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Trends in property and illicit drug crime around the Medically Supervised Injecting Centre in Kings Cross: 2012 update

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Aim: *The Medically Supervised Injecting Centre (MSIC) opened in Kings Cross in May 2001. This paper examines whether there have been: (i) increases in the volume of robbery, theft and illicit drug offences in Kings Cross Local Area Command (LAC) up until December 2012 or; (ii) increases in the percentage of Kings Cross illicit drug offences occurring in the immediate vicinity of the MSIC.*

Method: *The volume of crime was indicated by the number of criminal incidents of robbery, theft and specific illicit drug offences recorded by NSW police between January 1999 and December 2012. We measured trends in these offences in Kings Cross LAC from May 2001 (after the MSIC was opened) to December 2012 and compared them to trends in the rest of Sydney. Spatial analyses were used to determine whether incidents of possess/deal cocaine, narcotics or amphetamines were concentrated around the MSIC.*

Results: *With a few minor exceptions there has been a decline in the incidence of robbery and theft incidents in Kings Cross LAC since the MSIC opened. This is consistent with what occurred in the rest of Sydney. The trend in possess/deal cocaine, narcotics or amphetamines was relatively stable from May 2001 through December 2008 but then increased from January 2009 in both Kings Cross LAC and the rest of Sydney. There has been no noticeable trend in the percentage of illicit drug offences which occurred within 50 metres of the MSIC.*

Conclusion: *The trends in property crime incidents and illicit drug crime incidents were the same in Kings Cross LAC and the rest of Sydney after the opening of the MSIC.*

Keywords: *Drugs, Medically Supervised Injecting Centre, property crime, Kings Cross*

INTRODUCTION

The NSW Bureau of Crime Statistics and Research (BOCSAR) has conducted four previous studies examining the impact of Sydney's Medically Supervised Injecting Centre (MSIC) on recorded incidents of robbery, theft and illicit drug offences in the Kings Cross Local Area Command (LAC). The initial evaluation conducted by Freeman et al. (2005) covered the period January 1999 through September 2002 and compared changes in the frequency of recorded incidents of theft and robbery in the Kings Cross LAC (after the opening of the MSIC in May 2001) with trends in the rest of Sydney. This study also measured changes in the number of drug-related loiterers outside the MSIC.

Freeman et al. (2005) found no evidence of any increase in robbery or theft incidents in the Kings Cross LAC after the MSIC commenced, nor or any increase in drug-related loitering. Rather, the Australia-wide heroin shortage, which had become apparent just after Christmas 2000 (Rouen et al. 2001) was the major explanatory factor for changes in the frequency of these crimes in Kings Cross, rather than the MSIC itself. Specifically there was an initial increase in robbery incidents around the time of the heroin shortage which has been linked to a transient increase in the availability of cocaine (Degenhardt, Conroy, Gilmour, & Collins, 2005; Donnelly, Weatherburn, & Chilvers, 2004). This was then followed by a consistent declining trend in robbery and theft thereafter. There was no significant change in the level of either robbery or theft incidents in Kings Cross after the MSIC commenced (Freeman et al. 2005).

Subsequent follow-up evaluations conducted by BOCSAR found that the total number of robbery and theft offences significantly declined in Kings Cross LAC after the MSIC opened in May 2001

(Donnelly & Snowball, 2006; Snowball, Burgess, & Price, 2008; Fitzgerald, Burgess, & Snowball, 2010) and continued to decline up until March 2010. Similar declines in total robbery and total theft offences were also observed throughout the rest of Sydney. The only exception to this was fraud, which increased in both the Kings Cross LAC and the rest of Sydney up until March 2010. Steal from retail store had also increased in the Kings Cross LAC during this same period but was stable throughout the rest of Sydney (Fitzgerald et al., 2010).

These evaluations also examined changes in the number of offences involving illicit drugs which could be injected (i.e. cocaine, narcotics and amphetamines). Two specific offence categories were examined for each of these three drug types; possess/use offences and dealing/trafficking offences. Fitzgerald et al. (2010) found in the Kings Cross LAC that the overall number of these illicit drug offences was stable from May 2001 through March 2010. Dealing/trafficking in cocaine, narcotics and amphetamines and possession/use of narcotics and amphetamines were also stable over this period. There was, however, an increasing trend in possession/use of cocaine in the Kings Cross LAC. By contrast, total illicit drug offences had increased throughout the rest of Sydney over the same period. In particular, increases in possession/use of cocaine and amphetamines and dealing/trafficking in cocaine were observed. A significant downward trend was observed for possession/use of narcotics and dealing/trafficking in narcotics in the rest of Sydney.

Spatial analyses were also conducted in the evaluations conducted by Snowball et al. (2008) and Fitzgerald et al. (2010), in order to assess whether there was any clustering of illicit drug offences around the MSIC. It was found that only a very small percentage of the illicit drug offences occurred within 50 metres of the MSIC. For example, less than ten per cent of illicit drug offences (i.e. incidents of dealing/trafficking and possession/use of cocaine, narcotics and amphetamines) occurred within 50 metres of the MSIC in 2009 (Fitzgerald et al., 2010).

The current study repeats the analyses that were performed by Fitzgerald et al. (2010) using a longer follow-up period. Trends in robbery, theft and selected illicit drug offences recorded by police in the Kings Cross LAC are analysed from the commencement of the MSIC (May 2001) until December 2012. These results are compared with similar analyses conducted throughout the rest of Sydney over the same time period. Findings from spatial analyses are also reported to consider whether there has been a change in the incidence of selected illicit drug offences in the immediate vicinity of the MSIC over the period 2001 through 2012.

