Prohibition can only be expected to be successful in reducing harm when there is little demand for the proscribed drug, controls are difficult to subvert, and similar drugs are unavailable or less harmful (Wodak 1993). This chapter provides an example of drug prohibition where these conditions have not been met. It describes the unintended negative consequences of heroin supply reduction and strategies employed in an attempt to reduce the harms associated with this situation. In parts of Australia and New Zealand the unmet demand for a preferred drug, white-powder heroin, has led heroin users to resort to manufacturing a much less desirable alternative that is associated with increased risk of harm to users and the wider community.

Australia is noteworthy in that in 1985 it adopted a nation-wide drug policy that aimed to ‘minimise the harmful effects of drug use on Australian society’ (Department of Health 1985). This national approach, which has now become the National Drug Strategy (National Drug Strategy Committee 1993) has incorporated both demand-reduction and supply-reduction initiatives to reduce drug-related harm. Since 1993 the government has specified that its policy aim is to reduce drug-related harm ‘without necessarily eliminating use’ (ibid.). One of the goals of the national strategy is the reduction of transmission of HIV/AIDS and other infections. To this end, needle exchange and provision schemes have been promoted and have contributed to successfully limiting the spread of HIV among injecting drug users (IDUs). For example, Western Australia (WA) appears to have one of the lowest rates of HIV infection among drug injectors in the Western world. Current data suggest that only about 1 per cent of IDUs in WA are HIV-infected (Loxley, Carruthers, and Bevan 1995). Despite this success, from the mid-1980s to the
mid-1990s the use of 'homebake' became prevalent in WA. Homebake is morphine and heroin manufactured illicitly from codeine-based pharmaceuticals. Manufacture typically occurs in users' domestic kitchens. More recently there has been a decline in its manufacture and use that has coincided with an increase in the street availability of high-grade white-powder heroin in a market previously characterized by powder heroin of low purity and high cost owing to restricted supply.

This chapter is largely based on an investigation completed by the authors in Perth, the capital city of WA. The study was conducted in response to requests from drug users and treatment-agency staff for information about homebake to assist in reducing the harmful consequences of its use. In 1992, seizure data from WA police and health authorities confirmed anecdotal reports that many Perth heroin users were using homebake. However, a literature search yielded few articles on the drug and these did not provide information adequate for harm-reduction purposes (Bedford, Nolan, Onrust and Siegers 1987; Gordon 1985; Manion 1986; Woollard 1986). Consequently, a survey was conducted to collect information about users' experiences with homebake. This appears to have been the first research to collect standardized information from users about the drug, its use, and associated hazards. Information was collected in questionnaire format from fifty homebake consumers, some of whom were also manufacturers of the drug. Although recruited from several sources, most respondents were clients of WA’s only methadone program. There were approximately equal numbers of males and females and most were between the ages of twenty and thirty-nine years. Technical details of the study are provided in Lenton, Reynolds, and Charlton (1994).

History

Descriptions of significant use of homebake have been limited to opioid users in New Zealand and Western Australia. During the late 1970s, high-grade heroin from South East Asia became widely available in New Zealand for the first time. In 1980, a large international police operation led to the collapse of the 'Mr Asia' drug syndicate. This precipitated an abrupt, almost total, cessation of heroin importation into New Zealand. Almost overnight, heroin supply in that country was all but eliminated, yet there was no corresponding reduction in the number of users wanting the drug. Consequently there was a large unmet demand for heroin. At about the same time an article was published in a presti-
gious international chemistry journal that described the process by which morphine and heroin could be manufactured from codeine. A copy of the journal was held in the library of Auckland University, and is thought to be the original source of the homebake ‘recipe.’ Before this copy had been removed by the librarian, ‘homebakers’ were using it to manufacture ‘bake.’ The first homebake laboratory was seized in Auckland in January 1983. By 1986, ninety such laboratories had been seized across New Zealand (Bedford et al. 1987). The huge gap between supply and demand caused by the apprehension of the ‘Mr Asia’ syndicate was filled by the resourcefulness and ingenuity of the first homebakers.

