Perceptions and impact of the Shrewsbury Safer Nights minor injury unit

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The cover image was kindly provided by St John Ambulance.
Executive summary

Introduction
The Shrewsbury Safer Nights scheme was a multiagency coordinated treatment response designed to reduce the impact of the night time economy (NTE) and its intoxicated patrons on health services in Shrewsbury over the busy festive period. Unscheduled care and medical assistance was provided by a St John Ambulance minor injuries treatment unit (MIU) that was situated within Shrewsbury town centre on predominantly Friday and Saturday nights between 1st December 2012 and 12th January 2013. As well as providing treatment to individuals who self-presented at the unit or were referred by West Mercia Police or the local Street Pastors patrol, the MIU provided an emergency response vehicle and crew that was able to respond to 999 calls within the immediate town centre area.

To explore the benefits of the scheme and examine its impact on health services, Shropshire Drug and Alcohol Action Team (DAAT; in partnership with the former Shropshire County Primary Care Trust) commissioned the Centre for Public Health at Liverpool John Moores University to undertake an evaluation of the scheme. Interviews were conducted with stakeholders and data from West Midland Ambulance Service (WMAS) and the Royal Shrewsbury Hospital Accident and Emergency (A&E) Department were analysed.

Key findings
- Stakeholders had a clear understanding of the overall aim of the project and their own individual responsibilities within the scheme. Any initial uncertainties as to the roles and responsibilities of other partners operating on the ground were ironed out in a timely manner during the first few operational nights.
- Stakeholders reported that the scheme supported their existing aims and activities within the NTE, in some cases placing additional but manageable demands on their organisations.
- All stakeholders perceived a positive and substantial impact of the scheme on patrons in the NTE, be they injured or intoxicated patrons seeking immediate medical assistance, or patrons who did not directly access the services provided by the MIU but were considered to be reassured by its presence.
- Although the potential of the scheme to impact on the wider community by allowing the town to be better served by the NHS and local emergency services was acknowledged by stakeholders, questions remain as to the extent to which these benefits would have been apparent to community members themselves. Indications from some partners suggested that members of the public may have misunderstood the core objectives of the scheme, believing it to be a direct means of regulating the (anti-social) behaviour of revellers in and around the town.
- During the pilot implementation period, staff from the MIU saw and treated 63 patients. In just over 40% of these cases, assistance was provided to NTE patrons at the scene. Reports suggest that the MIU treated the types of patients and injuries they expected to see in the NTE – cuts and bruises, dislocation, sprains and joint injuries, head injuries
and issues such as vomiting and altered consciousness. Eighteen patients (28.6%) were taken from the unit to A&E at Shrewsbury Royal Hospital.

- WMAS activity in the town centre was reduced during the intervention period, although this reduction did not reach statistical significance.
- Differences were also found in the types of cases seen and treated by WMAS. During the intervention there was a reduction in overdose and assault cases – conditions most commonly seen on weekend nights.
- There was no quantifiable impact of the intervention on A&E attendances. Weekend night A&E attendances were higher during the intervention period, compared with the equivalent time period over the previous two years.
- A non-significant increase was also seen in the number of patients treated for assault-related injuries and complaints.
- Stakeholders suggested that the MIU relieved both NTE staff and the police of medical or first-aid decision making responsibilities by providing them with a clear pathway and referral process for the treatment of intoxicated patrons.
- The scheme was considered appropriate for meeting the needs of patrons in the NTE by stakeholders, providing a patient-focused care pathway in which immediate access to medical assistance was available from approachable and professional medical staff.

**Recommendations**

The following recommendations are made for the future development and implementation of the scheme:

- Future use of the MIU would be best focused around the immediate Christmas and New Year period when service use was highest, and on other key nights identified through local intelligence, including that from the ambulance service and Street Pastors.
- Collation of data on patient alcohol use and incident location information from Royal Shrewsbury Hospital A&E would support the targeting of future schemes and would facilitate the identification of impacts on service use.
- A designated representative from the Royal Shrewsbury Hospital A&E should be identified for the purposes of project planning, monitoring and evaluation. This individual should be fully aware of the scheme and able to provide insight into impacts on A&E attendances.
- All partners should be fully engaged in project planning and development from the very initial stages. This should also include early engagement with researchers or analysts who may be supporting evaluation of the scheme.
- Although the Shrewsbury Safer Nights scheme was introduced to deal with the effects of alcohol intoxication in the NTE, accurate estimates of alcohol involvement in MIU patients, WMAS cases and A&E attendances could not be made. For future implementation and evaluation, partners should establish a common and reliable assessment tool for estimating patient intoxication.
Future implementation of the Shrewsbury Safer Nights MIU should incorporate a mechanism for recording feedback from clients, including their likely health seeking behaviours. For example, those accessing medical care at the MIU could be asked if they had previously sought medical assistance during or after a night out, what they would have done in the current circumstances had the MIU not been in operation, and which health services (if any) they might choose to engage with in the future.

With conflicting data received from SJA and the ambulance service concerning the transfer of emergency calls, more rigorous data coordination procedures should be established across all partners prior to future implementation.

Prior to future implementation of the MIU, SJA should be included within existing police communication networks to support partner communication within the NTE.

Given the relatively small numbers of patients accessing the MIU and the difficulties in identifying impacts on health service use overall, partners may like to consider the appropriateness and feasibility of looking at impacts on alternative outcome measures, such as waiting times or ambulance handover times.

More regular implementation of the Shrewsbury Safer Nights MIU would need to consider the costs of the scheme in comparison to standard practice.

Conclusions

Through the Shrewsbury Safer Nights scheme, local partners successfully worked together to deliver a coordinated multiagency treatment response within the NTE. In the safe environment of the MIU, patients were provided with immediate medical attention and support, in some cases potentially negating the need for A&E attendance. The MIU and its associated mobile response facilities also supported the police and staff within the NTE by providing them with alternative pathways for the care and referral of intoxicated patrons.

Although the Shrewsbury Safer Nights scheme did not have a quantifiable impact on A&E attendances over the festive period due to the small number of patients seen and treated at the unit, the process of passing town centre 999 calls from West Midlands Ambulance Service to St John Ambulance during the intervention appeared to be effective in relieving some of the pressure that the ambulance service faces during this time.
1. Introduction

Over the busy Christmas period in 2012/13, the multi-agency Shrewsbury Safer Nights scheme implemented a pilot project that stationed a St John Ambulance minor injury unit (MIU) in Shrewsbury’s night time economy (NTE) on weekend nights. The intervention aimed to relieve pressures on local health services caused by the NTE. Thus, Shropshire Drug and Alcohol Action Team (DAAT; in partnership with the former Shropshire County Primary Care Trust) commissioned the Centre for Public Health at Liverpool John Moores University to evaluate the pilot project by exploring perceptions of the scheme among key stakeholders and examining data on health service use over the pilot project implementation period. The evaluation aimed to:

- Explore the level and type of use of the MIU during the intervention period;
- Quantify the impact of the MIU on local health service attendance;
- Examine stakeholders’ perceptions of the benefits of the MIU on users, other nightlife patrons, the night-time economy, the surrounding community and local services; and
- Identify barriers to project implementation and areas for development.

This report presents the findings from the evaluation. The report outlines the benefits and costs associated with the NTE (section 1), introduces the Shrewsbury Safer Nights scheme (section 2), describes the evaluation methodology (section 3) and presents findings from stakeholder interviews and analyses of data from the MIU, West Midlands Ambulance Service (WMAS), Royal Shrewsbury Hospital Accident and Emergency Department (A&E) and Street Pastor (SP) patrols (section 4). The discussion and conclusions provide recommendations for the future development and implementation of the intervention, and further research and project monitoring.

1.1. Benefits and costs of the night time economy

In urban areas, the night time economy (NTE) is often central to the leisure time of local people, providing individuals with environments in which they can relax and unwind with friends, meet new people or enjoy music and dancing. Half of all adults in the UK report drinking in pubs and bars at least occasionally\(^1\) while 30% of 18-24 year olds are regular clubbers (visiting nightclubs once a fortnight or more frequently).\(^2\) The NTE can also have significant and positive impacts on local economies through the provision of investment, employment and tourism opportunities. However, nightlife environments are known to be the scenes of high levels of alcohol use, drunkenness and related health and social problems. Such harms not only affect the individuals involved but also place huge burdens on local authorities, health services, criminal justice agencies and other services, which are required to address the consequences of nightlife behaviours.
Across England, over 26% of deaths in 16-24 year old males, and around 15% in 16-24 year old females, are associated with alcohol use, commonly resulting from road traffic crashes, unintentional injuries and violence. A large proportion of this alcohol use takes place in pubs, bars and nightclubs, where patrons often consume alcohol to excess, far exceeding the limits recommended by health professionals and the British government. Perhaps crucially, alcohol consumption and drunkenness in nightlife environments is not limited to a few individuals. In a study conducted in the NTE of a city in North West England, 77.4% of study participants reported that they always drank alcohol when using the city’s nightlife, with only 1.3% of respondents suggesting that they would abstain from alcohol consumption on a night out. In a similar study across three major cities, at the time of interview, total alcohol consumption in the NTE was reported at 27.4 units for males, and 16.2 units for females, placing 20.0% of males and 21.3% of females over the weekly alcohol limits recommended by the UK Government. With over 60.0% of nightlife patrons consuming alcohol at home before entering the NTE, the percentage of males and females who report expecting to binge drink over the course of a night out is 96.0% and 82.5% respectively. Late night city centre street surveys of drinkers in Cardiff found that men in the NTE typically reported having been drinking for around 7 hours at the time of interview (5-6 hours for women) and 36.4% yielded blood alcohol levels greater than 0.15% - the threshold for ‘at risk’ blood alcohol.