METHOD

Data

As noted, the current study uses the number of robbery, theft and illicit drug incidents reported to NSW police to measure changes in these crime categories over time. There are two issues that arise when using police data to measure changes in crime types; (1) not all crimes are reported to police and (2) some crime types can be influenced by changes in police enforcement activity.

The 2009-10 crime victimisation survey conducted by the Australian Bureau of Statistics (ABS) found in New South Wales (NSW) that the percentage of victims who reported a crime to the police was 53 per cent for robbery, 70 per cent for break-in, 85 per cent for motor vehicle theft and 54 per cent for theft from a motor vehicle (Australian Bureau of Statistics, 2011). Weatherburn (2011) argues that while victim survey data show that recorded crime data do not reflect the *actual* incidence of a particular crime type in the community, these data can still be used to measure *trends or changes* in crime incidents in a particular jurisdiction, given that reporting rates of most crime categories generally do not vary much over time.

Having said this, difficulties can arise when using police data to measure changes in illicit drug use or dealing in illicit drugs because the recorded number of these incident types is particularly sensitive to changes in police enforcement activity. Fitzgerald et al. (2010), however, cite research conducted by Holmes (2010) and Rosenfeld and Decker (1999) which has found '*a strong correlation between the frequency of arrest for injecting drug use/possession and various other indices of injecting drug use*' (p. 1). Furthermore, using time series methods Moffatt, Wan and Weatherburn (2012) found that emergency department admissions for opioids, amphetamines and cocaine were predictive of arrests for each drug type (both contemporaneously and in subsequent months). These studies suggest that police data can still be useful to assess changes in actual illicit drug use, however, the conclusions drawn from such analyses should be treated with some caution.

The monthly number of recorded robbery, theft and illicit drug incidents over the period January 1999 through December 2012, were extracted from the NSW Police's Computerised Operating Policing System (COPS). These aggregates were obtained for the Kings Cross Local Area Command (LAC), as well as for the rest of Sydney (Central Metropolitan, North West Metropolitan and South West Metropolitan regions). Categories of robbery included: robbery without a weapon; robbery with a firearm; robbery with a weapon other than a firearm and; total robbery. Categories of theft included break and enter (dwelling and non-dwelling respectively); receiving or handling stolen goods; motor vehicle theft; stealing (from motor vehicle, retail store, dwelling and person, respectively); fraud; other theft incidents and; total theft.[1] Illicit drug offences included only injecting drugs (i.e. cocaine, narcotics and amphetamines). The specific illicit drug offence categories examined included: possession and/or use of cocaine; possession and/or use of narcotics; possession and/or use of amphetamines; dealing, trafficking in cocaine; dealing, trafficking in narcotics; dealing, trafficking in amphetamines and; total illicit drug offences (possession and/or use or dealing, trafficking of cocaine or narcotics or amphetamines).

The total number of robbery, theft and illicit drug incidents were graphed over the period January 1999 through December 2012 for the Kings Cross LAC and for the rest of Sydney. Changes in the total number of theft, robbery and illicit drug offences were analysed over the period May 2001 (the month that the MSIC opened) through December 2012 using Kendall's rank-order correlation test to assess whether there has been an overall increasing or decreasing trend in the number of recorded incidents over the specified time period. Kendall's test does not take account of seasonal fluctuations and is insensitive to short-run changes over long time series. This is a problem for the current study because the data series we examined consists of almost 12 years of monthly data. For these reasons, in order to check the reliability of the overall analyses, Kendall's rank-order test for trend was also calculated over shorter periods of time including: May 2001 through December 2004, January 2005 through December 2008 and January 2009 through December 2012.

The rate of theft, robbery and illicit drug incidents per 100,000 population were also calculated for the Kings Cross LAC and for the rest of Sydney in order to account for increases in population over the 12-year period examined. Population data were obtained from the Australian Bureau of Statistics (2012).[2] Caution must be used when interpreting rates for the Kings Cross LAC, as they are likely to be inflated by the high number of transient visitors who frequent that area but do not reside there.

Spatial analyses

To show their spatial distribution, the total numbers of possess/use and deal/traffic cocaine, narcotics or amphetamines in the Kings Cross LAC were mapped. The crime maps were produced using ArcMap 10 and were designed to pinpoint the precise location of drug incidents in relation to the MSIC. MapMarker v15 was used to geocode the criminal incidents according to the street address or landmark information recorded by the police for each incident. Incidents occurring at Kings Cross Railway Station were geocoded to the underground platforms rather than the street entrances. Unfortunately, many criminal incidents do not have a precise street address recorded and hence cannot be accurately geocoded. Most commonly the street name on which the incident occurred will be recorded without a street number. Only incidents geocoded to an exact street address or location/landmark were included in the analyses, excluding about 60 per cent of the recorded drug offences. The accuracy of the geocoding is shown in Table A1 in the Appendix.

Repeat victimisation maps were created for the 2012 incidents and the total incidents occurring between 2001 and 2012. On the repeat victimisation map, each criminal incident is indicated by a coloured dot, with the dots increasing in size if multiple criminal incidents took place at exactly the same location. The number of incidents occurring within 50 metres of the MSIC was calculated using the data geocoded to a precise address or landmark.