It appears that the use of homebake by opioid users in Perth began about 1986 to 1987. From 1987, police reported that increasing numbers of ‘bakers’ were charged with offences related to manufacturing homebake. Edge (1992) found that in 1988–1989 there were five convictions for homebake manufacture in WA and this total had increased to nineteen convictions in 1990–1. A further indicator of increasing homebake use was found in the analysis of randomly selected urine samples from clients of WAs methadone program. When data for the years before 1990 were compared to those obtained for the year 1990–1, there was a substantial increase in the number of urine samples classified as being opiate-positive (Swensen et al. 1993). The presence of both morphine and codeine in half of these opiate-positive samples led the authors to conclude that much of the increase was due to the use of homebake. Indeed, when the survey of homebake users was conducted in late 1992, just over a third of persons presenting for methadone treatment in WA reported recent homebake use.

According to police intelligence data (ABCI 1994), clandestine homebake laboratories were found in only three Australian states during 1993. One laboratory was detected in South Australia, seven in Queensland and one in WA. In 1994, evidence of homebake manufacture was uncovered only in Queensland and WA (ABCI 1995). Furthermore, liaison with forensic experts in Australia and New Zealand, and an extensive literature search of international on-line databases failed to provide any evidence of homebake being used outside these two countries. The only related report (Jensen and Hansen 1993) was from Denmark, where some drug injectors had been separating codeine from pharmaceutical products containing aspirin and codeine, which is the first stage in the homebake process. However, it appears that these Danish users had been using the codeine itself orally, or by injection, rather than first converting it to morphine or heroin. Although the scientific literature sug-
gests that it is only in WA and New Zealand that homebake has become a significant source of illicit opioids, the recent appearance of homebake postings on drug-related news groups on the Internet suggests that opioid users elsewhere in the world have been attempting to manufacture the drug.

Historically, the idiosyncratic geographical distribution of homebake is, in itself, of interest. There are several hypotheses to explain this. First, WA, like New Zealand, is somewhat geographically isolated. Although WA has been seen as a through port for heroin from South East Asia, heading for the larger, more lucrative, markets of Melbourne and Sydney on Australia’s east coast, little of this heroin had typically reached Perth streets. As noted above, up until late 1994 street-grade heroin in Perth has been expensive and of low purity. Interestingly, there has never been evidence of significant homebake manufacture or use in Sydney and Melbourne, where users have had greater and uninterrupted access to opium-based heroin. Ross, Stowe, Loxley, and Wodak (1992) found that 14.4 per cent of injectors interviewed in Sydney reported ever having used homebake, compared to 75.3 per cent in Perth. Data obtained from the homebake survey are consistent with this restricted-supply hypothesis. While a small proportion of users stated that they used homebake because it was more potent than other available narcotics, most respondents indicated that they used homebake because it was cheaper or more available. One user summarized his views on homebake thus: ‘It’s pure brown poison, but it’s “bloody cheap and nasty” and available more freely’ (male, 30–39 years, using homebake for two years).

Another possible explanation is that the emergence of homebake in WA was the result of sizeable numbers of New Zealanders, including some members of New Zealand organized motorcycle gangs, migrating or travelling to that state. However, by whatever mechanism homebake manufacture and use was established in WA, it seems its existence could only be explained by a demand for heroin during a period of limited supply of traditional opium-based powder heroin. As the street availability of high-grade white-powder heroin has increased, indications are that the use of homebake heroin has decreased. According to the Drug Squad of the WA Police Department (personal communication), the availability and purity of white-powder heroin on the street began to rise around September 1994. From early 1995 to early 1996, the purity of heroin seized on the street in Perth increased from 12 to 20 per cent to around 60 per cent (Treweek 1996). In December 1992, 34 per cent of the
last fifty people assessed for methadone treatment admitted to recent homebake use. In December 1993 the figure was 38%, in 1994 it was 14%, and in 1995 it was 12%.