A strong association between excessive alcohol consumption and violence in nightlife settings has been demonstrated, with one study in a city centre nightlife environment in North West England finding that as many as 10.5% of respondents reported that they had been in a fight in the NTE during the past 12 months. The Crime Survey for England and Wales suggests that a fifth of all violence takes place in and around pubs and nightclubs. Moreover, almost a half of all violent incidents occur at weekends and two thirds at night; times when the NTE is at its busiest. Studies have shown that drinking venues that are poorly managed, uncomfortable and tolerant towards drunkenness experience higher levels of alcohol-related harm, including aggression. Illicit drugs are also widely used in the NTE and are similarly linked with an increased risk of violence.

As well as increasing vulnerability to violence against others or oneself, the physical and cognitive impairments that can be caused by alcohol and drug use also increase vulnerability to unintentional injury. Evidence suggests that the relationship between alcohol and injury is dose-responsive (i.e. the risk of injury increases with the amount of alcohol consumed) and is strongest for injuries such as falls. In premises in the NTE, inconsistent low level lighting, unsecured fixtures and discarded bottles and glasses can all contribute to falls and other accidents.

For police, the challenge of urban policing is only compounded by what has been described as ‘alcohol-fuelled, consumption-driven, night time high streets’. Additional policing is routinely needed in nightlife areas to deal with and reduce the incidence of crime and deter alcohol-related violence and disorder, placing pressure on police resources and diverting
policing away from other parts of the community. While research into the exact impact of alcohol on police resources remains scarce, it is generally acknowledged that a large proportion of police work involves attendance at alcohol-related incidents, with the involvement of alcohol generally increasing the overall difficulty of police work. In one of the few UK reports looking at the effect of alcohol on policing resources, estimates suggest that dealing with alcohol-related incidents accounts for 26% of all expenditure for police time, amounting to around £200 million per annum. A recent report from the North East of England surveyed 1,100 frontline officers from the region’s three forces to understand police perceptions of the impact of alcohol on modern policing. Officers reported that on weekend evenings, nearly every person they deal with is intoxicated from alcohol misuse:

“Police are often dispatched because somebody is drunk and lying in the road putting themselves and others at risk. There is often no-one else available to take these people to hospital so therefore the duty of care kicks in and police time is wasted being a taxi service to A&E”

Neighbourhood Officer

Alcohol misuse places a major strain on health and emergency services. In England, around 70% of A&E attendances at peak nightlife times (between midnight and 5:00am on weekend nights) are thought to be alcohol-related, with NTE patrons making up a large proportion of these attendances. The overall estimated annual cost of alcohol harm to the NHS in the UK is around £3.3 billion. Furthermore, it is thought that approximately 1,242,500 alcohol-related emergency ambulance journeys take place every year, costing the ambulance services in the region of £372.4 million.

Intoxicated patients are difficult to access and treat and can cause additional burdens for already stretched doctors and nurses. Evidence suggests that patients who have consumed alcohol are also more likely to display violence and aggression towards hospital staff. In a report into workplace safety in 2010, NHS staff perceived the influence of alcohol to be one of the main factors contributing to the occurrence of verbal and physical abuse, equal to long waiting times and existing mental health issues. Of all hospital departments, A&E staff were significantly more likely to say that the abuse they experienced was a result of the patient being under the influence of alcohol.

The impact of the NTE on health services does not end with the treatment of alcohol intoxication and injuries. Binge drinking is associated with an increased risk of unprotected sex and NTE patrons may find themselves subsequently requiring treatment from STI clinics and other such services offering emergency contraception.

1.2. Reducing the impact of the NTE on health and other emergency services

In many areas throughout the UK, concerns over nightlife issues have led agencies to implement local collaborative initiatives to tackle health and crime concerns. Preventing,
managing and treating the consequences of nightlife, such as injuries and severe intoxication, can be particularly problematic during certain time periods (e.g. public holidays) when health and criminal justice resources may be overstretched. At a local level, multi-agency partnership plans and interventions are often established to address the added burden that occurs over a particular time period.

One possible response to the injuries and related harms typically found in nightlife environments is the provision of pre-hospital emergency medical services, which can range from telephone advice services (such as NHS Direct) to onsite first aid facilities (e.g. in nightclubs) and dedicated ambulance services. A recent online survey in the UK found that of the 461 respondents who reported having previously sought medical assistance during or immediately after a night out and following the use of drugs or alcohol, 57% had visited A&E, 26% had accessed venue-based first aid facilities, 26% had accessed ambulance services, and 11% had contacted NHS Direct. However, evidence as to the effectiveness of on-site medical services and the willingness of nightlife patrons to engage with these different services is scarce. Boxes 1 and 2 provide an overview of two alternative approaches to providing additional capacity to offset the high volume of acutely intoxicated individuals attending local A&E departments.

Another model of providing unscheduled care or immediate medical assistance in the NTE has been the use of St John Ambulance (SJA) facilities and vehicles. Schemes providing treatment to NTE patrons suffering from minor injuries and/or the effects of alcohol intoxication using SJA mobile treatment units have been implemented in a number of areas in England, including Sunderland and Suffolk, although evidence as to the effectiveness of these schemes has not been fully explored. In December 2012 this model was adopted in Shrewsbury as part of the Shrewsbury Safer Nights Scheme.
Box 1: Birmingham City Centre Treatment Unit (CCTU)

On Friday and Saturday nights in Birmingham city centre, West Midlands Ambulance Service (WMAS) provide treatment for minor injuries and illnesses to patrons in the NTE from a dedicated field treatment unit. Overseen by a Unit Manager, the Birmingham City Centre Treatment Unit (CCTU) is staffed by an Advanced Nurse Practitioner and is supported by two double crewed ambulances and two rapid response vehicles (each with a paramedic on board). This fleet of vehicles provides a dedicated city centre resource for 999 ambulance calls resulting from the NTE. Although there is typically a police presence at the CCTU, this is not part of a formal arrangement. However, the Unit Manager maintains communication systems with both WMAS (ambulance crews, rapid response vehicles and WMAS control and command centre) and a Street Safe radio system that links with police, licensed premises, door supervisors and the city’s CCTV system.

CCTU staff start work at 8:00pm, activity at the unit begins around 9:00pm and the operation typically continues until 4:00am; although finishing times are flexible according to need. CCTU activity starts to increase around 10:00pm and peaks around 2:30-3:00am as many premises are closing. Patients may self-present at the CCTU, be brought in by police or local street pastor teams, or attend the unit via directed 999 calls. Medical assistance is provided for all alcohol and drug-related complaints, minor sprains and strains (e.g. from falling in high heels), and minor soft tissue injuries. Any incidents involving foreign body wounds or those requiring an X-ray are referred straight to hospital. Over a typical weekend WMAS will see 100 patients in the city centre. Around 50-60 of these patients will receive treatment at the CCTU, with others discharged by ambulance crews or transferred directly to A&E for consultation and treatment.

The CCTU is often busier on Saturday nights than on Fridays, although demand can vary based on weather conditions and times of year. For example the service experiences higher demand during warmer summer weekends and on pay day weekends at the end of each month. At certain times of the year, such as over the festive period or during bank holiday weekends, WMAS up-scales its NTE medical services to a Temporary Minor Injuries Unit (TMIU) based within a community building close to the city centre. This larger unit is supported by a team of doctors and nurses, the Red Cross and St John Ambulance and provides additional space in which intoxicated patients may remain until the effects of alcohol consumption have subsided and they are able to make appropriate arrangements for leaving the NTE. The TMIU will typically see 100 patients every night.

WMAS acknowledged that although they feel that that CCTU effectively meets the needs of patrons in the NTE and its presence has resulted in dramatic improvements in ambulance response times, it is extremely difficult to establish appropriate quantitative indicators to support an evaluation of the unit. One of the greatest difficulties is in being able to demonstrate how many patients would have accessed other health services (either that evening or the following day) had the CCTU not been in operation.
In response to the effects of alcohol intoxication on multiple statutory services across Cardiff, an Alcohol Treatment Centre (ATC) was introduced to the city between September and the end of December 2012, operating initially on Wednesdays (to capture the effects of students returning to colleges and universities in Cardiff) and on Friday and Saturday nights. The ATC was located in a church hall adjacent to the city centre and was staffed by an Emergency Nurse Practitioner (ENP) with support from a health care assistant and volunteers from St John Ambulance. On evenings when a high volume of patients were expected (e.g. New Year’s Eve), staffing was increased to two ENPs. One police officer was always on duty at the ATC and offenders from probation on the Community Payback Scheme provided additional support, mostly in the form of housekeeping/cleaning duties.