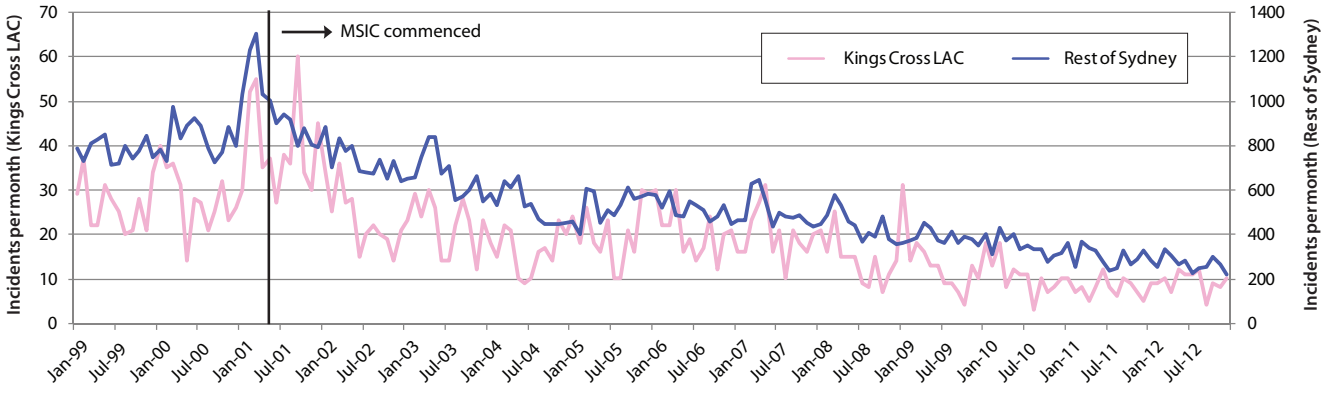
RESULTS

Robbery offences

Figure 1 shows changes in the total number of recorded robbery incidents per month over the period January 1999 through December 2012, for the Kings Cross LAC and for the rest of Sydney. Differently scaled (though proportional) vertical axes were used in order to compare the smaller Kings Cross area with the rest of Sydney.

Since the MSIC opened in May 2001, there has been a steady decline in the number of robbery incidents both in the Kings Cross LAC and the rest of Sydney. Table 1 provides results from the Kendall's tau analyses over the period May 2001 through December 2012. In terms of total robbery incidents, there was a statistically significant decline in the King Cross LAC, with robbery incidents dropping from 281 incidents in 2002 to 112 incidents in 2012 ($\tau_{Ken,b}$ = -0.56, $p < .001$). The significant decline in total robbery incidents also occurred throughout the rest of Sydney. In the rest of Sydney, robbery incidents

Figure 1. Number of robbery incidents[a] in Kings Cross LAC and in the rest of Sydney: Jan 1999 to Dec 2012



[a] Robbery includes robbery with a firearm, robbery with a weapon not a firearm and robbery without a weapon

Table 1. Changes in the number of robbery incidents in Kings Cross LAC and the rest of Sydney: May 2001 to December 2012

	Kings Cross	Rest of Sydney
	May 2001 to Dec 2012	May 2001 to Dec 2012
Robbery with a firearm	Down	Down
Robbery without a weapon	Down	Down
Robbery with a weapon not a firearm	Down	Down
Total robbery	Down	Down

dropped from 8,802 incidents in 2002 to 3,267 incidents in 2012 ($\tau_{Ken,b}$ = -0.79, $p < .001$). The significant downward trend in total robbery offences was also evident in both the Kings Cross LAC and the rest of Sydney when the trend test was applied to shorter periods of time.[3]

There was also a significant decline in the rate of total robbery incidents in the Kings Cross LAC, decreasing from 1,646 incidents per 100,000 persons in 2002 to 563 incidents per 100,000 persons in 2012 ($\tau_{Ken,b}$ = -0.60, $p < .001$). A significant decline in the rate of total robbery incidents was also observed across the rest of Sydney, where robbery incidents dropped from 229 incidents per 100,000 persons in 2002 to 76 incidents per 100,000 persons in 2012 ($\tau_{Ken,b}$ = -0.81, $p < .001$).

Table 1 also shows that similar statistically significant declines occurred in both Kings Cross LAC and the rest of Sydney for the three subcategories of robbery; robbery with a firearm, robbery without a weapon and robbery with a weapon not a firearm.

