Legal highs and lows—illicit drug use around the world

The World Drug Report is produced annually by the UN Office on Drugs and Crime (UNODC), to summarise information on the worldwide manufacture and marketing of illicit drugs and to guide appropriate actions by legal authorities and public health agencies. Although the overall situation is described as "stable", the 2013 report highlights a striking rise in the availability of new psychoactive substances (NPS). As illustrated by Carrie Arnold in this issue of *The Lancet*, so-called legal highs have swiftly gained attention and notoriety in the UK and other countries; with serious health outcomes not unknown, governmental responses have struggled to keep pace with this new and evidently enticing phenomenon.

Part of the challenge of NPS lies in their variety—some are derived from plants, for instance Salvia divinorum, with synthetic cathinones and cannabinoids also being major contributors in different countries. Chemical heterogeneity is a hallmark of this group of drugs, with the number of NPS identified in the European Union having risen from 14 in 2005 to 236 at the end of 2012. Creativity in synthesis appears to have been accompanied by resourceful marketing. Information provided via the internet, together with ease of manufacture in and transport from distant regions, especially countries in Asia, seems to have encountered an opportunity created by sluggish legislative machinery. A substantial demand for apparently legal but poorly characterised and potentially dangerous substances has arisen, particularly among young people.

Production and consumption of more familiar drugs has not by any means abated, with 167–315 million people thought to have used an illicit substance in 2011. The UNODC report estimates that opioids, for example, were used by 32 million people in the past year, with heroin or opium used by 16 million people. Cocaine was used by 17 million people, amphetaminetype stimulants by 34 million people (excluding ecstasy, used by 19 million people), and cannabis by 181 million people. Noteworthy trends identified in the report include an overall increase in cannabis use of about 9% during 2009–11, an apparent increase in cocaine use in Australia, and increased use of opioids in Asia and Africa. However, uncertainty must be borne in mind when considering all estimates discussed in the UNODC

report, with uncertainty probably greatest in developing countries, including those in Africa and Asia, where population growth is likely to presage greater problems with illicit drug trafficking and use in the future.

In 2011, while the number of drug-related and potentially preventable deaths is estimated to have been 211000, the adverse effects on health will have been much more substantial. Some 14 million people injected drugs all told, of whom about 1.6 million were HIV positive; 1.2 million people had hepatitis B infection and 7.2 million people had hepatitis C infection. Calculating the toll of physical, psychiatric, and economic harm exacted by illicit drugs is beyond the scope of the UNODC report, but the ugly cost of violence and deaths in drug-producing countries in Latin America, and elsewhere, has been widely reported.

NPS are by definition not controlled by international drug conventions, yet their number already exceeds the number of substances that have been regulated by such treaties. Gathering information about new chemical entities is important, but experience suggests that efforts to control emerging drugs have simply served to motivate those making and selling NPS to alter the drug or point of sale. The UNODC report recommends establishment of a "global early warning system" to assist countries in responding to the shifting target of NPS.

The enormous scale of production of illicit drugs, and the effort required to interrupt their distribution and sale, is indicated in the UNODC report-opium production worldwide is estimated to have been "less than" 5000 tons in 2012 (a 30% fall from the previous year), while 200 and 94 tons of cocaine were seized in Colombia and the USA, respectively. As described in the 2012 Lancet Series on addiction, in recent decades international treaties have sought to eradicate illicit drug production and failed. Criminalising the nonmedical use of drugs has exacerbated harm to substance users. As discussed in the Series, innovative approaches to prevention and treatment of drug use are needed to improve the health prospects of people who use drugs. Although a coordinated warning system for NPS is a welcome idea, the response to these new drugs must combine scientific evidence and a primary focus on maintaining health rather than a hasty move to proscription.

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