

Safe Coonamble: Final report

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Main Street of Coonamble



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Background

Reducing prescription drug diversion is a high priority for the Coonamble community. Drug misuse in Coonamble is a community-wide problem that needs a community response, including co-designed strategies to assist older people prescribed the opioid for pain relief to feel safe in their homes.

Coonamble is classified as a remote community, located over 500km north-west of Sydney, and approximately 750km south-west of Brisbane. Coonamble has a population of approximately 4000 people, with 30% of the population identifying as Indigenous (Australian Bureau of Statistics [ABS], 2016). Coonamble Shire is identified as a high-risk population with multi-generation welfare dependency, negative employment growth, and high crime rates.

Between 2015-16, Coonamble property offences (including break and enter dwelling, steal from dwelling, steal from person) were 2.8 times higher than the NSW rate (NSW Bureau of Crime Statistics and Research, 2017). Break and enter dwelling offences were 6.6 times higher than NSW rates, and steal from dwelling offences were 3.5 times higher than NSW rates (NSW Bureau of Crime Statistics and Research, 2017).

At a local level, the 2011 Coonamble Community Engagement Report identified that excessive use and abuse of drugs and alcohol and high levels of crime, particularly breaking and entering, were major issues in Coonamble. A lack of employment opportunities and a welfare-dependent population were also identified as issues in the community.

During consultation for the Coonamble Shire Council's Positive Ageing Strategy (November 2014 - May 2015) prescription drug diversion (mainly Fentanyl transdermal patches) was reported as a major factor affecting the safety of older community residents. The consultation process also identified the following important issues for older community residents:

- A desire to maintain self-reliance, feel positive, confident and safe
- A desire to enhance quality of life through maintaining health and home security
- Personal safety and fear of break and enter was highly ranked as a challenge to ageing in place. In many cases this fear has led to social isolation.
- The need for interventions that address prescription drug diversion.

Prescription drug diversion

The definition of prescription drug diversion is the transfer of any legally prescribed controlled substance from the individual for whom it was prescribed to another person for any illicit use (Berge, Dillon, Sikkink, Taylor & Lanier, 2012). In the context of this report, prescription drug diversion refers to theft of medication, and diversion of medication once provided by pharmacist either through coercion or intentional diversion by those to whom it was prescribed.

Fentanyl

Fentanyl is a potent synthetic opioid that can serve as a direct substitute for heroin in opioid dependent individuals (Drug Enforcement Administration (DEA), 2015). Australia's National Prescribing Service (NPS) MedicineWise website directs prescribers to "reserve fentanyl patches for patients with chronic pain and established opioid needs who are unable to take oral morphine" but does not allude to the severity of pain that it should be used for. The US Food and Drug Administration (FDA) states that transdermal patches should be used for the treatment of moderate to severe pain (FDA, 2015).

Fentanyl transdermal patches were first listed on the Pharmaceutical Benefits Advisory Scheme in Australia in 1999 for use in the management of chronic cancer pain. The rapid increase in prescribing rates post 2006, from less than 50 per 1000 population to more than 250 per 1000 population from 2005/06 to 2010/11, appears to be driven by the extension of its listing to include use in management of non-cancer pain (Roxburgh, Burns, Drummer, Pilgrim, Farrell, & Degenhardt, 2013).

Fentanyl transdermal patches are currently used to treat severe chronic pain, mainly in the elderly, usually as a result of cancer, nerve damage, back injury, or major trauma. Fentanyl works by changing the way the brain and nervous system respond to pain stimuli within the body. This type of medication is classified as a Schedule 8 drug in Australia and is 80 to 100 times stronger than morphine. Due to its strength, it can only be used to treat people who are tolerant to opioid medications. The patch is a default fentanyl prescription because it is slow release, meaning more can be prescribed for a longer time, negating the need for frequent visits to clinics/hospitals/pharmacies. The patch is placed directly on the skin of the patient.

Major side effects of fentanyl use may include the following: changes in heartbeat, agitation, hallucinations, fever, sweating, confusion, fast heartbeat, shivering, severe muscle stiffness or twitching, loss of coordination, nausea, vomiting or diarrhea, loss of appetite, weakness, dizziness, inability to get or keep an erection, decreased sexual desire, chest pain, seizure, rash, hives, swelling of the: eyes, face, mouth, tongue, throat, arms, hands, feet ankles, or lower legs, hoarseness, difficulty breathing or swallowing. For older adults or adults who are weak or malnourished due to disease, there is a higher risk of developing breathing problems. In some severe cases, coma or even death may occur as a result of the use of a fentanyl transdermal patch.

Due to its legal accessibility, there is now an upsurge of cases of abuse of fentanyl transdermal patches in regional and rural areas (Anex, 2012; Rintoul, Dobbin. Drummer & Ozanne-Smith, 2011; Roxburgh et al., 2013). Even when the patch has been used and disposed of it can still be broken down and the drug extracted. The drug is released when exposed to extreme heat; patches

are boiled in water, vinegar, lemon juice or alcohol (usually vodka or rum) to release all of the drug remaining in the patch. Once boiled (typically between 30-60 minutes) the patch is removed, and the liquid is evaporated leaving a dried film containing the drug at the bottom of the apparatus. A small amount of liquid (usually more alcohol or vinegar) is added to the film and this is then injected to give the user a 'high' (Allan, Herridge, Griffiths, Fisher, Clarke & Campbell, 2015).

This method of drug extraction and abuse is highly dangerous due to the fact there is no way to accurately measure the intake of the illicit substance, especially if the patch has already been used and removed before being boiled. The patch may also be cut into small sections and boiled on a spoon (in the same method as above) for a smaller hit, to make it last longer, or to be shared amongst more people. This method is even more unreliable in terms of estimating the dosage volume as the drug is not always evenly distributed over the patch, leaving more room for error when attempting to ascertain the amount taken/given. The health risks associated with abusing the fentanyl transdermal patch are amplified due to large doses being administered.

In addition to the drug abuse issue, this medication diversion causes other risks including: the sharing of unclean needles and other drug paraphernalia (Allan et al., 2015), lack of awareness of the amount of the drug taken, and if a death occurs, the dealer/injector may be charged with manslaughter, creating additional gaps within the community. Another key issue is that these patches are diverted from the patients they were prescribed to before they can be used, leaving people suffering from debilitating pain, and having to seek another prescription from their health care provider.

