

## All-Wales Licensed Premises Intervention (AWLPI): a randomised controlled trial of an intervention to reduce alcohol-related violence

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**National Institute for  
Health Research**



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# Abstract

## All-Wales Licensed Premises Intervention (AWLPI): a randomised controlled trial of an intervention to reduce alcohol-related violence

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**Background:** Violence in and around premises licensed for the on-site sale and consumption of alcohol continues to burden the NHS with assault-related injuries.

**Trial design:** A randomised controlled trial with licensed premises as the unit of allocation, with additional process and cost-effectiveness evaluations.

**Methods:** Premises were eligible ( $n = 837$ ) if they were licensed for on-site sale and consumption of alcohol, were within 1 of the 22 local authorities (LAs) in Wales and had previously experienced violence. Data were analysed using Andersen–Gill recurrent event models in an intention-to-treat analysis. An embedded process evaluation examined intervention implementation, reach, fidelity, dose and receipt. An economic evaluation compared costs of the intervention with benefits.

**Intervention:** Premises were randomised to receive a violence-reduction intervention, Safety Management in Licensed Environments (SMILE), which was delivered by an environmental health practitioner (EHP; the agent). SMILE consisted of an initial risk audit to identify known risks of violence, a follow-up audit scheduled to enforce change for premises in which serious risks had been identified, structured advice from EHPs on how risks could be addressed in premises and online materials that provided educational videos and related material.

**Objective:** To develop intervention materials that are acceptable and consistent with EHPs' statutory remit; to determine the effectiveness of the SMILE intervention in reducing violence; to determine reach, fidelity, dose and receipt of the intervention; and to consider intervention cost-effectiveness.

**Outcome:** Difference in police-recorded violence between intervention and control premises over a 455-day follow-up period.

**Randomisation:** A minimum sample size of 274 licensed premises per arm was required, rounded up to 300 and randomly selected from the eligible population. Licensed premises were randomly assigned by computer to intervention and control arms in a 1 : 1 ratio. Optimal allocation was used, stratified by LA. Premises opening hours, volume of previous violence and LA EHP capacity were used to balance the randomisation. Premises were dropped from the study if they were closed at the time of audit.

**Results:** SMILE was delivered with high levels of reach and fidelity but similar levels of dose to all premises, regardless of risk level. Intervention premises ( $n = 208$ ) showed an increase in police-recorded violence compared with control premises ( $n = 245$ ), although results are underpowered. An initial risk audit was less effective than normal practice (hazard ratio = 1.34, 95% confidence interval 1.20 to 1.51) and not cost-effective. Almost all eligible intervention premises (98.6%) received the initial risk audit; nearly 40% of intervention practices should have received follow-up visits but fewer than 10% received one. The intervention was acceptable to EHPs and to some premises staff, but less so for smaller independent premises.

**Conclusions:** SMILE was associated with an increase in police-recorded violence in intervention premises, compared with control premises. A lack of follow-up enforcement visits suggests implementation failure for what was seen as a key mechanism of action. There are also concerns as to the robustness of police data for targeting and assessing outcome effectiveness, while intervention premises may have received greater attention from statutory agencies and, therefore, the identification of more violence than control premises. Although SMILE had high reach and was feasible and acceptable to EHPs, it was found to be ineffective and associated with increased levels of violence, compared with normal practice and it requires additional work to promote the implementation of follow-up enforcement visits. Future work will aim to better understand the role of intervention dose on outcomes and seek more objective measures of violence for use in similar trials.

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# Glossary

**Designated premises supervisor** The designated premises supervisor is a named person whose role is identified in the UK Licensing Act 2003 (Great Britain. *Licensing Act 2003*. London: The Stationery Office; 2003) as one who is accountable for the day-to-day running of the licensed premises and acts as the primary contact for local government and the police.

**Environmental health practitioner** Environmental health practitioners are primarily responsible for enforcing the 1974 Health and Safety at Work etc Act (Great Britain. *Health and Safety at Work etc Act 1974*. London: The Stationery Office; 1974) and related legislation. The Health and Safety at Work etc Act requires businesses, including licensed premises, to work towards high standards of health and safety in the workplace and to protect employees and the public from harm. Such responsibilities include the provision of information and training to staff to ensure a safe working environment, the provision of written safety policies and risk assessments, and looking after the health and safety of others. In upholding the Health and Safety at Work etc Act, environmental health practitioners have a right of entry at reasonable times to investigate and examine a premises, the right to view and copy documents, and the right to ask questions under caution. Where enforcement is necessary, environmental health practitioners can also give written legal notices. If an environmental health practitioner is of the opinion that a premises is contravening the Health and Safety at Work etc Act, that premises can be served with an improvement notice, which details what needs to be addressed within a set period of time. However, if an environmental health practitioner believes that activities are occurring that put employees and the public at immediate risk of harm then they may serve a prohibition notice, which prohibits unsafe practices immediately. In very extreme circumstances environmental health practitioners can also bring about criminal prosecutions of both employers and employees.

**RE-AIM** The RE-AIM framework is used to explore the implementation of health promotion interventions in community settings. The acronym represents five key evaluative components ('reach', 'efficacy', 'adoption', 'implementation' and 'maintenance'), which are used to structure exploration of the data.

**Safety Management in Licensed Environments** This intervention, known as SMILE, encompassed several elements: the risk audit adapted for the All-Wales Licensed Premises Intervention trial and used by the environmental health practitioners; the bespoke action plan provided to the designated premises supervisor in response to the risks identified by the All-Wales Licensed Premises Intervention risk audit; and the intervention's website for premises staff (including educational films).



## List of abbreviations

A&E	accident and emergency	ITT	intention to treat
ARV	alcohol-related violence	LA	local authority
AWLPI	All-Wales Licensed Premises Intervention	NPT	normalisation process theory
BCa	bias-corrected accelerated	NTE	night-time economy
BWT	'broken windows' theory	NWP	North Wales Police
CCTV	closed-circuit television	RAT	routine activity theory
CEAC	cost-effectiveness acceptability curve	RBS	responsible beverage service
CI	confidence interval	RCI	risk control indicator
DPS	designated premises supervisor	RCT	randomised controlled trial
EHP	environmental health practitioner	RE-AIM	reach, efficacy, adoption, implementation and maintenance
GPS	Global Positioning System	RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
HR	hazard ratio	SD	standard deviation
HSE	Health and Safety Executive	SMILE	Safety Management in Licensed Environments
HSWA	Health and Safety at Work etc Act 1974	SWP	South Wales Police
ID	identification	TDAR	trans-disciplinary action research



## Plain English summary

Violence that occurs in and around premises licensed for the on-site sale and consumption of alcohol continues to burden public services, including the NHS. This project developed an intervention for delivery by environmental health practitioners (EHPs) to premises that had a history of violence occurring. This project assessed the impact of this intervention on police-recorded violence, considered the acceptability of the intervention to both EHPs and premises staff and further considered the costs and benefits of this approach.

This project has successfully delivered an evaluation of a large complex intervention and is the first to test this approach in the licensed trade in the UK. Results indicate that the intervention was associated with an increase in police-recorded violence. The intervention successfully reached virtually all premises that were eligible to receive it and the approach was broadly acceptable to both EHPs and premises staff owing to its statutory nature. Secondary analyses suggest that the greater the intervention dose (in this sense, the more enforcement of change provided by EHPs), the more likely the intervention is to have an effect. However, enforcement through follow-up visits was rarely used by EHPs suggesting partial implementation failure. The intervention may require a longer period to embed in normal practice and the use of a multiagency approach to promote full implementation. Smaller independent premises were less responsive to the intervention and may require such enforcement to promote action. Methodological problems might also have influenced results: premises closure meant that the trial was underpowered, police data may not be reliable to target the intervention and assess outcome effectiveness, and intervention premises might have received greater attention from the police and related authorities and, therefore, had more violence recorded for them. Additional work is required to understand how best to integrate health data into future projects so that more robust outcomes can be used.



# Scientific summary

## Background

Alcohol-related violence (ARV) continues to place a burden on public services, including the NHS. Research suggests that interventions that address environment-specific risk factors in premises licensed for the on-site sale and consumption of alcohol may help to reduce ARV; there is currently a lack of evidence in the UK from trials that evaluate premises-level risk-management interventions. The All-Wales Licensed Premises Intervention (AWLPI) project builds on the available literature and an earlier feasibility study to develop and evaluate the Safety Management in Licensed Environments (SMILE) intervention.

## Aims

### Primary aim

To determine the impact of SMILE on police-recorded violence.

### Secondary aims

1. To translate existing knowledge into an intervention suitable for use within environmental health practitioners' (EHPs') remit for intervention in licensed premises.
2. To assess whether or not the impact of the intervention changes over time (intervention wane).
3. To identify the costs associated with SMILE and the extent to which it can be regarded as an efficient use of public funds.
4. To assess whether or not the integrity of SMILE is maintained across local authorities (LAs).
5. To determine the optimal format of the risk-led premises-level intervention for delivery by EHPs.
6. To develop a revised logic model (a detailed description of intervention development and delivery) of the intervention.
7. To consider the relationship between outcomes and intervention reach, fidelity, dose and receipt.

## Intervention

The SMILE intervention involved an initial visit and risk audit by EHPs to identify known risks of violence and a follow-up audit scheduled to enforce changes in premises where serious risks had been identified. Structured advice was administered by EHPs on how risks could be addressed in premises and supported by online materials that provided educational videos and related material to premises staff.

The risk audit tool was based on results of an earlier feasibility trial and systematic review evidence. Materials were coproduced and adapted to conform to EHPs' usual practice and then piloted by senior EHPs. The online materials were developed by a project advisory group with the help of a design company.

## Methods

A trans-disciplinary action research (TDAR) approach was used to develop SMILE and implement it within normal environmental health working practices. Normalisation process theory was used to assess the effectiveness of TDAR in promoting intervention adoption, reach, fidelity, receipt and sustainability.

The evaluation involved a randomised controlled trial, with licensed premises drawn from all 22 LAs in Wales as the unit of allocation. Eligible premises ( $n = 837$ ) that had previously experienced violence were randomised into an intervention group, which received SMILE, and a control group, which received usual practice. Primary analysis was by intention to treat (ITT) with additional sensitivity testing. An embedded process evaluation examined intervention implementation, reach, fidelity, reception and premises responsiveness. An economic evaluation compared costs of the intervention with benefits from a societal perspective.

### ***Trial population and eligibility criteria***

A minimum sample size of 274 licensed premises per arm was required, randomly selected from the eligible population. Eligible premises ( $n = 837$ ) were public houses, nightclubs or hotels with a public bar operational at the time of intervention that had been identified in police-recorded violence data as having experienced violence. Cafes, restaurants and entertainment venues such as sports facilities and concert halls were excluded. Eligible premises ( $n = 606$ ) were available for study and randomly allocated to control ( $n = 300$ ) or intervention ( $n = 300$ ) groups. Of these, however, only 453 were available for analysis, mainly as a result of closures during the time available for intervention delivery. Thus, the trial was underpowered.

The sample available for analysis included the ITT group (control group,  $n = 208$ ; intervention group,  $n = 245$ ) on which primary analyses were conducted, and two further groups on which sensitivity analyses were conducted (per-protocol: control  $n = 208$ , intervention  $n = 238$ ; non-randomised group where spare premises not initially allocated were included: control  $n = 321$ , intervention  $n = 285$ ).

### ***Randomisation***

Within each LA, premises were allocated randomly to intervention or control groups. Premises were optimally balanced by LA: number of violent incidents in baseline data and opening hours (coded into two groups: open up to 11 p.m. and open after 11 p.m.). Optimal allocation was used to carry out the randomisation where a balancing algorithm minimised the imbalance between treatment groups across the prespecified balancing factors on a block (LA) basis. This ensured that overall balance was maintained within blocks, and also between blocks by conditioning on the previous block allocation. Randomisation was carried out by an independent statistician within the South East Wales Trials Unit to conceal allocation from the trial team.

### ***Outcome measures***

The primary outcome was difference in police-recorded violence between intervention and control premises over the 455-day follow-up period (from 1 January 2013, the first day when intervention premises were eligible to receive the intervention). The trial incorporated an embedded process evaluation that was used to examine how the trial was implemented and to facilitate interpretation of outcome effects. The cost of the intervention (including any implementation costs) and the estimated differences in cost-generating events as a result of violence were secondary outcomes.

### ***Statistical analyses***

The primary analysis was an ITT analysis of police-recorded violence between intervention and control premises over the follow-up period, with time-zero being the time of randomisation. The analytic approach used the Andersen–Gill model, where sessions (where each temporal unit was from 12 p.m. to 12 p.m. the following day) were marked with a binary fail indicator such that if one or more violent offences occurred during that session it was marked as being in a state of failure. This approach facilitated the inclusion of time-varying covariates and censoring. Additional sensitivity analyses were conducted on the per-protocol and the non-randomised populations. A secondary analysis was undertaken to assess the hypothesised intervention wane over the follow-up period. An embedded process evaluation examined intervention implementation, reach, fidelity, reception and premises responsiveness. In line with the main statistical analysis, the cost-effectiveness analysis was carried out on premises in the ITT sample, with a secondary exploratory analysis investigating the cost-effectiveness of the intervention where it included a follow-up visit.

## Results

### *Trial results*

Almost all premises (98%) eligible to receive the initial intervention received it. The intervention was associated with an increase in police-recorded violence [hazard ratio (HR) = 1.34, 95% confidence interval 1.20 to 1.51]. This effect was constant across the follow-up period. Fewer than expected premises ( $n = 16$  in ITT group,  $n = 18$  overall) received a follow-up visit from EHPs and these premises yielded a modest reduction in recorded violence (HR = 0.43,  $p < 0.001$ ), although analyses were underpowered.

### *Process evaluation results*

Study findings suggest that researchers and EHPs were able to draw on their expertise and knowledge to shape an intervention that could be successfully integrated into routine practice. Consequently, SMILE achieved high levels of fidelity and reach owing to the statutory powers of EHPs. However, a similar intervention dose was delivered regardless of premises risk factors, with EHPs less confident in using enforcement options in what was a new area of work. There were also some questions regarding whether or not police data were adequately targeting violent premises and could be used to assess effectiveness. Overall, premises responded positively to the use of a statutory intervention, although smaller independent premises were more likely to perceive the intervention as an imposition and a burden.

### *Economic evaluation results*

The total cost of the SMILE intervention (training 70 EHPs, auditing 281 premises with further follow-up audit to 18 premises with higher risks of violence) was £35,196, or £125 per premises. The intervention was shown to be less effective and more costly than normal practice and hence not cost-effective. Despite the uncertainty due to small numbers of follow-up visits, a sensitivity analysis capturing joint uncertainty in costs and effects suggests that the probability of a follow-up visit being cost-effective may be almost 100%.

## Conclusions

The SMILE intervention was acceptable to EHPs, consistent with their usual working practice and delivered with high levels of fidelity and reach. However, EHPs rarely enforced their recommendations with follow-up visits, and so premises received a similar intervention regardless of their level of violent incidents or risk factors. This represents implementation failure of what was seen as a key mechanism of action. Indeed, the modest findings associated with follow-up visits may suggest that they are necessary in order to yield a positive reduction in violence. Given this, the SMILE intervention as delivered was found to be ineffective and associated with increased levels of violence, compared with normal practice. To be effective, any future intervention may require a longer implementation period to develop EHP confidence in using enforcement approaches in this area and a multiagency approach including the police. Results are further complicated by concerns regarding whether or not police data were adequate in identifying the most risky premises and assessing effectiveness, and the possibility that the audit of intervention premises might have resulted in increased police vigilance and recording of violence at follow-up, compared with control premises.

### *Implications*

Environmental health practitioners can play an important role in delivering harm-reduction measures to premises licensed for the on-site sale and consumption of alcohol.

### **Recommendations for research**

Further work is required to develop the accuracy and reach of data needed to understand the harm associated with ARV. This will require more objective measures of alcohol-related harm such as those available from NHS services, which are less prone to recording biases. In addition, data are lacking on the activities that different premises are licensed for, and this requires urgent attention if researchers and responsible authorities are to make positive contributions to ARV. The cost of alcohol-related harm is poorly understood. Work needs to be undertaken to better understand both the tangible cost to services of ARV and the intangible victim costs.

Attention should be given to the nature of the relationship between authorities whose remits overlap in tackling ARV. There currently appears to be a mismatch between skills available in some authorities and the intended effect of their involvement in this area, given the evidence showing that changes within premises can bring about reductions in violence. Further work is required to better understand the role of follow-up visits in this context, in particular whether or not they are necessary to enforce change in premises.

### **Trial registration**

This trial is registered as ISRCTN78924818.

### **Funding**

Funding for this trial was provided by the Public Health Research programme of the National Institute for Health Research.

# Chapter 1 Structure of the report

## Introduction

This trial aimed to determine the effectiveness of a novel, risk-led intervention delivered by environmental health practitioners (EHPs) to licensed premises across Wales. This was achieved by carrying out a pragmatic randomised controlled trial (RCT). However, trialling the intervention was only one element of the overall project. The project also included an intervention development component, an embedded process evaluation and a cost-effectiveness evaluation. The aim of these developmental and evaluative components was to document how the intervention integrates into the working practice of EHPs and to scrutinise and appraise the iterative design and implementation process.

Intervention development involved focus groups with senior EHPs, information sharing meetings between academic researchers, senior EHPs and stakeholders, and development meetings with design professionals. The purpose of this stage of the trial was to optimise the design of the intervention and to determine the most acceptable method of delivery. The findings from this element of the trial were also used to develop a logic model for the planned intervention.

This trial involved the randomisation of purposively sampled licensed premises into control and intervention arms. The premises in the intervention group were visited by an EHP, who undertook an audit that assessed operational risks associated with alcohol-related violence (ARV). The premises staff in the intervention group were also given access to a website with videos and educational material containing information designed to help the staff proactively identify and reduce the risk. The control group did not receive a visit from EHPs or intervention materials. If risks identified using the intervention audit were substantial or significant enough to warrant a formal notice, the premises were reaudited within 3 months of the initial audit taking place. The objective of this part of the trial was to determine, using police violence data, whether or not the audit, associated materials and follow-up audit (when implemented) could reduce incidences of ARV in and around premises.

The evaluative stage of the trial encompasses the imbedded process evaluation and cost-effectiveness analyses. The process evaluation aimed to understand the implementation of the intervention, to aid interpretation of outcomes and to improve future delivery. The aim of the process evaluation as a whole was to better understand all aspects of the trial and to identify opportunities to improve intervention delivery.

## Report chapters

This report is laid out as a series of chapters that provide a description of the rationale, conduct and outcomes resulting from each of the trial components. The chapters are now summarised.

*Chapter 2* begins with an introduction to the issue of ARV and provides the motivation for a premises-level risk-led intervention and the rationale for using EHPs to deliver the intervention to the premises.

*Chapter 3* summarises the theoretical basis behind the main aspects of the trial, including the reason behind the choice of the primary outcome measure, and describes the processes and methods involved in designing the intervention.

*Chapter 4* describes the trial stage methods, cost-effectiveness analysis methods and process evaluation methods.

*Chapter 5* presents the main quantitative results, together with a brief summary.

*Chapter 6* presents results from the embedded process evaluation along with a short discussion that summarises the main findings and examines their significance in the context of previous research.

*Chapter 7* presents the findings from the cost-effectiveness evaluation and a brief discussion.

*Chapter 8* synthesises the findings arising from the trial as a whole and assesses the extent to which the aims and objectives set out in the introduction were met. This chapter also identifies implications for future research and practice.

## Chapter 2 Introduction

In the UK, the costs of ARV to public services, including the NHS, the economy and society, are substantial, estimated to be between £8B and £11B.<sup>1,2</sup> Between 2011 and 2012 there were over 910,000 violent incidents where the offender was believed to be under the influence of alcohol, accounting for 47% of all violent offences committed in that period.<sup>3</sup> An estimated 2 million emergency department attendances each year are thought to be alcohol related. These figures account for 70% of unscheduled accident and emergency (A&E) attendances during peak hours.<sup>1</sup> Medical treatment following alcohol-related assaults, therefore, places a considerable burden on the NHS.<sup>4</sup>

Premises licensed for the on-site sale and consumption of alcohol are implicated in alcohol-related injury and violence.<sup>5,6</sup> ARV is commonly observed in alcohol-focused nightlife, with estimates suggesting that 20% of all violence in England and Wales occurs in or around pubs, bars or nightclubs.<sup>7</sup> Many premises licensed for the sale and consumption of alcohol target young adults, and feature minimal seating, loud music, late licences and other features associated with harm.<sup>8,9</sup> As such, there is a growing literature detailing environment-specific risk factors in the on-licensed trade<sup>8,9</sup> and recognition that interventions to address these are required.<sup>10,11</sup>

Previous evaluations have examined interventions that focus on single risk factors for alcohol-related harm such as responsible beverage service (RBS) training, licensee accords and staff violence-reduction training.<sup>12</sup> RBS training, the most commonly evaluated intervention type, typically deploys 'off-the-shelf' training packages that do not involve any consideration of premises' underlying risk factors. These unfocused interventions are likely to be less effective than interventions that are responsive to the risks and needs of individual premises. Consequently, there is a need for robust, formally evaluated interventions that can be routinely adopted by partners involved with managing the night-time economy (NTE).

### Interventions to reduce alcohol-related violence

The UK Licensing Act 2003<sup>13</sup> emphasises a harm-minimisation approach. While a number of promising premises-level interventions to promote a more proactive approach to harm reduction have been identified,<sup>8,14-16</sup> evidence for their effectiveness is limited. There are very few evaluations employing robust methods such as a RCT design, and none of these interventions has been trialled in the UK. Disparate measures of violence have been used, including data from hospital A&E<sup>17</sup> and the local police,<sup>18</sup> yet it is unclear if outcomes from these studies can be attributed to interventions at the premises level.

A systematic review undertaken in 2007 examined server training interventions aimed at reducing ARV. This review concluded that interventions focusing on a single risk, such as RBS, fail to account for the complex relationships between staff (i.e. servers, security and management) and the premises environment. It was therefore suggested that research in the context of the NTE should be broadened to develop interventions that address more complex causation and multiple risk factors across the full socioecological environment.<sup>12</sup> Another review<sup>8</sup> identified a broader range of approaches to prevention encompassing RBS training ( $n = 6$ ), enhancing the enforcement of licensing regulations ( $n = 2$ ), multilevel interventions ( $n = 6$ ), licensee accords ( $n = 2$ ) and a risk-focused consultation ( $n = 1$ ). The review highlighted that, of the available RCT evaluations that have been conducted in this area, only Graham *et al.*<sup>19</sup> implemented a tailored intervention that was responsive to the idiosyncratic needs of premises, while Toomey *et al.*<sup>20</sup> evaluated a risk-led intervention using quasi-experimental methods. Both of these studies concluded that premises-level interventions that are designed to offset risk factors in each premises are feasible and potentially effective. However, many studies in this area<sup>8,12</sup> were subject to a number of shortcomings, including (1) considerable variation in and poorly defined outcome measures, meaning that studies could not be compared, (2) follow-up periods were decided ad hoc and did not consider intervention sustainability, (3) studies often relied on inappropriate control groups, (4) many failed to achieve random allocation, and (5) participants or evaluators were not blind to trial

conditions. The review concluded that, while interventions that address multiple risk factors and interventions that are designed and implemented by multiagency and community partnerships have the potential to be effective, there is little rigorous evidence of effective approaches. The recommendation was to develop and pilot complex interventions that address multiple risk factors as a prerequisite for rigorous evaluation and any subsequent implementation.

In response to these findings, Moore *et al.*<sup>21</sup> examined the feasibility and efficacy of a risk-led, premises-level intervention in reducing ARV. Using the evidence regarding efficacy in reducing ARV, Moore *et al.*<sup>21</sup> developed a premises-level risk audit designed to assess environmental risk in discrete areas of a premises with the view to providing bespoke advice designed to target, and reduce, risk where required. In line with reviews which have been critical of the methodology used to explore the efficacy of ARV reduction programmes, the intervention developed by Moore *et al.* was trialled using a RCT design and incorporated a nested process evaluation.<sup>21</sup> Findings from this feasibility study supported the intervention, strengthening evidence that tackling specific environmental risk factors within at the premises level can reduce the incidence of ARV. However, disappointing levels of intervention adoption within licensed premises led to further reflection, particularly on the need for statutory powers to enforce any intervention.

## Identifying risk factors

Risk factors are those characteristics of licensed premises that are associated with an increased likelihood of severe intoxication and disorder. These factors are many and varied and may interact with one another. Furthermore, it is likely that many risk factors have not yet been described or that latent factors may offer a simpler explanation for clusters of the observed risk factors. The theoretical frameworks that motivated our approach were routine activity theory (RAT)<sup>22</sup> and ‘broken windows’ theory (BWT).<sup>23,24</sup> Both theories describe factors that are necessary for, or increase, the likelihood of crime taking place. RAT is a situational approach to crime that emphasises three co-occurring phenomena: a motivated offender, a suitable target or victim and the absence of a capable guardian. When considering violence from the perspective of RAT it is understandable how licensed premises can play an important role in managing the convergence of these phenomena. Similarly, the recognition of a victim’s participation and the failure of guardians to prevent the incident also make RAT a suitable theory in which to ground prevention research, as it acknowledges determinants other than the presence and motivation of an offender. BWT suggests that offending is informed by situational cues that indicate an absence of social order such as graffiti, litter, vacant buildings and broken or boarded windows. An absence of social order indicates a lack of capable guardians, making it a convenient environment in which to commit crime. In ‘real-world’ experiments, Keizer *et al.*<sup>25</sup> have shown that individuals take cues from their environment to inform their behaviour. For example, the sound of fireworks being set off illegally was related to an increase in littering, and the presence of graffiti on a mailbox was related to an increase in opportunistic theft.