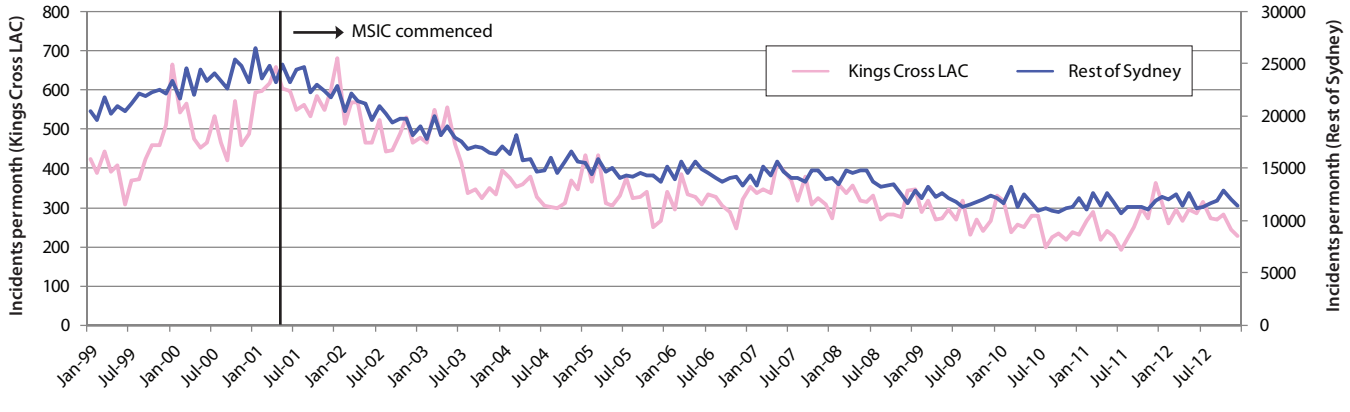
Theft offences

Figure 2 shows changes in the total number of recorded theft incidents per month in the Kings Cross LAC and the rest of Sydney over the period January 1999 through December 2012. Declines in total theft incidents are apparent from May 2001 in both locations. Table 2 provides results from the Kendall's tau analyses of total theft incidents over the period May 2001 through December 2012. Total theft incidents showed a statistically significant decline in the King Cross LAC ($\tau_{Ken,b}$ = -0.62, $p < .001$) and throughout the rest of Sydney ($\tau_{Ken,b}$ = -0.79, $p < .001$). In 2002, 6,177 theft incidents were recorded in the Kings Cross LAC but by 2012 this had declined to 3,329 recorded incidents. For the rest of Sydney, a total of 246,128 theft incidents were recorded in 2002 and this declined to 143,982 incidents in 2012. Analyses conducted over shorter periods of time showed that the decline in the total number of theft offences was greatest during the period May 2001 through December 2004 in both the Kings Cross LAC and the rest of Sydney. Having said this, there was still a significant downward trend observed in the total number of theft incidents in both locations for the period January 2005 through December 2012.[4]

There was also a significant decline in the rate of total theft incidents in both the Kings Cross LAC and the rest of Sydney. In the Kings Cross LAC, the rate decreased from 36,174 incidents per 100,000 persons in 2002 to 16,724 incidents per 100,000 persons in 2012 ($\tau_{Ken,b}$ = -0.68, $p < .001$). For the rest of Sydney, the total theft rate decreased from 6,399 incidents per 100,000 persons in 2002 to 3,359 incidents per 100,000 persons in 2012 ($\tau_{Ken,b}$ = -0.83, $p < .001$).

Table 2 summarises the trend in the 10 subcategories of theft over the period May 2001 through December 2012. In the Kings Cross LAC there were significant downward trends in eight of the theft categories examined; including break and enter dwelling, break and enter non-dwelling, receiving or handling stolen goods, motor vehicle theft, steal from motor

Figure 2. Number of theft incidents[a] in Kings Cross LAC and in the rest of Sydney: Jan 1999 to Dec 2012



[a] Theft includes break and enter, receiving stolen goods, steal incidents, vehicle theft, fraud and other theft

Table 2. Changes in the numbers of theft incidents in Kings Cross LAC and the rest of Sydney: May 2001 to December 2012

	Kings Cross	Rest of Sydney
	May 2001 to Dec 2012	**May 2001 to Dec 2012**
Break and enter dwelling	Down	Down
Break and enter non-dwelling	Down	Down
Receiving or handling stolen goods	Down	Down
Motor vehicle theft	Down	Down
Steal from motor vehicle	Down	Down
Steal from retail store	Up	Stable
Steal from dwelling	Down	Down
Steal from person	Down	Down
Fraud	Up	Up
Other theft	Down	Down
Total theft	Down	Down

vehicle, steal from dwelling, steal from person and other theft. Similar declines occurred throughout the rest of Sydney in these eight theft subcategories. In contrast, significant increases in fraud incidents were observed in both the Kings Cross LAC ($\tau_{Ken,b}$ = 0.30, p < .001) and the rest of Sydney ($\tau_{Ken,b}$ = 0.38, p < .001). In the Kings Cross LAC, the number of fraud incidents increased from 429 in 2002 to 735 in 2012. In the rest of Sydney, the number of fraud incidents increased from 24,643 in 2002 to 31,197 in 2012. The only difference between the two locations in terms of trends in theft offences was for steal from retail store offences. In Kings Cross LAC, there was a significant increase in steal from retail store incidents over the study period, while in the rest of Sydney steal from retail store incidents remained stable. It was also found that steal from retail store incidents remained stable in both Kings Cross LAC and the rest of Sydney immediately after the MSIC opened (May 2001 through December 2004). There were then significant increases both Kings Cross LAC and the rest of Sydney in steal from retail store incidents over the period January 2005 through December 2012. [5]

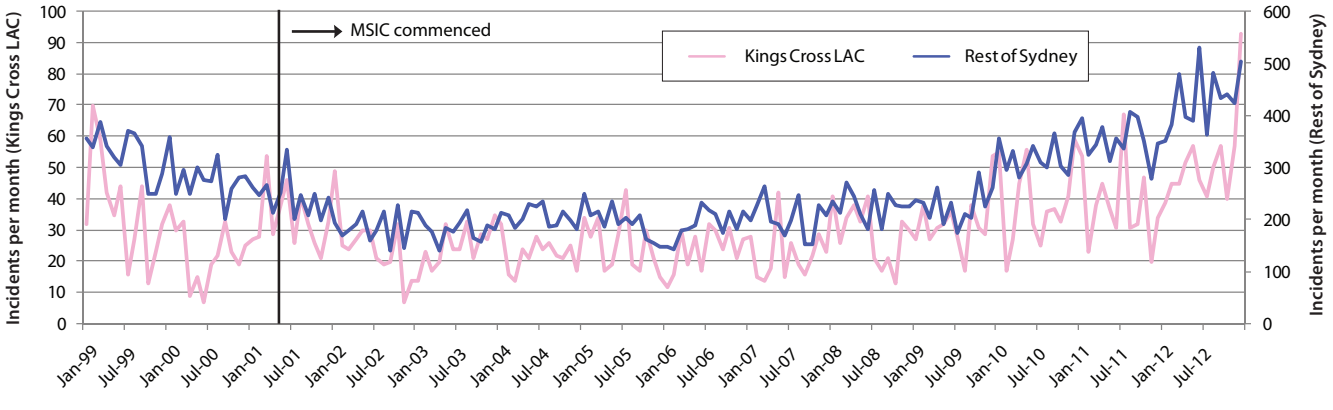
Illicit drug offences

Figure 3 shows changes in the total number of illicit drug incidents per month in the Kings Cross LAC and the rest of Sydney for the period January 1999 through December 2012. Figure 3 shows that the total number of illicit drug offences in both these locations declined from January 1999 to January 2001. The number of drug incidents then stabilised in early 2002 in both locations but then began to increase from 2009.