Manufacture and Packaging

In order to appreciate the particular risks associated with homebake, it is important to have basic information concerning its manufacture and packaging. Homebake is usually made in domestic kitchens using rudimentary and easily portable laboratory equipment. The process takes about three hours to complete and requires a large quantity of codeine, several other chemicals and a ‘recipe’ that specifies manufacturing instructions. A number of illicit recipes are available, which sold for approximately A$500 during 1992 when data was collected for this study. When they first appeared in WA, recipes sold for five or six times that amount.

Typically, a small cooperative group of homebake users work together to buy large quantities of tablets that contain codeine. Commonly used drugs include Veganin, Panadeine, Codral Pain Relief, and Codiphen. In WA, these are available over the counter from pharmacies. There is also some indication of the use of Panadeine Forte by homebake manufacturers (Ilett 1992). This drug is available only on doctor’s prescription and contains much more codeine than the other preparations. It is estimated that 250 Panadeine tablets would yield about 2 grams of codeine, which may yield 5 to 10 mls of homebake-heroin solution, containing somewhere between 10 and 40 mg of heroin per ml of liquid (Bedford et al. 1987).

There are three stages to homebake manufacture in the three-hour process. In the first step, codeine-containing tablets are crushed and codeine is extracted as a white to yellowish crystalline powder. Next, the codeine is converted to morphine, which tends to be a brown powder. This may be sold as ‘powder’ homebake. Finally, the morphine is converted to heroin as a dark brown paste that is diluted in water for injection. The final product usually also contains morphine, codeine, and, depending on the care taken, various quantities of the hazardous chemicals used in its manufacture. These chemicals are thought to be responsible for some of the idiosyncratic side-effects described below. The liquid residue from the manufacture is called the ‘boil-up.’ It contains higher concentrations of toxic chemicals, but may also be sold for injection. Powder homebake is often sold with a syringe of the corrosive
Acetic Anhydride (AA). Users will add AA to the homebake morphine powder in the spoon to convert it to heroin. They then attempt to burn off the excess AA before dissolving and injecting the mixture.

All respondents in the survey reported that they used intravenous injection to administer their homebake. The majority reported that they most often used the liquid form of the drug. Not surprisingly, none reported that they most frequently used ‘boil-up.’ The forms most often used were also those that were more available.

**Hazards of Manufacture and Use**

In addition to the risks usually associated with the intravenous injection of illicit narcotics, common practices employed in the manufacture and packaging of homebake increase the risks of harm occurring. There is a risk for contamination of the homebake as it is made in non-sterile settings, using makeshift equipment, by people who may be experiencing withdrawals or intoxication and under the constant stress of needing to conceal their operations. Not surprisingly, most of the survey respondents thought that homebake was not germ-free and were concerned about this. Other risks are associated with the dangerous properties of some of the chemicals used in homebake manufacture and with the increased potential for the transmission of blood-borne viral infections, particularly through the use of liquid homebake.

**Chemical Hazards**

Several particularly dangerous chemicals are used to make homebake (Woollard 1986). Many of these are believed to be present at various concentrations in the final product and may thus be injected intravenously by the user. In addition, many of the chemicals give off hazardous vapours and can pose an explosion risk during baking. Hazards associated with some of these chemicals are summarized in table 1.

Many subjects in the study were aware of some of the dangers associated with the use of these chemicals. For example, one subject expressed his concerns as follows: ‘Disposal of reagents used in making homebake is a concern, dangerous chemicals are poured down the sink and put into the garden. Also in manufacture [the] use of Pyridine is a toxic process, gases and Hydrochloric acid etc. given off, often made indoors with small children about the house’ (male, 30–39 years, using homebake for three years). Woollard (1986) has noted that the evaporation of
TABLE 1
Chemicals used in homebake manufacture and their hazards