Literature review

There is a limited amount of academic literature which reviews pharmaceutical diversion or the misuse of prescription medication, specifically fentanyl, in Australia. Grey literature,

Government and non-government reports highlight a growing issue in the community.

Available literature relating to pharmaceutical diversion primarily relates to diversion, or theft of prescription medication, by medical personnel including nurses, doctors and pharmacists.

Typically, these health professionals either steal directly from patients or drug stores. The notion of licit drugs used illicitly has been explored in relation to young people however much of this research relates to psychotropic medication and does not fully explore where the medication was sourced.

The problem of illicit drug use has been more widely researched than non-medical use of prescription medications however non-medical use of prescription medication has been identified as a growing problem across the US, Canada, Sweden and Australia (Leonhart, 2011; Cicero et al., 2011; Cicero, Shores, Paradis & Ellis, 2008; El-Aneed et al., 2009; Fischer, Rehm, Goldman & Popova, 2008; Haydon, Rehm, Fischer, Monga & Adlaf, 2005). The results from the US 2009 National Survey on Drug Use and Health identified that prescription medication misuse was second only to marijuana use and that persons aged 12 years and older who used prescription drugs non-medically in the month prior to survey exceeded the number of current users of cocaine, heroin, hallucinogens, and methamphetamine combined (Substance Abuse and Mental Health Services Administration, 2009). US students report that prescription medications for non-medical use are more accessible than illicit drugs (Bukstein, 2008). The PATS (Partnership for a

Drug-Free America, 2008) study noted that 41 percent of teenagers mistakenly believe that prescription medications are “much safer” than illegal drugs.

Published data and literature relating to fentanyl misuse is reported to be some years behind and does not represent current trends. For example, a key paper examining fentanyl misuse in Australia was published in 2007, and was based on prescription data up to late 2005. It noted that there were “very low numbers” of patches being prescribed and that fentanyl did “not appear to be a major threat to injecting drug users in Australia” (Gibson, Larance, Roxburgh, Degenhardt & Black, 2007). This was before the rapid increase in fentanyl prescriptions from 2006. In the 5 years prior to 2009, there was a 5000 per cent increase in fentanyl prescriptions (Figure 1) (Australian Statistics on Medicines report, 1999-2009, c.i. Anex, 2012). This increase is attributed to the change in the Pharmaceutical Benefit Scheme (PBS) which allowed fentanyl to be prescribed for chronic non-cancer pain (NPS, 2006). Trends in misuse of fentanyl coincide with increased prescribing of the drug.

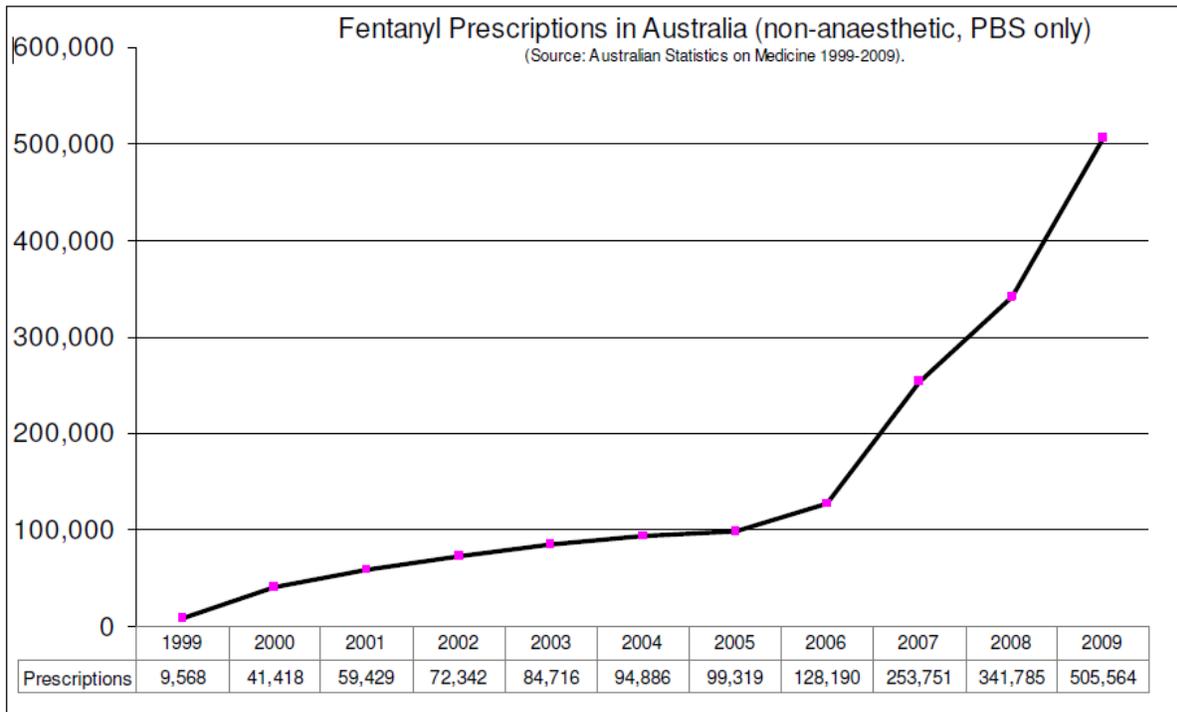


Figure 1 Fentanyl prescriptions in Australia 1999-2009

Sources of diversion

Multiple studies have been conducted to investigate the main sources of drug diversion, but still little empirical evidence exists to clearly identify the supply of pharmaceuticals (Fischer, Bibby & Bouchard, 2010; Cicero et al., 2011). Studies identify main sources of diversion as dealers, sharing and trading, legitimate and illegitimate medical practices, theft (Cicero et al., 2011), the elderly and patients with pain (Incardi, Surratt, Cicero & Beard, 2009a). The role of the internet in obtaining prescription medications is controversial however appears to not be a major source of diversion (Incardi, Surratt, Cicero, Kurtz, Martin & Parrino, 2009b; Cicero et al., 2008).