Table 3 summarises the results from the Kendall's tau analyses of the total illicit drug incidents recorded over the period May 2001 through December 2012 in the Kings Cross LAC and the rest of Sydney. Also summarised in this table is the Kendall results for each of the subcategories for this offence type.

In terms of total illicit drug offences, there was a significant increase in both the Kings Cross LAC ($\tau_{Ken,b}$ = 0.32, p < .001) and the rest of Sydney ($\tau_{Ken,b}$ = 0.50, p < .001) over the period examined. However, given the change in the trend pattern over this 12-year period which was apparent from Figure 3, it is also important to examine the trend patterns across

Figure 3. Number of drug incidents [a] in Kings Cross LAC and in the rest of Sydney: Jan 1999 to Dec 2012



[a] Drug offences include possesion/use and deal/traffic amphetamines, narcotics and cocaine

adjacent periods of time. These additional analyses showed that in the Kings Cross LAC there was an initial decline in total illicit drug offences until December 2004, which then stabilised from January 2005 until December 2008. For the rest of Sydney the trend was initially stable until December 2004 and then increased slightly from January 2005 up until December 2008.[6] In contrast, during the period January 2009 through December 2012, there was a significant increase in the number of total illicit drug incidents in both the Kings Cross LAC ($\tau_{Ken,b}$ = 0.38, p < .001) and the rest of Sydney ($\tau_{Ken,b}$ = 0.68, p < .001). In Kings Cross LAC, there were 388 total illicit drug incidents recorded in 2009 which increased to 622 incidents in 2012. For the rest of Sydney, there were 2,721 illicit drug incidents recorded in 2009 which increased to 5,172 incidents in 2012.

Similar results were found when trend tests were applied to crime rates (per 100,000 population) instead of criminal incidents. During the period May 2001 through December 2008, there was a significant downward trend in the rate of total illicit drug offences ($\tau_{Ken,b}$ = -0.15, p = .031) in the Kings Cross LAC. As an example, while the rate of total illicit drug offences was 1,745 per 100,000 persons in the Kings Cross LAC in 2002, it was only 1,391 per 100,000 persons in 2007.[7] This was followed by a significant increase in the rate of total illicit drug offences in the Kings Cross LAC, from 1,966 per 100,000 persons in 2009 to 3,125 per 100,000 persons in 2012 ($\tau_{Ken,b}$ = 0.36, p < .001). For the rest of Sydney, there was no significant upward or downward trend in the rate of total illicit drug offences ($\tau_{Ken,b}$ = 0.00, p = .992) during the period May 2001 through December 2008. There was, however, a significant increase in the rate of total illicit drug throughout the rest of Sydney from January 2009 through December 2012; increasing from 65 per 100,000 persons in 2009 to 121 per 100,000 persons in 2012 ($\tau_{Ken,b}$ = 0.67, p < .001).

Table 3 also shows that within the Kings Cross LAC there were significant increases in the possession/use of cocaine, narcotics and amphetamines from May 2001 to December 2012,[8] while in the rest of Sydney there were significant increases in the possession/use of cocaine and amphetamines over this same period.[9] In terms of dealing/trafficking in illicit drugs, there was a small, but significant, decline in cocaine in the Kings Cross LAC,[10] while trends in dealing/trafficking narcotics and amphetamines remained stable. In the rest of Sydney there was an increase in dealing/trafficking cocaine and amphetamines while there was a decline in dealing/trafficking narcotics.[11]

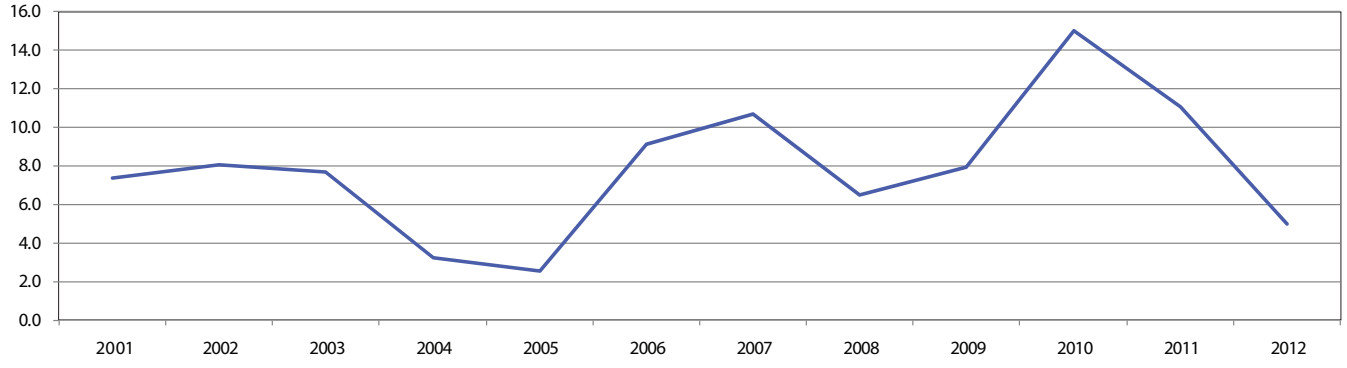
Spatial analysis

Figure 4 shows the percentage of possess/use and deal/traffic cocaine, narcotics and amphetamines in the Kings Cross LAC which were known to have occurred within 50 metres of the

Table 3. Changes in the numbers of drug incidents in Kings Cross LAC and the rest of Sydney: May 2001 to December 2012