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroform</td>
<td>Drowsiness and loss of consciousness</td>
</tr>
<tr>
<td></td>
<td>Respiratory depression, heart problems, and seizures</td>
</tr>
<tr>
<td></td>
<td>Liver and kidney damage</td>
</tr>
<tr>
<td></td>
<td>Heating produces phosgene gas absorbed through skin and lungs, can cause severe pulmonary edema</td>
</tr>
<tr>
<td>Pyridine</td>
<td>Obnoxious odour</td>
</tr>
<tr>
<td></td>
<td>As liquid is inflammable</td>
</tr>
<tr>
<td></td>
<td>As gas is highly explosive</td>
</tr>
<tr>
<td></td>
<td>Acute exposure can produce drowsiness and loss of consciousness</td>
</tr>
<tr>
<td></td>
<td>Implicated in liver, kidney, and heart damage</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>Corrosive to eyes, skin, and lungs</td>
</tr>
<tr>
<td>Acetic Anhydride (AA)</td>
<td>Toxic upon inhalation, ingestion, and skin contact</td>
</tr>
<tr>
<td></td>
<td>Corrosive to eyes and skin</td>
</tr>
<tr>
<td></td>
<td>Explosion hazard</td>
</tr>
</tbody>
</table>

chloroform, particularly in a small enclosed room, like many kitchens, is extremely dangerous and spillage of chloroform onto a kitchen hot-plate can produce poisonous phosgene gas. Homebake users noted that many bakers wear masks and use extraction fans in an attempt to remove noxious fumes. Bakers run the risk that the pungent gases released to the environment by such fans can raise the interest of neighbours, who may alert the authorities.

Side-Effects
The homebake survey provided information about users’ experiences with the drug and indicated that there were some unusual effects of homebake that were likely to be consequences of the chemicals used in the process of manufacture.

First, respondents to the survey were asked to indicate which of a list of side-effects they had experienced after using homebake. Relative frequencies of each side-effect for each form of the drug are summarized in table 2. Side-effects listed for liquid homebake such as itching, constipation, changed libido, and pain on injection are commonly found with any opioid use. However, some of the side-effects experienced are not typically associated with opiate use. Skin infections, rashes, and boils were reported following the use of powdered homebake. These were
TABLE 2
Percentage of respondents reporting side-effects of use for each type of homebake

<table>
<thead>
<tr>
<th>Side-effects</th>
<th>Liquid</th>
<th>Powder</th>
<th>Boil-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>6.5</td>
<td>6.1</td>
<td>10.9</td>
</tr>
<tr>
<td>Constipation</td>
<td>8.4</td>
<td>10.4</td>
<td>8.7</td>
</tr>
<tr>
<td>Itching</td>
<td>9.1</td>
<td>8.7</td>
<td>6.5</td>
</tr>
<tr>
<td>Changed sex drive</td>
<td>8.1</td>
<td>8.7</td>
<td>6.5</td>
</tr>
<tr>
<td>Pain on injecting</td>
<td>7.5</td>
<td>6.1</td>
<td>6.5</td>
</tr>
<tr>
<td>Weight down</td>
<td>7.1</td>
<td>7.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Skin infections sores and boils</td>
<td>3.6</td>
<td>7.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>6.5</td>
<td>5.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Changes in vision</td>
<td>4.5</td>
<td>3.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Appetite down</td>
<td>5.5</td>
<td>5.5</td>
<td>4.3</td>
</tr>
</tbody>
</table>

probably due to the injection of Acetic Anhydride (AA), that had not been burnt off efficiently after being added to the powdered morphine in the spoon. The headaches and changes in vision reported after boil-up use are possibly due to the high concentrations of toxic residues in this form of homebake. In addition, many of the users observed that, in their experience, the use of homebake led to a more rapid collapse of veins used for injection and that the veins that had collapsed in this manner took longer to heal than with other injected opiates.