While a number of studies identify family as sources of diversion (Cicero et al., 2011; Ford & Lacerenza, 2011) few clearly identify the manner in which they are obtained from family members whether they be stolen, shared or purchased. Ford and Lacerenza (2011) analysed available data from the US 2008 National Survey on Drug Use and Health and found that of 68,736 people who completed the survey 7.52% ‘took’ the prescription medication from a friend or relative, 11.13% bought from a friend or relative and 51.36% obtained the drug for free from a friend or relative. Australian media identifies older people and pensioners in rural communities as suppliers of transdermal fentanyl which is used for injection (Donaghey, 2014; Dow, 2012). ‘Pharming parties’, where young people exchange or buy prescription medication, enable a greater access to prescription medications for non-medical use in the US (Banta, 2005) but are not identified as a key source of diversion in Australia.

[Issues related to identifying / quantifying pharmaceutical diversion from family members](#)

Ethical issues and risks for the patient arise from the requirement that both a patient and a doctor must be explicitly named for the potential for investigation by authorities including the NSW Health Care Complaints Commission, Australian Health Practitioner Regulation Agency or NSW Pharmaceutical Services Unit (Anex, 2012).

Prescription medications obtained from family or friends (whether stolen or shared) may be part of socialisation practices of young Aboriginal people following older kin around, and being introduced to these substances through their kin network and peers (Delahunty & Putt, 2006). Furthermore, the existence of greater rural social and kinship network connections may facilitate drug diversion and distribution (Keyes, Cerdá, Brady, Havens & Galea, 2014). Given the strong

bonds between the supplier and user there may be a sense of loyalty towards the family member and thus diversions of medication are not reported by either the person to whom the prescription is made or witnesses.

Fentanyl diversion

Increasing concern over fentanyl misuse has been documented internationally as well as across Australian states (Arvanitis & Satonik, 2002; Firestone, Goldman & Fischer, 2009; Fischer, Jones & Rehm, 2013; Green, Grau, Carver, Kinzly & Heimer, 2011; Kramer & Tawney 1998; NSW Health, 2015; Talu et al., 2010; Victorian Health, 2012). State governments have responded to transdermal fentanyl misuse by releasing information for prescribers in an attempt to reduce diversion post prescription (Victorian Health, 2012; NSW Health 2015). NSW Health (2015) identifies transdermal fentanyl as a commonly requested drug by drug dependent individuals.

In America, Fentanyl is diverted via pharmacy theft, fraudulent prescriptions, and illicit distribution by patients and registrants (physicians and pharmacists). Theft has also been identified at nursing homes and other long-term care facilities. According to the National Forensic Laboratory Information System (NFLIS), 668 items/exhibits were identified as fentanyl in 2012 and 942 in 2013 by federal, state and local forensic laboratories in the United States. In 2014, the number of fentanyl reports increased significantly to 3,344 (DEA, 2015).

Fentanyl misuse includes application of multiple patches, ingestion or rectal insertion of patches, and intravenous injection or insufflation of fentanyl gel removed from the patch reservoir.

Patches have also been frozen, cut into pieces and placed under the tongue or in the cheek cavity for drug absorption through the oral mucosa. Used patches are attractive to abusers as a large percentage, between 28% and 84%, remains in these patches even after a 3-day use (Lucyk & Nelson, 2016). Fentanyl oral transmucosal lozenges are also diverted and abused (DEA, 2015).

People in Australia are believed to misuse fentanyl due to severe physical and psychological dependence on opioids, increased tolerance to other opioids, and the strength of fentanyl, the availability, that it is thought to be ‘cleaner’ than other substances and its instantaneous effect (Allan, Herridge, Griffiths, Fisher, & Clarke, 2015).

Fentanyl is commonly used by people who also misuse other illicit substances. Hempstead and Yildirim (2014) argue that the introduction of non-pharmaceutical fentanyl, its spatial distribution, and the timing of overdose deaths are related to trends in heroin purity and availability. Fentanyl can be used as a substitute for heroin in opioid dependant individuals (DEA, 2015). However, fentanyl is a very dangerous substitute for heroin because it is much more potent than heroin and results in frequent overdoses that can lead to respiratory depression and death (DEA, 2015).

Participants in a study conducted in an Australian rural community describe purchasing Fentanyl patches as one whole patch and cut into smaller pieces to optimize profits (Allan et al., 2015). Anecdotal reports from Australia indicate pensioners or older people are recruited to supply fentanyl patches or that some doctors in regional areas are ‘known to prescribe loosely’ (Anex, 2012). People are able to travel to different states to obtain fentanyl prescriptions and these prescriptions are not trackable across states. Anecdotal reports and the media suggest prices for

diverted fentanyl is approximately \$2 a mcg or \$100 for a 25mcg patch, \$150 for 75mcg and \$200 for 100mcg (Anex, 2012; Grimson, 2014).

Non-medical use of fentanyl in rural communities

It is known that Indigenous communities have higher rates of illicit drug use compared with non-Indigenous communities and that Indigenous people access illicit drugs from a younger age (AIHW, 2017). In some rural and remote areas, the younger age of first-time users of cannabis, tobacco and alcohol may be explained in part by the socialisation practices of young Aboriginal people following older kin around, and being introduced to these substances through their kin network and peers (Delahunty & Putt, 2006). Furthermore, the existence of greater rural social and kinship network connections may facilitate drug diversion and distribution (Keyes et al., 2014).

Non-medical use of transdermal fentanyl patches has been identified as an increasing issue in rural communities around Australia. The Lyndon Community, which provides drug and alcohol services across NSW, conducted a small study which identified the non-medical use of transdermal patches as an increasing problem. Participants in this study (n=12) identified friends or drug dealers as the most common sources of diversion but also diversion from older people, home invasion and theft as methods of obtaining fentanyl (Allan et al., 2015). All participants prepared transdermal fentanyl for intravenous injection and used vinegar as an extraction substance before heating the mixture. Fentanyl was described as easily obtained in rural communities.

Regional communities around Australia including Albury, Wodonga, Yackandandah (Vic), Wagga-Wagga, Tumut, Batlow, Leeton, Dubbo (NSW) have reported incidences of fentanyl misuse and overdoses in the community (Allan et al., 2015; Anex, 2012). Media reports also describe incidences of fentanyl in rural communities (Grimson, 2014) and the main source of diversion as older people and pensioners (Dow, 2012). Unconfirmed anecdotal reports identify availability of prefilled syringes with diverted fentanyl for sale in regional communities (Anex, 2012). It seems that ‘first-time’ users who would not normally have access to heroin are able to access fentanyl (Anex, 2012). Fentanyl-related deaths are over-represented in rural communities and mostly attribute to individuals who have not been prescribed opioids (Allan et al., 2015, Gisev, Larance, Cama, Nielsen, Roxburgh, Bruno & Degenhardt, 2017).