Social control is also a central component to our approach in understanding the way violence arises in licensed premises. Social control is defined as ‘. . . those organised responses to crime, delinquency and allied forms of deviant and/or socially problematic behaviour that are actually conceived of as such’ (p. 3).<sup>26</sup> Distinctions are made between ‘formal’ and ‘informal’ social controls, with the former relating to interventions enacted by agencies of the state usually under the auspices of legal authority (e.g. the police, environmental health officers), while the latter is concerned with the regulatory and social ordering functions performed by citizens (including bar staff and private security). Innes<sup>27</sup> maintains that social controls are increasingly embedded within the physical environment. Further, Black<sup>28</sup> proposed that the quantity of social control tends to stay relatively constant, the changing variable being the proportion of control delivered by formal or informal means.<sup>27,29</sup> Additionally, situational and individual factors contribute,<sup>30–34</sup> including the opportunity to offend.<sup>22,35–37</sup>

The wide variety of activities available in NTEs brings with them a range of risk factors for disorder and intoxication, and numerous studies have sought to identify those risk factors. These risks are summarised briefly below; for more detailed accounts see comprehensive reviews by Graham and Homel.<sup>9,38</sup>

### **High outlet density**

The distribution of licensed premises in urban centres has been identified as a key contributor to levels of alcohol-related harm.<sup>39</sup> Areas with high concentrations of licensed premises have disproportionately higher levels of disorder, suggesting a cumulative, non-linear effect of outlet density.<sup>40–42</sup> Clearly, there can be no causal association between outlet density and harm, as areas with a large number of premises but few patrons would be expected to exhibit low levels of alcohol-related harm. High density most likely encourages behaviours that are associated with harm, such as pub hopping and competition between premises that leads to inappropriate promotions. While outlet density is not in itself in the control of premises staff, it would be possible for premises to mitigate those features that are causally associated with harm and are correlated with heightened outlet density, such as crowding and competition.<sup>15</sup>

### **Customer management**

Generalising from BWT, the entrance and façade of a premises inform potential customers of the characteristics within. While it is unclear if customers can accurately predict the risk of disorder in a premises based simply on approach, it is likely that interpretations of social norms are informed by these external characteristics. Therefore, door staff behaviour, queue management and the management of intoxicated or disorderly customers are fundamental in providing cues about descriptive and injunctive norms within. Interactions outside premises also represent potential flashpoints for disorder. The congregation of people outside after closing time represents a considerable risk factor, as this usually occurs at times when staff have finished their shift and are busy emptying the premises of its last few customers. This leaves the external area of the premises without a designated guardian at a time when customers are likely to be most intoxicated.

### **Security and door management**

Generalising the social control theory outlined above, door staff represent both the expression and the actuality of informal social control, or guardianship, in a licensed premises. It is, therefore, important that they are adequately trained and present a professional and welcoming demeanour. In England and Wales it is illegal, under the Licensing Act, to allow disorderly conduct on premises. Furthermore, any member of staff who is authorised to prevent disorder and allows it to happen on the premises is legally culpable. Therefore, the refusal of admission to disorderly customers is regarded as a main role of door staff in England and Wales. The deployment of sufficient numbers is essential and should be informed by the capacity of the premises, the number of expected customers and past history of disorder.

In order to obtain a door licence, applicants are required to complete an examined training course. Moreover, in the event of a violent incident, customer ejection or injury on the premises, all details of the incident should be recorded clearly, accurately and promptly in a log book and subsequently reported to the police and, depending on circumstances, to local authority (LA) environmental health officers. Recording events linked to disorder, extreme intoxication and violence also enables premises managers to explore trends in disorder and to determine how to best allocate door staff.

### **Vigilant serving staff**

Premises serving staff play a key role in the safe service of alcohol and the prevention of disorder, as they are responsible for refusing service to underage customers and intoxicated customers and for identifying signs of disorder within the premises. It is essential that serving staff are aware of their legal responsibilities and that they take these responsibilities seriously. Server training has been shown to have limited, short-term effects in improving serving practices in respect of the refusal of service to intoxicated patrons.<sup>8</sup> As serving staff act as informal guardians, it is important that sufficient numbers of staff are deployed in order to facilitate this role. Insufficient numbers of serving staff are associated with increased levels of disorder in a premises, as this increases competition for service between customers,<sup>43</sup> as well as crowding.<sup>15</sup>

Furthermore, a premises with a high proportion of male staff is associated with disorder in licensed premises,<sup>44</sup> although this phenomenon may be a reaction to past disorder as opposed to a causal factor. Clarke<sup>45</sup> further suggests that an overly sexualised dress code for female serving staff can contribute to heightened levels of arousal in a premises and this is further implicated in disorder.

### **Environmental factors**

A number of studies have aimed to identify the environmental aspects of a premises that influence the likelihood of disorder. Graham *et al.*<sup>46</sup> conducted a detailed multilevel analysis of risk factors for bars in Toronto, ON, while Green and Plant<sup>38</sup> collated a detailed description of these risk factors. Evidence suggests that showing sport in premises increases the length of customers' visits<sup>47</sup> and is associated with increased levels of aggression. Music has also been related to levels of disorder and intoxication. For example, poor-quality bands can be an irritant,<sup>48</sup> while slower tempo country music is associated with an increase in drinking speed.<sup>49</sup> Loud music may further impair communication between customers, preventing the de-escalation of fractious encounters. A range of other environmental factors can act as irritants such as poor air quality,<sup>43</sup> increased temperature<sup>50-52</sup> and uncomfortable furniture.<sup>43,53</sup> Moreover, dim lighting reduces the capacity for formal surveillance by premises guardians, impairs communication and increases the likelihood of collisions. Areas that are difficult to view and guard, such as thoroughfares and stairways, can also provide increased opportunities for collisions and injuries. Glassware also presents a significant risk factor for serious injury owing to its portability, accessibility and the level of harm that can be caused with a single blow.<sup>12</sup> Furthermore, the presence of empty glasses and other litter on tables may signal low levels of social order, and there is a relationship between untidy premises and disorder.<sup>19,44,48,53,54</sup>

### **Promotions**

Stockwell *et al.*<sup>55</sup> found that alcohol promotions were associated with intoxication but not associated with the risk of alcohol-related harm. More recently, however, studies suggest that promotions and becoming drunk are associated with police-recorded violence.<sup>14</sup>

### **Customer behaviour and characteristics**

Disorderly customer behaviour, according to BWT, contributes to perceptions of a permissive environment, thereby increasing the likelihood of further disorder. However, the relationship between gender ratio and disorder risk is unclear and evidence is scarce.<sup>9</sup> Although men are at far greater risk of violence,<sup>4</sup> the presence of women may actually serve as a risk factor for violence owing to competition for sexual resources. Similarly, while a younger age is associated with increased risk of violence, customer age is not a strong predictor of disorder. However, age may interact with several other factors, such as premises type, which ultimately contributes to disorder. Typically, persistent offenders who are frequently violent when intoxicated<sup>56</sup> are usually well known, emphasising the need for door staff and premises managers to share data across premises in an area.

## **The importance of partnerships**

While identifying and addressing risk at the premises level may help to reduce violence, a part of any intervention is likely to require input from a range of organisations able to assist premises make the required changes. Accordingly, tackling alcohol-related harm and violence is a focus of partnerships involved with managing night-time environments,<sup>10,11</sup> including the police, NHS, and local and national government. The aim of partnership-working is to mobilise a power base whereby politics and policy work smoothly together to enable change.<sup>57</sup> Partnerships that cross traditional organisational boundaries have become the accepted approach when addressing health and social problems that require complex solutions.<sup>58</sup> Indeed, Section 17 of the UK Crime and Disorder Act 1998<sup>59</sup> places an obligation on statutory bodies to work together in partnership to reduce crime and the UK government's *Alcohol Harm Reduction Strategy for England* suggests that tackling alcohol misuse and related harm relies on the creation of partnerships between national and local government and health care, policy services, individuals and communities.<sup>60</sup> For city-centre ARV, the Department of Health's Alcohol Improvement Programme

encourages partnership-working to address alcohol-related hospital admissions.<sup>61</sup> The importance of partnerships are further emphasised in the UK's Alcohol Strategy,<sup>1</sup> which sets out proposals to reduce alcohol-fuelled violence and excessive alcohol consumption.

In 2003 alcohol licensing systems were reorganised in England and Wales through the introduction of the Licensing Act 2003 (implemented in 2005).<sup>13</sup> This shifted responsibility to LAs, which were obliged to manage applications in relation to the sale of alcohol through a licensing committee comprising responsible authorities. These responsible authorities, which include the police, the fire service and Trading Standards, are expected to work towards four licensing objectives: the prevention of crime and disorder, public safety, the prevention of public nuisance and the protection of children from harm. Responsible authorities can comment on all applications and also call for the review of an existing licence if there are legitimate concerns that a premises has breached one or more of the licensing objectives. For the first time, through a 2013 amendment, the responsible authorities include the NHS and environmental health, a government agency that is chartered nationally but managed separately within respective LA boundaries.

The UK government has called on LAs to use existing powers to reduce alcohol-related harm. As statutory partners in reducing crime and disorder, and responsible authorities under the Licensing Act, EHPs are well placed to implement effective strategies to prevent workplace violence. EHPs are chartered environmental health professionals who have a history of enforcement and partnership-working and are trained to deliver risk-reduction interventions and advice to small and medium-sized businesses. The primary objective for EHPs is to promote positive relationships between regulators and those they regulate, to protect the public and to encourage business growth,<sup>62</sup> and they are the only responsible authority with this remit. EHPs intervene proportionately to the evidence for risk, with the emphasis on a dialogue that helps those they regulate achieve compliance and reduce risk.<sup>63</sup>

Given this, an opportunity exists for EHPs to become more involved in ensuring that the on-licensed trade works to reduce risk and maximise public safety. Assault data implicating a premises could be interpreted as an indicator of risk that the premises may not have done all that is reasonably possible to prevent that assault. These data could then be used to trigger an inspection to identify whether or not known causes of violence are present, the expectation being that EHPs would use their regulatory authority to determine whether or not licensed premises are meeting their obligations to maintain public safety. As the link between episodes of violence and risk of harm falls within the remit of the Health and Safety at Work etc Act 1974<sup>64</sup> (HSWA) and enforceable legislation, is it feasible for EHPs to identify the risks of harm within their statutory remit and work with premises to lessen those risks? This paper addresses that question.

## The role of environmental health practitioners

All businesses with five or more employees are obliged under the HSWA to have a written policy that describes how risks are identified and managed.<sup>64-67</sup> The expectation is that all businesses conduct risk assessments and take reasonable actions to reduce risk. The risk assessment, therefore, provides the point through which formal control (i.e. the HSWA and the Licensing Act) can operate to increase informal governance, whereby premises managers work to identify areas in which harm (including alcohol-related harm and disorder) might arise and what can be done to minimise those risks. Risk assessments should be reviewed regularly and employees are expected to be aware of what measures are in place. Dissemination is through formal induction processes for new employees and regular refresher sessions for existing staff, which in turn are expected to increase informal governance within premises. The HSWA therefore provides an important opportunity to manage risk in licensed premises and to encourage appropriate informal governance across the entire premises environment.

The HSWA aims to ensure that business practices are safe for staff and customers. Evidence suggests, however, that some businesses focus more on profitability and ignore the potentially harmful effects of their operation.<sup>68</sup> The concept of social corporate responsibility acknowledges that staff attitudes and

ethics can influence business management and practice. Attempts to implement interventions to combat ARV through a social corporate lens can thus lead to difficulties if costly changes are required without a mandate that obliges intervention adoption.

The process evaluation from an earlier feasibility study<sup>21</sup> appears to corroborate the lack of enthusiasm and urgency in tackling health and safety issues. Feedback from those delivering the intervention indicated that due diligence was not overly apparent in many premises, indicating that enforcement was, therefore, both critical and necessary. This led to the logical conclusion that intervention implementation was likely to be improved if delivered by a statutory authority.

Of the groups able to enforce organisational change on premises (e.g. the police, LA licensing officers and EHPs), EHPs are most accustomed to surveillance-led activities, particularly in the case of food-poisoning outbreaks. However, unlike the police, they are accustomed to working with small businesses to proactively reduce harm. In the light of this, and given their knowledge, expertise and experience, EHPs may provide a foundation for the development of licensed premises interventions.

Currently, EHPs have no prescribed role in respect to violence reduction in licensed premises and are primarily responsible for enforcing the HSWA and related legislation. However, in upholding the HSWA, EHPs have, among other powers, a right of entry to a premises at reasonable times, the right to investigate and examine, the right to see documents and take copies, the right to request assistance from colleagues, including the police, and the right to ask questions under caution. Where enforcement is necessary, EHPs have several options available to them. They can give legal notices, which are written documents requiring persons to do/stop doing something of which there are two kinds. First, if an EHP is of the opinion that a person is currently contravening the HSWA, or has contravened it in the past, they can serve that person with an improvement notice that details what is wrong and how to put it right within a set period of time. Second, if an EHP is of the opinion that activities are being carried on, or are likely to be carried on, that involve the risk of serious personal injury then they may serve a prohibition notice, which prohibits the use of equipment and/or unsafe practices immediately. In extreme circumstances EHPs can also prosecute both employers and employees; this can include unlimited fines and a jail sentence.

## Implementing a risk-led intervention

As statutory partners in reducing crime and disorder, and responsible authorities under the Licensing Act, EHPs are well placed to drive local action and implement effective strategies that are designed to prevent workplace violence. We therefore sought to identify how risk reduction might be enforced by EHPs under the HSWA.

In order to enhance the ownership and agency of bar staff, the intervention was framed as a risk audit, findings from which informed a subsequent action plan (if necessary). The expectation is that, should the action plan be adopted, the risks linked to premises-level harm will have been addressed and a reduction in alcohol-related harm would be expected. The action plan would require premises to make changes to operating procedures (e.g. reducing capacity, changing how security staff are deployed, checking patrons' age at the door) that have been identified as contributing to the risk of alcohol-related harm. Although this intervention is framed as a supportive process, designated premises supervisors (DPSs) are still under a legal obligation to respond to the audit action plans.

Furthermore, in an attempt to enforce change through the threat of punishment, parliament has increased the penalties for serving alcohol to intoxicated and/or disorderly customers. An element of the audit will therefore be to establish how much DPSs and servers understand about the behaviour of an intoxicated and/or disorderly individual, and to determine whether or not staff know how to identify and defuse potentially violent encounters. In line with the collaborative aspect of the intervention, premises staff will be encouraged to use an online educational tool developed to aid staff in acknowledging, understanding and addressing customer behaviour.

## Rationale for the All-Wales Licensed Premises Intervention trial to reduce alcohol-related violence

The evidence thus far has indicated that interventions addressing multiple risk factors and designed and implemented by multiagency and community partnerships have the potential to be effective in reducing ARV. An evaluation of a UK pilot RCT made significant headway in the delivery and implementation of a risk-led intervention aimed at reducing ARV, while substantial progress was also made to better understand the theoretical mechanisms of a successful risk-led intervention. The All-Wales Licensed Premises Intervention (AWLPI) trial aimed to build on this earlier research by developing a context-based risk-led intervention and to determine its effectiveness in a RCT. If the intervention, designed to be implemented by EHPs, was to prove successful the potential benefits could be substantial. It was calculated that, if the potentially low-cost implementation of the AWLPI succeeds in reducing violence, there could be substantial tangible (e.g. reducing costs to health services and the police) and intangible (e.g. reducing fear of crime and the psychological impact of victimisation) benefits. Furthermore, the research team reasoned that this project could offer the prospect of implementing routine surveillance and proactive violence reduction in EHPs' practice through engagement with the Chartered Institute of Environmental Health and the Health and Safety Executive (HSE).

## Overview of the All-Wales Licensed Premises Intervention trial

The trial described in this report was conducted in two stages. The first stage of the trial involved developing the intervention. The second stage of the trial encompassed training, site recruitment and randomisation, implementation of the intervention, data collection, and the process and economic evaluations.

### *Intervention development and refinement*

In order to develop a suitable and workable intervention, the AWLPI trial incorporated an intervention refinement stage, which involved collaboration with senior EHPs, researchers and web media experts. The specific aim of this stage was to transfer the theoretical and empirical motivations for the intervention into a practicable and accessible evidence-based intervention programme. The intervention refinement stage of the trial is described fully below.

### *Trial stage*

The effectiveness of the intervention developed in the intervention refinement stage of the trial was assessed using a RCT design described more fully in *Chapter 4*. The primary outcome in this trial was the difference in police-recorded violence between intervention and control premises over the follow-up period. Secondary outcomes were assessed using an embedded process evaluation (see *Chapter 6*) and economic evaluation (see *Chapter 7*).

## Summary

The costs to society of violence associated with the on-licensed trade are substantial.

There is a statutory requirement of licence holders to reduce the risk of violence, research evidence suggesting that this is possible and strong theoretical positions indicating that an effective approach is feasible.

An earlier feasibility study indicates that, while a trial of interventions to reduce risk in premises is feasible, significant barriers include access to, and therefore the provision of intervention materials in, licensed premises.

Environmental health practitioners have both the skills required to deliver interventions in licensed premises and the statutory authority to gain access.

Environmental health practitioner-delivered interventions in licensed premises also have implications for the NHS, which is a responsible authority under the Licensing Act but has no formal representation on licensing committees or regulatory relationship with licensed premises.

## Aims

- To refine an intervention that can be mainstreamed into EHP usual practice.
- To test EHPs' capacity to reduce ARV in a RCT.
- To determine the effectiveness, acceptability and cost-effectiveness of a risk-led intervention designed to reduce ARV.

## Objectives

- To develop intervention materials that:
  - translate formative work for use in EHP normal practice
  - encompass a risk audit to cover multiple risks and that are therefore responsive to each premises' unique circumstances.
- To map premises-specific police-recorded violence data across time to determine whether or not the impact of the intervention reduces violence and whether or not any effect changes over time.
- To identify the costs associated with Safety Management in Licensed Environments (SMILE) implementation and delivery and to approximate the extent to which it can be regarded as an efficient use of public funds.
- To use qualitative and quantitative data from the embedded process evaluation to:
  - understand intervention development and integration into normal practice
  - assess intervention reach, fidelity, dose and receipt
  - identify if and how the design and implementation of the risk-led intervention delivered by EHPs in this trial could be further optimised and
  - critically appraise the quantitative and qualitative outcomes alongside one another in order to develop a revised logic model of the intervention.

# Chapter 3 Developing SMILE

## Introduction

### Overview

The previous chapter described the theory behind premises-level interventions and areas of premises operation that could be targeted so that improvements would bring about a reduction in alcohol-related harm. This chapter describes how formative work was translated for use by EHPs and into a format that would be acceptable to premises staff.

Key research findings from a feasibility study of a risk-led intervention showed that (1) an enhanced multiple risk-audit approach can successfully identify appropriate targets and approaches to prevention; (2) the engagement of licensed premises and intervention efficacy were maximised when implemented by statutory authorities; and (3) police-recorded data on violent incidents were a valid measure of harm, sensitive to change at the premises level.<sup>69</sup>

The theoretical basis to the intervention was that identifying risk of alcohol-related harm and motivating changes in premises to mitigate those risks would be expected to reduce alcohol-related harm. This approach is enabled by current legislation. The Licensing Act 2003 places a requirement on DPSs to adjust premises operation if they become aware that their operation increases the risk of harm.<sup>13</sup> Therefore, practitioners who are able to identify and advise premises staff on such risks should expect their advice to be heeded and that premises will respond to such advice. Furthermore, and specific to EHPs, the HSWA facilitates practitioners' access to premises and premises staff and also affords EHPs the statutory remit to investigate workplace violence.<sup>64</sup> Thus, EHPs provide formal governance and are able to require change in small businesses to reduce harm.

While EHPs were not susceptible to the intervention barriers identified in the feasibility trial, there still existed a need to translate formative theoretical work into a format that was both consistent with EHPs' normal working practice and acceptable to premises staff. Intervention materials were coproduced with EHPs to translate formative work into a format that communicated premises, obligations to minimise harm in a way that was acceptable to all premises staff (e.g. via an accessible website and informative films). The expectation was that these materials would engage all staff in the premises hierarchy, from door security staff to servers and management. Second, a risk audit was developed that covered multiple risks. This comprised a written booklet that both outlined the statutory and research evidence for areas in which EHPs should attend and provided a uniform means of identifying and collating evidence for risk in premises (see *Appendix 1*). The risk audit was intentionally developed from earlier audits used by EHPs.

### *All-Wales Licensed Premises Intervention aims and objectives*

The primary research aim for this component of the trial was to refine a risk-led intervention that aimed to identify environmental risks in premises and that could be subsequently mainstreamed into EHP usual practice.

## Intervention development

During the first 6 months of the trial (March to September 2012), senior EHPs, industry representatives and web consultants were involved in a consultation process with the research team to develop intervention and training materials. These consisted of the risk audit tool, a website, short instructional films and additional materials such as incident reporting templates and health and safety guidance. Collectively, these were designed to facilitate the risk audit and to standardise the risk audit. The intervention development meetings with the senior EHPs were conducted separately from the meetings with the media and web consultants.

The intervention was planned and constructed during subgroup meetings using a framework structure to guide development. The framework adopted an iterative process informed by subgroup discussion and the literature.

A stakeholder intervention coproduction group was, therefore, established that consisted of four senior EHPs from across Wales and three academics involved in the initial feasibility trial. The first meeting focused on presentation and discussion of feasibility study results. Early on it was recognised that the intervention would map strongly onto current EHP work practices and that the underlying research aims and objectives met with those of the environmental health agency, an agency concerned with anything that was a risk or hazard to the environment generally or to members of the public specifically (see *Chapter 4, Process evaluation*). In initial meetings it was clear that the value of SMILE had been understood and the organisation was keen to be involved. The meetings also improved academic understanding of the organisational context and the remit of routine EHP practice, which was to investigate accidents, educate and work in partnership with groups and stakeholders who have an interest in public health or the health of the environment.

Three subsequent meetings focused around delivery systems for and design of SMILE. For delivery, EHPs suggested that health and safety EHPs should implement the intervention, as these specialists were likely to have gained useful experience and knowledge of RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013), regulations that require employers, the self-employed and those in control of premises to report specified workplace incidents.<sup>66</sup> Further deliberation about possible changes needed to adapt the risk-audit intervention to the environmental health context resulted in the agreement of senior EHPs to coproduce SMILE with the aim of ensuring that the audit mapped on to existing work practice as closely as possible. Initial iterations of the risk audit tool were developed by the academics based on feasibility trial results and systematic review evidence. This was adapted by the EHPs to conform to existing audit tools used in normal practice. This was then piloted by the senior EHPs with their teams in three premises in each of their areas. Feedback resulted in a revised third and final iteration of the audit tool. For the video, an initial meeting between the stakeholder group, project advisory group and a design company identified potential aims and objectives and suitable content. A follow-up meeting of the stakeholder group reviewed draft videos and recommended revisions. The final videos were agreed by the stakeholder group in a third meeting but these were not piloted with the wider EHP organisation owing to time limitations.

The overall goal was to design an intervention that included a follow-up audit that was deliverable, effective and could yield the data needed to answer the research question. The framework used to structure the intervention development phase is now described.

Key questions:

- What are the key elements of the intervention?
  - Which components of the current audit are currently performed by EHPs/other agencies?
  - Which components not currently captured by the audit should be included?
  - What policy documents already exist for licensed premises?
  - What supportive materials would be appropriate (i.e. content of videos)?
  - Should follow-up be included as part of the intervention and, if so, what should it assess?
- When should the intervention take place?
  - Should audits take place during the day or at busiest periods?
  - When should follow-ups take place?

- How should the intervention be implemented?
  - Should all aspects of the audit be conducted by EHPs?
  - How should action plans be delivered (e.g. in person/by e-mail/by post)?
  - What is the best format for the action plan (e.g. CD-ROM/hard copy/booklet/web upload)?
  - Should follow-ups be conducted by EHPs only, or in conjunction with other agencies, or solely by other agencies?
  - How should training videos be disseminated [e.g. YouTube (LLC, San Bruno, CA, USA; www.youtube.com), e-mail, newsletter, dedicated sessions at work, dedicated website]?

Secondary questions:

- What will be the main challenges to implementation?
- What will be the main barriers to premises implementing the action plans and can these be addressed in the development phase?
- How will other EHPs react to the intervention – anticipated objections/resolutions?
- What structures and resources would be needed to make the intervention sustainable if it were rolled out?
- How will the implementation process be monitored? This includes issues such as type and frequency of contact with premises, acceptance of intervention from DPSs, barriers/facilitators to implementation.
  - Are there existing reporting structures that EHPs follow that could be adapted?
  - What are the best ways to capture issues with implementation (e.g. diary/log/telephone call/online form)?

### **Audit development**

Three core members of the research team and five senior EHPs were involved in the AWLPI audit development. Development began initially by identifying the most pertinent indicators on an EHP health and safety audit that had previously been developed by EHPs. Selected indicators were translated into a series of items and mapped onto a spreadsheet to provide a comprehensive matrix whereby each item was associated with a potential response. This matrix was sent to the subgroup EHPs for feedback. This process was repeated during the development phase until all parties were satisfied. The finalised matrix was then formatted in the style of a health and safety audit (see *Appendix 1*). The AWLPI audit was then piloted by EHPs (naive to the AWLPI trial) to check for completeness, accuracy and ease of use. Final iterations of the audit were made as recommended in the piloting feedback.

### **Web-based training and instructional materials**

Representatives from a web development company, a graphic design company, the British Association of Anger Management, an organisation representing door supervisors and a communications consultancy along with three core members of the research team were involved in the development of the AWLPI website and online training films.

The focus of the short films was explored during the developmental meetings between the research team and EHPs. The overarching topics chosen for the films were influenced by the literature, previous research conducted in licensed premises and industrial experience of both the researchers and the EHPs. The visual concepts of the films were developed using storyboards.

Once built, the system underwent user acceptance testing by the research team and all content on the website was checked by EHPs to ensure legal compliance.

## Summary of website specifications

- Technical specification:
  - four videos, each 5 minutes long
  - website and videos to be accessible to smartphones and tablets
  - bilingual (Welsh and English)
  - linked to HSE website ([www.hse.gov.uk/](http://www.hse.gov.uk/))
  - internal database metrics (e.g. to determine usage).
- Design concepts:
  - Enhancing practitioner engagement by:
    - catering for different levels of employee
    - catering for different types of premises
    - 'buy-ins' for those using the website (e.g. opportunity to gain transferable skills).
- Video content:
  - Need to engage audience in four areas:
    - security and communication
    - particular emphasis to be placed on pro-active de-escalation
    - environment
    - crowding/intoxication.
- Website structure:
  - The homepage will direct the user to:
    - information about the issues
    - the short films
    - a 'diligence' page where users can demonstrate using a feedback mechanism that they have accessed and assimilated the information
    - contact page using a standard e-mail form.
- Website design and function:
  - include references to involved parties – the university and funding body
  - function for premises staff to provide feedback/demonstration of diligence to content
  - include links to AWLPI trial Facebook (Facebook, Inc., Menlo Park, CA, USA; [www.facebook.com](http://www.facebook.com)) page and Twitter (Twitter, Inc., San Francisco, CA, USA; [www.twitter.com](http://www.twitter.com)) account.

## Content of intervention materials

### Risk audit

The risk audit included items that could be used to describe basic features of the premises being audited. This included the number of full- and part-time staff, whether or not food was served and whether or not the premises hosted live music. The date and time of the audit was also recorded as well as the distance travelled by the EHP to the premises.