Patients were transported to the ATC by paramedics responding to emergency calls if they were intoxicated with alcohol; had suffered a minor injury appropriate to the ATC (minor wounds, sprains and soft tissue injury); and were at least 16 years old. Patients were not received at the ATC if there was evidence that they had sustained a head injury, if they had a history of major trauma, had overdosed or self-harmed, were suffering from acute alcohol withdrawal or chronic alcoholism, were fitting, or had mental ill health. The ATC did, however, provide a safe environment in which individuals suffering from acute alcohol intoxication could remain for the evening and sober up.

Over the course of its operation, there were 268 attendances at the ATC. As well as arriving by ambulance (73.1%), patients were referred/escorted from the NTE by Street Pastors (8.8%) and the police (15.0%), and also self-referred (2.5%). The vast majority of patients were discharged from the ATC and returned home (82.1%). In cases in which ATC patients needed to receive (further) treatment from the A&E (16.8%), they were directed straight to speciality and therefore did not need to undergo triage. The handover of such patients was facilitated by on-going communications between the ENPs at the ATC and senior A&E staff.

An evaluation of the ATC (Moore et al, 2013) found that whilst observational and interview data was not conclusive, an improvement in the overall environment of the A&E (including decreased levels of disorder) was seen at times when the ATC was in operation. Statistical analyses of A&E data also provided an indication that when the ATC was open there were significantly fewer alcohol and assault-related attendances in A&E, suggesting that the ATC successfully diverts patients away from A&E. Data did, however, also show an overall increase in the total number of alcohol and assault-related attendances during this period (in both A&E and ATC), consistent with the idea that the ATC increased demand for medical services. After initial uncertainty among the Street Pastors patrols in Cardiff as to who should be referred to the ATC and a lack of awareness as to the ATC function, results suggest that Street Pastors were significantly more likely to refer patients into healthcare when the ATC was open.

For further information on this scheme see Moore et al, 2013.30
2. Safer Nights Shrewsbury

In December 2012, a St John Ambulance Minor Injury Unit (MIU) was introduced to a town centre car park in Shrewsbury in the centre of the NTE. The intervention was a multi-agency collaboration developed and coordinated by Shropshire Primary Care Trust (Drug and Alcohol Action Team; DAAT) in partnership with St John Ambulance (see Box 3), Shropshire Council, West Mercia Police and Shrewsbury Street Pastors (see Box 4). Shrewsbury is an historic market town in the West Midlands region of England. It lies on the River Severn and has a population of around 115,234 people. The town’s NTE consists of theatres and restaurants accessed by a varied clientele, and lively bars and clubs mainly visited by young people. The MIU was operational on Friday and Saturday nights from 1st December 2012 to 12th January 2013 between the hours of 21:00 and 03:00, and on Thursday 27th December 2012 between 19:00 and 01:00a and Monday 31st December (New Year’s Eve) between 21:00 and 03:00. The location of the MIU is indicated on Figure 1 below. The car park sits adjacent to two of the largest nightclubs in Shrewsbury town centre and is within walking distance (approximately 0.7 mile radius) of the most popular pubs, bars, clubs and late night fast food outlets.

Figure 1. Location of the St John Ambulance MIU

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a Due to a teenage party night for 15-19 year olds being hosted at one of Shropshire’s largest nightclubs that night.
Box 3. St John Ambulance

As the UK’s largest first aid charity, St John Ambulance (SJA) provides first aid training, advice and resources for workplaces, schools and communities. Many of their taught first aiders go on to volunteer for the organisation, offering their skills and time to serve as first responders at public events and to provide support and backup for local ambulance services during major emergencies. With a wide variety of volunteer roles providing both medical assistance and transportation for patients, SJA has thousands of qualified first aiders, registered nurses, paramedics and doctors and can mobilise a range of resources from cycle response units and response cars, to mobile treatment units, ambulances and field hospitals. www.sja.org.uk

Box 4. Street Pastors

An inter-denomination church response to urban problems that was pioneered by the Ascension Trust in London in 2003, the Street Pastors movement has now extended across the UK, where local teams coordinated by churches and community groups patrol the NTE making themselves available to help people who are vulnerable through the effects of alcohol, drugs, or relational difficulty and emotional distress. Street Pastors help people to get home safe, reunite them with their friends, and provide space blankets and/or water to those who need it. Working in close conjunction with the emergency services, door staff, police and local authorities, Street Pastors aim to make town centres a safer place to be. There are over 9,000 trained Street Pastors in the UK, making up teams in over 250 locations. www.streetpastors.co.uk

The MIU in Shrewsbury provided: medical treatment for minor injuries not deemed likely to require hospital admission; an emergency ambulance for conveying patients who required specialist treatment to hospital; and emotional support and advice to nightlife patrons. The unit contained one bed and space for seating. Patients were accepted if they were over 16 years of age and met one of the following clinical criteria:

- Injuries and illnesses NOT deemed likely to need hospital admission
- Suspected alcohol intoxication
- Minor injuries (e.g. cuts and bruises)
- Wounds and lacerations (with no possible foreign body)

Patients were not treated at the MIU if they: had obvious fractures or glass wounds; had a history of acute medical conditions; could not maintain their own airway; or did not have a radial pulse.

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Space blankets are foil blankets that help to retain body heat and are commonly used in survival, emergency and first aid situations.
The unit was staffed by the following personnel:

- 2 First aiders
- 1 Paramedic
- 1 Nurse
- 2 Emergency Transport Attendants (Ambulance Crew)

Within the MIU, literature providing information and advice regarding the harms associated with alcohol misuse and access to free confidential counselling for people concerned with alcohol issues was provided by Aquarius – a West Midlands charitable organisation that aims to help people to overcome the harms caused by alcohol, drugs and gambling.

Police and Street Pastors were able to refer/escort individuals to the MIU for treatment when conducting their regular night time patrols of the town centre and its nightlife venues. Personnel from the MIU could also be asked to attend the scene of an incident (as directed by the police, Street Pastors or other agencies working within the town centre) and the unit was also accessible to ‘walk-in’ patients. During the pilot period, 999 emergency calls to West Midlands Ambulance Service that related to incidents in the town centre were referred from the WMAS Incident Command Desk to St John Ambulance and attended/responded to by the emergency ambulance that was stationed alongside the MIU. This was the first time a project of this nature had taken place in Shrewsbury town centre. The pilot scheme was covered in both local and national media.

Figure 2 provides a visual representation of the standard pathways for NTE patrons who require medical attention or are experiencing difficulties as a result of their alcohol consumption in Shrewsbury town centre and demonstrates how the operation of the MIU aimed to simplify these pathways.
Figure 2: Overview of pathways to health services for night time economy patrons

a) Standard pathways

Night time economy patrons → Police → Street Pastors → Ambulance service → A&E department

 Premises staff

b) Altered pathways through Shrewsbury Safer Nights Scheme

Night time economy patrons → Police → Street Pastors → Ambulance service* → SJA Minor Injury Unit → A&E department

Premises staff

*SJA Minor Injury Unit

*Ambulance service contact is limited to telephone communication as all city centre incidents were referred to the MIU. Dashed lines indicate referral of individuals to health services as necessary.
3. Methods

Both quantitative and qualitative methods were used to explore the impacts, benefits and limitations of the Shrewsbury Safer Nights Scheme.

3.1 Stakeholder interviews

Semi-structured interviews were conducted either face to face or by telephone with partners from Shropshire Primary Care Trust, St Johns Ambulance, West Mercia Police, Street Pastors Shrewsbury and Aquarius. Respondents were asked to provide information on: how the pilot scheme had impacted on their normal working practice; what the perceived benefits of the scheme were; whether or not they felt the scheme had met its objectives; what (if any) barriers to successful implementation they encountered during the pilot period; if they would like to see the scheme continue; and how they would improve the scheme for future implementation.

Participation in the interviews was entirely voluntary and respondents were reminded that they could discontinue their participation at any time during the interview. All participants provided formal consent and were given detailed participant information sheets. Interviews lasted for approximately one hour, during which time the interviewer posed questions and took notes. Face to face interviews were audio recorded and later transcribed.

3.2 Data analyses

The following data from partner agencies were analysed to establish whether impacts of the intervention could be identified within different services:

- **St John Ambulance MIU**
  Patient record forms from each night of the intervention were used to identify the number of people treated at the MIU, patient demographics (age and gender), reasons for presentation, treatment received and disposal method (e.g. whether further medical attention was required). The number of 999 calls that were referred by WMAS to the SJA ambulance was also identified.