Adverse effects of fentanyl abuse

Overdose and death

Fatal overdoses from or involving fentanyl have been reported internationally from Sweden, Canada, the US and Australia (Arvanitis & Satonik, 2002; Firestone et al., 2009; Fischer et al., 2013; Green et al., 2011; Kramer & Tawney 1998; Talu et al., 2010; Victorian Health, 2012). The number of overdose poisoning deaths in Australia involving prescription drugs now exceed those from road trauma in Victoria (Dwyer, 2013) and the USA (CDC, 2015).

In 2002, when fentanyl patches were formulated with a reservoir from which fentanyl could be easily extracted, a fatal overdose was recorded in Tasmania (Reeves & Ginifer, 2002). A grouping of overdoses in 2008 in Queensland which were thought to be related to heroin are now thought to be fentanyl related. Queensland Health’s concerns about fentanyl misuse were

presented to the 2010 Australasian Professional Society on Alcohol and Other Drugs Conference (Loveday, Dev & Thompson, 2010). In 2011-12 a NSW police force member was able to identify four known deaths in the Albury area in which fentanyl may have been involved (Anex, 2012).

Of 136 fentanyl related deaths between 2000-2011 in Australia, only a third involved people who had been prescribed fentanyl and people aged under 47 years of age accounted for the majority (75%) of overdoses despite the majority of prescriptions being for people over the age of 80 (Roxburgh et al., 2013). More than half (54%) of the deaths involved people who inject drugs, 95 per cent of whom had injected fentanyl prior to death (Roxburgh et al., 2013). Just under a half of all fentanyl-related deaths involved fentanyl toxicity as the underlying cause of death and just over half involved additional drugs; in all cases fentanyl contributed to the cause of death.

Other health issues

Injecting injuries relating to the preparation process which is usually non-sterile, includes soaking the patch in either vinegar, lemon juice or alcohol and heating which leads to infections, vein damage (Anex, 2012), ischaemic limb injury and amputation, thrombophlebitis, and severe skin ulceration (Victorian Health, 2012). Risks related to opioid abuse include hyperalgesia, immunosuppression, neuroendocrine dysfunction causing hypogonadism, decreased libido, erectile dysfunction, osteoporosis, increased fracture risk, dental decay and tooth loss due to xerostomia, opioid-related bowel disorder, sedation and cognitive impairment (Dobbin, 2014).

Socio-economic

Participants in the Lyndon Community study cited physical health problems, financial problems, social and family problems, problems with the criminal system, unpredictable nature of the drug, overdose and physical dependence as concerns associated with fentanyl use (Allan et al., 2015).

The results of this study indicate that early use of non-medical use of prescription drugs, at or before 13 years of age, was a significant predictor of prescription drug abuse and dependence.

These findings underline the importance of improving prevention efforts to decrease non-medical use of prescription drugs and diversion of prescription drugs among young people.

Community

While many barriers to pain treatment have diminished over the last decade, enhanced measures to reduce diversion of fentanyl and other pharmaceuticals may result in it being more difficult for those who legitimately require fentanyl or other opioids to access it (Burgess, 2006).

Risks to the community include increased healthcare costs, criminal activity around diversion and trafficking of psychoactive drugs. Pharmaceutical drug crime includes crime to obtain the drugs, and crime resulting from intoxication (Dobbin, 2014). Childhood opioid poisoning has also increased with greater opioid availability in homes and the community (Dobbin, 2014)

The effects harm not only the illegal user, but also the legitimate patient who may be getting shorted on treatments and innocent medical providers who may be charged with false claim offenses or other professional failures because of diversions that take place during their watch. In the USA, the revenue from the sale of diverted prescription medication is estimated to rival the black market revenue for both crack cocaine and heroin combined (Forgione, Neuenschwander, & Vermeer, 2001).

Strategies to reduce diversion or manage the impacts of diversion

There was the highly politicised ‘war on drugs’ that focused on Illicit Drug Diversion Initiative (IDDI) but not much has been done in Australia to curb or address non-medical use of prescription medications. Many countries have identified non-medical use of prescription medications as an epidemic requiring urgent research and attention (Arvanitis & Satonik, 2002; Firestone et al., 2009; Fischer et al., 2008; Green et al., 2011; Kramer & Tawney 1998; Talu et al., 2010; Victorian Health, 2012).

A number of programs currently exist in an attempt to reduce the use of illicit drugs. Given the rise and acknowledgement of diversion of fentanyl, specific programs are being developed to address this issue. Safer methods of fentanyl preparation and administration are shared in on-line drug user sites and at harm minimisation services such as the Medically Supervised Injecting Centre in Sydney, however rural illicit fentanyl users may be isolated from this information due to lack of access to such services (Allan et al., 2015). Allan et al. (2015) suggest a peer education program for injecting drug users which includes drug information, safer preparation methods and resuscitation techniques which could contribute to harm minimisation for drug users and harm minimisation to communities related to diversion and safety.

Implications for further research and policy

There is a need to identify the scope of prescription medication diversion in Australia and in particular, rural communities. Further research is needed to clearly identify the main sources of fentanyl diversion. Research is needed to clarify whether diversion from family members occurs as theft, a form of sharing, or after the family member has used the transdermal patch and has not appropriately disposed of it. There is an urgent need to increase capacity of frontline workers and

policy makers to understand fentanyl and its illicit use so that harms can be reduced. This project will expand our level of knowledge in regard to the scope and impact of prescription drug diversion in one remote community in NSW.

Summary of the project

The “Safe Coonamble” research project was funded through the Department of Family and Community Services and ran during the period April – November 2017. The project aimed to explore and understand the nature and impact of pharmaceutical diversion in the Coonamble community and to explore strategies to mitigate the impact of this on older people in the Coonamble community.

The main elements of the project were:

- Interviews with key community informants from community organisations to gain a better understanding of the scope of the problem, the impact of prescription drug diversion on older community members; and to elicit ideas for possible solutions;
- Interviews with older community members to gain a greater understanding of how prescription drug diversion affects people known to them, and to elicit ideas for possible solutions;
- The development of recommendations to support older Coonamble residents to feel safe in their homes.