Eleven operational domains were examined and included:

1. Records management: written risk assessments, related policies, premises opening/closing logs and incident logs must be available and up to date. Incidents logged should be cross-referenced with policies and risk assessments to assess whether or not action had been taken to minimise the risk of further harm.
2. Visibility and lighting: visibility and lighting should be good throughout the premises. Blind areas can impede surveillance by premises staff, as can low levels of lighting.
3. Health and safety observations and checks: heating, ventilation and the overall condition of the premises were assessed.
4. Surveillance: surveillance arrangements should be sufficient to protect health and safety. This includes where security staff are usually located and the use of closed-circuit television (CCTV).
5. Noise and communication: staff should be able to communicate with each other effectively about potential risks during times when the premises is open.
6. Risk planning: there should be evidence of regular engagement with PubWatch ([www.nationalpubwatch.org.uk](http://www.nationalpubwatch.org.uk)) or similar. There should be no evidence of irresponsible drinks promotions. There should be sufficient numbers of front-of-house staff present during busy periods.
7. Door management: effective door management during busy periods should be in place. This includes maintaining appropriate door-staff registers and policies.
8. Managing people: visibly intoxicated and/or disorderly patrons should be effectively managed. Those who are disorderly must be escorted off the premises and those who are intoxicated must not be served alcohol.
9. Staff training: there should be evidence of staff induction and ongoing training that encompasses disorder, violence and aggression.
10. Incident reporting: it is a legal requirement to record violent incidents that have occurred on the premises, records that should inform future practice.
11. Glassware policy: literature suggests that the use of toughened glass or plastic reduces risk of injury.

### Risk score and action required

Each of the 11 sections included a risk control indicator (RCI) score. The RCI is a standard instrument used by EHPs to record the perceived level of risk in the environment. Using the RCI, a score of 1 represents a situation where the EHP believed that no further improvements were possible (based on current legislation and guidance); scores of 2 and 3 represent situations where enforcement action may be appropriate; a score of 4 or higher denotes situations requiring legal enforcement. The guidance indicated that EHPs should give a RCI score of 0 to non-applicable areas of premises operation. Each section required EHPs to record any action they had taken (none, verbal advice, written advice, improvement notice or prohibition notice).

## Web-based training and instructional materials

### Films

Training and educational films were designed to increase awareness of the physical and social environment, and increase knowledge of policies and practices that prevent and reduce excessive alcohol consumption and violence (Figure 1 and Table 1). Each film included animations, summary text and a spoken script. The messages of the films were positively framed by focusing on the benefits to be enjoyed from implementing the techniques demonstrated in the films rather than dramatising the consequences.

#### 1. Security and communications



**Benefits of a safer environment**  
Shots of happy customers, happy staff, busy bar  
VO: Statistics on customer/staff retention, boost to business (15 seconds)



**The venue**  
Checklist  
– Exits open  
– Fire safety  
– CCTV  
(45 seconds)



**The team**  
Training – drugs, policy, enough door staff  
(45 seconds)



**The door**  
Checking ID/PubWatch  
Are they too intoxicated?  
Search policy  
(1 minute)



**The bar**  
Are they too intoxicated?  
Incident reporting – how, when, where  
(1 minute)



**End board**  
VO: Summary of bullets  
(15 seconds)

**Total: 4 minutes**

**FIGURE 1** An example of a storyboard used to inform the design of the short films. ID, identification; VO, voiceover.

**TABLE 1** An excerpt from one of the scripts

#### Chapter One: the benefits of a safer environment

**Voiceover:** creating a safe environment not only provides a better atmosphere for your customers; it can also help to improve staff retention by making your venue a more pleasant place to work. And with happy customers and happy staff, your reputation can bring you more business

Everyone working at the venue can play a role to help reduce risk within your venue. And it needn't be time-consuming; this video provides a quick snapshot of the ways staff can get involved and work together to provide a safer environment

Duration: 30 seconds

**Visual:** presenter piece to camera, walking through scene of happy customers, happy staff, and busy bar

The training and educational films provided guidance in the following areas: premises environment, security, crowding and how to de-escalate fractious encounters between customers. The four film topics were:

1. safety and your colleagues
2. keeping them happy
3. tables and chairs
4. staggering crowds.

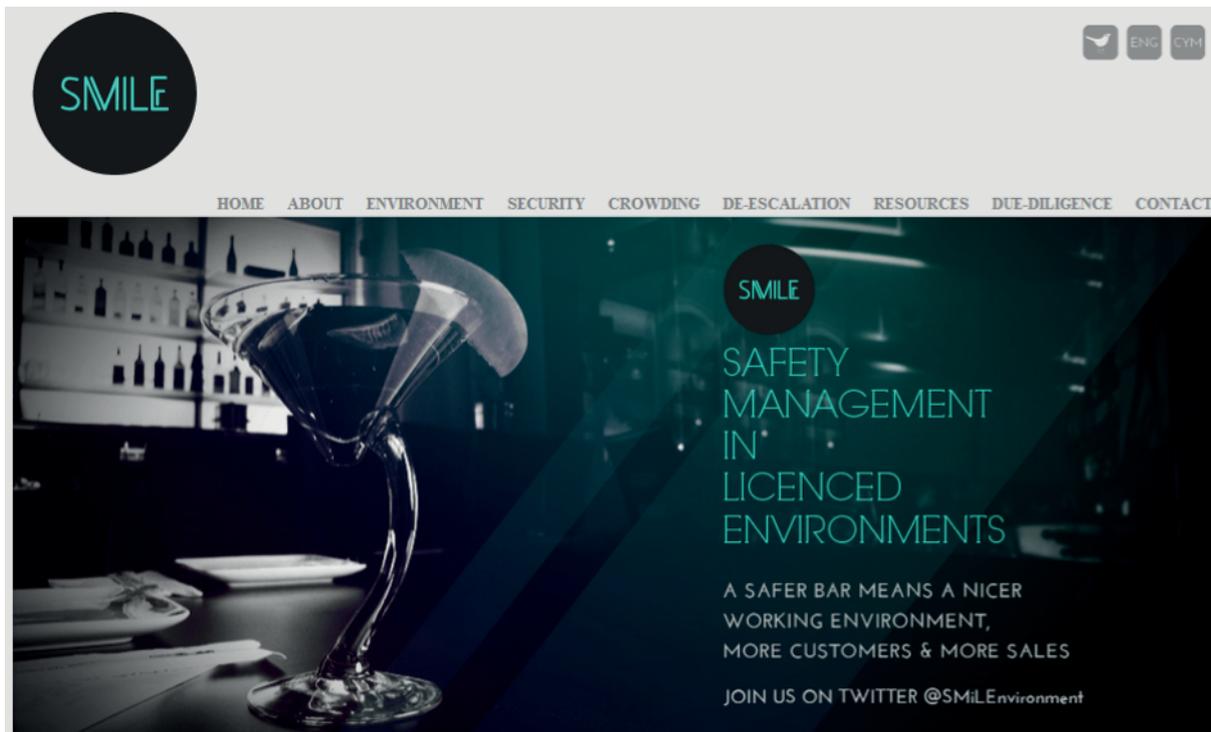
Angling the films towards depictions of emotions, and anger in particular, was felt to be a good inclusion, as staff may feel empowered to recognise and understand conflict at the bar more easily. The films also aimed to communicate that customers' pride (or 'power base') needs to be kept intact throughout interventions in order to avoid escalating or displacing aggression.

### Website

The intervention website contained information about harm-reduction practices in licensed premises and provided guidance documents that could be downloaded and used by premises staff (*Figure 2*). The website also contained a due-diligence quiz that was designed to provide instruction on how premises staff can reduce excessive alcohol consumption and violence. The website was made available in English and Welsh.<sup>70</sup> A diagram of the site layout is in *Appendix 2*.

### Due-diligence quiz

The due-diligence quiz comprised 25 questions that assessed understanding and knowledge gained through viewing training films. Members of premises staff answering  $\geq 50\%$  of questions correctly received a certificate of achievement that could be displayed in premises. Reference materials were also provided. These were downloadable guidance documents, document templates and posters that collectively aimed to help premises staff reduce ARV in their premises. Business cards were also used to advertise the website address. The quiz used is included in *Appendix 3*.



**FIGURE 2** The homepage of the SMILE website.

## Intervention training

In order to enhance intervention fidelity, EHPs who were to deliver the intervention attended one of three training workshops held in North, West and South Wales. The training was mainly delivered by senior EHPs and academic staff with a research interest in reducing violence. However, presentations were also given by medical consultants, who were able to highlight the extent and severity of violence within the NTE.

The training sought to increase awareness of ARV in and around premises and to elucidate the potential impact EHPs could have on reducing ARV. Additionally, EHPs were presented with information about the AWLPI trial and the SMILE intervention tools. This part of the training entailed navigating the risk audit and associated website in detail, and advice on how to implement these tools to the best effect.

## The finalised intervention

Prior to outlining the intervention for the AWLPI trial, it is worth highlighting that the professionals delivering the intervention were, to some extent, embedded within the intervention itself. The fact that EHPs have statutory powers in the area of workplace health and safety meant, in theory, that the intervention could be delivered with some authority and as such removed the need to gain consent from participating premises. In Wales, the intervention was adopted as EHPs' annual project, which meant that all EHPs were committed to delivering the intervention as part of their standard practice for that year.

EHPs were programme advocates for the AWLPI trial and also delivered the intervention as auditors. During the training it was emphasised that those delivering the intervention should do so in a standardised manner, to ensure that the mechanisms through which the intervention worked functioned as intended. *Figure 3* depicts a logic model of the intervention.

### Intervention input

The key ingredients during this phase of the intervention are (1) the auditor, (2) the audit and (3) the training films.

1. The auditor is an EHP who has been trained to conduct the audit in a systematic and standardised way.
2. The audit materials consist of:
  - i. the 11-point audit of the premises, this is grouped into:
    - the physical environment
    - policies and procedures
    - staff training
    - risk assessment and planning
  - ii. guidance leaflets and notices, to be given at the end of the audit if necessary.
3. Training films, which were accessed using the SMILE website.

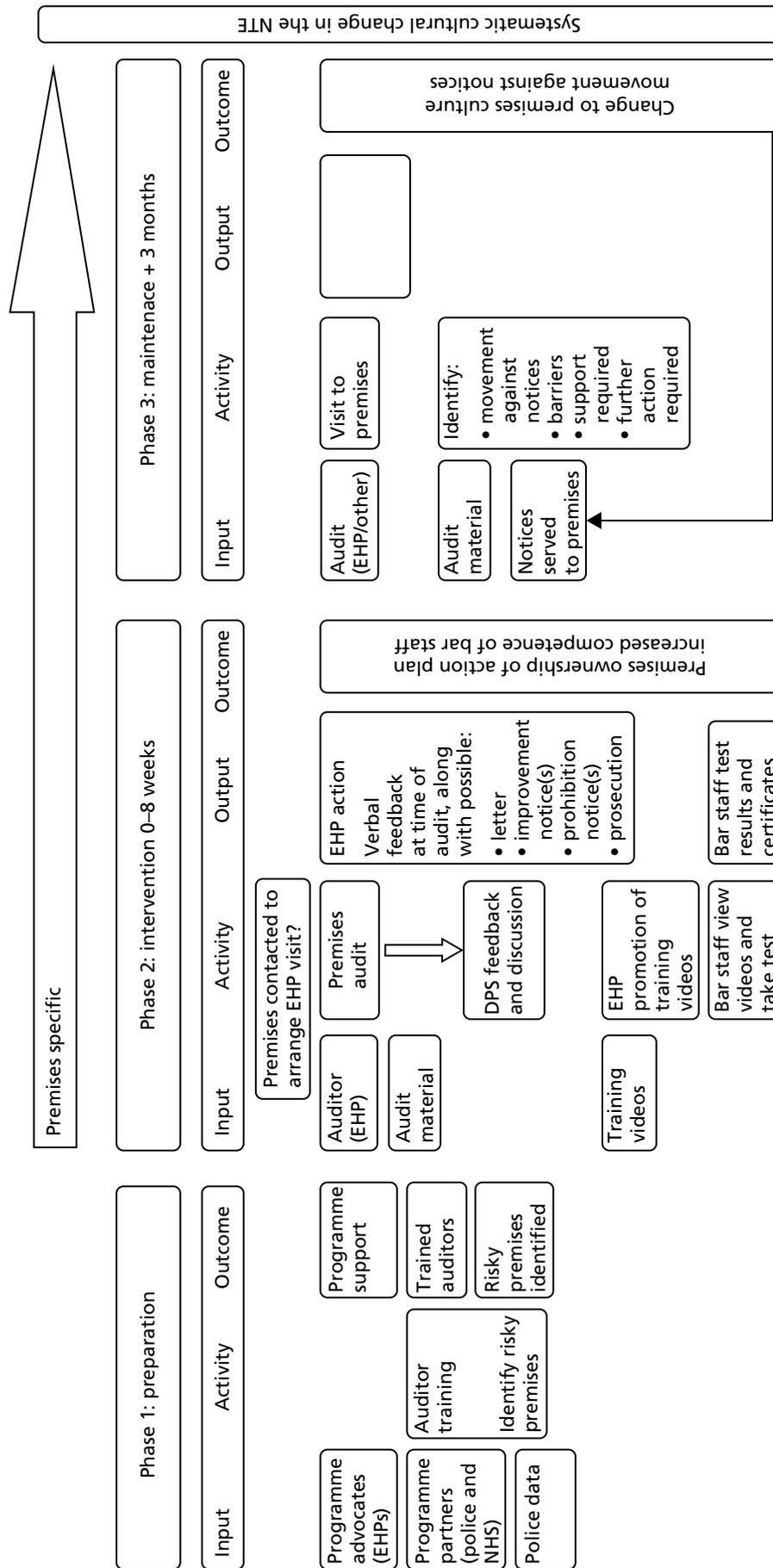


FIGURE 3 Logic model of the intervention for the AWLPI trial.

## Activities

The audit was conducted in person with each premises' DPS. The audit took place at a time suitable to both the auditor and the DPS, when they would not be interrupted. It was expected that the audit would take approximately 1 hour. The DPS from each premises should have been informed approximately 2 weeks prior to interview that the auditor would request to see as many of the following documents as possible:

- health and safety policy
- drugs and search policy
- staff training records
- incident log book
- accident book (if appropriate)
- door staff register
- written procedures for opening/closing bar
- health and safety checklists
- fire alarm checks.

## Intervention and control groups

In summary, intervention premises received SMILE as described above. Control and intervention premises both received 'usual practice', the normal regulatory attention ascribed by partners involved in managing harm in the night-time environment. While this may vary across LAs, in so far as LA licensing, the police and other agencies are differentially involved according to local requirements, such variance will be at the LA level. Because control and intervention premises were stratified by LA in this RCT, such local variation is expected to be balanced across groups.

Following the audit, auditors were asked to discuss the arising risk factors with DPSs to ensure that each risk factor was justified in relation to relevant legislation or evidence. During the audit visit EHPs were to provide the DPS with information about the SMILE website and how to navigate it effectively. DPSs were urged by the EHPs to cascade information about the SMILE website to all their staff and to encourage engagement with the website and its associated training films.

### *Expected output arising from the audit*

The second component of the intervention is the generation of an action plan arising from the audit itself. The action plan given to the DPS should be tailor made for each premises as a result of the findings from the audit. There is a need for this to be a list of points ('tell me what to do') rather than a long document. The way the action plan is written should take HSE reports on how small businesses perceive and implement legislation into consideration.

### *Conducting a follow-up audit*

Depending on the severity of the risks identified during the initial audit the EHP would serve an improvement notice or a prohibition notice, or arrange for a second audit to take place. When a formal notice is served the EHP would specify the provision(s) that had been contravened and give reason(s) why they feel these had been contravened. The requirements necessary to remedy the contravention should then be given followed by a reasonable time period in which to comply with the notice (not fewer than 21 days). A second audit would be arranged to ensure that premises had complied with directions.

As a part of the intervention, second audits were expected to have been completed within 3 months after the intervention to check that actions had been taken. In premises where no risks were found, no further visits would be necessary and usual practice would resume.

### Expected outcome

It was expected that, through dialogue with auditors immediately following the audit, DPSs would feel some ownership over the action plan they receive. This was key in facilitating premises to carry out the action points, as any disagreement over risk factors should have been resolved and there should not have been any surprises in the action plan.

### Summary

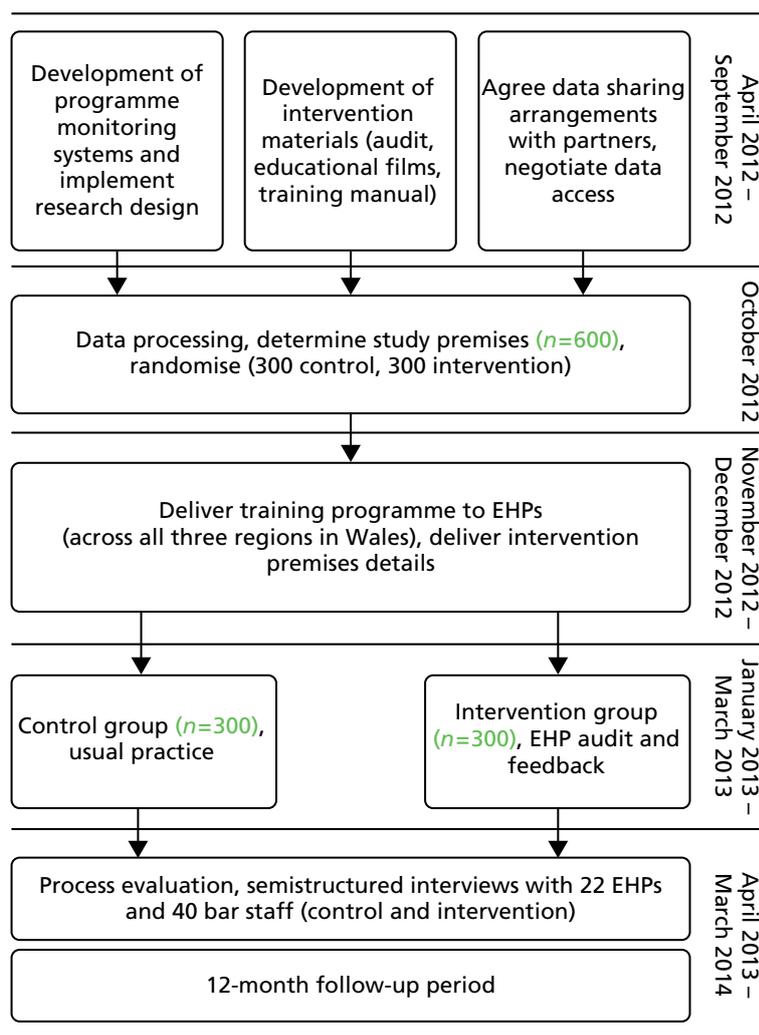
Developing and refining an intervention to be delivered by EHPs was undertaken through a period of preparation involving a multidisciplinary team. The basis of the intervention was developed through meetings between environmental health agency managers and academic research staff where the objectives of the intervention were developed from the rationale behind the trial, the literature and previous experience of working with licensed premises to reduce ARV. The underpinnings of the intervention, guided by the overall research objectives, were further developed by the core research team using key questions to guide and focus progression. Industry representatives and web consultants took the visual aspects of the website and video elements of intervention forward with the guidance and feedback from the research team. The audit was finalised between the research team and senior EHPs. With respect to time scales, development of intervention materials occurred concurrently to meetings concerning intervention delivery, data collection and overall trial design in order to maximise intervention feasibility and collecting the data needed to answer the primary research objective. Preparation to conduct the trial, which included intervention development and refinement, took 6 months. By the end of this period a premises-specific, risk-led intervention had been coproduced through collaboration with senior EHPs. This notionally gave the intervention the best chance of being mainstreamed into EHP usual practice. Additionally, consideration of the materials and their implementation alongside the overall trial design throughout this process increased the likelihood of successfully trialling the finalised intervention in licensed premises in Wales.



## Chapter 4 Methods

### Trial design

The project included a randomised controlled effectiveness trial, with licensed premises as the unit of randomisation. *Figure 4* depicts the trial schema. The trial was preceded by an initial intervention refinement period and included an embedded process evaluation and economic evaluation. The trial received ethical approval from Cardiff University Dental School Research Ethics Committee (reference 12/08).



**FIGURE 4** All-Wales Licensed Premises Intervention trial schema.

### Trial population

The population comprised premises licensed for the on-site sale and consumption of alcohol residing within any of the 22 Welsh LAs.

### Premises eligibility

Licensed premises were eligible if, between the months May 2011 and April 2012, they had one or more violent incidents associated with them. Incidents inside and in the immediate vicinity of licensed premises were identified from police data. Other inclusion and exclusion criteria are presented in *Table 2*. In order to determine eligibility, premises were cross-referenced with licensing data and, where feasible, premises' own online web pages.

### Baseline violent crime data

In order to access police data, data sharing agreements were prepared and signed between Cardiff University and all four police forces in Wales. The agreements covered the period from May 2011 to the end of the trial follow-up period. These data were used to identify eligible premises (see above) and to provide baseline characteristics required for stratification.

All violence against the person data for Wales were requested from all four police forces in Wales. These data included incident location, coded as both Global Positioning System (GPS) co-ordinates (recorded by the attending police officer) and a free-text description of the incident location (also entered by the attending officer). The data from North and South Wales territories were extracted using the NICHE Records Management System. In the Dyfed and Gwent territories the data were extracted using the CIS Records Management System (Computer Information Systems, Inc., Skokie, IL, USA) and Guardian Records Management System (Victorville, CA, USA), respectively, which introduced minor coding differences between each police force data set. Data were handled according to the data sharing agreements in place; original data were encrypted, stored and accessed by two named individuals. Only anonymised data or data with premises details but not crime information were available to members of the research team for screening.

Baseline premises address data were manually checked by two independent researchers. All addresses that identified a licensed premises were marked as such. Licensed premises were identified using online search tools and LA licensing data. Contact (telephone number) and address information were appended to the data, as well as licensable hours of business. Premises were telephoned to ensure that they were open and this was rechecked through contacting LA licensing teams. Premises that were open at baseline and deemed eligible by the research team were then stratified (the variables used to stratify the premises are outlined below). This produced a total of 837 licensed premises with one or more violent incidents associated with them that were eligible for inclusion in the trial. The 600 premises selected for trial participation were chosen randomly, resulting in 300 premises in the intervention group and 300 in the control group. The remaining 237 premises were reserved as replacement premises in the event that intervention premises were closed by the time audits began. A list of intervention premises was then split by LA, weighted by LA size and sent to the respective EHP responsible for premises in that LA, along with intervention materials.

**TABLE 2** Licensed premises: inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
On-licence premises that are based within the 22 LAs in Wales	On-licence premises that are cafes, restaurants and entertainment venues such as sports facilities and concert halls
On-licence premises that are public houses, nightclubs or hotels with public bars	
On-licence premises that have one or more violent incidents recorded by the police (including Section 18/20, Section 47, common assault, affray, assault of a police officer) in the 12 months up to May 2012	

### **Closure and replacement premises**

It was anticipated that a number of premises screened and allocated to the intervention or control groups might cease business or become ineligible (e.g. changing to a restaurant) before the intervention was to be conducted. If premises in the intervention arm became ineligible before the intervention phase began, it was replaced with a premises randomly selected from a list of any remaining premises in that LA, matched by strata. When a replacement premises meeting the necessary strata criteria was unavailable the premises was not replaced. Following the intervention period, the research team investigated closure of premises (in both experimental arms) by contacting LAs. Duplicate premises, or premises in the intervention arm that did not co-operate with EHPs or could not be accessed by EHPs in the allotted intervention period, were not replaced with any of the remaining premises.

### **Permission to participate**

#### **Permission for environmental health practitioners to deliver the intervention**

Environmental health practitioners across Wales have allotted time to engage in projects each year. The All-Wales Technical Panel agreed in 2012 that the AWLPI trial would be that year's project of choice.

#### **Consent from environmental health practitioners**

As the EHPs delivering the intervention have statutory powers in the areas of workplace health and safety, and assess risk in small and medium-sized businesses as part of their usual activities, the trial was essentially a natural experiment (albeit with allocation to group being randomised). Therefore, as a part of EHP routine practice, it was unnecessary for premises to provide consent to participate in the trial and/or to receive the intervention.

### **Trial procedures**

#### **Environmental health practitioner intervention training**

At least one EHP from each LA attended one training workshop. The EHPs were provided with a training manual and were supported throughout the trial period by the research team.

#### **Data collection**

##### **Audit data**

Staff at intervention premises were contacted about their forthcoming audit by a letter which was sent by the EHP responsible for that premises. The letter provided information about the trial and explained that an EHP would contact the DPS to arrange a convenient time to undertake the audit. The same template letter was used across all LAs.

The audit was completed by an EHP at a mutually convenient time. Parts of the audits were completed through interactive discourse with the DPS and beverage servers in order to find out more about a particular procedure or when physical evidence of certain artefacts, for example certificates of training, were required. On completion, EHPs fed back to the premises staff on areas where further action was required, if any. Feedback on changes required was given verbally, by letter or through formal notices (prohibition or improvement notices).

Once the forms were completed the EHPs photocopied the completed parts of the form and returned the original version to the research team and kept a photocopy for their files. Inconsistencies or omissions in the audit were clarified with the EHPs before the audit was scanned electronically and stored within a password-protected domain of the Cardiff University shared drive. The paper versions of the audits were stored in a locked cupboard. Audit completion was tracked using a Microsoft Access® database (Microsoft Corporation, Redmond, WA, USA).

Responses from the audit forms were entered manually (using double data entry) into an Access database; these data were then converted into a Stata data file (StataCorp LP, College Station, TX, USA). The researchers entering the data were provided with a metadata template enabling them to match each question/response field on the audit with its shortened variable name and providing them with information about what type of data should be entered (i.e. single response, integer, text, etc.) and how data should be labelled/transformed. The audits also included a section for EHPs to complete that consisted of a checklist and space for reflective feedback regarding each premises. This part of the audit was scanned/e-mailed/faxed/posted and entered into a separate spreadsheet to be used to inform the process evaluation.

The procedure for collecting, storing and entering follow-up audit responses was the same as that for the initial audit.

### **Feedback from the SMILE website**

The SMILE website was coded such that usage statistics could be derived (unique visitors), providing an indication of use. In addition, the site was further coded so that it would not be included in search engines, to reduce the possibility that traffic had been generated from non-project activity.

### **Police outcome data**

Between April and May 2014, data were received from four police forces, Dyfed-Powys, Gwent, North Wales and South Wales, in response to the original data sharing agreements with each. Data were received as four Microsoft Excel® files in different formats (Microsoft Corporation, Redmond, WA, USA). All files contained information related to offence (classification), time (date) and location (GPS and street address). These files were amended so that the data from the four authorities appeared in the same format.

