

High prevalence of abandoned needlesticks from injecting drug users in Milton Keynes, UK: Analysing access to needle exchange centres and drug dependency services.

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Background

Milton Keynes (MK) is one of the fastest growing towns in the South-east comprising of a very diverse and large young person population. It has a population of about 250,000 people with up to 4000 individuals moving into the town every year. It is difficult to ascertain the sources of the drugs being consumed but the main substances tend to be alcohol excess and opioids such as heroin.

Public injecting drug use continues to be an ongoing problem in most urban areas of western towns and cities leading to ongoing morbidity and mortality, and harm to the community, families, friends and colleagues. People Who Inject Drugs (PWID) often results in risk taking behaviours such as needle sharing, unprotected sex etc. Non-public PWID further compound the difficulties in acquiring accurate data for health and social care interventions and are less likely to be aware of such interventions or pathways for related healthcare e.g. Addiction Specialist review or BBV screening and this often chaotic and marginalised group are difficult to engage in general and specialised healthcare initiatives. A lack of awareness of appropriate disposal sites or areas of safe needlestick wastage sites is also well documented. Despite the increasing provisions for needle exchange programmes, there are still ongoing sightings and reports of discarded, used syringes and needles⁸. Risks to the surrounding community are clearly hazardous particularly those from sharps injuries and it is clear that multi-disciplinary actions are needed to create more concerted initiatives to tackle these issues.

Methods

In response to concerns about the numbers of used needles being abandoned in MK in conjunction with a high number of BBV diagnoses, the Public Health drugs & alcohol team pulled together a multi-agency working group, initially with the aims of:

Analysing data to understand the scale and spread of the problem

Identifying what each agency could do to address the issue

Improving data collection

Potential production of data mapping

Preventing/reducing the incidence of abandoned needles

The agencies involved were public health, community safety, police, housing, waste management, the Parks Trust and the DDU. Through the data mapping, the group was able to identify hotspot areas where the majority of used needles were being abandoned. These were mainly near to the drug treatment service and pharmacy needle exchanges.

An action plan developed by the group included:

Improving data recording and mapping by ensuring all relevant agencies knew how to report needle finds and that reports included exact locations

A full review of the needle exchange programme with a focus on improved training for pharmacy staff, the introduction of incentivised payments for pharmacies and incentives for service users to return needles

A renewed focus on harm reduction within the treatment service

A targeted letter drop to houses in one particular area where high numbers of needles were being discarded, asking residents to be alert and signpost local users to pharmacy needle exchanges

Results

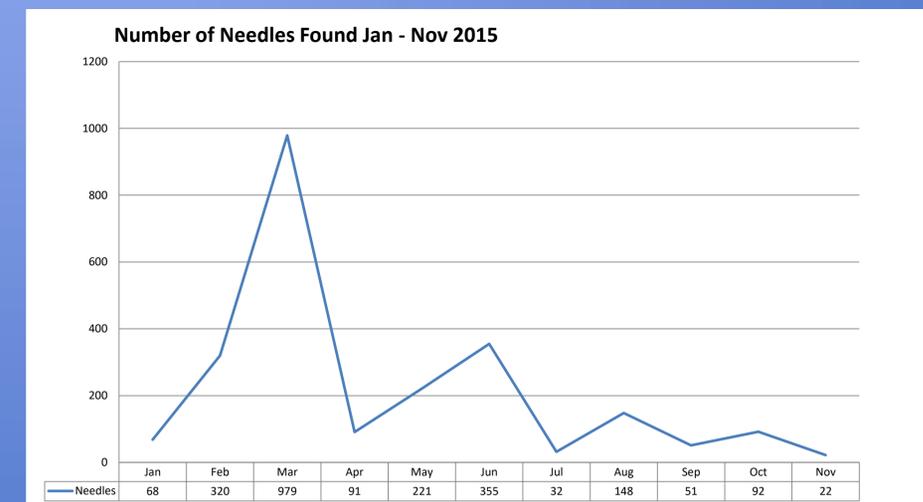
The analysis considers the issue of abandoned needles reported between January 2015 and November 2015. The data drawn upon for this analysis was provided by the waste management department at MK Council, the housing team and the Parks Trust.

It should be noted that a 'report' refers merely to an incident of abandoned needle(s), rather than the quantity found. For example, a report may refer to a single needle or several needles and can be seen as a limitation in the study in terms of under- or over- reporting. In some instances, One needle is found at a report; while in others as many as 625 have been found.

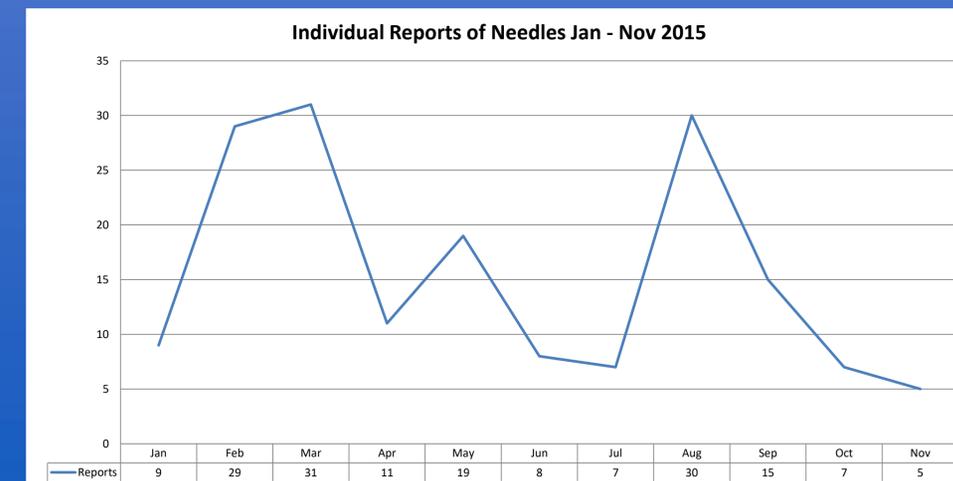
During this 11 month period, 174 reports of abandoned needles were submitted to MK Council, containing a total of 2379 individual needles.