- **West Midlands Ambulance Trust**
  Data on call outs to Shrewsbury town centre (postcode area SY1 1) on weekend nights before, during and after the pilot implementation period (in 2012/13) were analysed and data compared with that for the same time periods over the previous two years (2010/11, 2011/12). For the intervention period, data were also examined to identify any differences in patient profiles and treatment types/outcomes compared with previous years.

- **Royal Shrewsbury Hospital A&E**

  Contact was also made with West Midlands Ambulance Service and Shrewsbury and Telford Hospital NHS Trust but neither of these organisations felt able to identify a suitable respondent to complete the stakeholder interview.
Data on all A&E attendances on weekend nights before, during and after the pilot implementation period were analysed and data compared with that for the same time periods over the previous two years. For the intervention period, data were also examined to identify any differences in patient profiles and outcomes compared with previous years.

- **Street Pastor Patrols**
  Data on street pastor activity was examined for each night of the scheme including contacts with patrons of the NTE, resource provision and engagement with the MIU. Data were combined with qualitative information detailing the nature of incidents witnessed in a summary of the SP reports.

Analyses examining differences across years and time periods used chi squared.

Ethical approval for the evaluation was granted by Liverpool John Moores University Research Ethics Committee.
4. Findings

This section presents the findings from the stakeholder interviews and analyses of data from the MIU, ambulance service, A&E department and Street Pastors.

4.1 Stakeholder perceptions

4.1.1 Roles and responsibilities within the pilot project

Participants from each of the key organisations involved in the scheme provided a succinct summary of what they saw as their organisation’s role within the Safer Nights pilot scheme:

<table>
<thead>
<tr>
<th>Drug and Alcohol Action Team</th>
<th>Responsible for overseeing the development and implementation of the project, with support from colleagues within Shropshire Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>St John Ambulance</td>
<td>Provided resources and infrastructure for the scheme in the form of first aiders, a paramedic, a nurse, an ambulance and crew, and the treatment unit itself (MIU)</td>
</tr>
<tr>
<td>Street Pastors</td>
<td>Introduced referral to the MIU as a new care pathway for individuals encountered during routine patrols who needed medical attention</td>
</tr>
<tr>
<td>West Mercia Police</td>
<td>Referred intoxicated individuals to the MIU and provided a police presence at the unit when required</td>
</tr>
<tr>
<td>Aquarius</td>
<td>Provided information and signposting to further support for drug and alcohol problems to people who were engaged with SJA, SP or the police at the MIU. Also supported the scheme through the provision of bottled water.</td>
</tr>
</tbody>
</table>

Stakeholders had a clear and common understanding of the overall aim of the project, which was summarised as:

**To provide a coordinated multiagency treatment response to reduce the demands on health services in Shrewsbury over the festive period**

The general feeling reported among all stakeholders was that the project did well to meet its aims, although stakeholders were keen to see if the perceived benefits and impacts of the scheme could be quantified with the evaluation of available data.

The importance of tying the activities of the MIU in with existing services in the town was emphasised by the Drug and Alcohol Action Team (DAAT). Correspondingly, partners highlighted how the scheme supported their existing aims and activities. It supported the aims of the SP by allowing them to assist people needing medical attention in a timely manner and significantly enhancing their ability to look after people engaged with the night time economy (as previously much time was spent away from patrols calling or waiting for
an ambulance or transferring people to hospital directly). For Aquarius, the scheme provided an additional means of ‘spreading the word’ about the agency and the services it provides and ‘encouraging people to take positive action’. This contributed to the organisation’s core service principles of allowing people to have direct access to alcohol and drug services and making these services available at the point of identification of problematic use. SJA also reported that the scheme crucially supported one of their own key organisational aims – making sure that nobody suffers from a lack of first aid.

The demands placed on (typical) working schedules, duties and responsibilities by the scheme varied considerably between stakeholders. A summary of these key differences is presented in Table 1. For some stakeholders such as the police who respond directly to incidents and transient operational needs, the extra demands that the scheme placed on normal working were minimal as activity is continually dictated by operational demand and this did not change during the pilot period. For other stakeholders, however, additional time and human resources were required to develop and/or support the Shrewsbury Safer Nights Scheme (see Aquarius and St John Ambulance below).

Table 1: Reported demands on each stakeholder organisation in addition to normal working practice

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Demands placed on the organisation by participation in the scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug and Alcohol Action Team</td>
<td>Impacts of commissioning and leading on such a scheme were incorporated into normal working as an additional work stream</td>
</tr>
<tr>
<td>St John Ambulance</td>
<td>Service provision was similar to that at other public events, although was very resource intensive and required a large time commitment from volunteers. Same roles as those performed at other ‘stations’ at different events but in a slightly different environment (and thus seeing different types of patients)</td>
</tr>
<tr>
<td>Street Pastors</td>
<td>Patrols remained the same (routes/tasks) but pastors were able to hand over those needing medical assistance to the MIU (and continue with their patrols) and made additional visits to the MIU to help people who had been treated and needed assistance getting home – increased contact with people they wouldn’t necessarily have normally dealt with</td>
</tr>
<tr>
<td>West Mercia Police</td>
<td>Police activity throughout the pilot continued to be dictated by operational demand</td>
</tr>
<tr>
<td>Aquarius</td>
<td>As new providers in Shrewsbury, Aquarius needed to invest time in making partners aware of what the service could offer, putting together marketing information, endorsed water bottles etc</td>
</tr>
</tbody>
</table>
4.1.2 Project impacts

Stakeholders were asked to discuss the impacts of the pilot scheme on the local community and statutory organisations serving the community. These impacts are described in turn below:

MIU users

Stakeholders felt that the impact of the scheme on those seeking advice and treatment had been both positive and substantial, providing immediate assistance for people in distress and an assurance that support was available from medical professionals who could deal competently with any illness, injury or complaint. It was echoed by multiple stakeholders that the unit provided a patient-focused approach, in which people who were intoxicated in particular could avoid the potentially traumatic experience of having to attend A&E and/or being admitted to hospital. Stakeholders were quick to offer praise to SJA, suggesting that the approachableness and high levels of professionalism of their staff ensured that people who had had no prior contact with these services were left with a very good impression of the quality of care and treatment that they could receive at the MIU.

Other patrons of the night time economy

Stakeholders suggested that patrons who did not directly access the services provided by the MIU may have experienced a positive impact in terms of their perceived sense of safety and security within the night time economy – an area that can at times be intimidating for some individuals. It was noted that the scheme provided a clear demonstration of local agencies’ commitment to reducing the impact of alcohol-related harm in the town centre and communicated the idea of a community that is both caring and forward thinking. Anecdotal reports from the SPs indicated that many patrons enquired about the MIU and its role in the town centre, feeding back that they thought having such a scheme in their town was a good idea that addressed a growing need. Positive comments were also received by the police, who have regular contact with patrons of the NTE in the town centre. Comments from SJA also suggested that the reassuring impact of the MIU may extend beyond those individuals who are concerned about injuries resulting from alcohol consumption or other factors in the NTE. Over the course of the pilot scheme, SJA staff also saw and treated individuals who were suffering from on-going medical conditions, with the suggestion that the known presence of the MIU and its immediate medical care facilities may have provided reassurance to individuals who would have previously approached the night time economy with a certain degree of trepidation.

The local community

Stakeholders acknowledged that the Shrewsbury Safer Nights scheme had the potential to impact on the town’s residents by allowing them to be better served by the NHS and local emergency services. Despite the pilot scheme being widely publicised, however, interviewees were divided as to the extent to which they felt community members who did not attend bars and clubs in the town centre were aware of the scheme and would have
consciously recognised these benefits. Among those agencies that are in direct contact with local residents through Residents’ Committees and other such forums, comments received centred around the scheme having a positive influence on clubbers and bringing about a better standard of behaviour among nightlife patrons. This suggests that community members may have been fundamentally misunderstanding the role of the MIU in the NTE, believing it to be a safety initiative or means of regulating intoxicated individuals, rather than a source of medical assistance and unscheduled care.

The night time economy (NTE)

Stakeholders agreed that the scheme had had a positive impact on premises owners, licensees, door staff and security personnel, all of whom were well informed about the pilot. The scheme provided such parties with a clear care or referral pathway for patrons requiring medical assistance and meant they no longer had to take responsibility for people who had had too much to drink. Stakeholders felt that the Shrewsbury Safer Nights scheme was able to take the need for medical or first aid decision-making away from NTE staff, who are often not confident dealing with such situations. Anecdotal reports suggested that NTE staff often feel uncomfortable or guilty calling an ambulance and using valuable emergency resources but typically feel they have no alternative options available to them. The scheme therefore impacts on NTE staff by providing them with an alternative pathway for the treatment of intoxicated patrons.

Royal Shrewsbury Hospital Accident and Emergency Department (A&E)

Although interviews were not conducted with staff from the local A&E, amongst those stakeholders interviewed there was a clear sense that pressure on the A&E was reduced as a result of the scheme and that this would have freed up resources to deal with other emergency cases. In particular, the SPs reported that whilst a high percentage of people typically end up being conveyed to hospital when their patrols call an ambulance, they made fewer 999 calls during the intervention period, inferring a subsequent reduction in the number of people from the NTE attending A&E. Police reported having not visited the hospital as much during the intervention period and therefore being unable to gauge how levels of activity may have changed for the NHS, yet they noted that this in itself may be an indication that some of the pressure on the health service had been reduced.