### **Premises closure**

All premises were checked for closure throughout the follow-up period. Premises closures and reopenings were tracked on an Excel spreadsheet. In addition, intervention premises closures were also determined by EHPs reporting that premises were closed when they were unable to gain access to premises for audit visits.

It was initially planned to use LA licensing data to identify premises that were economically active. These data were not available in most LAs, with data quality being at best below the expected standards.

At the end of the follow-up period a freedom of information request to all LAs requested business rate information on all study premises. All businesses are required to pay business rates unless they temporarily or permanently cease trading. These data were accessed to determine temporary and permanent premises closures in both trial arms.

Premises that were closed at the time of intervention delivery (and did not receive an initial audit) were dropped from the study. Premises that received the audit but were temporarily closed had their outcomes censored.

### **Follow-up data**

Police data from January 2013 for 455 days were accessed from the four Welsh police forces. Two data sets were created, one using similar manual search methods used with the baseline data and one using automated search algorithms trained using baseline data. Primary outcome data were in the data file generated using automated procedures; sensitivity analyses used the manually produced data and a combination of both manual and automated.

### **Manual data**

All violence against the person data were manually screened, comparing each entry with the list of trial premises. For each police force, a random subset of entries was independently rechecked using similar methods by a second researcher. Both data sets were compared and inter-rater reliability was calculated as the proportion of records that were identically identified, where a score of 1 was assigned where both raters agreed and 0 otherwise.

### **Automatic data**

The GPS co-ordinates associated with each trial premises, derived from the baseline data, were used to extract a second data set of follow-up data. Data were received from four police forces: Dyfed-Powys, Gwent, North Wales and South Wales. Data were received as four Excel files in different formats. All files contained information related to offence (classification), time (date) and location (address). In order to classify crimes within the violence against the person category, we used Home Office crime classifications.<sup>71</sup> First, different coding systems used by different police forces were normalised to the latest version of the Home Office crime codes. A document called Crime Tree: Mapping of Crime Codes sets out how individual crime codes map to the branches of the crime tree. Level 3 of the tree was used to extract offences related to the violence against the person category. All crime codes corresponding to the violence against the person category at levels 3, 4 and 5 were extracted from the tree and cross-referenced against the crime data.

In the next step, offences not related to premises were removed from consideration. A list of lexical clues was assembled to automatically remove the bulk of the non-relevant data. Examples of such lexical clues include words and phrases such as car park, school, play area, road, footpath, mini market, etc.

Third, the goal of this step was to uniquely identify premises based on their address, which included the premises names. Three crime data files used postcodes as part of an address provided as the location where an offence occurred. Offence data from these three files were cross-referenced to the master file using the postcode. As there was no one-to-one mapping between addresses and postcodes, the cross-referenced data were manually curated to remove incorrect mappings. Manual curation involved comparing the premises names and addresses. The one remaining file contained geographic co-ordinates instead of postcodes. Geographic co-ordinates were converted to postcodes and manually compared against those in the master file by using premises name and address. Close geographic distance between the two postcodes was used to link non-exact matches on postcode, where the premises name and address were consistent with a premises in the master file. As a result of step 3, all offence data were mapped to premises in the master file. By normalising time information to the same date format, all data were normalised and ready to use as a single data set in a coherent format that enabled further statistical analysis.

Finally, the data set was anonymised by removing the premises names and their addresses, leaving only their locally introduced identification (ID). The finalised data set was structured into an Excel file with four columns: premises ID, offence date, offence code and offence description.

## **Statistical methods**

### **Sample size calculation**

A previous exploratory trial<sup>21</sup> suggested that an overall group size of 274 premises provided a power of 90% to detect a 10% reduction in the failure rate (a day in which one or more violent incidents occurred) at a significance level of 0.05. Attrition was not a factor in this trial, as EHPs have a statutory authority to enter premises and therefore adjustments for withdrawals were not applicable. Temporary and permanent suspensions of premises licences are valid outcomes, as they represent a form of intervention and are, therefore, accounted for in the group size. A 12-month follow-up period was chosen (12 months following delivery of the first audit), as the earlier exploratory trial suggested that this offered the most likely opportunity to detect a significant effect in a full trial and could control for annualised cyclical variation within premises.

### Randomisation

The unit of randomisation was each licensed premises within the 22 LAs in Wales. There were two groups (intervention and control). The total sample size of eligible premises for the randomisation was 837. A minimum sample size of 274 licensed premises per arm was required but this was rounded up to 600 total for simplicity. Therefore, 600 premises, stratified by LA, were randomly selected from the total eligible population for randomisation. Licensed premises were randomly assigned to intervention and control in a 1 : 1 ratio. Optimal allocation was used to randomise licensed premises to intervention or control, stratified by LA. Opening hours [low (0–4 hours after 11 p.m.), high ( $\geq 5$  hours after 11 p.m.)] and number of incidents [low (1 and 2 incidents), high ( $\geq 3$  incidents)] were used to balance the randomisation.<sup>72</sup> LAs that did not have the capacity to carry out as many audits as required for the randomisation were not supplemented with other LA premises, as EHPs do not generally go beyond their boundary, and also the approaches can differ. Premises that were closed prior to intervention delivery were replaced with premises randomly selected from a matched list of any remaining premises within that LA. However, as these spare premises were not randomised they were included only in sensitivity analyses.

### Allocation by local authority

The number of premises in each LA receiving the intervention was determined by LA population. *Table 3* shows the available number of eligible premises by LA and the number of required premises for the intervention group according to LA population. For information, the same allocation process was repeated for total violent crime by each LA and the number of audits conducted by EHPs in a similar but unrelated project completed the year before the current project began.

**TABLE 3** Premises by LA

Total available	Area names (English/Welsh)	Estimated audits		Previous inspections
		By LA population	By LA violence	
12	Blaenau Gwent/Blaenau Gwent	7	8	20
26	Bridgend/Pen-y-bont ar Ogwr	13	13	12
42	Caerphilly/Caerffili	17	16	20
78	Cardiff/Caerdydd	37	42	52
48	Carmarthenshire/Sir Gaerfyrddin	17	14	20
14	Ceredigion/Ceredigion	8	5	19
42	Conwy/Conwy	10	12	20
48	Denbighshire/Sir Ddinbych	9	13	19
50	Flintshire/Sir y Fflint	15	13	21
50	Gwynedd/Gwynedd	12	14	20
22	Ynys Môn	7	7	20
10	Merthyr Tydfil/Merthyr Tudful	6	6	20
22	Monmouthshire/Sir Fynwy	8	6	20
24	Neath Port Talbot/Castell-nedd Port Talbot	14	11	20
44	Newport/Casnewydd	14	19	25
40	Pembrokeshire/Sir Benfro	11	9	19
40	Powys/Powys	12	9	20
52	Rhondda Cynon Taf/Rhondda Cynon Taf	24	23	20
58	Swansea/Abertawe	24	23	20
16	The Vale of Glamorgan/Bro Morgannwg	12	10	19
18	Torfaen/Tor-faen	9	9	17
52	Wrexham/Wrexham	13	18	20

Because the number of available premises was not sufficient to meet what was required for some LAs, these LAs had their number reduced to the maximum available. The number of premises required to meet the target sample size was met through increasing the number of premises in those areas where there were sufficient premises and according to LA population (*Table 4*).

### Treatment of trial data

#### Trial populations

Analysis was on an intention-to-treat (ITT) basis using all randomised premises in the groups they were randomised to, regardless of the intervention received. The per-protocol population was defined as baseline premises that were randomised (excluding those found to be duplicates or closed), those found to be trading during the intervention and those that actually received the intervention. The non-randomised population comprised the per-protocol population in addition to the replacement spare premises in the intervention arm and the remaining spare premises in the control arm. Analyses were conducted on both automatic and manual data sets.

**TABLE 4** Final allocation of premises by LA

Total available	Area names (English/Welsh)	Premises	
		By LA population	Adjusted
12	Blaenau Gwent/Blaenau Gwent	7	6
26	Bridgend/Pen-y-bont ar Ogwr	13	13
42	Caerphilly/Caerffili	17	19
78	Cardiff/Caerdydd	37	39
48	Carmarthenshire/Sir Gaerfyrddin	17	18
14	Ceredigion/Ceredigion	8	7
42	Conwy/Conwy	10	10
48	Denbighshire/Sir Ddinbych	9	9
50	Flintshire/Sir y Fflint	15	16
50	Gwynedd/Gwynedd	12	12
22	Ynys Môn	7	7
10	Merthyr Tydfil/Merthyr Tudful	6	5
22	Monmouthshire/Sir Fynwy	8	8
24	Neath Port Talbot/Castell-nedd Port Talbot	14	12
44	Newport/Casnewydd	14	15
40	Pembrokeshire/Sir Benfro	11	11
40	Powys/Powys	12	12
52	Rhondda Cynon Taf/Rhondda Cynon Taf	24	25
58	Swansea/Abertawe	24	26
16	The Vale of Glamorgan/Bro Morgannwg	12	8
18	Torfaen/Tor-faen	9	9
52	Wrexham/Wrecsam	13	13

### **Analytic strategy**

The primary analysis was a comparison of police-recorded violence between intervention and control premises over the follow-up period, with time-zero being 1 January 2013, the earliest conceivable date an audit could be delivered to a licensed premises, for the ITT group. No interim analyses were undertaken. The primary data set used those data extracted using automated search procedures; sensitivity analyses were conducted on the manually extracted data.

Using the date and time of violent incidents, incidents were organised into sessions. A session was defined as 12 p.m. to 12 p.m. the following day and took the date of the first 12-hour period. Each session was coded with a binary (0, 1) indicator. If a premises had registered one or more violent incidents in a session that session was coded 1; otherwise, it was coded 0.

The Andersen–Gill model was used to analyse failure in premises in the follow-up period in order to account for potential time-varying covariates, censoring, multiple events and discontinuous risk intervals.<sup>73</sup> All incidents of violence at premises from the police forces records were recurrent events with the intervention effect as one predictor, also adjusted by opening hours and number of previous incidents strata (both coded 0, 1) at baseline. As the randomisation was stratified by LA the primary analysis was further explored by the addition of LA as shared frailty. This allowed for any potential clustering to be examined.

Sensitivity analyses were conducted on the per-protocol and non-randomised groups.

Dose was primarily explored through nature of feedback provided by EHPs (none, formal advice) and by any additional follow-up audits undertaken to enforce changes recommended to premises.

Secondary analysis of primary outcomes was undertaken using the Andersen–Gill model to assess the hypothesised intervention wane over the follow-up period. This was achieved by the use of a time by treatment interaction term.

In addition, secondary analyses were used to explore the effect of the intervention on the volume of violence (total counts of incidents) attributable to trial premises, to inform the economic analyses.

Additional exploratory analyses considered the relationship between health and safety issues, incident reporting and EHP confidence in management. In premises with repeat audits the changes were examined in relation to reports of violent incidents. Audit data were also used as part of the process evaluation detailed in *Chapter 6*.

### **Cost-effectiveness analysis**

A cost-effectiveness analysis was undertaken from a societal perspective.

#### **Intervention costs**

We report the costs that would be incurred if the intervention was to be introduced into routine practice. Costs associated with developing the intervention are thus considered as historic and are excluded. As SMILE was additional to usual practice, all costs are incremental. All costs are reported in 2014 prices. As the study period was 1 year, no discounting has been applied.

There are three main elements to the costing of this intervention: training EHPs, the audit process and costs incurred by the licensees as a direct result of advice received during the intervention.

Training costs were all recorded prospectively. These included trainer and trainee time, travel costs, venue fee and administration costs. The hourly value of trainer and trainee time was based on reported salary plus on-costs assuming a 42-week working year and a 37.5-hour working week (assumption from Curtis).<sup>74</sup>

Where these details were not provided, the median salary/on-costs were imputed. Travel costs included both time spent travelling and car mileage cost of 40 pence per mile.<sup>75</sup> Other costs such as materials and travel expenses were recorded in money terms.

The cost of printing training manuals, audit documentation, etc., was based on number of pages charged at 5 pence per page (assuming black-and-white printing). Postage was via the Royal Mail's price finder for first-class postage of large envelopes at £0.93 and small parcels at £5.45.<sup>76</sup>

While training could be considered a one-off investment producing a flow of benefits over time, we attributed the whole of training to the sites which received the intervention during the period of study on the basis that retraining would be required annually owing to changes in legislation, etc. It was likely that costs of retraining would be lower than those of initial training and this was explored via sensitivity analysis.

Audit costs included EHP time and travel for the audit (initial plus follow-up, where these occurred) of each premises.

As EHPs have a statutory right to undertake the audit, participation in the study did not require informed consent from licensees of intervention premises or their DPSS. Accordingly, we felt that attempting to identify the costs of implementing any improvements that arose as a result of the audit by questionnaire would produce a low response rate, which would be potentially biased. However, intervention and control premises that participated in the process evaluation did so via informed consent. This provided an opportunity to gain information on licensee-borne costs through the addition of a number of questions to the interview schedules.

### **Cost of violent incidents**

As our data on violent incidents include only those which have been reported to the police, our cost estimates should be regarded as minimal.

The costs of violent incidents were taken from the Home Office data on crimes against the person<sup>77</sup> in line with Dubourg,<sup>78</sup> which was the basis of many of the Home Office estimates. However, as the Home Office estimates currently exclude three elements which were in Dubourg,<sup>78</sup> 'lost output', 'physical and emotional impact on direct victim' and 'NHS costs', we have included these here using the estimates in Dubourg inflated to 2014 prices. As not all violent incidents will incur criminal justice system costs, we have explored via sensitivity analysis the effect of reducing the percentage of incidents which incur criminal justice system costs. These base-case unit costs of a violent incident are reported in *Table 5*.

This cost estimate of a violent incident was then multiplied by the number of total incidents that occurred during the follow-up period in order to calculate costs of crimes at premises level.

### **Effects**

The unit of effectiveness for the cost-effectiveness analysis was number of sessions with one or more violent incidents, based on police records.

### **Cost-effectiveness**

The cost-effectiveness analysis was carried out on premises in the ITT sample. The total cost for intervention premises includes the intervention cost plus costs of violent incidents that occurred during the follow-up period. For control premises this was only the cost of violent incidents. As costs data are likely to be skewed, a non-parametric bootstrapped approach was applied to estimate bias-corrected accelerated (BCa) 95% confidence intervals (CIs) for differences in costs. The mean differences in total costs were further adjusted for baseline incidence group and opening hours, in line with the primary analyses.

**TABLE 5** Estimated mean costs of a violent incident (£)

Costs	Magistrates' Court	Crown Court	Total
Criminal justice system costs <sup>a</sup>			
Police cost per arrest	242	242	484
Pre-charge decision cost (CPS)	45	45	90
CPS costs	160	2796	2956
HMCTS costs	296	453	749
Legal Aid costs	529	4696	5225
Cost per month of immediate custody	2788	2788	5576
Cost per month of probation	252	252	504
Cost of community sentence	3019	3019	6038
Total criminal justice system costs			21,622
Other costs <sup>b</sup>			
Health service			1879
Lost output			2322
Physical and emotional impact on direct victims			7834
Total other costs			12,035
Total			33,657

CPS, Crown Prosecution Service; HMCTS, Her Majesty's Courts and Tribunals Service.

a Source: Home Office Crime Statistics (crimes against the person).<sup>77</sup>

b Source: Dubourg.<sup>78</sup>

If the intervention group was less costly and more effective, the intervention would be shown to be unambiguously cost-effective. If the intervention group was more effective but more costly, then results will be reported in the form of an incremental cost-effectiveness ratio showing the additional cost per unit of effect. This would provide an evidence-based benchmark for comparison in future cost-effectiveness evaluations of interventions aimed at reducing violence in the NTE. As some premises had follow-up audits, a separate exploratory economic analysis was done to investigate the cost-effectiveness of the intervention where it included a follow-up audit.

### *Dealing with uncertainty*

Two one-way sensitivity analyses were undertaken to examine how sensitive cost-effectiveness results are to changes in base-case parameters. In the first, the assumption that training costs are apportioned to premises that received the intervention during the study period was replaced by an assumption that training lasts for 5 years. In the second, it was assumed that only 50% of police-recorded violent incidents incur criminal justice system costs.

To explore whether or not the intervention represents good value for money, a stochastic sensitivity analysis was carried out using a non-parametric bootstrapped approach on the joint distribution of costs and effects. Results are reported in the form of a cost-effectiveness acceptability curve (CEAC) showing the probability that the extra cost per unit of effect lay below a range of societal willingness-to-pay thresholds.

## Process evaluation

Although the RCT sought to assess the effectiveness of the SMILE intervention, it was accompanied by an embedded process evaluation to aid understanding of the mechanisms operating during SMILE adoption and implementation and provide insight into what works, for whom and in what context. This is particularly important as the implementation of SMILE introduced new practices into established organisational methods of working, a process often affected by normative beliefs, resources and the actions of people and groups involved.<sup>79</sup> The importance of understanding such processes and their subsequent influence on intervention reach, fidelity and receipt within the evaluation of complex interventions has received increasing attention in recent years.<sup>80</sup> A useful framework for assessing these processes exists in RE-AIM<sup>81</sup> that focuses on the constructs of intervention reach, efficacy, adoption, implementation and maintenance. These constructs were used to identify the key research objectives for the process evaluation.

A trans-disciplinary action research (TDAR) approach was used in the development and implementation of SMILE to promote intervention adoption and implementation. TDAR facilitates innovation implementation and sustainability through early and sustained engagements with policy and practice,<sup>82</sup> with the aim of coproducing ecologically valid interventions through an ongoing cycle of knowledge exchange. Normalisation process theory (NPT)<sup>79</sup> offers a framework to assess the effectiveness of such an approach by focusing on the work that takes place when understanding and assimilating new organisational practices (coherence), how individuals and organisations are enrolled to implement new practices (cognitive participation), the work undertaken by individuals and organisations to enact new practices (collective action) and how new sets of practices affect individuals and others around them (reflexive monitoring).

The NPT therefore provides a theoretical framework to assess the extent to which the TDAR approach facilitated SMILE's adherence to the RE-AIM framework. In doing so it highlights potential recommendations for intervention reconfiguration and sustainability and provides key process data that can facilitate an understanding of main trial outcomes.

### Aims and objectives

The process evaluation aimed to explore the intrinsic processes operating during SMILE adoption and implementation and their influence on what was delivered.

The process evaluation objectives were to:

1. understand the adoption of the intervention by EHPs and the adaptation required to integrate SMILE into normal practice
2. assess intervention implementation – reach, fidelity and dose delivered
3. assess intervention efficacy – receipt and acceptability
4. understand the implementation context for intervention maintenance and any intervention reconfiguration
5. construct a logic model of the intervention as delivered.

### Process evaluation design

Table 6 outlines the research design and associated methods that were used to explore each of the research aims in three successive phases. Phase 1 explored the intervention codevelopment and adoption within the environmental health organisation; data were obtained from focus groups with senior EHPs involved in SMILE coproduction and implementation. Phase 2 investigated intervention implementation through interviews with EHPs responsible for delivering the intervention and explored issues of reach, fidelity, dose delivered and longer-term maintenance. Phase 3 examined how the intervention was received by licensed premises. Its perceived efficacy, acceptability and likely sustainability were explored through semistructured interviews with a sample of licensed premises staff. Results from these phases were drawn together to construct a logic model of intervention delivery (research objective 5) and refine the intervention. Ethical approval for the process evaluation was given by the Cardiff University Dental School Research Ethics Committee.

TABLE 6 Process evaluation research design

Phase	Source	Method	Areas to be addressed	Research objective
Phase 1: SMILE coproduction and adoption by EHPs	Senior EHPs: involved in intervention development and implementation ( $n = 4$ )	Pre- and post-intervention focus groups	To understand EHPs' role in intervention development  To explore any organisational change needed to adopt SMILE  To assess implementation processes and integration with usual EHP practice, including any barriers and facilitators	1, 2, 4
Phase 2: SMILE implementation	EHPs ( $n = 22$ ): one from each LA engaged in the delivery of the intervention	Post-intervention semistructured interviews	To understand usual practice and intervention integration  To assess practitioner participation and responsiveness to the intervention  To explore intervention reach and the intensity of what was delivered  To explore whether or not the intervention was delivered as intended and is sustainable in normal practice  To assess the perceived efficacy of the intervention  To assess whether or not any reconfiguration is necessary for long-term maintenance	1, 2, 3, 4
Phase 3: SMILE reception, acceptability and sustainability in licensed premises	Premises staff in 16 intervention and 14 control premises	Post-intervention semistructured interviews	To assess how the intervention was received and its perceived efficacy  To explore whether or not the intervention was acceptable and sustainable in premises' usual practice  To assess whether or not any reconfiguration is necessary for long-term maintenance	3, 4

TABLE 6 Process evaluation research design (continued)

Phase	Source	Method	Aims and objectives	Process evaluation component (research aim)
Phase 1: SMILE adoption, coproduction and implementation by EHPs	Senior EHPs: involved in trial development and implementation (n = 4)	Pre- and post-intervention focus groups	Understand role in intervention development	Implementation and context (1)
			Gain perceptions of organisational change needed to adopt SMILE	Fidelity and adaptation (2)
	EHPs (maximum 22): one from each LA engaged in the delivery of the intervention	Post-intervention semistructured interviews Routine monitoring data	Description of implementation processes and integration with usual EHP practice, including barriers and facilitators	Comparison of traditional practice with intervention (5)
			Description of role of EHPs in licensed premises pre SMILE	Implementation and context (1)
Phase 2: SMILE delivery, reach and dose	Routine programme data	Audit assessment and outcomes	Description of practitioner participation, reception and responsiveness to the intervention	Fidelity and adaptation (2)
			Process of intervention delivery, including fidelity, barriers and facilitators and extent of interagency collaboration	Comparison of traditional practice with intervention (5)
			Description of location, size suitability of intervention/control premises	
			Audit delivery, reach and dose	Delivery, reach and dose (3)
Phase 3: SMILE reception, implementation and sustainability in licensed premises	Premises staff in 16 intervention and 14 control premises	Post-intervention semistructured interviews Routine monitoring data	Intervention premises:	Implementation and context (1)
			<ul style="list-style-type: none"> <li>Receipt and reaction to the intervention</li> <li>Nature of the intervention, its acceptability and reach through organisational hierarchies, and information about how the intervention fitted with intervention premises contexts</li> </ul>	Receipt and acceptability (4 – intervention premises only)
			Control premises:	Comparison of traditional practice with intervention (5)
			<ul style="list-style-type: none"> <li>'Usual practice' of EHP visits</li> <li>Compare intervention EHP visits with control EHP visits</li> </ul>	

### Sampling and recruitment

The process evaluation explored SMILE development and implementation with senior EHPs and a representative sample of EHPs who delivered SMILE. Two focus groups were conducted with senior EHPs ( $n = 4$ ). The first focus group that was conducted after the main phase of SMILE coproduction had been completed sought to explore SMILE codevelopment and adoption. The second focus group took place following delivery of the intervention and was concerned with intervention implementation. The senior EHPs were invited to take part verbally; information sheets and consent forms were completed at one of the regular research group meetings.

Telephone interviews were conducted with one EHP from each LA in Wales ( $n = 22$ ) who had been involved in the delivery of SMILE. EHP recruitment took place by e-mail or telephone, with information and consent forms supplied and returned electronically. Purposive sampling ensured that practitioners working in premises with the greatest possible variation of risk in both control and intervention arms and significant experience of delivering SMILE were invited to participate. In order to explore the reach and impact of the AWLPI training, three EHPs who had not attended SMILE training workshops were also purposively sampled.

To explore intervention receipt and its relationship with normal practice within premises, a sample of licensed premises were drawn from control ( $n = 321$ ) and intervention premises ( $n = 285$ ). Purposeful sampling ensured that these premises represented those found in a range of geographical areas across Wales (North, West and South East) and location (urban, rural, town/fringe) and previous incidences of violence (high/low). EHPs who had delivered SMILE to each premises were asked to provide the owner/manager with details of the study and request permission for a researcher to contact them to discuss participation. Where the EHP failed to gain a response ( $n = 4$ ) or the DPS refused participation ( $n = 2$ ), a researcher contacted the DPS directly or selected new premises and conducted recruitment themselves. Recruitment continued until theoretical saturation was reached. This resulted in data from 30 premises across Wales (Table 7).

**TABLE 7** Licensed premises evaluation sample

Premises	Area of Wales			Location and violence levels								
	North	West	South East	Urban			Town/fringe			Rural		
				Total	High	Low	Total	High	Low	Total	High	Low
Total ( $N = 30$ )	4	2	24	14	8	6	13	3	10	3	1	2
Intervention ( $n = 16$ )	2	1	13	8	5	3	7	1	6	1	0	1
Control ( $n = 14$ )	2	1	11	6	3	3	6	2	4	2	1	1

### Data collection

Each focus group with senior EHPs was facilitated by two researchers. The focus group schedules for the two focus groups contained different guides and prompts, designed to focus on the RE-AIM framework (see *Appendices 4* and *5*). The initial focus group was held to gain better understanding of the routine work of the environmental health agency; organisational views on increasing their role in addressing ARV; and some insight into senior environmental health managers' role in adopting and developing SMILE. The post-implementation focus group encouraged reflection on the process of SMILE implementation, and on how well the interventions had been embedded in environmental health practice.

Semistructured interview schedules for EHPs again drew on the RE-AIM framework (see *Appendix 4*) and were conducted by a single researcher. Most EHP interviews were conducted by telephone, although one EHP requested a face-to-face meeting. All interviews took place as soon as possible after the intervention phase had ended, as the aim was to identify and explore the process of intervention delivery in varied premises and different parts of Wales, with particular interest in barriers and facilitators experienced during SMILE delivery and assimilation.

Interviews with premises managers/owners ( $n = 30$ ) were conducted face to face when possible ( $n = 18$ ) or by telephone ( $n = 12$ ). All semistructured interviews were held shortly after the intervention phase had ended and were organised around RE-AIM constructs (see *Appendix 5*).

### Data analysis

All focus groups and interviews were audio recorded. Recordings of interviews and focus groups were transcribed, anonymised and entered into password-protected university files before analysis using NVivo 10 (QSR International, Warrington, UK). All transcripts were scrutinised for errors. The first phase of analysis categorised data into dominant themes determined a priori by the constructs of the RE-AIM.<sup>81</sup>

- SMILE adoption and diffusion
- SMILE implementation – reach, fidelity and dosed delivered
- SMILE efficacy – acceptability and receipt
- SMILE maintenance – reconfiguration and sustainability.

Subsequent analysis drew on NPT constructs to explore whether or not and to what extent the use of a TDAR approach facilitated these processes. Using this approach, an analytical framework matrix was generated and used to construct a logic model, which visually describes the entire intervention process.

