life.

Although Hippocrates explained 24 centuries ago how health care was inseparable from lifestyle, violence began to be seen as a public health issue in the modern world only recently. In 1962 Hector Abad-Gómez, a public health professor, began to use epidemiological methods to study violence in Colombia (*4*). In the USA, violence was declared a public health emergency in 1992 by the then Surgeon General, Everett Koop (*5*). The Ministers of Health of the Americas made the prevention of violence a public health priority in 1993, in a resolution of the Directing Council of the Pan American Health Organization (*6*), and the World Health Assembly adopted a similar resolution in 1996 (*7*). At present, violence is not only on the front pages of newspapers but high on the political agenda of many governments.

Public health, with its emphasis on reliable data and surveillance mechanisms, can bring a practical and simple approach to violence prevention by providing decision-makers with the information they need. So far, however, violence data have tended to be unreliable. For example, considerable differences exist even in the definition of homicide, the simplest and crudest form of violence. A study conducted under the auspices of the Inter American Development Bank showed gross underestimation of homicide data in most of the countries studied (*2*). Data on other forms of violence such as intra-family or domestic conflict, are even more unreliable.

For cardiovascular disease prevention, the application of a "risk factors control strategy" (for instance reducing smoking and the consumption of saturated fats and increasing exercise) has achieved impressive reductions in incidence (*8*). Similar methods may also be applicable to violence prevention.

Among the many risk factors for urban violence identified in Colombia are: proliferation of firearms in the civil population; unrestricted alcohol consumption in public places; absence of cultural patterns to regulate urban behaviour; inefficient and corrupt judicial and police systems; and the presence of organized crime.

A strategy to control firearms has been successfully applied in the cities of Cali and Bogotá, Colombia (*9*). Attempts to control several risk factors simultaneously (in addition to firearms) in Bogotá, where the policies have been applied consistently, show an impressive reduction in violence and crime. Results in Cali, where policies have been applied intermitently, show considerably less reduction (*10*).

In summary, it can be said that violence, both intentional and unintentional, is a major health problem in many countries at present. The public health approach, in association with more traditional methods such as police control and law enforcement, may make a valuable contribution to preventing it. ■

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Ref. No. **02-0396**