West Mercia Police

Having recently begun exploring the possibility of their own standalone operation to reduce the risk of harms, reassure people with an on-going police presence and provide a first response unit, West Mercia Police joined up with the DAAT in the Shrewsbury Safer Nights scheme to help to address two of their key priorities – reducing and preventing antisocial behaviour and violent crime. The police reported that the scheme had ‘definitely relieved some of the strain’ on their officers over the busy festive period by removing the need for them to make decisions regarding the medical care and attention needed for intoxicated or injured night life patrons. The presence of the MIU allowed them to divert people there,
rather than tying up a police officer and vehicle with such incidents. The safety and wellbeing of the public is the main priority for the police, and the scheme provided essential support to them in serving this goal. The presence of the MIU provided the police with alternative options when dealing with incidents and offered a warm and safe environment in which they could speak to members of the public and take statements if necessary (e.g. from a victim of assault), rather than having to take people to the police station. The location of the MIU also increased police response times when needing to deal with somebody who was receiving medical attention (and may have otherwise have been further away at A&E). The festive period is typically a challenging time for the police as they themselves are at risk of being targets for violent crime and antisocial behaviour. It was the perception of other stakeholders that the pilot scheme provided a form of morale boost for the police by demonstrating that they are not alone in trying to deal with people who are heavily intoxicated within the NTE.

**Street Pastors patrol (SP)**

Feedback from the SP indicated that they welcomed the scheme as it enhanced their own service and allowed greater levels of assistance to be provided to those people who were most vulnerable and most in need of support. For the duration of the pilot period, the SP were able to spend more time patrolling the town centre, as responsibility for the care and treatment of injured or heavily intoxicated patrons could be passed over to SJA personnel based at the MIU.

**West Midlands Ambulance Service (WMAS)**

Stakeholders perceived a clear and direct impact of the scheme on the ambulance service. As agencies (including the SP, police and door staff) reported making less 999 calls, and calls within the immediate town centre area were automatically redirected to SJA for an ambulance response, stakeholders believed that the scheme had reduced pressure on WMAS and freed up vehicles and staff to respond to emergency calls across the rest of Shrewsbury.

### 4.1.3 Usefulness and appropriateness of the service/scheme

All stakeholders agreed that the Shrewsbury Safer Nights scheme was a useful intervention for Shrewsbury as it enabled the many minor complaints and alcohol-related problems and injuries that occur in the NTE to be appropriately dealt with at the scene, reducing burdens on other services. Respondents believed that whilst many such injuries or incidents may seem very distressing within the general chaos of the NTE, when reviewed in the more controlled environment of the MIU (i.e. when a person can be cleaned up, reassured, and has the time and space to think more clearly about the incident), problems may seem more manageable and resolutions more straightforward. This was believed to be in contrast to attending A&E, which could be a traumatic experience. The MIU was thus considered to provide a patient-focused care pathway in which patients receive more immediate access to
medical assistance, which can be vitally important even for those individuals who do end up subsequently requiring further medical attention at A&E or admission to hospital.

Stakeholders felt that the scheme did very well to meet the needs of night life patrons: adding value to existing services; allowing quick access to appropriate care, treatment and advice; offering a service that can be tailored to the patient and addresses patients’ individual needs; and providing a unit that is run effectively by experienced, professional and approachable medical staff. A point of uncertainty was, however, whether or not the MIU attracted and treated appropriate nightlife patrons - people who would have still sought treatment had the MIU not been in operation. For the most part, stakeholders perceived that MIU users were genuine patients reporting with appropriate symptoms or conditions, with respondents suggesting that the involvement of the SP in the process of referral to the MIU ensured that most users were accessing services appropriately. Anecdotal reports from the SP themselves did, however, suggest that there was a general sense of curiosity surrounding the MIU among NTE patrons, with some self-motivated attendances for very minor problems (e.g. asking for a plaster) and some users seemingly testing out the service but then declining help. SJA confirmed that they saw a number of people at the MIU who were suffering from having consumed too much alcohol, and generally saw the types of people and types of injuries that they would have expected to see in this context. It was nevertheless noted that as the local A&E department is not within walking distance of the town centre, the MIU provided the only visible health premises in the area. Whilst it could be argued that this may have encouraged people to seek assistance when they otherwise wouldn’t have, there is also the possibility that the MIU provided treatment to individuals who needed medical attention but would not have sought it out had the MIU not been so readily accessible to them.

4.1.4 Project implementation

On the whole, stakeholders felt that the scheme was both set up and implemented effectively. However, some concerns were expressed about the limited lead in time (from inception to delivery) and the implications that this had for organisations who were required to mobilise resources to the scheme. The police, for example, were not routinely able to provide a police presence at the MIU during its hours of operation, as had been requested by SJA. They did themselves commend the unwavering commitment and professionalism of the SJA volunteers though, who were able to provide consistent human resources under the same time constraints. Both SJA and SP reflected on their later entry into the project and the possible impact that this may have had on project planning. For example, SJA staff did not have a clear understanding of the role of the SP within the project and the wider NTE when the MIU first came into operation. Both also agreed, however, that initial problems were ironed out very quickly over the first few nights of implementation, a period that will often identify unforeseen issues that additional planning time may never have been able to predict. This limited lead in time was also implicated as a key contributing
factor in the ground-level inter-agency communication problems that were encountered (see Table 2). In Shrewsbury, as in many other town centres, the police are in constant contact with licensed venues and SP via a dedicated radio channel. Due to the bounds of data protection, information sharing agreements must be built between organisations to allow access to this radio channel, accompanied by specific mandatory training for those individuals wishing to operate the communication system. Alongside the limits that these communication issues placed on the Shrewsbury Safer Nights scheme, logistical and practical issues surrounding the town centre car park location selected for the MIU also impacted on service provision as the unit was forced to run from a generator and suitable space on the car park had to be made available during the day prior to scheme implementation at night.

Table 2: Barriers to effective project implementation and details as to how these barriers were overcome

<table>
<thead>
<tr>
<th>Barriers to implementation</th>
<th>Resultant actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No permanent electricity supply in the car park</td>
<td>MIU was run from a generator during the pilot implementation. This would need to be considered in more detail for future implementation.</td>
</tr>
<tr>
<td>Lack of suitable space within the car park</td>
<td>Police liaised with the council to arrange for an area of the car park to be cordoned off during the day prior to MIU operation</td>
</tr>
<tr>
<td>No information sharing agreement / radio communication with the MIU</td>
<td>Relied on mobile phone contact and the police and SP relaying information and keeping SJA personnel informed of any incidents within the NTE</td>
</tr>
<tr>
<td>Not all stakeholders fully involved in project design and planning</td>
<td>Feedback provided following each night in which the MIU was in operation. A feedback meeting held during December to discuss any necessary changes to the scheme</td>
</tr>
</tbody>
</table>

In contrast to communication on the ground during project implementation, overall communication among project partners was generally considered appropriate, with regular reports on activity each weekend and patient or patron feedback provided by both SP and SJA. Stakeholders commented that feedback was given and received all the time during the pilot implementation, with issues addressed as and when they arose. SJA did however suggest that moving forward, a more formal reporting procedure or template may be appropriate, akin to that which the organisation currently uses for larger events such as football matches.

Generally stakeholders felt that all the agencies involved in the scheme were fully engaged in the project and its implementation, with the scheme working well alongside the town’s
existing Pub Watch system. The police did however acknowledge the limitations that are placed on their organisation as a result of their work being almost exclusively dictated by unforeseeable operational needs.

4.1.5 The future of the project

All stakeholders agreed that the scheme should be implemented in the future as it was an asset to everyone on the streets in the NTE over the festive period. Aquarius were particularly keen to emphasise that as it can be weeks, months or even years before someone is ready or motivated to tackle their problem drinking, the regular provision of material likely to increase uptake to support services is extremely important. Although stakeholders all saw the value in the Shrewsbury Safer Nights scheme, suggestions were put forward as to times when it may be most beneficial to implement the scheme and other alterations to the coordination of the project and the operation of the MIU.

Peak periods

Key dates/times of year for possible future implementation suggested by stakeholders included:

- Weekends during the festive period (1st December – 1st January)
- Easter weekend
- May bank holiday weekend (early summer)
- August bank holiday weekend (late summer)
- Wednesday nights (student night) during university and college breaks when many students return home to the town

It was noted by the police that there is a clear low period from New Year’s Day until mid-April when the NTE is very slow and the implementation of a scheme such as the MIU would not be worthwhile.

Hours of operation

Stakeholders shared the view that it may be suitable to push back the hours of operation so that the unit would open at 10:00pm (when the town centre’s premises begin to get busy) and work until 4:00 or 5:00am when people are typically leaving nightclubs and beginning their journeys home.