## Public and patient involvement

While violence has serious repercussions in communities and is a significant cause of attendances in unscheduled care, it was not deemed necessary to involve the public and patients in the current project. The main reason for this is that those groups involved with the project were mostly premises staff and EHPs. As such, there was no clear means through which public and patient involvement could shape the development of the project and this group was not therefore developed. There may be opportunities for the public, in particular those who have been assaulted in premises, to advise on aspects of the study, and this could be assessed in future work.



# Chapter 5 Intervention effectiveness results

## Aims and objectives

### Aims

- To investigate the impact of the SMILE intervention on police-recorded violence.
- To assess the reach and dose delivered of the intervention.

### Objectives

- To analyse police data from 1 January 2012 for 455 days and determine whether or not the intervention was associated with a change in violent-event frequency.
- To conduct sensitivity analyses to determine the robustness of any intervention effect.
- To analyse police data from 1 January 2012 for 455 days and determine whether or not the effect of the intervention, if any, changed over time (e.g. intervention wane).
- To use data on delivery of the audits to determine the proportion of premises that received the intervention (reach) and what actions resulting from the audits were needed to reduce premises-level risk (dose).

## Consolidated Standards of Reporting Trials

The Consolidated Standards of Reporting Trials (CONSORT) flow diagram (*Figure 5*) documents the flow of premises through the trial including the number of audits carried out and reasons for any missing audits.

There were 837 premises available for randomisation. At randomisation, 300 premises were allocated to each treatment group. Premises were checked to make sure that they were open and still eligible (see *Chapter 4*); 453 premises remained from the initial randomisation (see *Figure 5*).

Closed intervention premises were replaced from the remaining pool premises not originally randomised to control or intervention group, matched by strata, to give the non-randomised group. The remaining 'spare' premises were added to the control group.

Three premises that had been allocated to the original intervention group were reported as closed by EHPs and replaced, but were subsequently found to be open by EHPs. EHPs audited these 'false-negative' premises, as they reopened within the time available to deliver the audit. Of the replacements offered to EHPs, two were believed closed by EHPs but were subsequently found to be open by EHPs and were audited.

The primary analyses are conducted on the premises originally allocated to control and intervention groups (ITT), excluding premises dropped as a result of closure or duplication.

Sensitivity analyses are conducted on the per-protocol and non-randomised groups.

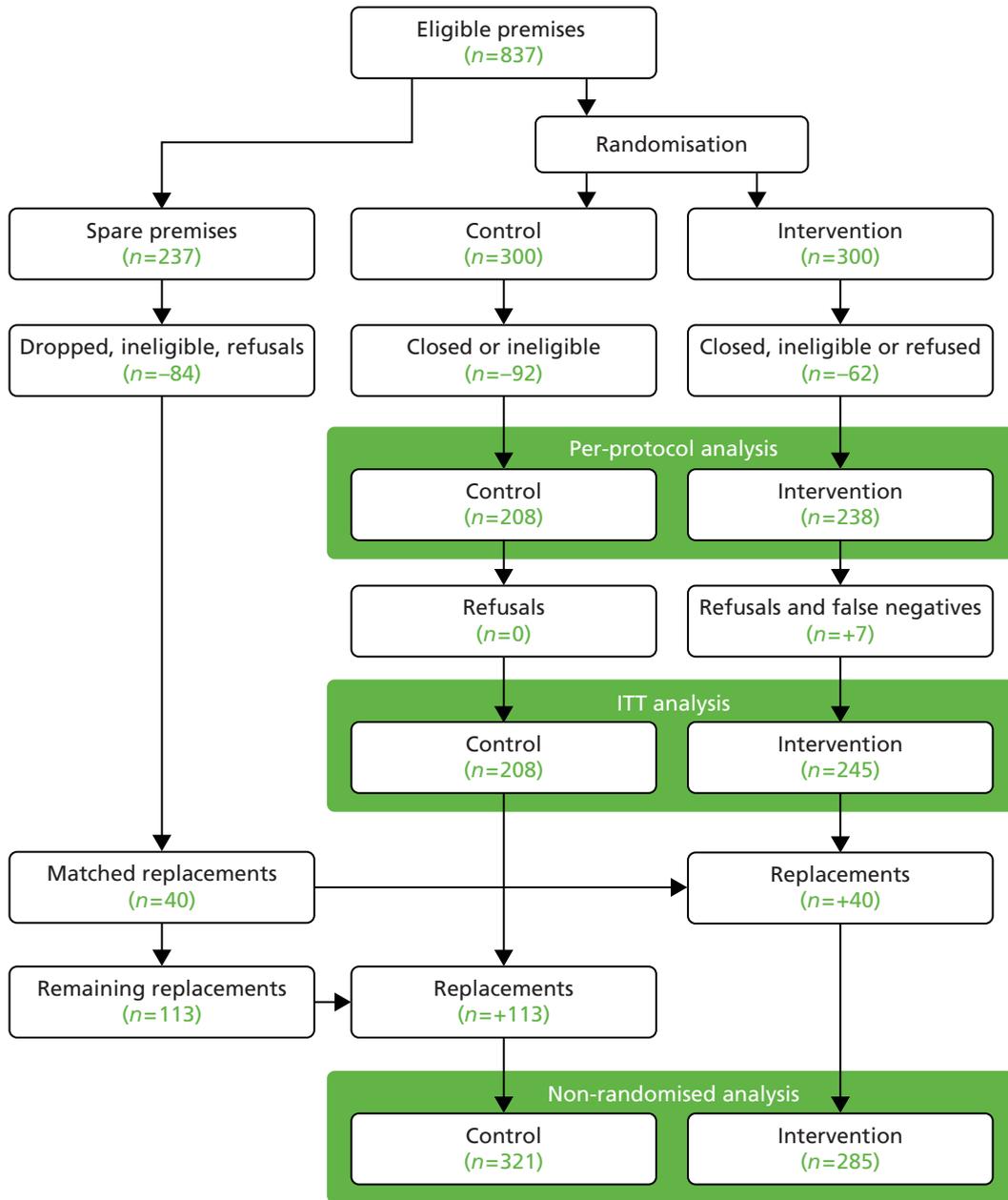


FIGURE 5 The CONSORT flow diagram.

Premises that were dropped were dropped because they were not open, they had become ineligible (e.g. changed from a pub to a restaurant), they were duplicates (some larger premises, for example, might have had entrances on two streets and, therefore, two addresses were registered in the police data for them) or they refused. Refusals were not strictly possible, as EHPs had statutory authority to visit these premises. However, there were occasions where premises claimed that there had been no occasions of violence on-site (e.g. one premises name was identical to that of the village in which it was situated and, thus, it was not possible to disambiguate the exact location of the incident in police data); another premises had recently been reviewed for licensing violations, and a third refused as the premises manager felt that it put his business in a poor light and EHPs indicated that they did not wish to audit this particular premises. In total, three premises refused; the remaining seven premises were dropped owing to other issues, including one that was ineligible because of its size (EHPs are concerned with small and medium-sized businesses, whereas the HSE are concerned with large organisations).

This provides two data sets (manual and automatic) and three levels of analysis (per-protocol, ITT and non-randomised). The primary analyses are conducted on the ITT group using the automatic data. Other analyses are to test sensitivity.

## Outcome data

The outcome of interest was police-recorded violent crime associated with premises involved in the study (see *Chapter 4*). Baseline data were the data initially used to identify eligible premises (premises were eligible if they had one or more violent crimes associated with them). These data also served as a covariate in subsequent analyses.

Follow-up data, covering 455 days from 1 January 2013 (the earliest that a premises could have been audited), with a 12-month follow-up period from the estimated last date of audit (end of March 2013), were derived using two methods: manual and automatic. The automated data were created using bespoke algorithms informed through exploratory analysis of baseline data and are used for primary analyses. Manual data were created through a manual search of police data and are used for sensitivity analyses.

### Manual data

Police-recorded violent crime data were manually checked by researchers who sought to identify all premises included in the study: 20% of the data from each of the four police forces was randomly selected and sent to an independent researcher, who completed the same matching process. Proportion of agreement was calculated for each force (0.97, 0.98, 0.97, 0.98) and yielded an overall proportion, where raters agreed, of 0.973.

### Automatic data

Baseline data, together with study premises name and address information, were used as a training data set for a bespoke automated text search algorithm that was created to identify study premises in police violent crime data (see *Chapter 4, Automatic data*).

Summing the total number of incidents identified using each method by day suggests the manual process identified more incidents [daily mean = 6.69, standard deviation (SD) = 5.27] than the automated approach (mean = 3.74, SD = 3.04;  $t = 19.38$ ,  $p < 0.001$ ); although there was a robust association over time (Spearman's  $\rho = 0.83$ ,  $p < 0.0001$ ) indicating that rank was preserved over the two approaches.

The reason for these differences is that free text in police data would occasionally use abbreviations that were not picked up in the automated search, particularly where GPS codes were missing. Similarly, records would occasionally not have address information and just provide GPS co-ordinates.

### Strata

The baseline violent crime data were used to stratify premises into high-violence ( $> 2$  incidents across the baseline period) and low-violence ( $\leq 2$  incidents) premises. Cut-points were determined through *k*-means cluster analysis. Opening hours past 11 p.m. on Friday and Saturday nights was also used to stratify premises. Premises open a total of  $\geq 4$  hours on Fridays and Saturdays constituted the 'high' group; premises open for  $< 4$  hours in total constituted the 'low' group. Dummy variables were created for each (low = 0, high = 1 for each) and were entered into analyses as covariates.

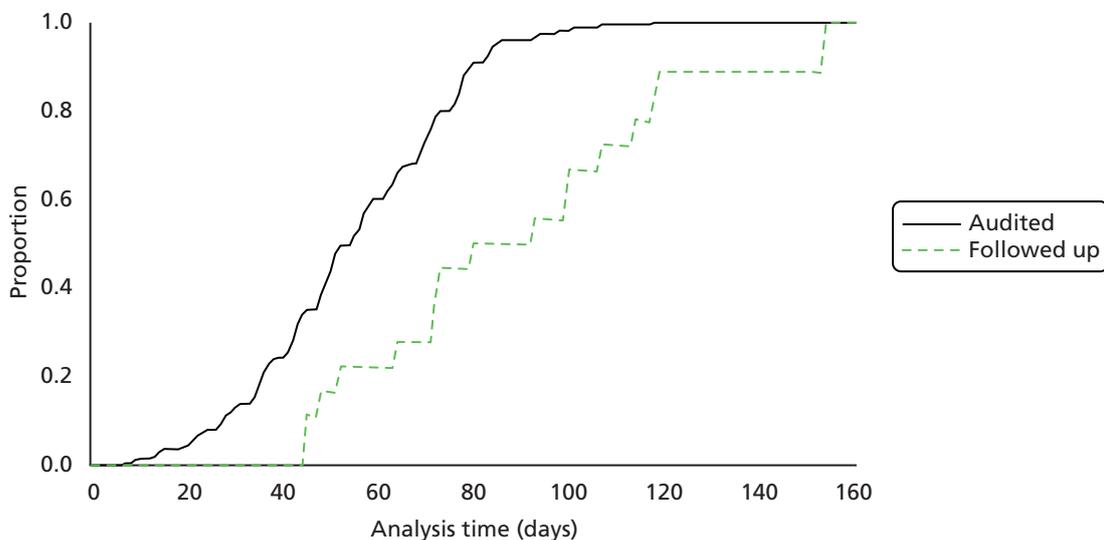
Capacity was not used to stratify premises, the reason being that these data are not reliably available. Of the 837 eligible premises, capacity data were available for 144 from LA licensing records. For these 144 premises, baseline total violence was associated with capacity (Spearman's  $\rho = 0.38$ ,  $p < 0.0001$ ), suggesting that stratifying on baseline violence was sufficient.

### Censoring

All businesses are expected to pay business rates, a form of local taxation. Businesses, including licensed premises that cease to trade whether temporarily or permanently, do not pay these rates. LA business data were, therefore, accessed for all study premises to determine periods of economic inactivity. Violent offences recorded for a premises during a period of inactivity were dropped (many premises are also private residences and can, therefore, experience violence even if they are not operational). In total, six incidents were dropped from automated data and 17 were dropped from the manual data.

### Audit completion rate

All intervention premises were audited by EHPs from January 2013 onwards. All premises had received the initial audit by 29 April 2013. A subset of premises received a follow-up audit. All follow-up audits ( $n = 18$ ) had been completed by 4 June 2013. *Figure 6* presents the temporal distribution of completed audits and follow-up audits and suggests that EHPs delivered the intervention in the expected time frame.



**FIGURE 6** Proportion of intervention premises audited by analysis time (0 = 1 January 2013).

## Descriptive statistics

### Baseline data

Premises were stratified by opening hours and baseline violence. *Table 8* presents descriptive statistics for each group.

### Follow-up data

#### Incidents and failures

In the automated data a total of 1829 incidents were observed and in the manual data a total of 1762 incidents were observed. These included murders and violence against the person but not sexual offences. Two police forces were willing to share sexual offence data but, on examination, fewer than three such offences were observed in each force. For the ITT group, overall there were 891 failures, with an average of 1.19 (SD = 0.70) violent incidents per failure. Whether or not premises received an audit or follow-up audit was entered into the data as a time-varying covariate (0 up to the date of the audit and 1 thereafter). For premises that had received a follow-up audit, there were 17 failures, representing 19 violent incidents (average violence per failure = 1.12, SD = 0.49); for premises receiving an audit but no follow-up there were 512 failures representing 620 violent incidents (average violence per failure = 1.21, SD = 0.72).

**TABLE 8** Baseline descriptive statistics

Group	Control		Intervention	
	<i>n</i> high	Mean (SD)	<i>n</i> high	Mean (SD)
ITT				
Violence	54	2.41 (3.03)	73	2.93 (4.75)
Opening hours	97	4.35 (2.86)	109	4.49 (2.86)
Per-protocol				
Violence	54	2.41 (3.03)	72	2.92 (4.75)
Opening hours	97	4.35 (2.86)	106	4.47 (2.86)
Non-randomised				
Violence	103	2.64 (4.31)	73	2.78 (4.46)
Opening hours	172	4.32 (2.75)	109	4.34 (2.80)

## Analyses

Primary analyses are conducted on the ITT group, with sensitivity analyses conducted on per-protocol and non-randomised groups (Table 9). All analyses were conducted on a binary failure indicator, defined as a session (12 p.m. to 12 p.m. the following day) in which premises experienced one or more incidents. The analytic strategy used a derivation of the Cox proportional hazards model for recurrent event analysis. The audit and follow-up audit were entered as time-varying covariates (0 for the control group; for the intervention group 0 until the audit was conducted, 1 thereafter). Opening hours and incident group binary control variables were entered as covariates and premises' LA membership was entered as shared frailty.

For all analyses the likelihood test for LA heterogeneity ( $\theta = 0$ ) yielded a significant result ( $\chi^2 > 150$ ,  $p < 0.001$  for each test). All models performed significantly better than the null ( $\chi^2 > 470$  and  $p < 0.001$  for each model).

**TABLE 9** Results from the primary analyses and sensitivity analyses

Group	Data					
	Automated			Manual		
	HR	95% CI	p-value	HR	95% CI	p-value
ITT						
Audit	1.34	1.20 to 1.51	<0.01	1.23	1.07 to 1.41	<0.01
Follow-up audit	0.43	0.26 to 0.71	<0.01	0.39	0.19 to 0.79	0.01
Violence group (1 = high)	2.55	2.21 to 2.94	<0.01	3.45	3.00 to 4.01	<0.01
Opening hours group (1 = high)	2.52	2.22 to 2.85	<0.01	2.00	1.69 to 2.37	<0.01
Per-protocol						
Audit	1.35	1.20 to 1.52	<0.01	1.24	1.07 to 1.42	<0.01
Follow-up audit	0.43	0.26 to 0.70	<0.01	0.38	0.19 to 0.79	<0.01
Violence group (1 = high)	2.54	2.24 to 2.88	<0.01	3.49	3.00 to 4.07	<0.01
Opening hours group (1 = high)	2.51	2.17 to 2.89	<0.01	1.96	1.65 to 2.32	<0.01
Non-randomised						
Audit	1.33	1.20 to 1.48	<0.01	1.15	1.02 to 1.29	<0.05
Follow-up audit	0.71	0.49 to 1.03	0.68	0.81	0.50 to 1.30	0.38
Violence group (1 = high)	2.78	2.48 to 3.12	<0.01	3.74	3.28 to 2.47	<0.01
Opening hours group (1 = high)	2.44	2.15 to 2.77	<0.01	2.13	1.84 to 2.47	<0.01

HR, hazard ratio.

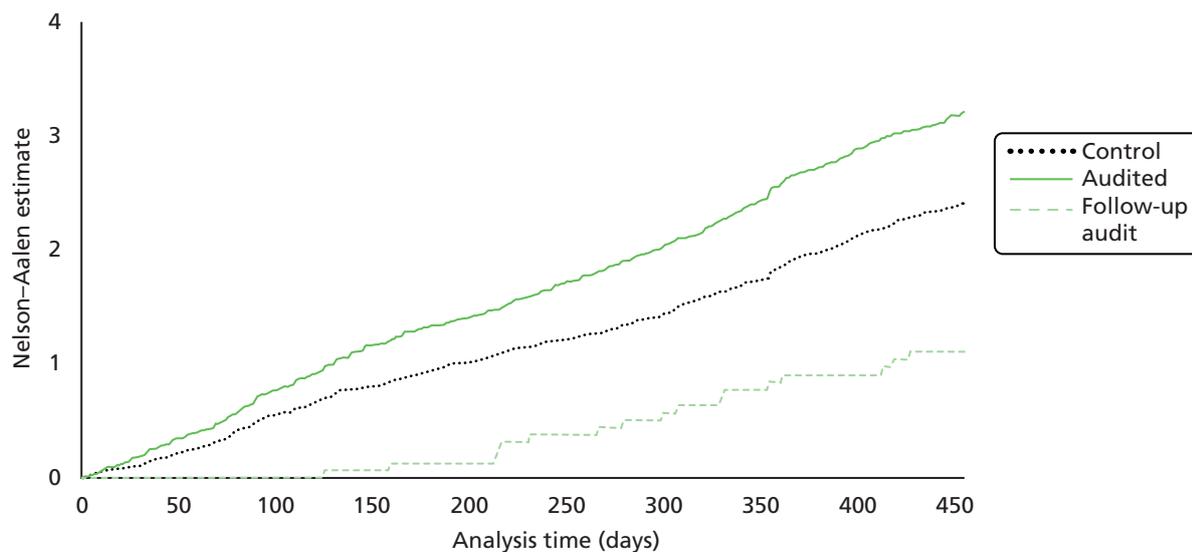
The net resultant hazard ratio (HR) for the effect of a follow-up audit can be determined through multiplying the audit HR with the follow-up audit HR; these are presented in *Table 10* with the number of premises receiving a follow-up audit.

*Figure 7* presents the Nelson–Aalen cumulative hazard estimates (ITT, automatic data) over time for control and intervention (both audited and follow-up audited) premises.

As the intervention effect may wane after a certain time period (dose effect), the intervention was treated as a time-varying covariate (interacted with  $e^{-0.03t}$ ), where  $t$  was analysis time, controlling for opening hours and violence groups and with shared frailty for LAs. For all models the likelihood ratio test of LA heterogeneity ( $\theta = 0$ ) yielded a significant effect for each model. However, in each model no significant interaction with time was noted.

**TABLE 10** Follow-up audit HR

Group	<i>n</i>	Automated	Manual
ITT	16	0.58	0.48
Per-protocol	16	0.58	0.47
Non-randomised	18	0.94	0.93



**FIGURE 7** Nelson–Aalen cumulative hazard estimates (using automated data for the ITT group).

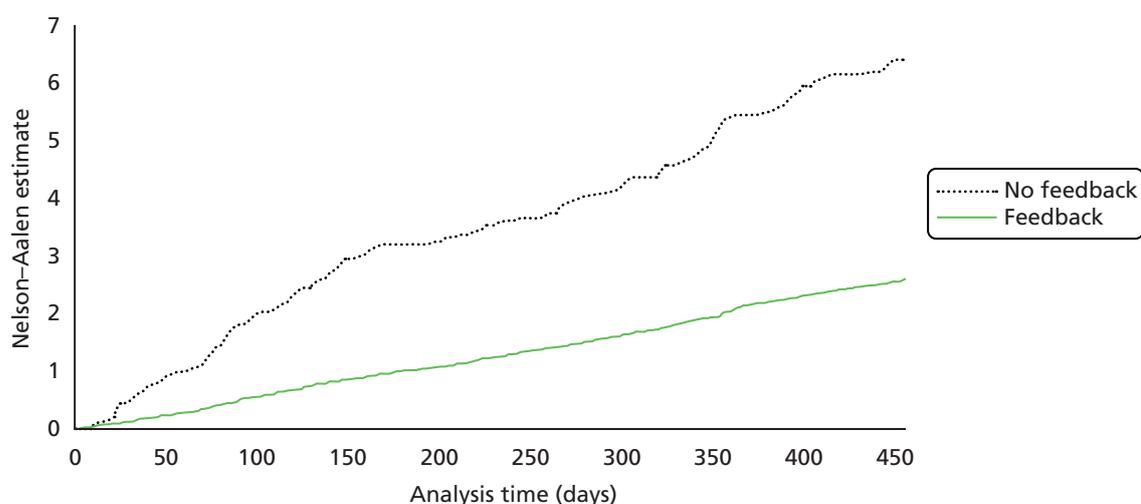
### Subgroup analysis

To further explore the effect of the intervention on violence, intervention premises were divided into two groups, according to nature of the feedback given: (1) premises where EHPs did not identify any areas of risk and therefore premises received no advice and (2) premises where EHPs did identify areas of risk and provided advice (Figure 8). For the ITT group, using the automated data and controlling for violence and opening hours groups, premises receiving feedback ( $n = 217$ ) yielded a lower incident rate than those that did not ( $n = 21$ ; HR = 0.51, 95% CI 0.42 to 0.63).

### Secondary analyses

One explanation for an increase in police-recorded violence in this context was that premises receive greater attention from the police. As licensing committees involve the police, LA licensing practitioners and other responsible authorities, it is feasible that referral to any of these responsible authorities would mean that premises are placed under greater scrutiny and, therefore, the police are more likely to record violence associated with these premises. In the audit data there are two proxies for greater scrutiny: whether intervention premises received a referral to a responsible authority or were issued a formal notice. In the ITT group, 27 premises were referred to at least one responsible authority, seven premises received a formal notice and two premises received both. To simplify analyses a single referral indicator was created (1 if referred to a responsible authority or received a formal notice, 0 otherwise). Rerunning the main analyses (ITT group, automated data), interacted with the audit indicator yields a significant positive effect (Table 11). No premises receiving a follow-up audit received a referral or notice.

A Wald test on the equivalence of coefficients on audited with and without referral suggests additional referral activity increases event frequency ( $\chi^2 = 16.39$ ,  $p < 0.001$ ).



**FIGURE 8** Subgroup analysis comparing intervention premises receiving EHP feedback with those receiving no feedback.

**TABLE 11** The effect of additional scrutiny

ITT	HR	95% CI	p-value
Audit and no referral	1.26	1.12 to 1.42	< 0.01
Audit and referral	1.98	1.59 to 2.48	< 0.01
Follow-up audit	0.46	0.28 to 0.76	< 0.01
Violence group (1 = high)	1.08	1.07 to 1.09	< 0.01
Opening hours group (1 = high)	2.77	2.40 to 3.18	< 0.01

## Intervention reach, dose and delivery

### Duration of audits

Data presented here are for the full non-randomised group.

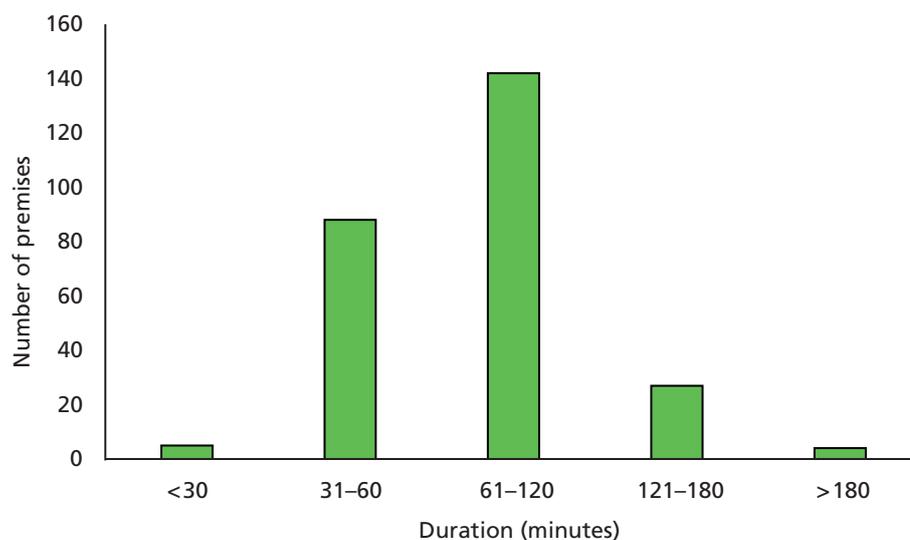
The first audits took, on average, 82.62 minutes (SD = 34.49 minutes), with an average travel time to the premises of 17.8 minutes (SD = 11.75 minutes). Follow-up audits ( $n = 18$ ) took, on average, 28.44 minutes (SD = 13.87 minutes), with an average travel time to premises of 13.39 minutes (SD = 7.99 minutes). All follow-up audits were conducted within 3 months of the initial audit (*Figure 9*).