	Kings Cross	Rest of Sydney
	May 2001 to Dec 2012	**May 2001 to Dec 2012**
Possession and/or use of cocaine	Up	Up
Possession and/or use of narcotics	Up	Stable
Possession and/or use of amphetamines	Up	Up
Dealing or trafficking in cocaine	Down	Up
Dealing or trafficking in narcotics	Stable	Down
Dealing or trafficking in amphetamines	Stable	Up
Total illicit drug offences	Up	Up

Figure 4. Percentage of possess/use and deal/traffic cocaine, narcotics and amphetamine incidents reported in the Kings Cross LAC occurring within 50 metres of the MSIC, 2001-2012



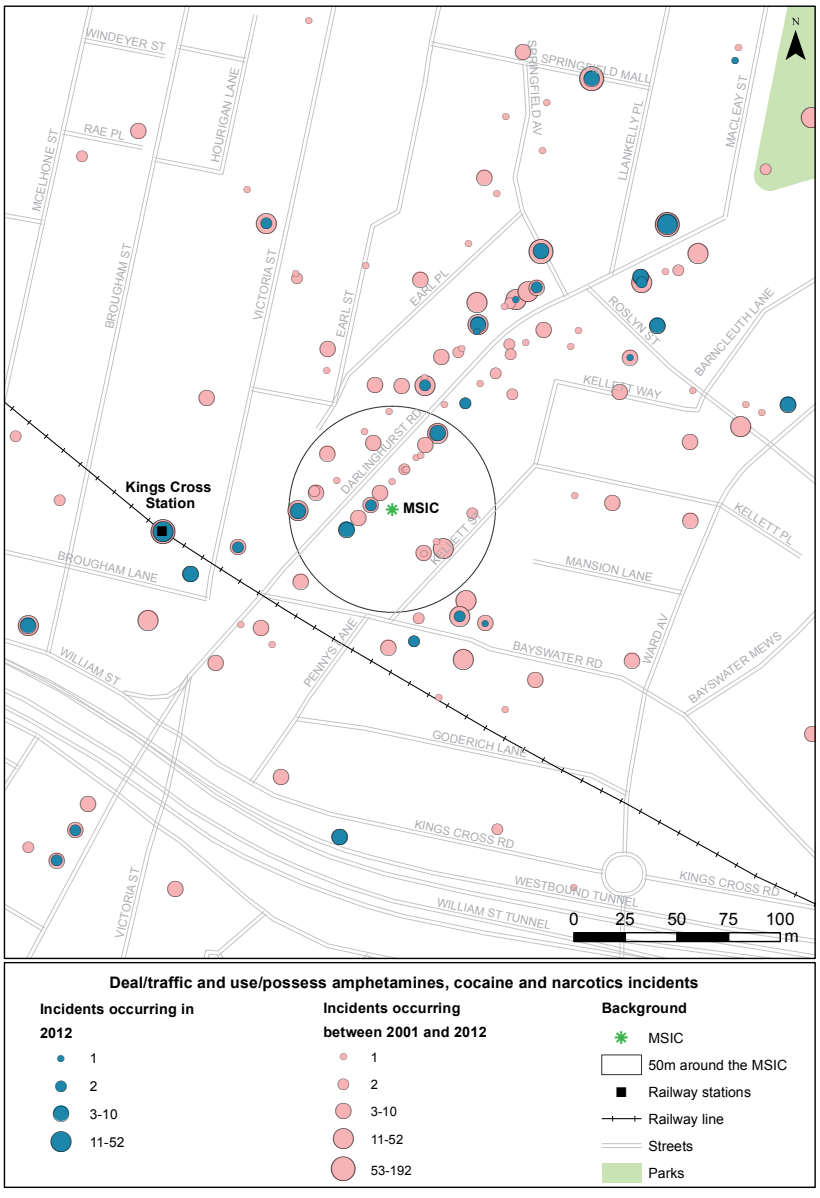
MSIC. The raw data is shown in Table A2 of the Appendix. Figure 4 shows that a relatively small percentage of incidents involving these illicit drugs took place within 50 metres of the MSIC (ranging from a minimum of 2.5% of incidents in 2005 to a maximum of 15.0% in 2010). The percentage of illicit drug incidents occurring within 50 metres of the MSIC fluctuated between 2001 and 2012 with no consistent trend either up or down. In 2012, only five per cent of these illicit drug offences occurred within 50 metres of the MSIC.

In order to illustrate the relationship between the MSIC and illicit drug incidents, it is useful to visually examine the spatial distribution in Kings Cross over the period 2001 through 2012. Figure 5 shows the most common sites for these illicit drug incidents, with the blue circles showing the relative number for 2012 and the pink circles showing the relative number for the period 2001 through 2012 combined. Figure 5 shows that the most common sites for the mapped illicit drug offences were: Darlinghurst Road, Bayswater Road and Kings Cross railway station. This map also shows the 50 metre radius around the MSIC used to identify the incidents included in the analysis. From Figure 5, it is clear that only a minority of these illicit drug incidents occur within 50 metres of the MSIC.

DISCUSSION

This study examined trends in robbery, theft and specific illicit drug incidents in Kings Cross LAC since the opening of the MSIC in May 2001 up until December 2012. These trends were compared with recorded crime data from the rest of Sydney over the same period. Statistical analyses were conducted to identify overall trends and spatial analyses were used to provide information about the location of illicit drug offences in the immediate vicinity of the MSIC.