Project goals

1. Increased level of knowledge in regard to the impact of prescription drug diversion on community members' health, lifestyle and wellbeing.
 - a. Strategy: Individual interviews with key community informants from community organisations regarding the scope and impact of drug diversion on the Coonamble community.
 - b. Strategy: Individual interviews with older community members focusing on the impact of drug diversion on Coonamble community members known to them.
2. Increased community capacity to respond to drug diversion within the Coonamble community.
 - a. Strategy: Involve Coonamble community members in discussions about how older community residents can be supported and protected from drug diversion within the community.

Overview of methods

The research project was conducted in two stages. Stage 1 involved face-to-face interviews with key community informants involved with organisations providing services in the Coonamble community. After receiving ethical approval to conduct the study, flyers and information sheets were sent to potential participants inviting them to take part in the research project. A total of 11 people responded and agreed to be interviewed or provided written comments.

Stage 2 involved face-to-face interviews with Coonamble community members who had some knowledge of friends, family or community members who had been impacted by drug diversion. A respected community leader identified potential participants on behalf of the researchers, and invited them to participate in the project. Information sheets were given to potential participants, and a total of 6 people agreed to be interviewed.

Audio recorded interviews were transcribed verbatim, and field notes of interviews were written for those who preferred the interview not to be recorded. Interview transcripts, field notes and written comments were read several times and thematically analysed. Four overarching themes were identified, the scope of prescription medication diversion in Coonamble, family dysfunction as a result of drug misuse in the community, victims of medication diversion within the community, and potential solutions. These themes are discussed below.

Results

Scope of drug diversion in Coonamble

All interview participants acknowledged that there is a serious substance misuse problem in Coonamble which includes the use of methamphetamine (ice), marijuana, opiates (including fentanyl), tranquilisers, and attention deficit/hyperactivity disorder medication such as Ritalin and Concerta. However, key informants perceive the key issues as broader than drug misuse or drug diversion, with domestic violence, family dysfunction, drug and alcohol misuse, lack of employment, welfare dependency, poverty, addiction and crime perceived as all interrelated in the Coonamble community.

...there's a lot of- the poverty, there's a lot of poverty and there's a lot of dysfunction in the families here so- Not every family but a lot of the families.

(Interview 22_007)

Community members reported that habitual drug users will sell necessary household items in order to purchase drugs, or will resort to crime such as break and enters and stealing to get drugs or money for drugs. Despite the possibility of incarceration, community members did not perceive this to be a deterrent to people engaging in criminal activities. This is supported by the findings from the Coonamble Shire Council Community Engagement Report, which identified that in many cases incarceration is more appealing than living in the Coonamble community because basic needs such as food, shelter, work, safety and friends, which are not being met in the community, are met in gaol.

A lack of drug treatment facilities and inability to access methadone, a treatment for opiate dependence, was cited as contributing to the problem of drug misuse in the community. It was reported that the Local Health District in which Coonamble is located no longer prescribes methadone, instead prescribing Biodone (an oral solution containing methadone hydrochloride). Although the content and strength of methadone and Biodone are the same, a perception exists in the community that they are not the same and it can take several weeks to adjust to Biodone. A key informant suggested that methamphetamine and tranquilisers are being used because methadone is not available:

You also have that whole group of people where- especially when we're talking about fentanyl patches or we're talking about Valium or we're talking about any kind of the tranquilisers. I mean they're using it on top of the ice. They're using it to um...you know, to deal with the fact that they can't get methadone here. They can't get- other medications they can't get here coz that's not just done in this part. (Interview 22_007)

One of the biggest hurdles in the community was reported as changing the attitudes and beliefs of those in some sections of the community, including those employed in community health and social welfare organisations from a moralistic 'blame the individual' viewpoint to reframing addiction as a medical condition with social implications that should be treated as a public health problem. It was reported that, through education, conversations about drugs and alcohol are now occurring at different levels in the community and referrals have strengthened. However, the lack of a local treatment facility, and adequate drug and alcohol services and workers in the region

means that when Coonamble residents attend a rehabilitation facility, there is no after care for them when they return to the community:

Because one of the problems we know in every rehab is that they- I can get a person to rehab, but if the town doesn't have a drug and alcohol [worker]- when they come back, there's nothing there. (Interview 22_007)

Multiple methods of how people obtain drugs were described, such as engaging in doctor shopping (traveling out of town to visit multiple doctors in neighbouring towns), enlisting community members to go to the doctor to get a prescription for opiates, people coming from larger centres to sell drugs in the community, and people selling their prescription medication. Community members and key informants also reported incidents of people going through garbage searching for used patches, older people being blackmailed, abused or intimidated for their medication. It was reported that older people have had their medication taken while they are asleep, young people stealing their parent's medication, and parents taking children's medication. Comments also included information about adults recruiting young people to commit break and enters in return for cigarettes or beer, because they will not be incarcerated if caught.

Because they don't get into trouble. They get a smack on the wrist and sent on their way. (Interview 22_001)

Under-reporting of all types of crime and of medication diversion in particular was raised as an issue. Community members and key informants perceived people are reluctant to trust the police, and delays in a police response due to the police station not being manned 24 hours per day was

a concern. In addition, there is fear of physical repercussions if incidents are reported. People who have had medication stolen from their home by a family member or a person known to them are unwilling to report it to the police despite encouragement from community services. The family member is protected because the victim of the theft does not want the family member to be charged by the police. Due to client confidentiality, the community service is unable to report the matter on the client's behalf. Conversely, there is a perceived lack of support for people to report family members as described by one key informant:

Where do you draw the line with this tough love? When do you do it? When are you strong enough to do it when you don't have the support? And we're talking- you know, lots of families doing that you know. I think it's um...I mean clearly, people aren't reporting. They're not reporting it. Until something like bad violence or some sort of malicious damage really but then they don't have a choice coz the Police are already called in. (Interview 22_007)

Family dysfunction

Community members reported a high level of family dysfunction in the Coonamble community. It was felt by many participants this cycle starts in childhood; children see drug misuse and other associated behaviours as the 'norm' rather than the exception. Participants expressed concern that children do not have many positive role models in the community. Key informants and community members both stated that a lot of them do not go to school, they just walk the streets or sleep all day and roam all night. One community member commented that parents or carers can be in bed at a normal time of the night and do not realise their children are out and running

amok. A key informant provided the following explanation for why children are out on the streets at night:

Reality here can be absolute shit. Like for instance, the children you see wandering around at midnight, I'm not surprised they don't want to live in the reality they've got, when there's no food, there's no clothes, there's no windows in your house, there's no car to get anywhere. You're used as the family babysitter, or the procurer of your parents getting what they need. So, parents will often take their children's drugs for trade too. Why would you want to stay in that, I wouldn't! (Interview 23_002)

A further comment from a key informant outlined how the family dynamic needed to be fixed before the issue of children out late at night could be addressed:

...before I worked with these kids, it was just like, 'why are you on the street at one, two o'clock in the morning?' But it's actually safer for them to be out, than for them to be at home when mum and dad are partying and every man and his dog's there. They might not have a bed. They may not be safe you know...
(Interview 23_001)

Victims of medication diversion

A major concern with prescription medication diversion is the consequences- people who need the medication are not getting it, and those taking and using it are dying due to overdose. There is a perception that older people are being taken advantage of in the community because they are easy targets for their family members, rather than trying to get drugs elsewhere. Community members identified that it is usually relatives of older people, or even partners, who are taking

the medication prescribed for the older person. Participants reported that older people in the community are being intimidated and there is threat of their property being damaged until they give their medication to the family member or other person known to them. This type of threatening behaviour creates stress, fear and a sense of frustration for older people.

But we are having some cases of- especially older people being sort of strong-armed or blackmailed for some of their meds. (Interview 22_007)

Older people are reported as being pressured into giving up their medication to a family member or a person they know, and elder abuse related to fentanyl is perceived as underreported in the Coonamble community. One community member described how older people have to learn to live with pain, and keep just enough patches to keep the pain at bay so they can share the rest with the intimidating family member or a person known to them to avoid further abuse and property damage. One community member described what happens when older, frail people go to the medical centre to get a new prescription:

Some of them [older people] don't even make it across the road...and there's people waiting for them...I've seen that. (Interview 22_003)

However, there is also a strong perception that some of those prescribed fentanyl are selling it to create additional income, or to purchase other drugs of choice:

Certainly I heard a story about someone who um...more or less says, 'if you can't beat em, join em!' If they're going to steal it off me, then I might as well sell it to them. (Interview 22_007)

Potential solutions recommended by participants

In terms of dispensing fentanyl patches, several possible solutions were put forward by the key informants:

- As with attention deficit/ hyperactivity disorder medication being kept and administered at school, one potential solution put forward is to have a home nurse visit daily or weekly to administer the medication rather than having a large supply in the home.

I think a lot of parents have turned to- school keeps medication? ... maybe a home nurse could go daily and administer or even weekly so that it's not a monthly dose sitting at home. (Interview 22_005)

- Having the patches administered by the hospital was also suggested but it was recognised that this was unlikely to be a feasible solution among this population:

Maybe one solution, they have to go to the hospital to get their medication. But that- a lot of older people don't have vehicles and can't get around like that you know, for the hospital to do-administer the medication. (Interview 22_008)

- A further suggestion was that patients return the fentanyl patch to the pharmacy after use for proper disposal, allowing records to be kept on the number of patches used, and preventing the reuse of patches.

- A key informant suggested that the Pharmacist only replace the patch when people are in the pharmacy, and another proposed that patches are collected from the Pharmacist as needed but stated that this solution may not be ideal due to dispensing fees:

...personally I'd rather charge one dispensing fee and they can come pick up one or two every couple of days, rather than go a box of ten or whatever it is but, [the Pharmacist] wants to charge dispensing fees for each time they come. You know so it's little things like that that sort of make it difficult. (Interview 22_007)

- Two community members proposed that people should be tested to determine if they have used the fentanyl before prescribing more, and one also recommended to replace the patches with injections of the drug.
- One community member advised that their medication was hidden and kept under lock and key, and suggested older people be supplied with a lockable box in which to keep their medication.

Other suggested solutions focused on treatment for people who misuse drugs:

- More local services for mental health issues.
- A drug and alcohol treatment facility located in Coonamble.
- Stronger and more accessible drug and alcohol inpatient and outpatient rehabilitation programs are needed, as are more specialised drug and alcohol workers.

Recommendations

It is imperative that a harm reduction approach be used in order to address the issues raised in this report. Harm reduction strategies are based on human rights principles in that they recognise that some people are more vulnerable to drug use than others (Barrett & Gallahue, 2012).

Importantly, most harm reduction strategies are inexpensive and relatively easy to implement.

They also have a high impact on individuals and community, and are preferred over policing type interventions (Stoicescu, 2012).

1. Safe dispensing of patches

Based on community input, this report recommends that the Coonamble Shire Council and the medical centre staff work closely with the pharmacist to develop a strategy similar to the methadone dispensing program, whereby patients come to the pharmacy when it is time to replace their patch. The program would involve the pharmacist safely disposing of the used patch that was handed back by the user and application of a new patch from the supply stored for the patient at the pharmacy. The purpose of this program is to protect elderly and frail community members from medication diversion and break and enter/theft, and allow them to feel safe in their homes. With no fentanyl stored in the home, the number of break and enters and thefts should decrease in this population. Additionally, the program may also reduce the number of people selling their medication for additional income due to the patches being applied in the pharmacy and the need to return the used patch, and as a result, lead to less fentanyl being available for drug use. For this program to be successful, a dispensing fee should only be applied once for each prescription.

Dispensing fees and transport may impact the success of this recommendation for some community members. It is recommended that fee relief for dispensing be targeted and funding sought for this approach. We also recommend that Council consults with community organisations who may have the capacity to provide transport for patients who require it due to distance, mobility or frailty.

2. Community awareness

As fentanyl overdoses and deaths continue to rise, it is clear that there is insufficient information about how to reduce the harms related to the drug available in the community. There is an urgent need for community awareness regarding the issues identified in this report.

Consideration should be given to a whole of community approach to drug use and misuse education that includes opportunity for individual, family and organisational programs of awareness. In addition, drug awareness should be rolled out across the local schools.