Dependence and Withdrawal
The average length of time given by respondents to develop physical dependence on homebake was 10 days (range 4 to 27 days). This is probably not dissimilar from that for the street-grade heroin available in Perth during 1992. Respondents were asked to estimate the length of the period of abstinence necessary before a physically dependent person would experience withdrawals from homebake. The average length of time given by the respondents was 16 hours (range 2 to 36 hours). This is longer than withdrawal from heroin, which typically commences four to six hours after last use (Berkow 1982). This may be due to the inefficiencies in the manufacture of homebake that leave codeine in the final product. Withdrawals from codeine tend to appear about 8 hours after the last dose (Goodman and Gilman 1970): The majority of survey respondents found withdrawals from homebake worse than those from heroin but easier than withdrawals from methadone.
Respondents who stated they had at some time totally withdrawn from homebake without using alcohol or other drugs were asked which of a list of ten withdrawal symptoms they had experienced. Most endorsed items known to be common in opiate withdrawal, such as leg cramps, sleep problems, runny nose, nausea and vomiting, diarrhoea, and abdominal cramps. Two unusual symptoms reported were tremor and body odour, which were possibly due to impurities. Homebake users often give off a characteristic smell. This is probably due to the injection of Pyridine, which has a particularly nasty odour and vapours that can be secreted through the skin. One of the users in the study noted about withdrawal: 'When you "hang out" from homebake you ooze the smell, you taste it, you smell it' (female, 20–29 years, using four months).

Transmission of Blood-Borne Viral Infections

The second area of particular risk associated with liquid homebake involves the increased potential for transmission of blood-borne viral infections such as HIV and hepatitis B and C. The use of the liquid may be associated with risks for virus transmission that go beyond those documented for injectable drugs sold in powder form. These additional risks are associated with the possibility of direct transmission of viruses through the homebake liquid and the increased likelihood that injection equipment will be shared.

Potential for Infection through Liquid Homebake
It is at least theoretically possible that blood-borne viral infections can be transmitted in blood particles that find their way into the homebake solution itself. It is not thought possible for blood-borne viral infections to be directly transmitted through the dry-powder form of homebake.

There are anecdotal reports that indicate it is possible for infected blood and other contaminants to be inadvertently added to the homebake solution. For example, syringes are often used to measure out quantities of chemicals as they are added to the homebake during manufacturing. These syringes may have been used previously for intravenous injection. There have also been anecdotal reports of bakers injecting themselves with a syringe to sample the batch and then using the same syringe to measure doses of the homebake into multiple bottles for sale. In 1993 a user who became HIV-positive claimed that his only risk behaviour had been the use of liquid homebake and that he had contracted the virus directly from the liquid.
Just over half the survey sample thought it was possible for the homebake to be contaminated by hepatitis viruses during the manufacturing process. Significantly fewer respondents thought that the homebake could be contaminated by the HIV virus during manufacture. However, most of the respondents who thought that either virus could contaminate the homebake also believed that injection of the contaminated homebake could lead to infection by the viruses. It seems likely that the respondents based their judgments of relative risk on the prevalence of the viruses in the local community. The rate of HIV infection amongst injecting drug users in WA is very low (approximately 1 per cent in the methadone-treatment population) in comparison to the very high rates of hepatitis C infection (approximately 90 per cent in the methadone-treatment population).

Virus Transmission via Needles and Syringes

Liquid homebake also presents the potential for virus transmission via the 1-ml ‘insulin’ syringes in which it is most often sold. The majority of respondents bought their liquid homebake already ‘prepacked’ in a syringe. In order for a syringe to be filled with homebake, it must be removed from its sterile wrapper. Unless users are present when the needle and syringe is removed from its wrapper and filled with homebake, they cannot be sure that this injecting equipment has not been used before. Needles and syringes were seen as presenting a risk for transmission of both hepatitis and HIV by most of the respondents. One respondent explained: ‘Homebake I feel is not a risk of infection while it is being made but maybe after it is completed and being transferred from bottle to fit, or fit to fit, that’s where the risk is involved’* (female, 20–29 years, using homebake for eight months). There are also some indications that users may be more likely to share injecting equipment when using liquid homebake. For example, it was reported that young users with a low tolerance for opiates pooled funds and bought a syringe of homebake. They then shared this dose by using the same syringe to inject more than one person. These reports are of particular concern because there appeared to be significant use of homebake by the most vulnerable users. Evidence emerged of a new group of younger homebake users. Data collected in 1993 in a study of hepatitis C among 234 drug users aged from 15 to 20 years found that about one in three reported using homebake in the previous 12 months (Carruthers