Figure 5. Repeat incident map for possess/use and deal/traffic cocaine, narcotics and amphetamines incidents* in the Kings Cross LAC, 2001 to 2012



* *This figure only shows illicit drug incidents geocoded to the precise address or location/landmark*

The results of these analyses were consistent with previous BOCSAR MSIC evaluations in showing a significant downward trend in robbery and theft incidents after the MSIC was opened in Kings Cross LAC in May 2001 (a downward trend which continued until December 2012). Significant downward trends in robbery and theft incidents were also evident across the rest of Sydney over the same period. Significant downward trends in each of the three subcategories of robbery and in eight of the 10 subcategories of theft were also apparent in the Kings Cross LAC and the rest of Sydney from May 2001 through December 2012. Fraud and steal from retail store offences were the only offence subcategories which showed a different pattern of results. In both the Kings Cross LAC and the rest of Sydney, there was a significant increase in fraud incidents observed from May 2001 through December 2012. In the Kings Cross LAC, there was a significant increase in steal from retail store offences over the whole study period examined, however this increase was not observed across the rest of Sydney. Further analyses found that the trend in steal from retail store incidents was stable in both Kings Cross LAC and the rest of Sydney during the period immediately after the MSIC opened (May 2001 through December 2004). There was then a significant increase in steal from retail store incidents in both Kings Cross LAC and the rest of Sydney from January 2005 through December 2012. Overall these results suggest that the opening of the MSIC has had no negative impact on property crime levels in the Kings Cross area.

The heroin shortage which occurred in NSW has probably contributed to the beneficial impact on the levels of property crime in Kings Cross LAC. Degenhardt, Day et al. (2005) outlined the effects of the sustained heroin shortage in three Australian jurisdictions. They report that in NSW there was an initial, short-term increase in robbery (and cocaine use) immediately after the heroin shortage began in January 2001, but this increase was not sustained. Over the longer term, there was a significant decrease in property crime and this decline continued up until 2002. It is worth noting that the context in which the heroin shortage occurred in NSW has also contributed to the sustained reduction in property crime (Weatherburn, 2005). Moffatt, Weatherburn, and Donnelly (2005) looked at the drop in property crime more broadly in terms of other predictive variables in NSW. In addition to the reduction in non-fatal heroin overdoses, increased re-registrations for pharmacotherapy, increased aggregate prison sentence time for burglary, a decline in long-term male unemployment and increased consumer sentiment was predictive of the decline in property crime.

In contrast to robbery and theft incidents, a significant upward trend in illicit drug offences involving cocaine, narcotics and amphetamines was evident in the Kings Cross LAC, over the period May 2001 through December 2012. However, this upward trend was not unique to the Kings Cross area but was apparent across the rest of Sydney over the same period. Furthermore, analyses showed that this upward trend in illicit drug offences was not uniform across the 12-year study period. Applying trend tests to shorter time periods found that the total number of illicit drug incidents was relatively stable immediately after the MSIC opened in Kings Cross in 2001, but then increased significantly from 2009 through 2012. This increased trend from 2009 was also apparent across the rest of Sydney. Additional spatial analyses showed that over the period 2001 through 2012, only a very small percentage of illicit drug incidents (cocaine, narcotics or amphetamines) occurred within 50 metres of the MSIC, and that there was no consistent upward or downward trend in this percentage across the 12-year period examined. Together these data suggest that the overall upward trend in illicit drug incidents observed in the Kings Cross LAC since May 2001 cannot safely be attributed to the opening of the MSIC.

The current evaluation found no evidence that the MSIC had a negative impact on property crime and little evidence that it had an adverse impact on drug use and dealing. It is true that recorded drug offences have been increasing in Kings Cross since 2009 but this increase occurred eight years after the MSIC opened and is apparent throughout Sydney, not just in Kings Cross. It is also worth noting that only a small proportion of recorded drug offences occurred in the immediate vicinity of the MSIC. An obvious limitation of this study is that other outcomes, such as safe needle disposal and drug overdoses, have not been considered here. Analyses of these additional data sources over the 12-year period since the MSIC opened in Kings Cross, would allow for stronger conclusions to be made regarding its efficacy in minimising the harm associated with illicit drug use.

NOTES

1 Robbery incidents differ from theft incidents in that they involve the offender either using or threatening to use force against the victim.

2 As no population estimates were available for 2012 at the time the analysis was conducted, rates for 2012 were calculated using 2011 population estimates. To calculate rates for the rest of Sydney, the population estimates for the Central Coast Statistical Subdivision (SSD) were subtracted from the Sydney Statistical Division (SD) population estimates. This was because the Central Coast SSD contains the Brisbane Waters and Tuggerah Lakes LACs (Gosford and Wyong areas), and these LACS were not included in the definition of the rest of Sydney for the purpose of these analyses. Also, the ABS population estimates for the 2011 postcode (Potts Point, Elizabeth Bay, Rushcutters Bay and Woolloomooloo delivery areas) were also subtracted from the Sydney SD population estimate to remove those who reside near the Kings Cross area. These postcode population data were only available up until 2010, so the 2010 estimate was used for the 2011 and 2012 calendar years. For the Kings Cross LAC the population estimates from the 2011 postcode were applied to calculate the rates.

3 Over the period May 2001 through December 2004, there was a significant decline in total robbery incidents in Kings Cross LAC ($\tau_{Ken,b}$ = -0.51, $p < .001$) and also in the rest of Sydney ($\tau_{Ken,b}$ = -0.72, $p < .001$). This decline continued in Kings Cross LAC during the period January 2005 through December 2008 ($\tau_{Ken,b}$ = -0.31, $p = .002$) and also during the subsequent period January 2009 through December 2012 ($\tau_{Ken,b}$ = -0.28, $p = .007$). This significant decline in robbery incidents also continued throughout the rest of Sydney during January 2005 through December 2008 ($\tau_{Ken,b}$ = -0.37, $p < .001$) and also during January 2009 through December 2012 ($\tau_{Ken,b}$ = -0.60, $p < .001$).