3. Appropriate number of mental health/drug and alcohol workers

Clearly there are insufficient numbers of appropriately qualified staff in the town to assist with the management of drug use and to manage people returning from rehabilitation. The relevant agencies need to be made aware of the lack of services and requests for more staff be made to relevant organisations.

4. Attitudes of health workers

Poor attitudes towards drug users was also reported by the key informants. There is an urgent need for professional development opportunities for those working in health care roles, especially those related to drug and alcohol services to ensure staff offer appropriate services and referrals to people as required.

5. Medical and pharmacy staff workshops

There is an urgent need for professional development opportunities for staff working in medical centres and pharmacies to ensure the effectiveness of dispensing and dispensing services and to provide a process similar to the dispensing of methadone as a way of managing and reducing drug diversion in the town. As reported elsewhere (Allen et al., 2015), fentanyl comes from general practitioners; hence, education must be targeted at them to ensure they are sufficiently

aware of illicit fentanyl use and strategies to ensure the patient actually needs the drug and has not received a similar script recently from another doctor.

References

- Allan, J., Herridge, N., Griffiths, P., Fisher, A., & Clarke, I. (2015). Illicit fentanyl use in rural Australia—an exploratory study. *J Alcohol Drug Depend*, 3(196), 1-7.
- Anex (2012). Harmaceuticals: Special forum on fentanyl injection and overdoses. Melbourne: Anex. Retrieved from <http://westvicphn.com.au/images/Harmaceuticals.pdf>
- Arvanitis, M. L., & Satonik, R. C. (2002). Transdermal fentanyl abuse and misuse. *The American Journal of Emergency Medicine*, 20(1), 58-59.
- Australian Bureau of Statistics (2016). QuickStats. Retrieved from <http://www.abs.gov.au/websitedbs/censushome.nsf/home/quickstats>
- Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings. Drug Statistics series no. 31. Cat. no. PHE 214. Canberra: AIHW.
- Banta, C. (2005). Trading for a high: An inside look at a 'pharming party,' the newest venue for teenage prescription-drug abuse. *Time*, 166(5), 35-35.
- Barratt, D. & Gallahue, P. (2012). Harm reduction and human rights. *Interights Bulletin*, 16, 188.
- Berge, K. H., Dillon, K. R., Sikkink, K. M., Taylor, T. K., & Lanier, W. L. (2012). Diversion of drugs within health care facilities, a multiple-victim crime: Patterns of diversion, scope, consequences, detection, and prevention. *Mayo Clinic Proceedings*, 87(7), 674-682.
- Bukstein, O. G. (2008). Prescription drug misuse in youths: Diversion of prescription drugs by high school and college students is on the rise. *Psychiatric Times*, 25(1), 54-59.
- Burgess, F. (2006). Pain treatment, drug diversion, and the casualties of war. *Pain Medicine*, 7(6), 474-475.

- Centres for Disease Control and Prevention (2012). National Center for Health Statistics. *NCHS Fact Sheet. NCHS Data on Drug Poisoning Deaths*. Atlanta, GA: CDC.
- Cicero, T. J., Shores, C. N., Paradis, A. G., & Ellis, M. S. (2008). Source of drugs for prescription opioid analgesic abusers: A role for the Internet? *Pain Medication*, 9, 718-723. doi:10.1111/j.1526-4637.2007.00323.x
- Cicero, T., Kurtz, S., Surratt, H. L., Ibanez, G. E., Ellis, M. S., Levi-Minzi, M. A., & Inciardi, J. A. (2011). Multiple determinants of specific modes of prescription opioid diversion. *Journal of Drug Issues*, 41, 283-304.
- Delahunty, B., & Putt, J. (2006). *The policing implications of cannabis, amphetamine and other illicit drug use in Aboriginal and Torres Strait Islander communities*. National Drug Law Enforcement Research Fund.
- Dobbin, M. (2014). *Pharmaceutical drug misuse in Australia*. Australian Prescriber. Retrieved from <https://www.nps.org.au/australian-prescriber/articles/pharmaceutical-drug-misuse-in-australia>
- Donaghey, K. (2014, June 6). Pensioners selling prescription drugs to dealers. Retrieved from <http://www.couriermail.com.au/news/queensland/pensioners-selling-prescription-drugs-to-dealers/news-story/3d35d8a2728c89ee0acfb252141abf1a>
- Dow, A. (2012, October 19). Pensioners selling deadly painkiller to addicts. Retrieved from <http://www.theage.com.au/victoria/pensioners-selling-deadly-painkiller-to-addicts-20121018-27u1d.html>
- Drug Enforcement Administration (2015). DEA issues nationwide alert on fentanyl as threat to health and public safety. Washington, DC: US Department of Justice, Drug Enforcement Administration. Retrieved from <http://www.dea.gov/divisions/hq/2015/hq031815.shtml>

- Dwyer, J. (2013). *Drug overdose deaths in Inner North West Melbourne*. Presentation to Yarra Drug Health Forum on pharmaceutical misuse. Coroners Court of Victoria, Coroners Prevention Unit.
- El-Aneed, A., Alaghebandan, R., Gladney, N., Collins, K., MacDonald, D., & Fischer, B. (2009). Prescription drug abuse and methods of diversion: The potential role of a pharmacy network. *Journal of Substance Use, 14*(2), 75-83.
- Firestone, M., Goldman, B., & Fischer, B. (2009). Fentanyl use among street drug users in Toronto, Canada: Behavioural dynamics and public health implications. *International Journal of Drug Policy, 20*(1), 90-92.
- Fischer, B., Bibby, M., & Bouchard, M. (2010). The Global Diversion of Pharmaceutical Drugs Non-medical use and diversion of psychotropic prescription drugs in North America: A review of sourcing routes and control measures. *Addiction, 105*(12), 2062-2070.
- Fischer, B., Jones, W., & Rehm, J. (2013). High correlations between levels of consumption and mortality related to strong prescription opioid analgesics in British Columbia and Ontario, 2005–2009. *Pharmacoepidemiology and Drug Safety, 22*(4), 438-442.
- Fischer, B., Rehm, J., Goldman, B., & Popova, S. (2008). Non-medical use of prescription opioids and public health in Canada: an urgent call for research and interventions development. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique, 99*(3), 182-184.
- Food and Drug Administration (2015). Fentanyl Transdermal System (marketed as Duragesic) Information. Retrieved from <https://www.fda.gov/Drugs/DrugSafety/ucm114961.htm>