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Pubwatch is a scheme designed to support the management of licensed premises. Licensees who join the scheme agree to support each other in achieving a safer environment for all members of the public. The scheme attempts to reduce incidents of violence, public disorder and other criminal offences within Shrewsbury.
Staffing levels

As there was some feeling that the unit was overstaffed at times during the pilot period, stakeholders suggested that for future implementation consideration needed to be given to the staffing levels for the MIU, in light of the knowledge gained in the pilot on the number of patients seen and treated.

Location of the MIU

There was general agreement that the car park would continue to be the most suitable location for the unit in future implementation so long as the following could be satisfied:

- A mains electricity supply introduced to the car park
- A suitable section of the car park allocated to the MIU and clearly signposted with its hours of operation, so that the space could be used by members of the public during the day but vacation by 6pm would be required so that the space would always be available for the MIU to set up in the evening

Project planning and coordination

From the point of view of the coordinating organisation (DAAT), having all partners round the table right from the beginning of the project and having an agreed schedule for meetings were seen as two key priorities for future implementation. Opinion was divided among stakeholders concerning the benefits of engaging with additional partners. Whilst some felt that more engagement with the premises themselves, the Pub Watch Scheme and security and door staff was needed, others reported that the police and the SP provided a suitable bridge between other stakeholders and these agencies and provided a direct link to venues and licensing teams. Stakeholders noted the absence of a representative from the hospital trust and speculated that greater involvement of A&E staff may provide more significant insights into the impact of the scheme on the health service.

The above insights from stakeholders, along with suggestions as to the most important aspects that need to be in place to ensure successful implementation of a scheme such as this, are discussed in more detail in the recommendations section (see section 5) and are presented in Figure 7.
4.2 Data analyses

4.2.1 St John Ambulance MIU

Patient profiles

Over the course of the pilot implementation period (15 nights between 01/12/2012 and 12/01/2013) staff at the MIU saw and treated 63 patients; an average of 4.2 patients per night. The first night of the intervention (Saturday 1st December) was the busiest night with 12 patients seen. Activity was low in early December then increased over the Christmas and New Year period. No patients were treated on Thursday 27th December (the nightclub hosting the teenage-focused event causing concern had its own first aid provisions). Activity was very low after New Year with just one patient recorded in the first weekend of January and three in the second weekend; hence the operation was ended.

Across all patients, mean age was 25.25 years (range 18-52 years), with over two thirds (69.8%) of patients aged between 18 and 24 years. Half (50.8%) of patients were male. Although intoxication may have been suspected in many more cases, alcohol consumption was actually recorded in 30.2% of patients. Of those patients for which information on arrival method was provided (n=59), 57.6% were classified as self-referrals, although this includes individuals who were referred to or brought to the unit by the police, Street Pastors, other agencies and friends or relatives. In 42.4% of cases, SJA staff were called to the scene to deal with patients. Details on the cause of presentation indicated that 15.9% of patients had suffered an intentional injury (e.g. assault) and 36.5% an unintentional injury (e.g. a fall). A further 38.1% of patients were suffering from a medical problem that did not result from an injury. This included patients who were experiencing symptoms resulting from alcohol intoxication (e.g. vomiting) or problems such as eye infections. Five MIU patients (7.9%) reported to the unit with an existing complaint, i.e. something that was not directly related to their participation in the NTE that evening.

Figure 3: Activity at the MIU over the course of the pilot period
Common symptoms and complaints

Detailed information on presenting symptoms and complaints was provided for 48 MIU patients (76.2% of cases). Among these individuals, the most common complaints were cuts and bruises (lacerations, contusions and abrasions; 20.8%), dislocations, sprains or joint injuries (16.7%) and head injuries (16.7%). Issues such as vomiting, facio-maxillary conditions and altered consciousness (including fainting or collapse) were also reported.

Treatment and departure

The mean time patients spent at the MIU was 30 minutes. The longest recorded case was one hour and 34 minutes while many patients were dealt with in 15 minutes or less (43.8%). Figure 3 shows the levels of activity in the MIU over the course of intervention nights (data presented combines Friday and Saturday nights throughout the pilot implementation period but excludes activity on New Year’s Eve – a Monday night). Levels of activity were low at the start of the evening (9pm) and began to pick up at 10pm. Activity peaked at 2am.

Figure 4: Patients seen at MIU on weekend nights, by hour

Over half of all patients were able to leave the MIU walking unaided (57.1%). Just over one in six left the unit walking with aid and 17.5% required a carry chair or stretcher. When leaving the MIU, most patients arranged their own transport (42.9%) and were collected by friends or relatives. Public transport (including taxis) was used by 11.1% of patients. SJA provided ambulance transport for 34.9% of patients and one patient (1.6%) required a WMAS ambulance. Having already been assessed and/or treated at the MIU, 28.6% (n=18) of patients were taken from the unit to the A&E department at Shrewsbury Royal Hospital.
SJA data reported that 23 individuals were taken by SJA ambulance to the A&E. WMAS reported having referred five calls relating to incidents in Shrewsbury NTE on pilot nights to SJA. However, the days and times of these cases do not match those recorded by the SJA so it is not possible to say if these cases accounted for the difference in figures.

4.2.2 West Midlands Ambulance Service

All incidents

Data on ambulance service activity regarding incidents in Shrewsbury town centre (postcode sector SY1 1) between October and February in 2010/11, 2011/12 and 2012/13 were provided by WMAS. Analysis of all data combined identified that incidents dealt with on weekend nights (Friday and Saturday, 9pm to 4am) were more likely than those at other times to involve young people (45.5% aged 15-24 compared with 15.4% at other times (p<0.001)) and to relate to conditions including assault (15.3% of call outs at weekend nights compared with 3.5% at other times (p<0.001)) and overdose (17.5% of call outs compared with 5.1% (p<0.001)). The following analyses focus on cases dealt with on weekend nights over the intervention period and the preceding and following weekends.

Intervention period

Table 4 summarises WMAS data from weekend nights (Friday and Saturday 9pm–4am) during the intervention period (Saturday 1st December to Saturday 12th January), compared with equivalent weekend nights over the preceding two years (Saturday 4th December to Saturday 15th January 2010/11, Saturday 3rd December to Saturday 14th January 2011/12).

The number of cases responded to by WMAS was lower in 2012/13 during the intervention, with 14 cases overall compared with 21 and 24 in 2011/12 and 2010/11 respectively. However, of these 14 cases three were ‘passing calls’ – cases that occur when an ambulance crew comes across an incident whilst they are driving (for example if they are on their way to or from another incident) and stops to provide assistance. These calls are therefore not processed by the command and control operators (i.e. do not result from somebody calling 999), but are recorded within the ambulance service’s data set when ambulance staff provide updates as to their ad hoc activity. Additional information provided for two of these three cases indicated that patients were suffering from the effects of alcohol intoxication. In one case, a female was transported to hospital following a possible drink spike. In another, a male was intoxicated but did not require further medical assistance as his parents were coming to the scene to collect him. Both these passing calls represent cases that may have been suitable for referral to the MIU. Removing these opportunistic cases from data for the intervention period in 2012/13 would leave 11 cases – around half the number recorded over the same period in the previous two years.
Table 4: Patient information for WMAS cases dealt with in the SY1 1 postcode area on Friday and Saturday nights (9pm-4am) over the intervention period, by year.

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total cases (number)</strong></td>
<td>24</td>
<td>21</td>
<td>14*</td>
</tr>
<tr>
<td><strong>Patient gender (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50.0</td>
<td>38.1</td>
<td>50.0</td>
</tr>
<tr>
<td>Female</td>
<td>41.7</td>
<td>28.6</td>
<td>21.4</td>
</tr>
<tr>
<td>Unknown</td>
<td>8.3</td>
<td>33.3</td>
<td>28.6</td>
</tr>
<tr>
<td><strong>Patient age (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aged 15-24</td>
<td>62.5</td>
<td>46.2</td>
<td>33.3</td>
</tr>
<tr>
<td><strong>Response category (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See and treat</td>
<td>41.7</td>
<td>28.6</td>
<td>42.9</td>
</tr>
<tr>
<td>See and convey</td>
<td>58.3</td>
<td>71.4</td>
<td>57.1</td>
</tr>
<tr>
<td><strong>Symptoms &amp; complaints (3 most common)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overdose (n=9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconscious/fainting (n=4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falls (n=6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault (n=3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breathing difficulties (n=3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assaults (n=3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trauma (n=3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passing call* (n=3)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* While 14 cases were recorded by WMAS in the 2012/13 intervention period, three of these cases were ‘passing calls’, whereby ambulance staff identified a potential incident on the street and stopped to assist, rather than a call being made to 999.