### Evidence of risk assessments

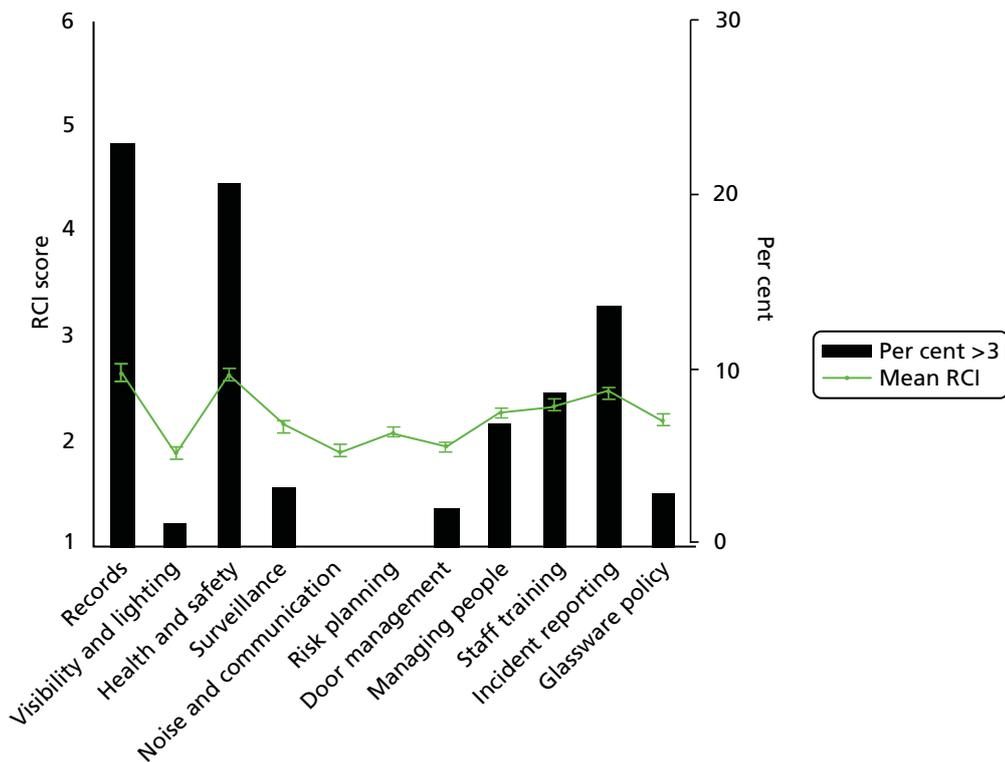
Of all premises, 73% ( $n = 204$ ) had  $\geq 5$  members of staff and were, therefore, eligible to have completed a written risk assessment. Of these, 204 premises (70%) did not have a written risk assessment. In addition, 12 premises with  $< 5$  members of staff did have a written risk assessment.

### Risk control indicator outcomes

For each domain, EHPs completed a RCI, a Likert scale that ranged from 0 to 6. A score of 0 denotes not applicable and these scores were dropped from summary statistics. A score of 1 denotes good practice, while a score of 6 denotes heightened levels of risk for that domain. The expectation was that scores of 4–6 would warrant further action in respect of that domain. *Figure 10* presents results from the RCI scores and shows that the areas requiring most attention included, first, record keeping (including written risk assessments), second, health and safety and, third, incident reporting.



**FIGURE 9** Number of premises by duration of audit.



**FIGURE 10** Mean RCIs (with standard error bars) and percentage of premises scoring  $\geq 4$  and, therefore, requiring further action.

Overall, 34.88% of premises audited scored  $> 3$  on at least one RCI, warranting enforcement, while 6.41% received a follow-up audit.

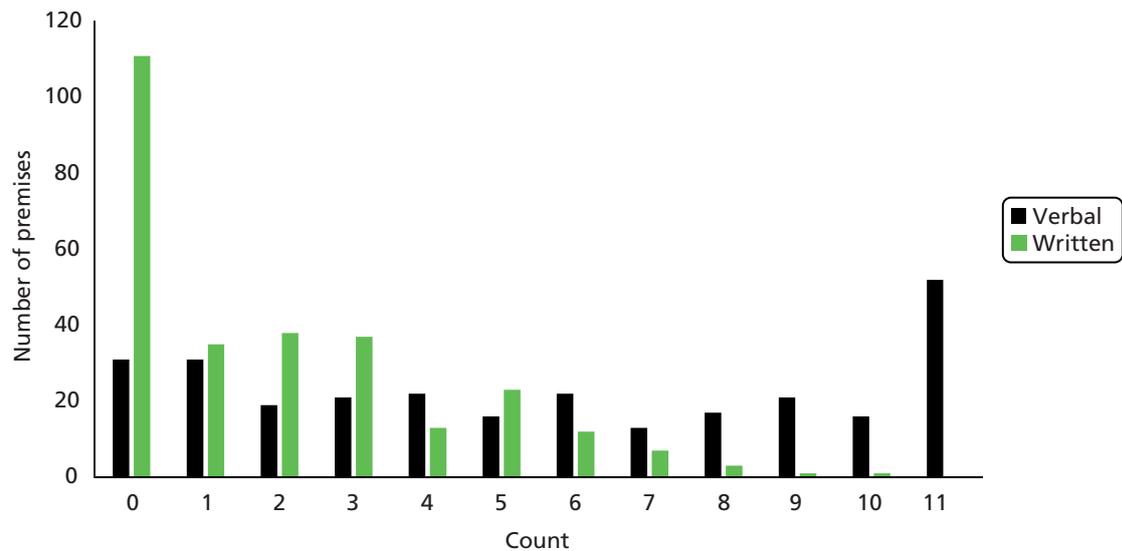
### Actions resulting from the audit

Actions available to EHPs were written and verbal advice, improvement notices (five premises received one, one premises received two) and prohibition notices (three premises received one prohibition notice) and referral to the police (none were referred to the police), referral to fire services (six premises received one referral and one premises received referrals for two issues), and referral to LA licensing (14 premises were referred for one issue, four premises were referred to two reasons and two premises were referred for three reasons). Reasons for referral to LA licensing were for premises not operating according to their licensing conditions. Notices covered lack of safety policies and records ( $n = 3$ ), inadequate staff training ( $n = 1$ ), poor condition of the premises ( $n = 2$ ), poor lighting ( $n = 1$ ) and significant failing in respect of gas safety ( $n = 1$ ). In addition, one premises received a prohibition notice for inadequate fire safety but also demonstrated failings with regard to adequate CCTV and staff training.

In total, 24 premises (8.5%) received no verbal or written advice and no prohibition or improvement notices. Written and verbal advice could be given once for each audit domain, yielding a maximum of 11 for both verbal and written advice for each premises (*Figure 11*). On average, verbal advice was given more frequently (mean = 5.62 per premises, SD = 3.91 per premises) than written advice (mean = 1.97 per premises, SD = 2.22 per premises;  $t = 16.41$ ,  $p < 0.001$ ).

### Follow-up visits

Eighteen premises received follow-up visits from EHPs (16 in the ITT group). In each case all areas of concern had been addressed or were in the process of being addressed (e.g. work was ongoing to make repairs and improvements). Typically, premises received follow-up visits for failings (RCI  $> 3$ ) in more than one domain (mean = 2.88, minimum = 1, maximum = 4). *Table 12* presents the number of premises failing in each audit domain. Some premises failed in more than one area. Of note, there was an expectation that



**FIGURE 11** The number of premises receiving written and verbal advice. The maximum number of areas on which premises could receive advice was 11.

**TABLE 12** Reasons for follow-up visits

Area of concern	Premises
Q6 <sup>a</sup> Records	7
Q7 Visibility and lighting	1
Q8 Health and safety, observation and checks	13
Q9 Surveillance	4
Q10 Noise and communication	0
Q11 Risk planning	2
Q12 Door management	1
Q13 Managing people	1
Q14 Staff training	13
Q15 Incident reporting	7
Q16 Glassware policy	0

a Q1–5 concerned characteristics of the premises and details of EHP conducting the audit and premises personnel present at that time.

health and safety processes are up to date, fit for purpose and, critically, communicated to staff. Those premises that received follow-up visits for matters relating to health and safety, observation and checks would, owing to their inadequacy, be unable to train staff appropriately. Accordingly, follow-up visits usually required premises to improve how their staff were trained as well.

### Perceived efficacy in premises management

Environmental health practitioners rated their confidence in premises management on a Likert 1–6 scale across eight domains (*Figure 12*). Overall, items varied little both across and within premises and were associated with the numbers of domains receiving verbal advice (Spearman's  $\rho > 0.15$  and  $p < 0.01$  for each comparison, except organising co-operation and communication, where Spearman's  $\rho = 0.12$  and  $p = 0.06$ ) and the number of domains receiving written advice (Spearman's  $\rho > 0.32$  and  $p < 0.001$  for each comparison) with lower confidence being associated with a greater likelihood of verbal or written advice.

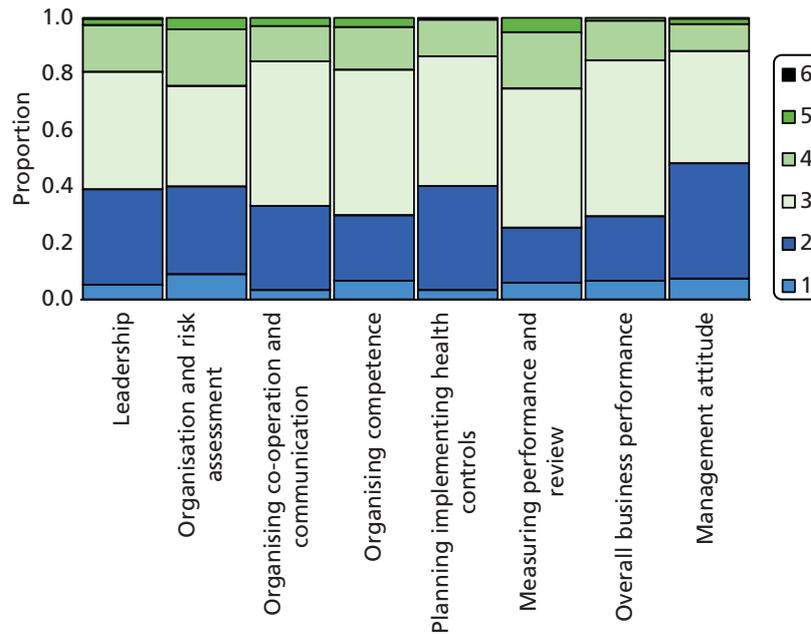


FIGURE 12 Confidence in management (6 indicates low confidence, 1 indicates high confidence).

## Exploratory analyses

### Intervention premises characteristics

#### Staff-to-customer ratio

Premises ranged from smaller establishments with one owner/occupier to large nightclubs. On average, premises employed 4.4 members of full-time staff (minimum = 0, maximum = 100), lower than the average number of part-time staff, which was 8.4 (minimum = 0, maximum = 80;  $t = 6.85$ ,  $p < 0.001$ ). At their busiest time premises would expect to have on average 200.6 customers on-site (minimum = 10, maximum = 3100) and on average 5.78 staff working on-site (minimum = 1, maximum = 60). On average there were 38 customers for every member of staff (minimum = 3.75, maximum = 1033.33) and the staff-to-customer ratio was associated with number of baseline violent incidents in that premises (Spearman's  $\rho = 0.19$ ,  $p < 0.01$ ), such that the more customers per member of staff, the greater the levels of earlier violence.

#### Opening and closing times

Premises were more likely to stay open later on Friday and Saturday evenings, with 8 p.m. to 11.30 p.m. being those times when premises were busiest (Figures 13 and 14). In total, 99% of premises were open both on a Friday and on a Saturday; with regard to these premises they would be open on average for 3.34 hours in total after 11 p.m. on a Friday and Saturday evening, with those premises open longest also experiencing greater levels of baseline violence (Spearman's  $\rho = 0.30$ ,  $p < 0.001$ ).

#### Door security staff

On average, intervention premises employed 2.04 (minimum = 0, maximum = 18) door security staff when busiest, with more violent premises at baseline being more likely to employ more door security (Spearman's  $\rho = 0.44$ ,  $p < 0.001$ ).

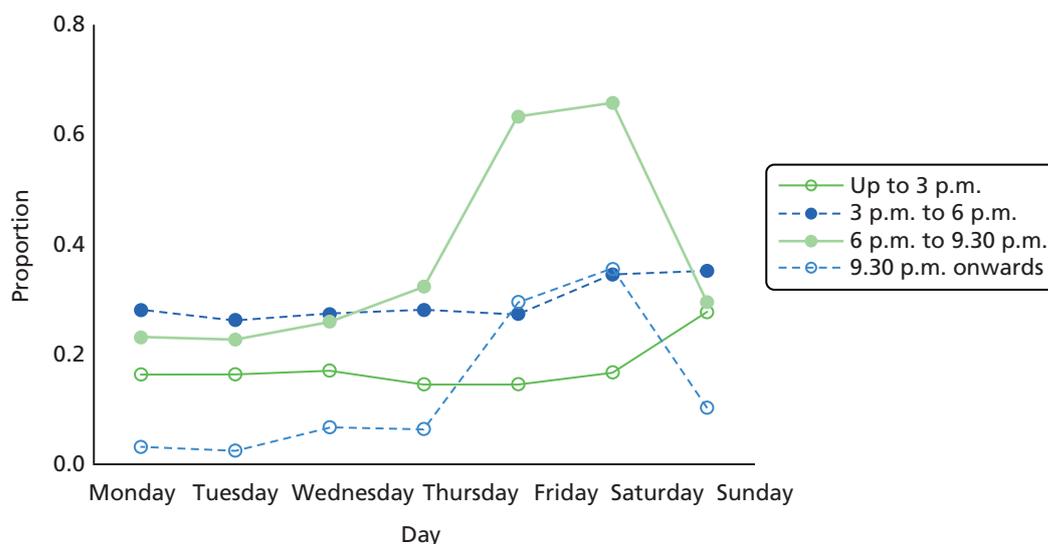


FIGURE 13 Intervention premises self-report busiest periods.

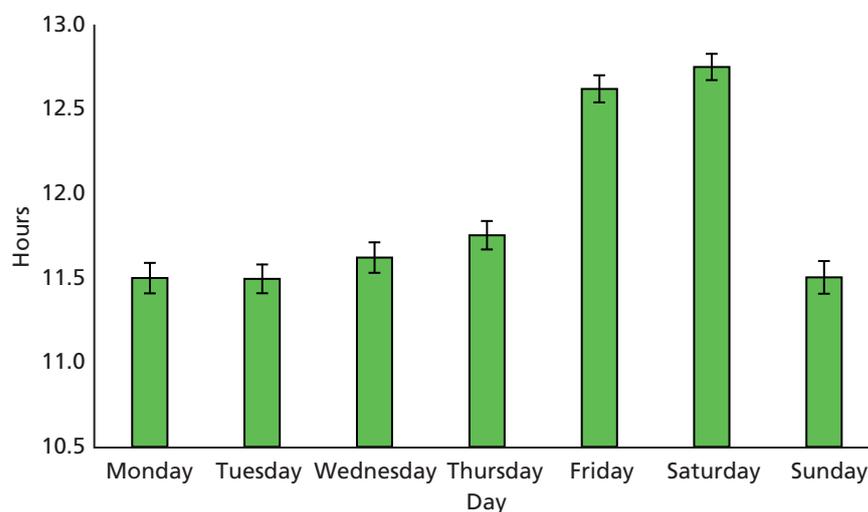


FIGURE 14 Mean (with standard error bars) premises hours open after 12 p.m. by day of the week.

## Other characteristics

- Music, sport and food service.
  - Of the premises audited, 58% had either recorded or live music and 71% showed sport on televisions. Fifty-four per cent of the premises audited served food.
- Organised premises vigilance.
  - Of the 281 premises audited, 62% were involved in PubWatch.
- Area classification.
  - EHPs classified 24% of the audited premises as situated in a non-urban environment.

### Associations between intervention premises characteristics and baseline violence

A negative binomial regression model (accounting for potential clustering at the LA level) assessed the relationship between past violence and potential predictors of violence, also including whether or not premises had completed a written risk assessment [model  $\chi^2(6) = 42.92$ ,  $p < 0.001$ ]. This model confirms that more customers per member of staff, longer opening hours, and lack of a written risk assessment, a key component of the health and safety advice given by EHPs, were associated with past levels of violence (Table 13). Numbers of door security staff were not included, as these values were collinear with staff numbers (Spearman's  $\rho = 0.45$ ).

**TABLE 13** Regression results on past levels of violence

Historical violence	Coefficient	z-value	p-value
Customer-to-staff ratio	0.001	2.12	0.034
Total hours open	0.11	2.74	0.006
Serves food	-0.05	-0.35	0.728
Urban location	0.29	1.86	0.062
Written risk assessment	-0.36	-3.15	0.002
Member of PubWatch	0.25	1.56	0.118
Constant	0.13	0.57	0.567

## Results summary

The results summarised in this chapter indicate that the reach of an EHP-delivered intervention is high; virtually all premises eligible to receive the audit received one. However, undertaking an initial audit in premises resulted in an increase in violence in intervention premises, compared with control premises. EHPs' preference was to offer advice and guidance to premises with very few follow-up enforcement visits. However, subgroup analysis showed that conducting a follow-up audit was associated with a reduction in violence. Exploratory analyses further suggest that those premises receiving a follow-up audit did alter processes and respond to feedback. However, while significantly associated with a reduction in violence, numbers in this follow-up group were low, affecting the generalisability of these results. The intervention effect was successfully mapped over time, although the results do not indicate a wane in the intervention effect over time.

The primary result of this audit is, therefore, that EHPs are able to implement an intervention to identify causes of violence in premises and provide advice consistent with the ways they would engage with any business. EHPs, however, were unlikely to use enforcement options that may be associated with intervention effectiveness.



## Chapter 6 Process evaluation

### Aims and objectives

The process evaluation explored the processes operating during intervention development, adoption and implementation, and the influence of such procedures on delivery.

The process evaluation objectives were to:

1. understand the adoption of the intervention by EHPs and the adaptation required to integrate SMILE into normal practice
2. assess intervention implementation – reach, fidelity and dose delivered
3. assess intervention efficacy – receipt and acceptability
4. understand the implementation context for intervention maintenance and any intervention reconfiguration
5. construct a logic model of the intervention as delivered.

### Results

#### SMILE adoption

##### Initial intervention adoption

The AWLPI project was adopted after a series of meetings between academics and environmental health managers. Evidence suggests that the meetings facilitated a better understanding of the intervention, its constituent parts and how it was to be evaluated. These meetings also provided the research team with a better understanding of the routine roles and practices of EHPs. However, a more mixed reaction in the wider EHP body suggested that the positive reaction at managerial level did not extend to the broader workforce, highlighting the importance of training and diffusion activities.

The early meetings between academics and senior EHPs included presentations from the feasibility study which gave managers insight into the rationale for AWLPI and increased understanding of the aims and benefits of SMILE. These positive effects were strengthened by recognition that SMILE would map strongly onto current EHP work practice and appreciation that the underlying research aims and objectives of the project met well those of the environmental health agency: 'I thought "hang on that sounds like some the work that we do, so how come we are not joined up and doing something together?"' (senior EHP2). These meetings also improved academic understanding of the remit of routine EHP practice 'investigating accidents . . . umm, they educate, they work in partnership with groups, other stakeholders who have an interest in public health or the health of the environment' (senior EHP1).

Subsequent discussion was centred on SMILE design and delivery. Managers suggested that health and safety EHPs should implement the intervention as these specialists were most likely to have gained useful experience in conducting RIDDOR<sup>66</sup> investigations in earlier projects: '[A]n [earlier] alcohol and violence project, not necessarily for Licensed Premises, but in bookmakers, uhh nightclubs . . . restaurants as well' (senior EHP1). As changes to adapt SMILE to an environmental health context promised to aid SMILE adoption by the EHP workforce, senior EHPs agreed to work with the academic team to coproduce the intervention.

### Wider organisational adoption

Initial news of AWLPI reached much of the wider EHP community more informally through managers. Although all local authorities had chosen to participate in AWLPI, half of the EHPs ( $n = 11$ ) interviewed felt that inclusion had been imposed. Nonetheless, despite perceptions of a 'forced adoption', a recognised barrier to innovation acceptance, most EHPs reacted well to AWLPI, appeared to understand and internalise its demands and believed that they already possessed the necessary skills. This generally positive reception was accompanied by some anticipation that SMILE may help routine work progress into a new legitimate arena:

*[W]e are a responsible authority for licensed premises I don't think that we are finding out enough about what is happening at these premises . . . and if they are not managing violence at their premises then I think that is something that we should be doing.*

EHP19

The greatest concern of practitioners came from the realisation that environmental health was to be the sole delivery agent: '[L]icensing might have been better placed to deal with this' (EHP22). Additional disquiet appeared to grow from limited understanding of the rationale of the project – '[W]e would deal with violence but not specifically alcohol-related violence and certainly we wouldn't have had a role with regards alcohol-related violence between customers' (EHP8) – and lack of understanding of how it differentiated from earlier projects: '[W]e had done two violence at work projects in the preceding 2 years and so the general feeling from the team was "oh no not again" ' (EHP8). These comments raise initial questions about whether or not allowing project information to trickle through organisations in this manner is risky and emphasised the importance of providing diffusion activities throughout organisational hierarchies when introducing innovations into complex institutions.

Contrary to managerial expectation, EHP accounts at this stage suggested that previous experience in addressing work-related violence among EHPs was low. One-quarter reported little or no experience: 'Not up until the project, no, like I say it wasn't something that we really, we didn't look at really' (EHP1). Of those who had experience, 11 had gained little within licensed premises: 'I wouldn't say they was a massive emphasis on it, you know we may look at, if we were going to a licensed premises' (EHP17). Of the remaining five practitioners, only one had previously worked on a local project similar to AWLPI, 'for about 4 years . . . through local knowledge and police statistics, I targeted out problem areas and visited all of those' (EHP5). Others had worked with or as part of LA multiagency teams addressing violence in licensed premises, but involvement ranged from occasional – 'they meet on a regular basis, now as environmental health officers we don't sit on that on a regular basis' (EHP12) – to fuller integration: 'we apply this scheme in [X] . . . it basically looks at all the issues in terms of NTE, sort of drinking related, alcohol-related problems, underage sales, all these kinds of things' (EHP10). It was also discovered that EHPs had conducted little work on ARV through RIDDOR: 'to be honest I don't recall ever having one' (EHP13). Despite these findings, there was no evidence suggesting that EHPs felt that lack of experience in these fields would pose a barrier to project adoption and participation.

During the early phase of SMILE adoption the initial discussions were vital as they introduced the concept of involving EHPs in addressing violence in licensed premises to managers and made organisational involvement understandable, relevant and pertinent to them. Subsequent meetings increased mutual understanding and led to agreements to coproduce the intervention and in doing so to draw on the knowledge of senior EHPs with the intent of adapting SMILE to established organisational tools and practices as much as possible. This positive experience at managerial level contrasted with a more negative reaction in less senior EHPs. Although concerns were only expressed by a few EHPs, it may be possible to circumvent such barriers and achieve better levels of early legitimation and enrolment in any roll-out of interventions if more work to give all practitioners a better understanding of the intervention rationale and potential benefits is undertaken earlier. However, the subsequent training offered to LA EHPs did seem to meet initial concerns and generate a more positive response as the intervention was diffused.

### Intervention training

Following coproduction of the intervention at least one EHP from each of the 22 Welsh LAs attended a training day. These days aimed to increase wider organisational understanding at both group and individual levels by increasing knowledge and understanding of the intervention format and rationale within the extended EHP body. The training days consisted of expert presentations drawing attention to the extent of violence within the NTE, the potential role of EHPs and the aims and objectives of SMILE. The days also saw senior EHPs presenting the SMILE risk audit in detail and discussing it with the wider EHP body. SMILE audit tools and contact details for allocated intervention premises were distributed to LA environmental health teams once the training days were complete.

In total 74 EHPs attended the training days, a high attendance level which increased the organisational reach of SMILE. Comments from attendees suggested the days increased both individual and communal understanding of the intervention by providing details of project background, rationale and the proposed role of EHPs within it. Most EHPs felt that the research team presentations were useful as they gave '[G]ood insight to the background, you know to see where it comes from, the thought behind it and, you know, what you hoped to achieve from doing the project' (EHP2) while additional medical presentations offered 'visual sort of displays of injuries that were in A&E from the, from the medical practitioner that was on site, was, was quite . . . Well it was hard hitting' (EHP5). In addition, the sessions appeared to play an important role in increasing the personal enrolment of EHPs in the project, and providing justification for their involvement in intervention delivery: 'it did, you know, sort of get me sort of more enthusiastic about trying to tackle it' (EHP5). The role of senior EHPs in coproducing SMILE was also perceived as important, both in facilitating EHP enrolment – '[B]ecause our colleagues had been involved in it from the start that did help because, you know, you weren't sort of actually preaching to people who had no sort of feedback from peers' (EHP10) – and in ensuring that the resulting intervention tools met existing skill sets: '[T]he actual forms I think are pretty self-explanatory in terms of, you know, filling them in, obviously you know we are used to going on site and taking various different forms with us, you know' (EHP17). This positive view was later reinforced by the EHPs who did not attend a training day – 'I had a look through [the risk-audit form] myself and any questions that I had about it I could ask my colleagues and they would sort of clear it' (EHP6) – which suggests that the SMILE audit fitted into work practices easily even without training being given.

Despite this generally encouraging response, concerns about the exclusion of LA licensing teams remained: 'the violence and the procedures around that, with regards to CCTV and all that, would have been better suited to licensing' (EHP18) and 'it would have been nice to have had the feedback and the input from the licensing officer side of it' (EHP15). A minority of EHPs were concerned that 'we don't want to step on their [licensing's] toes!' (EHP18), thus highlighting the importance of agency boundaries within work practices and relationships.<sup>83</sup> A minority of EHPs also felt that the health and safety questions removed the project focus: 'there were other more general health and safety questions . . . risk assessments and those types of things, maybe they could have been more specific and kind of into more detail perhaps on the violence and aggression' (EHP9). This response can be attributed to lack of understanding of the role that these factors can play in levels of violence and highlights the importance of providing this knowledge clearly and ensuring that it is disseminated widely during this phase of the project.

Although most EHPs were impressed by the website and films – 'I felt that I could say to the publicans oh you know it does give you a lot of good information, you know such as challenge 25. And so I thought there was a lot of good information on the DVD' (EHP2) – two practitioners voiced concerns about one section of one film:

*[A]s a team we were slightly horrified by was the contents of the training video which, you know, indicated that premises should put staff into harm's way in order to protect customers, which is just abhorrent, it is just everything that we would advise against.*

EHP8

Consequently, the videos were not extensively promoted by these practitioners.

Overall, the training days appeared to have a beneficial effect. They remedied or limited most EHP concerns by improving levels of understanding, and promoted individual legitimation and enrolment more widely throughout environmental health. The largely positive reaction to SMILE tools and delivery methods was also a testimony to the ability of coproduction to generate interventions that are perceived as valid and relevant to users<sup>84</sup> and to the professional attitudes of EHPs, an attribute that was further evidenced during SMILE delivery.

### **Intervention reach**

Although the subsequent delivery of SMILE by EHPs led to significant intervention reach, it must be noted that a number of premises closed down before the intervention could be delivered, and a small number proved uncontactable or refused to participate. Among the 300 original intervention premises selected, 92 were ineligible owing to premises closure and four refused. Within the four premises refusals, one was as a result of an ongoing prosecution, while one landlord declined because he had recently been part of a similar project and another refused because he felt that SMILE selection reflected poorly on the premises: 'he got quite upset about it and I think [research team member] got involved as well and you know he had to send you know an apology out' (EHP21). The final refusal was based on disbelief: 'they were like well, well, why, why are you here. You know I can't remember the last time there was even an incident' (EHP22). This was a feeling shared by managers of many premises in rural or quiet locations. Consequently, EHPs delivered the intervention to 69% of the initial sample.