- Ford, J. A., & Lacerenza, C. (2011). The Relationship Between Source of Diversion and Prescription Drug Misuse, Abuse, and Dependence. *Substance Use & Misuse*, 46(6), 819-827.
- Forgione, D. A., Neuenschwander, P., & Vermeer, T. E. (2001). Diversion of prescription drugs to the black market: what the states are doing to curb the tide. *Journal of Health Care Finance*, 27(4), 65-78.
- Gibson, A., Larance, B., Roxburgh, A., Degenhardt, L., & Black, E. (2007). *The extent of diversion of fentanyl for non-medical purposes in Australia: What do we know?* National Drug and Alcohol Research Centre (No. 265, p. 978). Technical Report.
- Gisev, N., Larance, B., Cama, E., Nielsen, S., Roxburgh, A., Bruno, R., & Degenhardt, L. (2017). A nationwide study of the extent and factors associated with fentanyl use in Australia. *Research in Social and Administrative Pharmacy*. doi: doi.org/10.1016/j.sapharm.2017.04.002 [ePub prior to publication].
- Green, T. C., Grau, L. E., Carver, H. W., Kinzly, M., & Heimer, R. (2011). Epidemiologic trends and geographic patterns of fatal opioid intoxications in Connecticut, USA: 1997–2007. *Drug and Alcohol Dependence*, 115(3), 221-228.
- Grimson, K. (2014, November 1). Massive mark up on the streets for deadly drug, coroner's court told. Retrieved from <http://www.dailyadvertiser.com.au/story/2665399/massive-mark-up-on-the-streets-for-deadly-drug-coroners-court-told/>
- Haydon, E., Rehm, J., Fischer, B., Monga, N., & Adlaf, E. (2005). Prescription drug abuse in Canada and the diversion of prescription drugs into the illicit drug market. *Canadian Journal of Public Health*, 96(6), 459-461.

- Hempstead, K., & Yildirim, E. O. (2014). Supply-side response to declining heroin purity: fentanyl overdose episode in New Jersey. *Health Economics*, 23(6), 688-705. doi: 10.1002/hec.2937
- Inciardi, J. A., Surratt, H. L., Cicero, T. J., & Beard, R. A. (2009a). Prescription opioid abuse and diversion in an urban community: The results of an ultrarapid assessment. *Pain Medicine*, 10, 537-548.
- Inciardi, J. A., Surratt, H. L., Cicero, T. J., Kurtz, S. P., Martin, S. S., & Parrino, M. W. (2009b). The 'black box' of prescription drug diversion. *Journal of Addictive Diseases*, 28(4), 332-347. doi: 10.1080/10550880903182986
- Keyes, K. M., Cerdá, M., Brady, J. E., Havens, J. R., & Galea, S. (2014). Understanding the rural-urban differences in nonmedical prescription opioid use and abuse in the United States. *American Journal of Public Health*, 104(2), e52-59. doi: 10.2105/AJPH.2013.301709
- Kramer, C., & Tawney, M. (1998). A fatal overdose of transdermally administered fentanyl. *The Journal of the American Osteopathic Association*, 98(7), 385-386.
- Leonhart, M. (2011). Statement of Michele M. Leonhart, Administrator, Drug Enforcement Administration. Hearing on "Responding To The Prescription Drug Epidemic: Strategies for Reducing Abuse, Misuse, Diversion, and Fraud". Drug Enforcement Administration, United States Department of Justice
- Loveday, B., Dev, A. & Thompson, R. (2010). *Fentanyl abuse in Queensland - Identification of emerging pharmaceutical drug misuse*. Australian Professional Society on Alcohol and Other Drugs Conference. Canberra, ACT.

Lucyk, S., & Nelson, L. (2016). Consequences of unsafe prescribing of transdermal fentanyl.

Canadian Medical Association Journal, 188(9), 638-639.

NPS MedicineWise (2006). Fentanyl patches (Durogesic) for chronic pain. Retrieved from

<https://www.nps.org.au/radar/articles/fentanyl-patches-durogesic-for-chronic-pain>

NSW Bureau of Crime Statistics and Research (2017). *NSW recorded crime statistics 2016*.

Retrieved from <http://www.bocsar.nsw.gov.au/Documents/RCS-Annual/Report-Recorded-Crime-Statistics-2016-rcs2016.pdf>

NSW Health (2015). Recognising and managing drug dependant persons: Notes for medical

practitioners. <http://www.health.nsw.gov.au/pharmaceutical/Documents/manage-drug-dependent-persons.pdf>

Partnership for a Drug-Free America (2009). The Partnership Attitude Tracking Study (PATS):

Teens 2008 Report. Retrieved from https://drugfree.org/wp-content/uploads/2011/04/Full-Report-FINAL-PATS-Teens-2008_updated.pdf

Reeves, M.D. & Ginifer C.J. (2002). Fatal intravenous misuse of transdermal fentanyl

Medical Journal of Australia, 177, 552-553

Rintoul, A.C., Dobbin, M.D., Drummer, O.H. & Ozanne-Smith, J. (2011). Increasing deaths

involving oxycodone, Victoria, Australia, 2000-9. *Injury Prevention*, 17, 254-259.

Roxburgh, A., Burns, L., Drummer, O., Pilgrim, J., Farrell, M. & Degenhardt, L. (2013). Trends

in fentanyl prescriptions and fentanyl-related mortality in Australia. *Drug and Alcohol*

Review, 32. 269-275

Talu, A., Rajaleid, K., Abel-Ollo, K., Rüütel, K., Rahu, M., Rhodes, T., ... & Uusküla, A. (2010).

HIV infection and risk behaviour of primary fentanyl and amphetamine injectors in

Tallinn, Estonia: Implications for intervention. *International Journal of Drug Policy*, 21(1), 56-63.

US Department of Health and Human Services (2009). Substance Abuse and Mental Health Services Administration. Office of Applied Studies. National Survey on Drug Use and Health. ICPSR29621-v6. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2015-11-23. <https://doi.org/10.3886/ICPSR29621.v6>

Victorian Health (2012). Fentanyl patch misuse: Serious injury, overdose and death. Retrieved from <https://www2.health.vic.gov.au/about/publications/policiesandguidelines/Fentanyl-patch-misuse-serious-injury-overdose-and-death>