During the period in which the MIU operated, the primary complaints of patients seen and treated by the ambulance service were breathing problems and altered consciousness. This is dissimilar to the same period over the previous two years, when overdose, falls, assaults and unspecified trauma were the most common recorded conditions. During the intervention period, no patients were seen by the ambulance service for falls, with just one patient seen for assault and one for overdose. It is possible that during the intervention period, patients that would typically be treated or conveyed by the ambulance service with these main complaint types (overdose, falls and assaults) were treated by SJA at the MIU. Combining call out data for the pre- and post-intervention periods in 2012/13, the most common complaint types for ambulance call outs were unconscious/fainting (n=6, 46.2%), assault (n=3, 23.1%) and overdose (n=2, 15.4%).

Figure 5 compares the number of cases dealt with by the ambulance service on weekend nights before, during and after the intervention period in 2012/13 and, for comparison, the preceding two years. In each year, the intervention period contains six Friday and seven Saturday nights. The pre- and post-intervention periods each contain six Friday and six Saturday nights (i.e. up to the end of February, with data not obtained for March).
Consequently, data are not comparable across intervention time periods but are comparable across years.

In both 2010/11 and 2011/12, WMAS dealt with more cases in Shrewsbury town centre during the time period equivalent to the intervention period than in the pre-intervention period. Conversely, in 2012/13 when the intervention occurred, the number of cases dealt with was similar to that in the pre-intervention period; and reduced if the three passing calls are excluded (indicated by the shaded area in Figure 5). No clear trends were seen in the post-intervention period, with numbers of cases being lower than those in the intervention period in 2010/11, similar in 2011/12 and higher in 2012/13. Thus, no significant changes in ambulance service activity could be associated with the intervention, with exploration of data also compounded by small numbers. Despite this, the low number of cases dealt with in the intervention period in 2012/13 compared with other years suggests the intervention reduced WMAS workload.

Figure 5. WMAS cases attended between 9pm and 4am on Friday and Saturday nights

*Shaded area represents the three passing calls recorded in 2012/13
4.2.3 Accident and Emergency (A&E) attendances

Data from Shrewsbury Royal Hospital A&E were provided for those times when the MIU was in operation (Friday and Saturday nights, 9pm to 4am) and covered October to February 2010/11, 2011/12 and 2012/13. As with ambulance data, analysis focused on the intervention period (Saturday 1st December to Saturday 12th January 2012/13), compared with equivalent weekend nights over the preceding two years (Saturday 4th December to Saturday 15th January 2010/11, Saturday 3rd December to Saturday 14th January 2011/12); and then examined the pre and post intervention periods to examine any changes in trends. However, unlike ambulance data it was not possible to limit attendances to incidents that had occurred within Shrewsbury’s NTE as data on the location of incident are not recorded. Thus, data refer to all attendances to the A&E during study periods.

All weekend night-time attendances

Across the whole sample (n=2,130 attendances), just over half of attendances were by males (53.0%) while 15-24 year olds accounted for more attendances than any other age group (21.4%). Just under one in 20 (4.3%) attendances were for assaults, 2.5% were for deliberate self-harm, 2.3% for road traffic injury, 0.8% for sports injury, 15.3% for another type of unintentional injury and the remainder (74.9%) for other types of conditions. Among the most common diagnoses recorded were gastrointestinal conditions (8.1%), lacerations (6.6%), respiratory conditions (5.9%), cardiac conditions (5.0%) and poisoning/overdose (4.6%). Numbers of attendances were highest in the hour 9.00pm-9.59pm (19.8%) and decreased with time (4.00am-4.59am, 7.4%). Two thirds of attendees (66.8%) arrived at the A&E by ambulance. Data on patient disposal indicates that 41.6% of patients were discharged without the need for follow up treatment, while 34.3% resulted in hospital admission, with other patients predominantly between referred to other services (e.g. GP, fracture clinic, outpatient clinic).

Intervention period

Table 5 summarises patient and attendance information from weekend nights (9pm – 4am) during the intervention period in 2012/13 compared with equivalent weekend nights over the preceding two years. The number of A&E attendances was higher in 2012/13 during the intervention period, with 301 attendances compared with 247 in 2011/12 and 252 in 2010/11. This is consistent with national reports that A&E attendances are on the rise.31

There were no significant differences across years by patient gender (p=.425) or age group (p=.165). There were also no significant differences by patient group, although the number and proportion of assaults recorded was higher in 2012/13 (n=19, 6.3%). Half of A&E patients during the intervention period in both 2012/13 (49.8%) and 2011/12 (47.6%) were brought in by ambulance.6 Table 5 shows the most common three disposal methods for patients. Around a third of patients in each year were admitted to hospital and over 40%

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6 For 2010/11, all attendances were recorded as having been brought in by ambulance and the reliability of this variable in the data is therefore questioned.
were discharged with no follow up. A greater proportion of patients in 2012/13 were discharged with follow up to their GP.

Table 5. Patient information for A&E attendances (Royal Shrewsbury Hospital) during the intervention period in 2012/13 and preceding years

<table>
<thead>
<tr>
<th>Patient information</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of attendances</td>
<td>247</td>
<td>252</td>
<td>301</td>
</tr>
<tr>
<td>Patient information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% male</td>
<td>53.0</td>
<td>55.6</td>
<td>53.2</td>
</tr>
<tr>
<td>%15-24 years</td>
<td>17.0</td>
<td>23.8</td>
<td>22.6</td>
</tr>
<tr>
<td>Patient group (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault</td>
<td>3.2</td>
<td>2.8</td>
<td>6.3</td>
</tr>
<tr>
<td>Deliberate self-harm</td>
<td>2.0</td>
<td>3.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Road traffic accident</td>
<td>0.8</td>
<td>2.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Sports injury</td>
<td>0.4</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Other accident</td>
<td>16.2</td>
<td>16.3</td>
<td>11.3</td>
</tr>
<tr>
<td>Other</td>
<td>77.3</td>
<td>74.2</td>
<td>77.4</td>
</tr>
<tr>
<td>Patient disposal (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admitted to hospital</td>
<td>31.6</td>
<td>35.7</td>
<td>29.9</td>
</tr>
<tr>
<td>Discharged – Did not require follow up treatment</td>
<td>45.3</td>
<td>42.9</td>
<td>40.2</td>
</tr>
<tr>
<td>Discharged – Follow up treatment by GP</td>
<td>8.1</td>
<td>6.3</td>
<td>15.6</td>
</tr>
</tbody>
</table>

*Remaining patients were referred to another clinic or health care professional, transferred to another health care provider, left the department without treatment or died in the department.

Figure 6 compares the number of A&E attendances on weekend nights before, during and after the intervention period in 2012/13 and over equivalent periods in the preceding two years. As with ambulance data, in each year the intervention period contains six Friday and seven Saturday nights and the pre- and post-intervention periods each contain six Friday and six Saturday nights (i.e. up to the end of February, with data not obtained for March). Consequently, data are not comparable across intervention time periods but are comparable across years.

There were no changes in A&E attendances associated with the intervention. While the intervention period in 2012/13 does show the greatest numbers of A&E attendances, the trend is non-significant ($X^2 3.691, P=0.449$).
4.2.4 Street Pastor patrols
Throughout the Safer Shrewsbury pilot implementation, Street Pastor (SP) patrols continued in the NTE with SPs engaging with the MIU where necessary. Although changes in SP assistance would not be expected as a result of the intervention, data on SP activity is discussed here to provide a picture of the types of incidents dealt with by SPs in Shrewsbury’s NTE over the implementation period.

According to their reports, over the course of the intervention the Street Pastor patrols assisted over 50 individuals in Shrewsbury town centre. Although many of the helped individuals were alcohol impaired, had been victims of assault or had found themselves in other vulnerable situations, the pastors also interacted with people in the NTE who simply wanted someone to talk to about their lives or their faith, or were in need of general directions. Reports indicate that many individuals were also keen to enquire about the role of the SPs within the NTE. Patrons that came into contact with the SPs were typically white (98.5%) and aged between 18 and 25 years (57.5%).

Just under half of all those people that the SPs had contact with and provided support or assistance to were identified by patrols as being significantly impaired by alcohol. These individuals were typically young females who were not frequent visitors to the NTE in Shrewsbury. Separation from their friends was a recurring problem among those who were alcohol impaired. Where possible, the SPs assisted these individuals by reuniting them with their friends. When friends could not be found, the patrols assisted individuals in getting home by calling relatives to come and collect them or ensuring they were safely in taxis. Transport home was arranged for many intoxicated individuals who no longer wished to, or

**Figure 6.** A&E attendances at The Royal Shrewsbury Hospital between 9pm and 4am on Friday and Saturday nights in the pre-, during and post-intervention periods.
were no longer able to, partake in the NTE. In more severe cases however (when individuals were suffering from an altered state of consciousness as a result of their alcohol consumption), the SPs sought medical assistance for patrons from the MIU (4 recorded instances).

During the intervention period, a total of 261 Night Time Survival Kits were handed out to NTE patrons. These kits included the contact information for various help and support services within the town specialising in issues such as alcohol dependence or domestic abuse. Where appropriate, patrols also distributed space blankets, spikeys, bottled water, lollipops and flip flops (for women who were struggling to walk in their high heeled shoes).