4 There was a significant and very large decline in total theft incidents over the period May 2001 through December 2004 in Kings Cross LAC ($\tau_{Ken,b}$ = -0.68, $p < .001$) and also in the rest of Sydney ($\tau_{Ken,b}$ = -0.85, $p < .001$). There was a significant decline in total theft incidents during the period January 2005 through December 2012 in Kings Cross LAC ($\tau_{Ken,b}$ = -0.42, $p < .001$) and in the rest of Sydney ($\tau_{Ken,b}$ = -0.60, $p < .001$). The decline during the final four years (January 2009 through December 2012) was much smaller and non-significant in both Kings Cross LAC ($\tau_{Ken,b}$ = -0.09, $p = .393$) and in the rest of Sydney ($\tau_{Ken,b}$ = -0.12, $p = .213$).

5 Overall there was a significant increase in the incidence of steal from retail store in Kings Cross LAC ($\tau_{Ken,b}$ = 0.34, $p < .001$) which remained stable throughout the rest of Sydney ($\tau_{Ken,b}$ = 0.09, $p = .108$). The trend was stable over the period May 2001 through December 2004 in both Kings Cross LAC ($\tau_{Ken,b}$ = 0.10, $p = .036$) and in the rest of Sydney ($\tau_{Ken,b}$ = -0.19, $p = .069$). The trend increased over the period January 2005 through December 2012 in both Kings Cross LAC ($\tau_{Ken,b}$ = 0.37, $p < .001$) and in the rest of Sydney ($\tau_{Ken,b}$ = 0.31, $p < .001$). In Kings Cross LAC the steal from retail store incidents increased from 66 in 2005 to 180 in 2012 while throughout the rest of Sydney it increased from 11,431 incidents in 2005 to 13,032 in 2012.

6 In Kings Cross LAC there was a significant decline in total illicit drug offences during the period May 2001 through December 2004 ($\tau_{Ken,b}$ = -0.24, $p = .027$) which then stabilised from January 2005 through December 2008 ($\tau_{Ken,b}$ = 0.05, $p = .643$). Throughout the rest of Sydney the trend was initially stable from May 2001 through December 2004 ($\tau_{Ken,b}$ = -0.12, $p = .253$) and then increased slightly from January 2005 through December 2008 ($\tau_{Ken,b}$ = 0.20, $p = .048$).

7 There was an increase in the total illicit drug rate in Kings Cross LAC from 1,391 per 100,000 in 2007 to 1,815 per 100,000 in 2008.

8 Kings Cross LAC: possession and/or use of cocaine ($\tau_{Ken,b}$ = 0.39, $p < .001$); possession and/or use of narcotics ($\tau_{Ken,b}$ = 0.15, $p = .013$); possession and/or use of amphetamines ($\tau_{Ken,b}$ = 0.34, $p < .001$).

9 Rest of Sydney: possession and/or use of cocaine ($\tau_{Ken,b}$ = 0.58, $p < .001$); possession and/or use of amphetamines ($\tau_{Ken,b}$ = 0.64, $p < .001$).

10 Kings Cross LAC: dealing or trafficking in cocaine ($\tau_{Ken,b}$ = -0.16, $p = .011$).

11 Rest of Sydney: dealing or trafficking in cocaine ($\tau_{Ken,b}$ = 0.25, $p < .001$); dealing or trafficking in amphetamines ($\tau_{Ken,b}$ = 0.35, $p < .001$); dealing or trafficking in narcotics ($\tau_{Ken,b}$ = -0.20, $p < .001$).

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APPENDIX

Table A1. Geocoding results for deal/traffic and use/possess amphetamines, narcotics and cocaine incidents reported in the Kings Cross LAC, 2001 to 2012

Accuracy of geocoding		**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Precise Address	**No.**	**134**	**82**	**75**	**63**	**82**	**68**	**62**	**83**	**78**	**122**	**123**	**152**
	%	33.3	27.8	24.8	23.7	26.7	23.4	23.2	23.7	20.0	26.1	26.4	24.4
Precise location/ landmark	**No.**	**97**	**67**	**42**	**30**	**37**	**42**	**41**	**71**	**48**	**38**	**49**	**89**
	%	24.1	22.7	13.9	11.3	12.1	14.5	15.4	20.3	12.3	8.1	10.5	14.3
"Geocoded to the street centroid because no street number was recorded"	**No.**	**153**	**129**	**165**	**158**	**182**	**174**	**150**	**190**	**257**	**286**	**283**	**362**
	%	38.1	43.7	54.5	59.4	59.3	60.0	56.2	54.3	65.9	61.2	60.7	58.2
Not Geocoded	**No.**	**18**	**17**	**21**	**15**	**6**	**6**	**14**	**6**	**7**	**21**	**11**	**19**
	%	4.5	5.8	6.9	5.6	2.0	2.1	5.2	1.7	1.8	4.5	2.4	3.1
Total	**No.**	**402**	**295**	**303**	**266**	**307**	**290**	**267**	**350**	**390**	**467**	**466**	**622**
	%	100	100	100	100	100	100	100	100	100	100	100	100

Table A2. Number of deal/traffic and use/possess amphetamines, narcotics and cocaine incidents reported in the Kings Cross LAC occurring within 50m, 100m and 200m of the MSIC, 2001 to 2012

		2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
"Drug incidents within specified radius of MSIC"	Within 50m	17	12	9	3	3	10	11	10	10	24	19	12
	Within 100m	53	44	18	9	20	17	20	24	29	56	44	30
	Within 200m	135	90	47	38	67	55	58	90	81	111	110	149
"Total drug incidents geocoded to an address or location/landmark"		231	149	117	93	119	110	103	154	126	160	172	241
"% of incidents within 50m of MSIC"		**7.4**	**8.1**	**7.7**	**3.2**	**2.5**	**9.1**	**10.7**	**6.5**	**7.9**	**15.0**	**11.0**	**5.0**

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