As per protocol, replacement premises for premises closures and refusals were allocated. In total EHPs delivered SMILE to all but four of the available intervention premises that were open and could be contacted. Such a high implementation rate is consistent with studies in other areas involving statutory partners and strengthens the evidence that agents without legal powers are inferior when compared with those that do have legal power.<sup>69,85</sup> Indeed, nearly all managers consulted reported feeling obligated to co-operate with authorities: 'it's going to happen, so may as well go with it' (DPS 342).

### **Intervention fidelity and dose delivered**

The collaborative approach to intervention development appeared to have produced an intervention that was acceptable and proved to be usable by most EHPs, with high levels of implementation fidelity. However, a similar level of intervention dose was delivered across premises regardless of premises context and level of violence, with EHPs relying on less intensive verbal/written feedback rather than follow-up enforcement visits.

Visits typically consisted of study explanations, an internal and external inspection of premises and necessary documents, a talk 'that gave information about 'health and safety at work and that kind of thing' (DPS 347), and some discussion of the project website and DVD. Although collective EHP accounts provided strong evidence that SMILE delivery was conducted with high levels of fidelity, individual approaches to delivery varied. Some practitioners –

*They were always looking at what you were writing and stuff, and it was quite easy for them for me to explain to them with the tick boxes, well you know, you just 'well look, there is the question, this is the box that I am ticking'.*

EHP11

– used more open attitudes than others:

*I didn't score in front of them, I would fill in the pro forma and then come back and do my scores back in the office, so I wouldn't say to them at the end because obviously that would be quite confrontational.*

EHP7

There was evidence that all EHPs found the risk audit easy to use and could provide the necessary advice and guidance: 'I thought it was all very, the layout and everything was all sort of easy to use and I thought that it was fine' (EHP1). Some used the audit exclusively – 'I think that we just utilised your guidance' (EHP9) – but many drew on previous experience and/or interaction with premises staff:

*You work on the response of the person that you are talking to, you know how proactive they are, how responsive they are to what you are talking about. There is no point in serving notices on somebody who is very willing and very happy to put things in place.*

EHP7

The EHPs in one LA doubly scored premises: 'your rating system for this is different to our rating system on our system and so basically we had to rate them twice, we had to rate them for you and then for our own purposes' (EHP12).

Full description and findings of the audit are reported elsewhere in the report (see *Chapter 5*). However to summarise, the risk audit involved completion of a RCI (Likert scale 1–6) that indicated levels of risk in 11 separate areas and recorded subsequent requests and actions. Descriptions of visits and the records produced indicated that premises tended to receive a similar dose of the intervention regardless of premises context. Overall, only 24 (8.5%) premises failed to receive some request for action (see also *Chapter 5*). The vast majority (91.5%) received verbal advice – 'always verbal on site' (EHP6) – with over half receiving additional written advice detailing changes that the premises were required to undertake. However, incidence of follow-up visits was low. Only 18 were made in total, most related to health and safety checks ( $n = 13$ ) and staff training ( $n = 13$ ). EHPs reported reverting to more formal procedures only when actions were not made or legislation had been compromised:

*With issues then which I did pick up on it was written advice, I didn't need to take any further enforcement action after the written advice and revisiting them, they had done all the, you know they had done all the issues which I had picked up.*

EHP6

Few problems in promoting the website and DVD were reported, although the two practitioners who had held concerns about the advice in one film distributed DVDs with warnings to ignore the section in question.

Reports that SMILE delivery was easy together with high prescription fidelity lent further support to claims that use of a coproduction approach produces interventions that fit well into organisational systems. While the high levels of reach and implementation fidelity strengthen arguments that statutory authorities should deliver such interventions, this may need to be considered alongside evidence that EHPs preferred to deliver SMILE using verbal/written advice rather than enforcement and follow-up visits. The effect of this on premises' response to intervention, therefore, needs to be considered in an examination of intervention receipt and acceptability.

### **Intervention receipt and acceptability**

Findings suggest that the statutory nature of the intervention promoted receipt. However, there was a perception that premises were more responsive to SMILE if they were already engaged with prevention. This was most likely if they were in an urban area, were a large chain and had existing systems and structures in place. Smaller independent premises seemed to find the intervention less acceptable and appeared to require enforcement to promote action.

Half of the EHPs interviewed felt that premises reacted to the SMILE audit positively. Some ascribed this to the statutory nature of visits, others to pre-existing positive relationships with premises:

*All of them were accommodating and you know quite a few of them were actually happy then . . . because . . . maybe they hadn't had an inspection or visit off us for you know a number of years.*

EHP6

Some owners supported this view: 'if you are doing it with the local authority you know that you have covered everything and there is nothing that you have missed out yourself' (DPS336). In general, EHPs reported that managers of large, often chain, premises tended to react more positively to SMILE – 'some of the bigger ones . . . where they have got good procedures in place and well trained managers and a well-run place that are receptive to it' (EHP3) – with poorer responses often coming from long-time owners of smaller pubs:

*They said 'have you ever worked in a pub' and I said 'no', 'well' they said 'well there we are, I have worked in a pub for 30 years, I know exactly what goes on here, I know exactly what to look for'.*

EHP3

These EHP descriptions of visits were supported by 16 intervention premises owners/managers (chain,  $n = 7$ ; independent,  $n = 9$ ). In reaction to SMILE, managers of large chain premises tended to feel that issues were already being addressed by established in-house policies, practices, training and support: 'all I have got to do is phone head office, and they are like there with an answer' (DPS347). However, this opinion was not universal: four managers of chain premises, including two where SMILE identified no concern, felt that the intervention had benefited them by raising personal awareness of ARV and refocusing attention on the issue – 'it pushes me to the right direction that you have got to be focused on these types of things you know' (DPS84). In addition, some proprietors noted how having SMILE delivered by EHPs had encouraged maintenance of present standards and updated knowledge:

*[F]resh eyes, do you know what I am saying, so I mean and anything new or anything I mean it is like if I have been here 6 years and . . . maybe, she will come and say oh why don't you try it that way because it is a fresh idea you know. Sometimes so anything new really is always a good idea I think.*

DPS124

Within independent premises, despite one reacting very positively –

*[T]here are new things coming along . . . and I don't have the information and there are lots of different things she brought with her, booklets and that as well but especially that DVD, it has just highlighted different zones . . . and say ok I am taking time out here now and I am doing this and showing the staff this as well, and it is all good isn't it really. It is positive.*

DPS131

– a significant number were unhappy at the idea of receiving SMILE. A couple of owners insisted that the intervention had no place in their premises and saw it as an unwelcome burden: 'I suppose if you hadn't ticked a lot of the boxes then yes it would be an eye opener and it would be of value. But personally speaking I had a lot of the work already done' (DPS179). Others participated without complaint, but gave SMILE little thought afterwards, and did not remember it positively: 'once is bad enough!' (DPS100).

Participants managing premises near or in towns or city centres appeared more responsive to the aims of the intervention. All agreed that violence was an established ongoing problem, with the majority feeling that the situation had worsened in recent years as escalating use of stimulant drugs had compounded matters: '[i]t has got a lot worse over the last few years because there is so much, there is so much drugs in the [location redacted] now it's sort of an accumulation of the two' (DPS174). Despite this, a minority of managers working in urban environments perceived violence as something that occurred outside their premises or their area of responsibility –

*[P]eople walking down from X Street two of them seen each other . . . history of a feud between them and they started fighting outside. And it has ended up our doormen have got involved because it is literally our doorstep and other people have got, and it just escalated and escalated and it was my doorman that got into trouble for it – for stepping off their door.*

DPS33

– or as a consequence of drinking elsewhere either at other premises or through preloading. This inference that premises prefer to distance themselves from customer violence was reinforced by comments such as '[t]he biggest issue is once people have become intoxicated is having the foresight, as managers and door staff, to remove those people from the venue' (DPS28). Such a comment supports evidence that violence and aggression are often displaced onto the street,<sup>86</sup> which strengthens a call for some premises to be given stronger support to help them take responsibility for their role in ARV.

### **Intervention reconfiguration and sustainability**

Most EHPs felt that SMILE had been an effective intervention that had had a beneficial impact on the knowledge and practices of EHPs and fitted well with routine work practices. However, initial unease and a lack of confidence in dealing with violence as part of their routine practice remained. Some suggestions to reconfigure SMILE to improve implementation targeting, efficacy and sustainability were also offered. Of particular importance was the involvement of other agencies to promote enforcement and premises receipt.

Using SMILE had raised awareness of ARV and the factors affecting it for many EHPs – 'it has got to be done, as in like I didn't realise the scale of the issue' (EHP21) – and made the potential to address ARV within premises more explicit: 'I would much prefer to go out there and give them all the information and the guidance that they need you know to help them you know make the premises a safer place rather than going in as an enforcement' (EHP19). There was wide agreement among EHPs that SMILE fitted the organisational context well: 'seems to be certainly something that would tie in naturally with the Health and Safety at Work Act and it is sometimes it is a very real, erm, safety issue to employees and to members of the public' (EHP20). The importance of sustaining and integrating this work into professional practice rather than as a 'one-off' intervention was also stressed: 'I know from like, from personal experience and they have got good intentions for that, the next few months and then it sort of slips off and it goes off their agenda and then something else' (EHP13).

In contrast, most owners and managers were surprised to find EHPs delivering SMILE. Regardless of this, most felt that EHPs had a role in assessing risk factors given their knowledge and statutory powers: 'you would make double sure that, you know on that night, you know, it is one of those things that you shouldn't work like this, you do you just say I will go and double check' (DPS308). EHPs agreed that statutory powers encouraged actions within premises:

*[T]hese interventions highlight the issue to the managing agent and as a result, as is generally the case when we book an assessment, the first thing those in control of the business does is review their own risk assessments on that subject.*

EHP8

Further reflection produced some suggestions for SMILE reconfiguration. The major concern stemmed from the data used to identify participant premises. Although virtually all EHPs felt that the premises visited had been representative of their areas, over half felt that the wrong premises had been selected: 'some of the ones perhaps that I would have classed as being a problem pubs weren't within that list. . .' (EHP5). Many respondents agreed, feeling that SMILE effectiveness would have been increased if delivery had been confined to premises whose managers had little experience or knowledge of ARV and how to minimise it – 'the ones that weren't part of a chain, independent, no controls, ones with no, no real understanding' (EHP22) – or which were known to have larger levels of problematic behaviours and violence. Many EHPs suspected that the police violence records were unreliable: 'you said that a lot of the data came through from the police but when I checked up, certainly on the one pub they had nothing, there was nothing against it whatsoever' (EHP7). Police violence records were also criticised for associating incidents with nearby premises – 'three of the pubs in particular, they have called the police for problems outside the premises, you know it is nothing to do with their premises but yet they are, you know they are brought up on the list' (EHP3) – and for not differentiating between police attendance to prevent trouble and managing ongoing violence: 'people believed they were serving under age but they were very pro-active in wanting to kind of clean that up . . . and I think that is why they had a higher number of police incidents' (EHP18).

Post implementation, the feeling that SMILE should have included licensing officers had strengthened – 'a lot of things that sort of licensees have to do which ties in with this and [licensing] have got a lot of hands on knowledge of individual premises, individual licensees' (EHP4) – even among some proprietors 'if a policeman had come in and done that study with me I would have found it more appropriate than the EHP woman coming in to do it' (DPS22). However, a few managers were concerned that SMILE drew more agencies into a field already negatively affected by decreased funding for police and local authorities in licensing over the last decade: 'I think that perhaps bringing more bodies into the kind of . . . maybe . . . Yeah I think that, as I say at the moment there is way too much conditions on licences and stuff like that' (DPS157). SMILE also introduced or reinforced appreciation of the value of multiagency work, especially for EHPs with similar earlier experience: 'people like the health board, the police, you know fire service, other agencies . . . you know getting everybody interested' (EHP17). EHPs also maintained that:

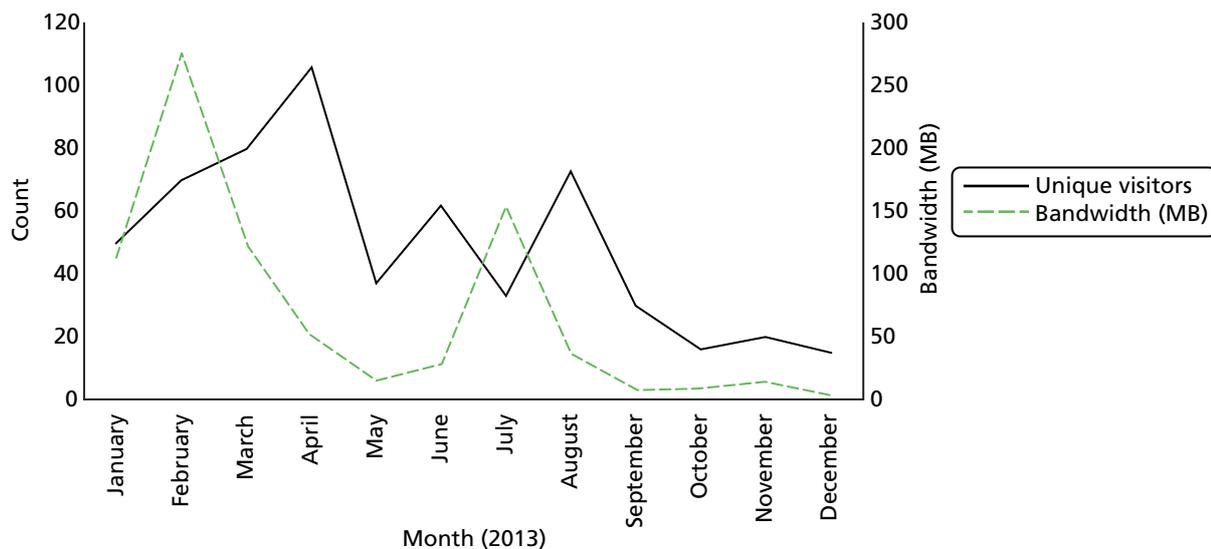
*it is important to forge these links with everybody . . . so that they can actually, you know raise concerns and perhaps you know change licence conditions and deal with all these things rather than you know do it in isolation.*

EHP10

## SMILE website

The website containing materials to support the SMILE intervention was organised so that the number of unique visitors visiting the site could be counted. In addition, the bandwidth (the number of data delivered to visitors) was recorded. *Figure 15* presents these data and shows that from January 2013 to the end of May 2013 the site received 343 unique visitors and delivered 580 MB of data.

In total, nine intervention premises staff completed the online multiple-choice questionnaire; this was far fewer than expected. In addition, one participant contacted a lead researcher on the project and indicated that they had intentionally answered all questions incorrectly and then put the contact name and address for competing premises.



**FIGURE 15** Number of unique visitors to the SMILE website, and bandwidth.

## Conclusions

Study findings suggest that use of a collaborative approach aided the successful adoption, development and implementation of SMILE within environmental health working practices, with high levels of implementation fidelity. The statutory nature of the intervention promoted intervention reach. However, the intervention dose delivered appeared far from optimum, with very few follow-up enforcement visits to premises. This suggests partial intervention failure. This appears particularly problematic, as premises receipt was strongly influenced by the statutory nature of the intervention and the fact that smaller independent premises less engaged in prevention may require such visits in order to overcome intervention resistance.

Initial meetings during the early stages of AWLPI led to better understanding of the rationale for SMILE and its use within environmental health at managerial level, which led to high levels of motivation to integrate the SMILE intervention into EHP work tools and practices among senior staff. Although some LA EHPs reacted less positively when first hearing about SMILE, most concerns appeared to be met by the training days which increased awareness of the need for SMILE, and promoted EHP confidence in their ability and suitability to implement the intervention at both agency and individual levels. Reports of SMILE implementation show that the intervention, generally, was found to be easy to use, was delivered as prescribed and achieved high levels of fidelity.

The statutory nature of the intervention promoted high levels of reach, particularly when compared with results from the previous feasibility trial. However, this needs to be viewed in the light of the relatively high number of premises closures that occurred before the intervention could be delivered and a very small number of premises that refused to participate. For this minority of refusers, a multiagency approach, involving licencing officers, may encourage full premises participation. There were also some concerns about whether or not police data were robust enough to identify at-risk premises and questions regarding whether or not the intervention was targeted at those most in need of it.

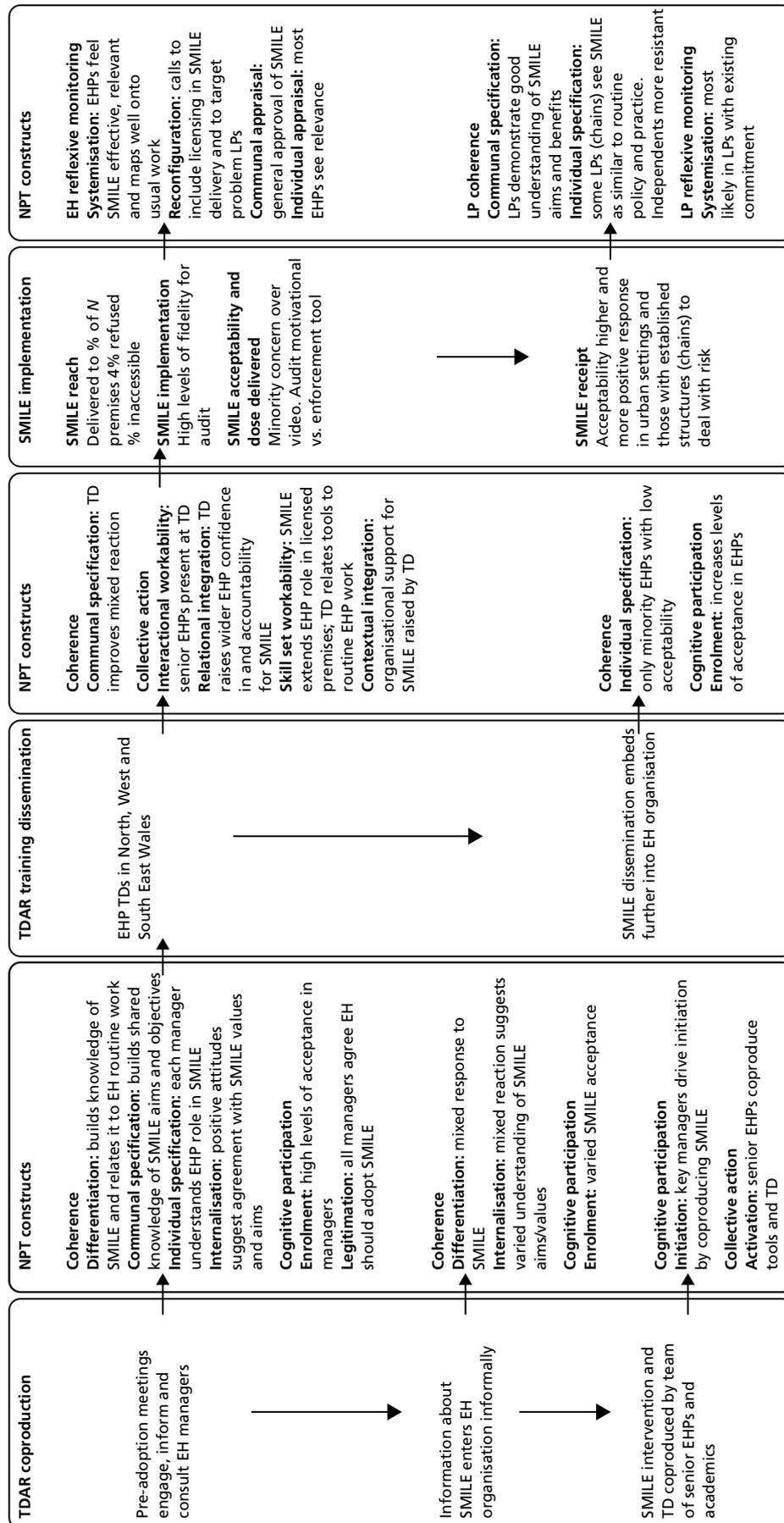
In terms of intervention dose delivered, EHPs demonstrated a lack of confidence in dealing with ARV at the start of the project and, although the training appeared to address this, they subsequently relied on advice and guidance rather than enforcement to deliver the intervention, regardless of premises type or level of previous incidence of violence. In this, it appears that the audit acted as a motivational rather than an enforcement tool. At the end of the project EHP concerns in dealing with ARV remained. This may change over time as SMILE becomes more embedded in organisational practice, but, significantly, there was strong support for a multiagency approach, including the police, that promoted enforcement and full intervention implementation.

Addressing such implementation failure appears particularly important, as it was identified as one of the most important mechanisms of action by premises. Acceptability and receipt was largely dependent on the statutory nature of the intervention and the powers of EHPs as delivery agents. For larger chain- or brewery-owned premises in urban areas, SMILE was seen as supporting existing infrastructure and preventative efforts, an extension to routine practice.

In this, there appeared a certain level of complacency, with premises, despite having been identified as a violence risk, maintaining that they were already dealing with the issue well and busy dealing with competing demands and numerous outside agencies. Follow-up enforcement in such premises may be an effective mechanism to reinforce their classification as a risk premises and prioritise action. Independent premises, on the other hand, seemed to have a stronger need for the intervention. The risk audit identified multiple areas of concern in three-quarters of the independent intervention premises participating in the process evaluation. SMILE acceptability was lower and receipt was poorer in such premises. Managers tended to see the intervention as an added burden, which they lacked the resources to respond to. Such cases demand further consideration of how additional resources/support could be provided for these and similar premises as motivational approaches are unlikely to promote change in the face of such resistance.

Recommendations for intervention reconfiguration and an outline of the intervention as delivered are summarised in the SMILE logic model in *Figure 16*.

In conclusion, process evaluation findings suggest that environmental health is an agency that possesses the required infrastructure, expertise and skills to address the incidence of violence in licensed premises. Analyses indicate that use of the collaborative approach within AWLPI contributed positively to the coproduction and implementation of the SMILE intervention, particularly in the areas of organisational buy-in, intervention development, and EHP participation and action during delivery. The use of regulatory authorities appears an efficient way to promote high levels of premises-level intervention reach to address violence. Findings identify some areas where SMILE could be refined: there were concerns about whether or not the intervention was of sufficient intensity to promote effectiveness and indications that premises may require more follow-up visits and a multiagency approach to counteract assumptions that the issue is already being dealt with adequately or failure to engage in the issue. Concerns regarding the robustness of police data in identifying at-risk premises also suggest the need to consider alternative sources of data for intervention targeting.



**FIGURE 16** Revised logic model of the AWLPI intervention. EH, environmental health; LP, licensed premises; TD, training day.



## Chapter 7 Cost-effectiveness

### Aims and objectives

The objectives of this embedded cost-effectiveness analysis were to identify the costs associated with SMILE implementation and delivery and to approximate the extent to which the intervention can be regarded as an efficient use of public funds.

### Environmental health practitioner training

Training involved nine trainers and 70 trainees over three training events across Wales (Conwy, Carmarthen and Cardiff) lasting approximately 3.5 hours each. Data on salaries were missing for 17 of 70 trainees and the median (£28,127) was imputed. The total cost of training was £24,314, as shown in Tables 14–18.

**TABLE 14** Trainer activity costs (£)

Activity	Hours	Cost
Obtaining and examining data	10	278
Preparing for and arranging training sessions	31	522
Travelling to and from training venue	94	2712
Delivering (or observing delivery of) training sessions	90	2540
Sending e-mails and making telephone calls	4	120
Providing feedback to licensed premises	4	107
Communicating with licensing officers	34	809
Total cost	267	7088

**TABLE 15** Training administration costs (£)

Item	Cost
Stationery: risk audit and follow-up documents, training manuals, envelopes, etc.	898
DVDs	549
Business cards	372
Website	4569
Postage	404
Total cost	6792

**TABLE 16** Trainer travel expenses (£)

Expense	Cost
Mileage at £0.40 per mile	392
Train travel	355
Parking	17
Taxis and subsistence	42
Total cost	806

**TABLE 17** Training venue fees (£)

Venue	Room hire	Food/drink	Equipment hire	Total cost
Conwy	348	374	72	794
Carmarthen	210	406	324	940
Cardiff	0	359	0	359
Total cost	558	1139	396	2093

**TABLE 18** Trainee time and travel expenses (£)

Trainee expenses	Total cost
Time at training sessions (3.5 hours) ( $n = 70$ )	5197
Travel time	1142
Mileage expenses	1012
Other (rail travel, parking, etc.)	184
Total cost	7535

## Audit costs

There were 281 audits held in total, which includes the ITT sample ( $n = 241$ ) plus the replacements ( $n = 40$ ) added to the non-randomised sample. Data on EHP salaries were missing for 42 audits and the median salary (£30,311) was imputed. Data were missing on the duration of 2 of 18 follow-up audits and the median follow-up audit time (25 minutes) was imputed. The total cost of auditing (initial plus follow-up) was £10,882, as shown in *Tables 19* and *20* (details of audit times are provided in *Chapter 5, Intervention reach, dose and delivery*).

**TABLE 19** Costs of initial audit (£)

Item	Cost
EHP time at 281 audits (total hours 383.25)	8146
Travel time	1785
Mileage expenses	717
Total cost	10,648

**TABLE 20** Costs of follow-up audit (£)

Item	Cost
EHP audit time at 18 events	140
Travel time	66
Mileage expenses	28
Total cost	234

## Licensee premises improvement costs

Of the 281 sites included in the study, 16 intervention and 14 control sites responded to premises' improvement-related questions during the interviews. Identifying costs to premises that could be attributed to having received an intervention audit proved to be problematic. Licensees were often unsure if some of their improvements were carried out during the audit period and some of these were reported as being requirements of other regulatory bodies (police, LA, etc.) and would have been carried out without the EHP intervention, although the EHP process might have encouraged licensees to comply with these regulations.