Although the work of the patrols was reportedly very well received in the town centre, some individuals did refuse the help of the SPs. These individuals were subsequently monitored from afar in an attempt to ensure their continued safety.

\[\text{Spikeys are brightly coloured plastic anti-drink spiking stoppers that can be inserted into the neck of any bottle and used with a drinking straw.}\]
5. Summary of findings and recommendations

Exploration of perceptions and impacts of the Shrewsbury Safer Nights MIU has suggested that the pilot project was valued by stakeholders, who identified various benefits from the scheme to both patrons of the NTE and their own objectives and working practices. For patrons of the NTE these included immediate access to medical services in the NTE and reassurance that assistance is available if required. For partners themselves, key benefits included:

- Enhanced partnership working in Shrewsbury through a coordinated multiagency treatment response
- Successful support of stakeholders in their existing aims and activities within the NTE
- Demonstration of a commitment from local partners to improving health service provision and limiting the burdens placed on health care resources from alcohol-related harm within the NTE
- A perceived reduction in the pressure placed on health services over the festive period
- The provision of an alternative referral pathway for the police and staff within the NTE, removing the need for them to make decisions regarding the level of medical assistance required

Although the scheme was designed to support stakeholders in their existing aims and activities within the NTE and reportedly did so successfully, in some cases the pilot intervention period was noted as placing additional demands on organisations that were manageable during the short pilot but may not be sustainable in the same way for longer-term operation. For SJA, for example, mobilising volunteers over the summer months when demand for first aid services is very high (at sporting events, festivals etc.) would be much more challenging than during the festive period and would require substantial notice to allow suitable workforce planning.

Stakeholders also considered the following to be the key strengths of the scheme:

- Effective planning and implementation, giving partners a clear understanding of the overall aim of the project, and their own individual responsibilities within the scheme
- The timely manner in which teams on the ground adapted to unforeseen operational problems that arose during the first few nights of the pilot period
- Regular feedback between partners as to activities at the MIU and experiences in the NTE during the scheme’s operation
- The professional approach and quality of care provided by SJA
Data from the MIU itself found that while the average numbers of patients seen and treated were low (four patients per night of operation), weekend nights around the immediate Christmas and New Year period saw greater demand for care, as did New Year’s Eve (between five and eight patients per night). Across all nights, the busiest time for the MIU was around 2:00am, with very few patients seen before 10pm. Such operational data should inform any future implementation of the scheme.

Although reports from SJA suggest that they treated the types of patients and injuries they would typically expect to see within the NTE – cuts, bruises, sprains, head injuries and problems such as vomiting and altered consciousness - a key issue for a scheme such as this is ascertaining whether or not the MIU treated ‘appropriate’ patients, i.e. those who would or should have sought medical treatment from elsewhere had the MIU not been in operation. Although stakeholders thought that some self-presenting individuals were visiting the MIU to satisfy their curiosity or for treatment of very minor complaints (e.g. blisters), the integral role of the Street Pastors and police in dealing directly with patrons and referring them to the MIU was thought to have limited this problem. However, the retrospective nature of the pilot evaluation meant that it was not possible to incorporate data from patients on their likely alternative help seeking behaviour should the MIU have not been in operation. Thus, assessment relied on comparing data on health service use between the intervention and previous years.

Although analyses of ambulance service data showed no significant changes in call outs to Shrewsbury town centre associated with the intervention, there was a clear drop in such call outs during intervention nights compared with equivalent periods in previous years. This suggests that the intervention helped alleviate pressures on ambulance services. Differences can also be seen in the types of conditions dealt with by the ambulance service over the intervention period, with a reduction in those conditions most commonly seen on weekend nights (e.g. overdose, assault). It is likely that such cases were successfully being picked up by, or transferred to, SJA and the MIU.

Almost three quarters of patients seen at the MIU were treated and able to return home, with 18 patients being taken from the unit by a St John ambulance to Shrewsbury Royal Hospital A&E. Examination of A&E data found no significant impact of the intervention on A&E attendances, with A&E attendance higher during the intervention period than during equivalent periods in previous years. However, as A&E data do not detail where patients sustained injuries or experienced other health problems, it is not possible to isolate cases occurring in the NTE. Consequently the number of cases treated at the MIU would constitute only a very small proportion of the A&E workload. The collection of data from A&E on the location at which harms such as assaults, falls and overdoses occur would benefit future research. At least for assaults, supporting A&Es to collect such data and share it with local partners for the purposes of violence prevention is a key government priority.
Based on the findings from this evaluation, the following recommendations are made for future work:

- Future use of the MIU would be best focused around the immediate Christmas and New Year period when service use was highest, and on other key nights identified through local intelligence, including that from the ambulance service and Street Pastors.
- Collation of data on patient alcohol use and incident location information from Royal Shrewsbury Hospital A&E would support the targeting of future schemes and would facilitate the identification of impacts on service use.
- A designated representative from the Royal Shrewsbury Hospital A&E should be identified for the purposes of project planning, monitoring and evaluation. This individual should be fully aware of the scheme and able to provide insight into impacts on A&E attendances.
- All partners should be fully engaged in project planning and development from the very initial stages. This should also include early engagement with researchers or analysts who may be supporting evaluation of the scheme.
- Although the Shrewsbury Safer Nights scheme was introduced to deal with the effects of alcohol intoxication in the NTE, accurate estimates of alcohol involvement in MIU patients, WMAS cases and A&E attendances could not be made. For future implementation and evaluation, partners should establish a common and reliable assessment tool for estimating patient intoxication.
- Future implementation of the Shrewsbury Safer Nights MIU should incorporate a mechanism for recording feedback from clients, including their likely health seeking behaviours. For example, those accessing medical care at the MIU could be asked if they had previously sought medical assistance during or after a night out, what they would have done in the current circumstances had the MIU not been in operation, and which health services (if any) they might choose to engage with in the future.
- With conflicting data received from SJA and the ambulance service concerning the transfer of emergency calls, more rigorous data coordination procedures should be established across all partners prior to future implementation.
- Prior to future implementation of the MIU, SJA should be included within existing police communication networks to support partner communication within the NTE.
- Given the relatively small numbers of patients accessing the MIU and the difficulties in identifying impacts on health service use overall, partners may like to consider the appropriateness and feasibility of looking at impacts on alternative outcome measures, such as waiting times or ambulance handover times.
- More regular implementation of the Shrewsbury Safer Nights MIU would need to consider the costs of the scheme in comparison to standard practice.
These recommendations, along with the key aspects that stakeholders felt were important for the successful implementation of a scheme such as this, are summarised in Figure 7. In this figure, green boxes represent aspects that are already in place within the scheme, orange boxes represent aspects that are in existence but need further consideration, and red boxes signify areas of focus for future development.

5.1 Conclusions

Through the Shrewsbury Safer Nights scheme, local partners successfully worked together to deliver a coordinated multiagency treatment response within the NTE. In the safe environment of the MIU, patients were provided with immediate medical attention and support, in some cases potentially negating the need for A&E attendance. The MIU and its associated mobile response facilities also supported the police and staff within the NTE by providing them with alternative pathways for the care and referral of intoxicated patrons.

Although the Shrewsbury Safer Nights scheme did not have a quantifiable impact on A&E attendances over the festive period due to the small number of patients seen and treated at the unit, the process of passing town centre 999 calls from West Midlands Ambulance Service to St John Ambulance during the intervention appeared to be effective in relieving some of the pressure that the ambulance service faces during this time.
Figure 7. Ensuring the success of the Shrewsbury Safer Nights Scheme

<table>
<thead>
<tr>
<th>Pre-implementation</th>
<th>Implementation</th>
<th>Post-implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration of different ideas and possibilities</td>
<td>Regular feedback</td>
<td></td>
</tr>
<tr>
<td>Shared responsibility for the organisation of the project</td>
<td></td>
<td></td>
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<tr>
<td>Intelligence on alcohol-related A&amp;E attendances and incidents originating from the NTE</td>
<td></td>
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</tr>
<tr>
<td>Open, inclusive and meaningful discussions among partner organisations</td>
<td></td>
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<tr>
<td>Clearly defined roles and responsibilities</td>
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<td></td>
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<tr>
<td>Commitment from all project partners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buy-in from other local agencies</td>
<td>Feedback from local agencies</td>
<td></td>
</tr>
<tr>
<td>Established communication and reporting systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective shared protocols</td>
<td>Adherence to protocols</td>
<td>Review of protocols</td>
</tr>
<tr>
<td>An ambulance attached to the MIU – to provide direct transport or respond to 999 calls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare professionals (including a paramedic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A designated key contact within the A&amp;E department</td>
<td>Effective recording of alcohol intoxication</td>
<td>Feedback from MIU users / NTE patrons</td>
</tr>
<tr>
<td>Analysis plan</td>
<td>Data collection</td>
<td>Rigorous evaluation</td>
</tr>
<tr>
<td>Pre-implementation</td>
<td>Implementation</td>
<td>Post-implementation</td>
</tr>
</tbody>
</table>
References


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