This data was not systematically collected prior to the start of 2015. As such, these figures will function as the baseline for future trend analysis.

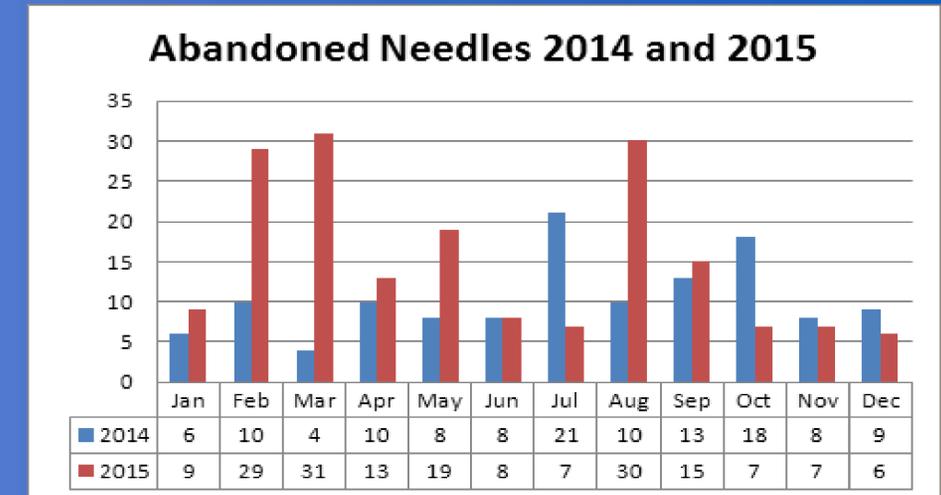
As can be seen from Graph 1, Reports of abandoned needles spiked in the March and June periods, with low points in November and July.



When analysed by the number of needles found, a peak is also recorded in March. However, it should be noted that this figure is somewhat skewed by a single report in Central MK in which 25 full sharps boxes containing 625 individual needles were found. When adjusted for this single find, March recorded a level similar to February. The general pattern exhibited by the data regarding the number of needles found, is a peak in the warmer periods from May – August, gradually declining in the autumn and winter periods.



A total of 122 reports were based in 8 estates. These 8 estates accounted for 2076 of the 2379 individuals reported in this 11 month period. This figure accounts for 87% of the total. As seen from Graph 3, when a comparison was made to 2014 figures steep rises in needlestick abandonment were seen in 2015. However, data in 2014 was not systematically collected or collated which could explain the lower recorded rate of abandoned needles. When each area of MK was further analysed, it was seen that the socially deprived and marginalised areas of MK where needle exchange services are more prevalent were seen to have the highest rates of discarded needles. When we mapped out where in these high prevalent areas the needles were being abandoned, interestingly clusters were identified suggesting potential group use and needle sharing close to the DDU and pharmacy needle exchanges.



Discussion

Tackling the issue of abandoned needles needs to be done through a multi-agency approach. A recent audit in MK showed a high prevalence of newly diagnosed HCV patients attending the DDU. Our DDU is an Addiction Specialist run service for all forms of drug and alcohol use. Under the Health and Social Care Act 2012, responsibilities for commissioning drug and alcohol treatment services transferred to Local Authorities. This has enabled Local Authority departments including public health, housing, waste management and community safety, along with commissioned drug services and BBV services, to coordinate their actions to tackle the issue of abandoned needles and reduce harm. Our BBV service is a hospital based clinic embracing screening, diagnosis and management of all BBVs, sexual and reproductive health of clients and patients attending. With high rates of HCV seen in the PWID population, particularly those attending our local DDU which we have shown previously, there is a need for interventions to reduce the risk of HCV transmission to non-infected PWID to be strengthened. Above shows an example of geospatial mapping displaying a heavily edited 'Google' map showing the close proximities of the PWID activities, DDU service, BBV service and a Pharmacy offering needle exchange. For confidentiality reasons with respect to local residents, we were advised not to publish actual estate or street names despite this information being available on a 'Freedom Of Information' request.

Concluding remarks

The main findings of this study suggest that a high number of abandoned needles is taking place in urban areas of high social deprivation, clustered around needle exchange points, suggesting that PWID collect injecting equipment, use in the vicinity and then abandon the used needles. These areas also have the highest rates of HIV, Chlamydia and unplanned pregnancies suggesting a younger, mobile population with high sexual and drug risk behaviours¹³. The seasonal variation suggests increased PWID activity in Spring and Summer due to increased daylight hours and warmer weather. The findings also suggest that cartographical and geospatial planning can be useful in terms of planning and targeting the delivery of healthcare interventions, particularly in an outreach setting to cater for this cohort.

In response to these findings, needle exchange services are being reviewed to ensure that healthcare professionals are appropriately trained in delivering effective needle exchange and harm reduction advice. The DDU also has a renewed focus on delivering high quality harm reduction interventions with the aim of reducing the rates of injecting drug use, educating service users about the risks they pose to themselves and others, and encouraging the use of needle exchange services if service users continue to inject. In addition, an incentive scheme is being introduced to encourage PWID to return their used needles safely.

The BBV service has an integrated sexual health service so this is extremely useful in offering full sexual health screening for PWID. The integrated sexual health service also delivers a regular outreach clinic from the DDU which is an example of best practice.

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