* ‘Fit’ is users’ term for a needle and syringe.
and Loxley 1994). Alarmingly, 60 per cent of the twenty young Aborigi-
nals in the sample stated they had used homebake in the previous
month. While there is no evidence that homebake use in these groups
has continued now that supply of white powder heroin has increased,
these data suggested that the use of the drug was not limited to those
with a long history of opioid use.

**Harm Reduction Strategies**

Strategies for reducing the impact of the additional harm associated
with homebake use may include interventions aimed at empowering
individual users to protect themselves and more systemic interventions
aimed at reducing the risks inherent in the use of homebake.

One intervention targeted at individual users was to provide them
with information about the hazards of homebake use and with strate-
gies for reducing these hazards. Three-quarters of the survey respon-
dents stated that they would like more information about homebake.
Their preference was for this information to be distributed in printed lit-
erature through the methadone clinic and needle-and-syringe distribu-
tion sites. Preliminary data from this study were included in an article
(Lenton, Reynolds, Charlton, and Caporn 1992) published in the Austra-
lian user magazine *Junkmail*. Copies of this magazine were distributed,
at no charge to the reader, through various sites in WA and other states
of Australia.

Thus, one of the main sources of information for harm reduction has
been that provided by users themselves. From the survey data, it is clear
that one of the main harm reduction strategies used by the respondents
was to manufacture their own homebake or to buy their drugs directly
from a baker whom they trusted. One respondent noted: ‘I have only
ever had a habit on homebake, and since getting a habit have manufac-
tured it myself. I am always meticulous about my equipment being
sterile and only ever use new syringes. It is always made under totally
germ free conditions’ (female, 30–39 years, using homebake for sixteen
months).

However, becoming a baker may not be a very appropriate or palat-
able harm reduction strategy for many homebake users, particularly
given the risk of detection by law-enforcement officers and the severity
of sentences for manufacture of such a drug. Many respondents noted
that there were variations in the risks associated with individual manu-
facturers: ‘Everyone bakes differently. Some do not take the time to
make sure everything is clean and sterile, also not making sure all chemical (as much as possible) has been taken out properly mainly because it takes longer to finish" (female, 20–29 years, using homebake for twelve months). As a consequence, familiarity with one's supplier and a knowledge of the process itself was seen by some users as one way of reducing the risks. An example of this strategy was given by one respondent who explained as follows: 'I know [that the] people I buy off are scrupulous in their methods to keep the equipment clean and to ensure only fresh, new syringes are used every time and I also ensure this is the case if I get any for anyone else, but I am aware that not everyone is as conscientious as this. People know about this [and] have remarked "One thing I know about you is that your gear is always clean." I pride myself on this. I've been tested HIV negative and intend to stay this way!' (female, 20–29 years, using homebake for thirteen months). Such an approach is also going to be inaccessible to many. Young and less-experienced users and people who use homebake infrequently are less likely to have extensive personal involvement in the manufacture of homebake. They may not be able to directly monitor the relative risks associated with any particular batch of homebake in the manner reported by many of the more experienced users surveyed.

It will be apparent that the risks of transmission of blood-borne viruses through the use of liquid homebake could be avoided by using the powder form of the drug. Several respondents suggested using powder homebake, rather than the liquid, where possible. For example, one respondent noted: 'As I make my own, I have no anxieties about impurities etc., but if I wasn't, I doubt very much if I'd buy it, particularly in liquid form – the powder would certainly be safer' (male, 30–39 years, using homebake for three years). Thus, powdered homebake was seen as somewhat less risky than liquid or boil-up. However, the survey respondents also indicated that powder was less freely available than liquid. Furthermore, there were anecdotal reports of some users accidentally injecting the syringes of AA that are sold with powder homebake to convert it from morphine to heroin.

In addition to the attempts made by individual users to reduce harm, systemic approaches need to be considered. Since March 1992, the Western Australian authorities have imposed limits on the supply of precursor chemicals and required that purchasers of large amounts of codeine-containing products provide proof of identification. However, the extent to which this has affected the availability of homebake is unclear. Police reports suggest there has been a marked decline in the
number of homebake seizures in 1993, which they have attributed to the success of strategies to limit availability of precursor chemicals (ABCI 1994). It is not possible to definitively determine the relative impact on the levels of homebake use of increased purity and availability of opium-based heroin, compared to those steps taken to limit the availability of precursors and of codeine preparations. Actions to limit the supply of precursors and the codeine-based pharmaceuticals began in earnest in early 1992, yet even in December 1993 rates of recent homebake use among those seeking methadone treatment remained high. Falls in the prevalence of recent homebake use among those seeking methadone followed evidence of rises in the purity of white-powder heroin on the street towards the end of 1994. While both factors likely had some impact on homebake use, on balance such a decrease suggests that the increased purity and availability of opium-based heroin probably had more of an impact. In addition, we have noted that supply-reduction initiatives can result in increased harm where substitution of more harmful alternatives is possible. There was concern that restrictions on the chemicals used in homebake manufacture would lead to the use of other, even more toxic, chemicals. One respondent to the survey reinforced this concern: ‘Now [that the] chemical AA has been banned – the bakers are using a more toxic chemical’ (female, 20–29 years, using homebake for three years).

An alternative systemic intervention is to help manufacturers of homebake to make a product that is less harmful for users. In WA, non-government HIV outreach services for drug injectors have allowed their clients to obtain large quantities of new needles and syringes in an effort to encourage bakers not to recycle needles. Another possibility is to make information available that would allow bakers to further purify the homebake before it is distributed for injection. Further distillation and filtration of the liquid homebake may remove some of the remaining toxic contaminants. One baker commented: ‘It’s a shame that the homebake process isn’t just a little more complete in the purification process as it’s obvious that it is not as pure as white powder heroin.’ (male, 30–39 years, using homebake for three years).

Conclusion

The development and use of homebake is an example of an unintended consequence of supply-reduction policies. It developed in a context of continuing demand for opioids, particular geographical and social fac-
tors, and policing of the importation and distribution of heroin. It is argued that these factors contributed to the establishment of a cottage industry where users could have more control over their supply, avoid risks of importation, and produce a drug that was attractive because of its price and availability, despite considerable hazards in its manufacture and use. The use of homebake persisted in Western Australia while high-quality opium-based heroin was in short supply. This occurred even though consumers experienced unpleasant side-effects and were concerned about heightened risk of virus transmission. It is suggested that high levels of homebake manufacture and use continued despite attempts to restrict access to the drugs and chemicals used in its manufacture. In this context, initiatives were employed that attempted to work with manufacturers and users to minimize harm. The recent decline in the use of homebake by opioid users in Perth appears to have been largely due to the increased availability of high-quality white-powder heroin, although strategies to limit supply of precursors and codeine based pharmaceuticals may also have been a factor. While homebake may historically have been largely limited to WA and New Zealand, its presence on the Internet suggests it may appear in pockets elsewhere in the world, particularly where the supply of opium-based heroin becomes restricted or is less attractive because of price or purity. The emergence of drugs such as homebake, and their associated problems, needs to be considered by those who argue for continuing prohibition and the war on drugs.

ACKNOWLEDGMENTS

We would like to thank the past and present clients and staff of the Western Australian Alcohol and Drug Authority’s methadone program and Central Drug Unit, the Palmerston DRRA, and the Western Australian AIDS Council’s Drug Outreach Program. The contributions of Susan Wilson, Mike Phillips, and Lim Tan are also appreciated.

REFERENCES


Wodak, A. 1993. ‘Has Harm Reduction Been Effective in Australia?’ Paper delivered at Winter School in the Sun, Brisbane.