In the light of the above, we have not attempted to put a monetary figure on the costs of premises improvements resulting from the audit, but report here some indicative actions taken by licensees in both intervention and control premises. In very few cases these could be identified as a consequence of the audit in intervention premises:

- maintaining staff training [awareness of violence, abusive behaviour, drug, alcohol, glass and security policies, health and safety training, Challenge 21 training ([www.beerandpub.com/industry-briefings/challenge-21](http://www.beerandpub.com/industry-briefings/challenge-21)), etc.]
- providing additional bar and door staff at busy times
- providing female door staff employed to diffuse male–female arguments and check female toilets
- installing or upgrading CCTV equipment
- maintaining regular toilet checks
- using plastic glasses at busy times
- closing early if high student volume
- attending PubWatch meetings and joining the After Dark scheme
- holding regular or increasing risk assessments
- providing wide spacing between tables
- maintaining cleanliness of premises, and creating a warm atmosphere, to 'increase respect from patrons'
- playing music that appeals to patrons over 25 years of age
- carrying out random drug searches on every seventh to tenth person
- keeping a police radio behind bar
- installing water dispensers near exit
- selling 'top-shelf' products to encourage a 'better' demographic of clientele
- not selling Red Bull (Red Bull GmbH, Salzburg, Austria) and popular shot drinks that are often associated with negative behaviours
- avoiding '2-for-1' offers on drinks and promoting food offers instead
- issuing life-bans when absolutely necessary
- offering coffee to patrons who are heavily under the influence of alcohol
- limiting opening hours
- offering club membership that requires a level of good behaviour and respect
- providing staff uniforms so patrons are aware of them monitoring behaviour
- immediately stopping bar services upon any disturbance breaking out
- guarding against going over premises capacity.

Associated costs for most of these preventative measures were rarely reported. Reported costs were mainly for structural changes to premises in order to comply with health and safety requirements and time spent by the manager or other staff. Only some of the following measures could be directly attributable to the EHP audit:

- collating documents for EHP audit: half an hour of manager's time (uncosted)
- CCTV installation and upgrade: costs ranged between £1000 and £3000
- structural work to premises: costs ranged between £70 and £800
- more extensive staff training: manager and staff time.

## Effectiveness of the intervention

The primary analyses (see *Chapter 3, Process evaluation, Conclusions*) show that the failure (violent sessions with one or more incidents) was significantly increased by 35% (HR 1.35, 95% CI 1.20 to 1.52) in intervention premises compared with controls during the follow-up period. However, the small number of premises that had follow-up audits ( $n = 16$ ) showed statistically significant reductions in failure by 57%, compared with all other premises, that is, controls plus intervention premises which were audited only once (HR 0.43, 95% CI 0.26 to 0.71). The net effect of follow-up audits in terms of HRs would be  $1.35 \times 0.43 = 0.58$ , suggesting a 42% reduction in failure.

## Total costs and cost-effectiveness

Table 21 provides a summary of the total cost of training 70 trainees and auditing 281 licensed premises. The total training cost was £24,314, or £86.53 per premises. The total cost of the intervention, including audit costs, was £35,196, or £125 per premises.

### Cost-effectiveness of the intervention

Table 22 shows the mean (SD) costs of training, audit, crimes, total costs and total cost differences, with  $p$ -values and 95% CIs. The results show that intervention premises incurred higher costs. The mean difference in total costs between intervention and control premises is £28,831.24, which is not statistically significant ( $p = 0.17$ , 95% CI -£12,748.34 to £70,602.91). When adjusted for opening hours and baseline incidents group (binary), the adjusted mean difference is decreased to £24,137.33 and remains not statistically insignificant ( $p = 0.22$ , 95% CI -£14,069.34 to £62,151.38).

As the intervention group is more costly and less effective, it is dominated by the control.

### Exploratory cost-effectiveness of intervention with follow-up audit

Results in Table 23 show that intervention premises that had follow-up audits incurred significantly lower costs than those not audited (controls) or audited once only. The mean difference in total costs between these two groups is -£64,572, which is statistically significant ( $p = 0.005$ , 95% CI -£104,888 to -£18,752). When adjusted as above, the mean difference in total cost is reduced to -£47,795.50, but this difference remains (marginally) statistically significant ( $p = 0.051$ , 95% CI -£105,200 to -£11,670).

**TABLE 21** Summary costs for EHP training and audits (£)

Type of cost	Cost
Training costs ( $n = 70$ trainees)	24,314
Total audit cost (initial audit $n = 281$ , follow-up audit $n = 18$ )	10,882
Total intervention cost	35,196

**TABLE 22** Mean (SD) costs (£) of training, audit, crimes, total costs and total cost differences

	Audited (n = 241)	Not-audited (n = 208)	Difference in costs (audited – not audited)	p-value	95% CI <sup>a</sup>
Training costs	86.53	0.00			
Audit costs	38.10 (18.32)	0.00			
Costs of crimes against individuals	124,014.17 (241,612.89)	95,307.56 (205,182.93)	28,706.61	0.176	–12,872.78 to 70,477.40
Total costs	124,138.80 (241,614.42)	95,307.56 (205,182.93)	28,831.24	0.174	–12,748.34 to 70,602.91
Difference in total costs (adjusted)			24,137.33	0.222	–14,069.34 to 62,151.38

a BCa 95% CI based on 10,000 bootstrapped samples.<sup>87</sup> The difference in costs is adjusted for opening hours and baseline incidents group (binary).

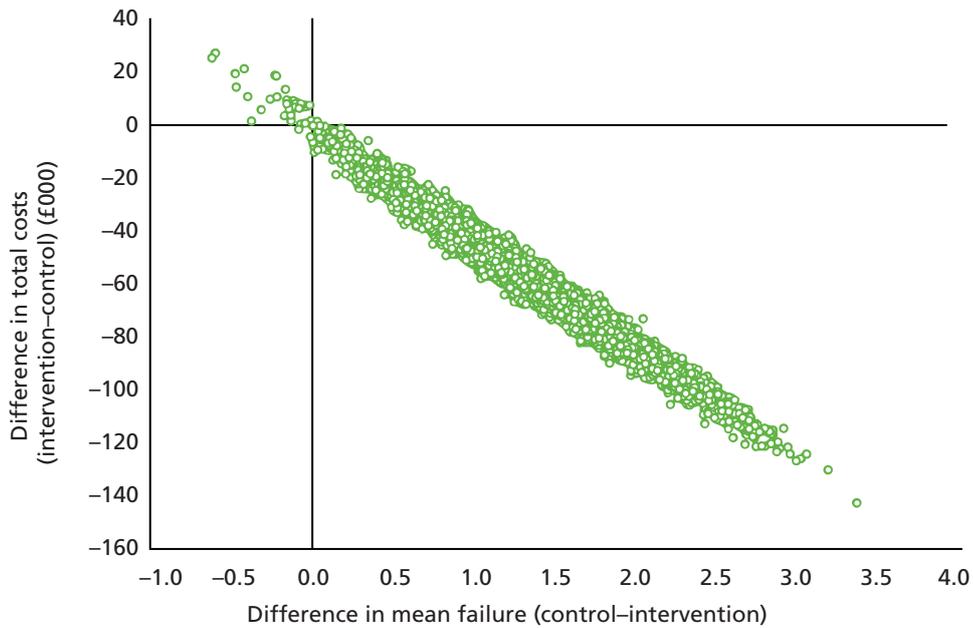
**TABLE 23** Mean (SD) costs (£) of training, audit, follow-up audits, total costs and differences in costs

	Follow-up audit (n = 16) (£)	Not audited and audited only once (n = 433) (£)	Difference in costs (£) (follow-up audit – not audited and audited only once)	p-value	95% CI <sup>a</sup> (£)
Training costs	86.53	44.96 (43.28)	41.57	<0.001	37.57 to 45.69
Audit costs	30.93 (25.65)	20.06 (23.12)	10.86	0.115	–1.34 to 26.35
Follow-up audit costs	12.32 (5.83)	0.00			
Costs of crimes against individuals	48,381.94 (71,628.29)	113,019.12 (219,107.13)	–64,637.18	0.005	–104,960.40 to –18,800.21
Total costs	48,511.71 (71,626.45)	113,084.14 (229,112.62)	–64,572.43	0.005	–104,888.47 to –18,751.64
Difference in total costs (adjusted)			–47,795.50	0.051	–105,199.99 to –1166.72

a BCa 95% CI based on 10,000 bootstrapped samples.<sup>87</sup> The difference in costs is adjusted for opening hours and baseline incidents group (binary).

This suggests that an intervention that includes a follow-up audit is more effective and less costly than no intervention or a single audit. This intervention leads to a 42% reduction in violent sessions in the group, which is equivalent to a reduction by seven sessions with violent incident. An intervention that includes a follow-up audit, therefore, could produce savings to society of £47,796, or £6828 per violent session averted.

Stochastic uncertainty in the above results (joint uncertainty in mean failures and costs) are presented via a cost-effectiveness plane that is based on 10,000 bootstrapped replications (*Figure 17*). The bootstrapped samples consider the mean number of failure sessions and mean total costs. Note that in conventional economic analysis a positive difference in effect means an intervention is more effective than control; here, a negative difference in effects means that the intervention is more effective. Most of the bootstrapped replications are in the south-east quadrant, which means that the intervention (initial audit with follow-up) is more effective and less costly and hence unambiguously more cost-effective.

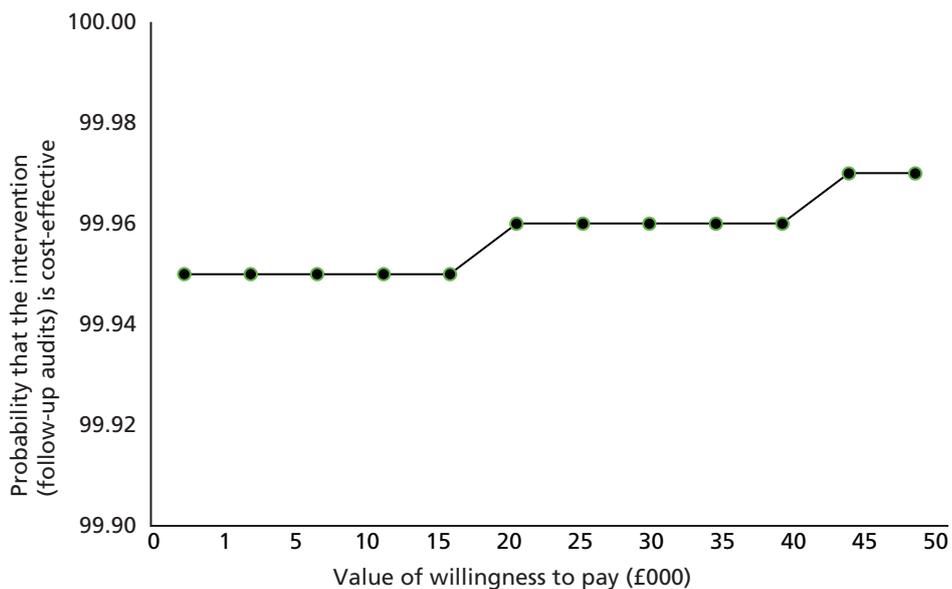


**FIGURE 17** Cost-effectiveness plane showing the joint uncertainty in mean differences in costs and failures: intervention (including follow-up audit) vs. all other premises.

The CEAC (*Figure 18*) shows an intervention that includes a follow-up audit that has a 99% probability of being cost-effective over any value the society is willing to pay to avert a violent session.

**One-way sensitivity analysis**

As not all violent incidents lead to a criminal justice system cost, we have considered a 50% reduction in this cost in sensitivity analyses. The new estimate of the total cost incurred from a violent incident is £22,846 or (£10,811 + £12,035). A sensitivity analysis is also carried out for training costs amortised over 5 years at a rate of 3.5%. Results are given in *Table 24*, showing that the intervention (follow-up audits) still remains as a cost saving. However, considering a lower estimate of criminal justice system costs indicates that the adjusted mean difference in total costs is now marginally not statistically significant ( $p = 0.054$ , 95% CI -71,687.95 to 2.69).



**FIGURE 18** Cost-effectiveness acceptability curve showing the probability that the intervention (follow-up audits) is cost-effective at different willingness-to-pay values.

TABLE 24 Results of one-way sensitivity analyses

	Follow-up audit (n = 16) (£)	Not audited and audited only once (n = 433) (£)	Difference in costs (£) (follow-up audit – not audited and audited only once)	p-value	95% CI <sup>a</sup> (£)
Baseline total costs	48,511.71 (71,626.45)	113,084.14 (229,112.62)	-47,795.50	0.051	-105,199.99 to -1166.72
50% reduction in criminal justice system costs	32,970.89 (48,618.66)	76,781.16 (15,520.88)	-32,422.38	0.054	-71,687.95 to 2.69
Training cost amortised over 5 years at 3.5%	48,444.34 (71,626.45)	113,049.14 (229,110.11)	-47,827.74	0.053	-106,545.96 to -1572.89

a BCa 95% CI based on 10,000 bootstrapped samples.<sup>87</sup> The difference in costs is adjusted for opening hours and baseline incidents group (binary).

## Summary

The total cost of the SMILE intervention (training 70 EHPs, auditing 281 premises with further follow-up audit to 18 premises with higher risks of criminal incidents) was £35,196, or £125 per premises.

The intervention was shown to be less effective and more costly and hence not cost-effective (dominated by controls). However, those premises receiving the follow-up audit showed a statistically significant reduction in violent sessions and costs, suggesting that the second audit is cost-effective (dominant). A sensitivity analysis capturing joint uncertainty in costs and effects indicates that the probability of a follow-up audit being cost-effective is almost 100%.



## Chapter 8 Discussion and conclusions

### Summary of main outcomes and findings

#### *Intervention development*

To date, EHPs have not been routinely involved in addressing ARV in premises licensed for the on-site sale and consumption of alcohol, despite having a violence in the workplace remit. LA licensing teams take responsibility in this area and at the expense of EHP involvement, even to the extent that EHPs would rarely visit premises for health and safety reasons. This is of concern. While Licensing are able to enforce the Licensing Act, they have neither health and safety remit nor expertise. Important issues such as fire safety and health and safety training in the workforce and other areas have, therefore, been neglected. This is evidenced in the audit data collected here, where it was found that some premises were operating in ways that placed their customers at risk. Recognising that a number of EHPs felt that licensing should be involved in such intervention work suggests that, at a minimum, joint visits with licensing should be undertaken so that both health and safety and licensing legislation are brought to bear. Alternatively, practitioners skilled in both areas could be trained.

While EHPs have considerable expertise in the area of intervening with small businesses, material and knowledge of what works in respect of reducing the risk of ARV in premises was lacking. An aim of the current study was therefore to develop materials that developed the existing academic knowledge base but also remained within EHPs' statutory remit. This remit was fairly broad, as under Health and Safety at Work legislation there is an expectation that businesses conduct risk assessments and ensure that their staff are appropriately trained on the processes required to mitigate risk. Staff training is a theme in many interventions in licensed premises and is typically focused on responsible service and similar areas of operation. However, the EHP approach to staff training is that businesses should first understand what risks they are subject to, what the solutions are, who is responsible for mitigating these risks and what can be done. This highlights the need for premises staff to collectively work together to mitigate risk and, thus, generic training programmes are likely to cover only a portion of what is required, and idiosyncrasies will be missed, thereby highlighting opportunities for EHPs to help premises identify and manage risk.

In order to develop materials for EHPs' use in licensed premises, a series of multidisciplinary development meetings were scheduled. These enabled the development and refinement of a programme model of SMILE, and developed programme models and materials to support EHPs. The final intervention package included a risk audit, a website and a quiz. The risk audit was the primary intervention vehicle. It contained clear instructions on the legislative basis for EHPs to intervene to target specific risk factors in premises, allowed for the quantification of those risks, provided instruction on what changes might reduce those risks and included materials that facilitated a follow-up audit. Instructions for the follow-up audit departed from the original feasibility trial.<sup>21</sup> Originally, all intervention premises in the feasibility study received a follow-up visit, whereas in the current study this requirement was relaxed to fit with EHPs usual working practice in which follow-up visits are scheduled only if a business has more serious issues. For EHPs, dose is commensurate with EHPs' perceived risk. This reflects recent government guidance<sup>62</sup> that aims to reduce the administrative load on small and medium-sized businesses.<sup>88</sup>

The website and associated films (available online and on DVD) aimed to provide to premises staff with a positive reason for engaging in harm reduction (e.g. increased footfall), provided template forms consistent with those that EHPs would recommend that small businesses use and further inform premises staff (from senior managers to servers and door security personnel) on how a premises as a whole can work to mitigate harm.

Throughout the development process EHPs engaged with the project fully and played a central role in the coproduction of these materials. The end result was an intervention, SMILE, which proved acceptable to EHPs and was delivered with a high degree of engagement and fidelity.

### *The intervention*

The SMILE intervention was evaluated in a RCT where police-recorded violence was the primary outcome measure. Police violence data were followed for 455 days following randomisation. The reason for following premises for this extended period was to assess any effect of the intervention over time. For example, if a reduction in violence was observed, would this effect be sustained over time or would it wane? Licensed premises are characterised by a high staff turnover and it was hypothesised that this may undermine any initial intervention effect.

Originally, the target sample was 300 premises recruited into each control and intervention group, with sample size estimates suggesting that a minimum of 274 in the intervention group would be required. Historical police data were accessed to identify premises that had experienced one or more violent incidents and these premises constituted the population from which premises were randomly allocated to each experimental group. Twelve months of police data were accessed in order to identify premises, together with a 6-month period in which data were analysed and material prepared. This meant that premises were identified in police data through incidents that occurred up to 18 months previously. Accordingly, a large number of premises were no longer amenable to receive the intervention. Reasons for this included closure and change of purpose (e.g. from a traditional pub to a restaurant). In order to confirm both control and intervention premises were operating further, attempts were made to access LA public licensing registers, although information in these proved to be, at best, sparse and not fit for purpose. Thus, business rate information was also accessed (as small business premises are expected to pay business rates if they are operating). This allowed us to note when premises closed, if they did so, during the follow-up period. In addition, and at the point of implementation, premises were dropped from the study for additional reasons. These included duplicates (e.g. some nightclubs may operate a bar in the same venue that differs in name from the nightclub itself), ongoing prosecution by either environmental health or a related agency, and occasions where premises claimed there had been no occasions of violence on-site (e.g. one premises name was identical to the village in which it was situated and thus it was not possible to disambiguate the exact location of the incident in police data). An advantage of working with EHPs was their capacity to access premises; all small businesses must provide access within 24 hours of receiving notice that they are to be visited. Despite this, three premises refused to participate. In these cases it was the local EHP who asked that they did not pursue the premises in question, mostly because of a preference to avoid conflict in what was effectively a project. These refusals were, therefore, anomalous.

The high level of attrition, mostly a result of closure, from the study meant that ITT analyses were underpowered, according to initial sample size estimates. Accordingly, and to mitigate this feature, sensitivity analyses were planned where the remaining population of premises were added into analyses. Effectively, fewer than expected premises in the analyses means that there is more uncertainty and these sensitivity analyses offer one method to assess the impact of increased uncertainty in analyses. No matter which way we looked at the data the results were consistent. The intervention was associated with an increase in police-recorded violence.

Over 98% of premises eligible to receive the intervention and that were open at the time received a visit from an EHP, suggesting a high level of engagement. Furthermore, analysis of data derived from the initial audit indicates that EHPs did find evidence of risk in premises. These risks varied considerably in form and severity and, therefore, the form of advice given to premises by EHPs also varied. It is usual EHP practice to titrate their response to findings in a manner that is commensurate with the risks they observe. Thus, for fairly mild incursions premises would receive verbal advice on how they might address issues and for much more serious issues EHPs' response went as far as formal notices that placed a legal duty on premises to enact the required changes. If premises failed to make changes under a formal notice then they became liable to criminal proceedings. A small number of premises exhibited a range of problems to such a serious level that EHPs were

obliged to issue formal notices. The review process, under the Licensing Act (2003, Section 53 A), takes 28 days for initial consultation followed by a 20-day period in which a hearing will be held. It is led by a senior police officer and is mostly focused on serious crime; there are opportunities for an expedited review, but these are rare. This process does not cover broader issues concerned with health and safety.

Although instruction was given on the criteria for conducting follow-up visits to premises in the audit materials, and at least one-third of premises met these criteria according to audit data, far fewer than expected premises received a follow-up audit. This may be a result of reluctance on the part of EHPs.

Both primary and secondary sensitivity analyses yielded a consistent intervention effect whereby police-recorded violence increased following the intervention and showed no change in this effect over time (it did not wane). Although the trial was underpowered, secondary exploratory analyses and comparisons with the original feasibility study<sup>21</sup> provide insights into the possible reasons for this effect.

In the original feasibility study, all premises received an initial and follow-up audit. Further, audits were conducted by private contractors who, while experts in health and safety in the workplace, were not affiliated with statutory bodies. This meant that engaging premises in the feasibility study proved difficult, with few interested in any voluntary harm-reduction initiative; this was effectively overcome through collaboration with EHPs who delivered the intervention to nearly 100% of eligible premises. However, the process evaluation found that in many instances EHPs sought the advice of partners in LA licensing teams. It is therefore possible that this caused premises in the intervention group to receive greater attention across partners than control premises. As the police are able to record only the violence they are aware<sup>89</sup> of, it is feasible that this increased attention meant that more violence was recorded in intervention premises than in control premises, an effect that has been observed in similar studies using police data.<sup>17</sup>

A more pertinent issue is whether or not premises in the intervention group made any changes in consequence of the intervention and advice received from EHPs. The only group in which reliable data are available to establish whether or not premises made the recommended changes is those premises that received a follow-up visit from EHPs. In this case, analysis of the audit data strongly suggests that those premises receiving a second follow-up visit had, in fact, made the changes recommended by EHPs. While the process evaluation had covered this matter to some extent, how reliable these data are is open to question. Premises staff, in particular those in premises that are exhibiting greater risk of alcohol-related harm, are unlikely to be reliable, particularly if changes are viewed as being voluntary, which, without a follow-up visit, might have been the case. Further secondary analyses, in particular comparing premises in which written or verbal advice had been given with premises in which no advice had been given, appear to support this. Those that received advice showed lower levels of violence over the follow-up period. We therefore suggest, accepting issues concerned with the fewer than expected premises, that dose would appear to be a key component in the effect of the intervention. As EHPs provided greater motivation for premises to make changes, levels of violence appear to have fallen.

### Process evaluation

Study findings suggest that environmental health is an agency that possesses the required infrastructure, expertise and skills to become more involved in addressing the incidence of ARV in licensed premises. Their existing professional practice and audit tools provide a context for the development of appropriate interventions that draw on their professional skills and statutory powers.

The provision of a developmental phase and coproduction approach in intervention development ensured high levels of intervention approval and implementation fidelity as the intervention mapped well on to existing working practices. Utilising a TDAR approach in future intervention development phases appears to be a promising approach. However, adequately addressing professional skills and understanding how to achieve sustainable changes in professional practice is also important. There was some professional reluctance and a lack of confidence in dealing with ARV as a new area of work among some EHPs at the start of the project. This appeared to have been addressed by the training days and diffusion of the

intervention within the organisation. However, these concerns remained at the end of the study and might have contributed to the intervention implementation failure of a key mechanism of action for intervention effectiveness, the use of statutory enforcement.

Statutory powers appeared to be key in facilitating the high level of reach of the intervention and were identified as an important influence on promoting intervention acceptability and receipt in premises. However, EHPs rarely drew on these powers. Enforcement follow-up visits were hardly ever used, regardless of premises context or levels of violence associated with premises. Examining the potential mechanisms of action, premises' responses suggested that these visits could be key in promoting responsibility and addressing resistance at the premises level. Larger premises engaged in prevention may require more follow-up visits and the involvement of licensing officers to counteract assumptions that the issue is already being dealt with adequately and smaller premises appear to need more support and follow-ups to adequately engage in the issue.

Engaging with and supporting a professional group in a new area of work may require a longer period of intervention diffusion and normalisation in order to promote full implementation. Confidence to draw on statutory powers may come as familiarity increases and responsibilities are assumed within routine practice rather than within the context of a research study. Significantly, suggestions that the intervention should utilise a multiagency approach were identified throughout the project. Collaboration with the police in intervention delivery may promote enforcement, or its threat, and promote a crucial mechanism of action for effectiveness. There are also some issues to consider in the targeting of the intervention and its assessment of effectiveness, with a need to examine alternative sources of data to identify at-risk premises and identify change over time.

### **Cost-effectiveness**

The total cost of the SMILE intervention (training 70 EHPs and auditing 281 premises with further follow-up audit to 18 premises with higher risks of criminal incidents) was £35,196, or £125 per premises. The intervention was shown to be less effective and more costly and hence not cost-effective (dominated by controls).

Although there is considerable uncertainty on the observed significant effect of the follow-up visit on police-recorded violence, those premises receiving the follow-up audit also showed a statistically significant reduction in violent sessions and costs, suggesting that the second audit is possibly cost-effective (dominant). A sensitivity analysis capturing joint uncertainty in costs and effects indicates that the probability of a follow-up audit being cost-effective is almost 100%.

### **Summary**

There is a need to join up the NHS, which is a responsible authority under the 2003 Licensing Act as is environmental health, with action in premises so that health service data of violence are appropriately acted on. It is feasible for EHPs to fulfil this role, although traditionally, while they have a violence in the workplace remit, EHPs have not been involved in the on-licensed trade. These responsibilities have typically fallen to LA licensing teams and the police (usual practice in the context of this study). Given that licensed premises are required to meet health and safety legislation and EHPs have the skills required to work with business to reduce risk of violence, and can do so with a degree of immediacy that the 2003 Licensing Act does not afford practitioners, this project has highlighted opportunities for EHPs to become more involved in the management of licensed premises. In particular, their risk-oriented model fits well with the provision of health data, which does not meet evidential requirements required to prosecute but would indicate risks of violence are present. The need to become more generally involved in licensed premises was noted by some EHPs, although a minority were also reluctant to do this. This may be a result of some EHPs seeing their role more in the area of food hygiene and not embracing the increased responsibility under the Licensing Act.

While the intervention was broadly acceptable to EHPs, for premises managers the audit was met with either resignation in smaller premises or a certain level of complacency in larger premises. From website traffic there is evidence that premises staff did engage with the intervention materials to some extent, although very few completed the online questionnaire, and in one case there is evidence that one employee attempted to mislead investigators by purposely entering incorrect answers. Nevertheless, the initial audit was delivered to almost all premises successfully, thereby overcoming one of the main barriers identified in the feasibility trial.

It is feasible that increased police recording of violence following this first audit simply reflects increased police ascertainment of violence rather than any real increase, but this in itself is evidence that previously hidden violence (from the police) was brought to light. This, of course, is a desirable effect. This interpretation is consistent with increased police ascertainment of violence as a result of other violence prevention interventions: greater violence visibility is also the result of public-space CCTV and data from A&E departments.<sup>90,91</sup>

Overall, it appears that the intervention was not fully implemented, with very few follow-up enforcement visits. Despite audit data indicating that nearly 40% of intervention premises should have received some form of follow-up visit, fewer than 10% received one. This represents implementation failure for what was seen as a key mechanism of action. In part this may be a result of EHPs' reluctance to draw on enforcement in what was a new area of practice and substantial changes in EHP approach (originating from the UK government) over the course of this project to small and medium-sized businesses, where there has been a growing emphasis on fewer routine visits and less 'red-tape'.<sup>88</sup> We conclude that the responsibility for controlling violence in the on-licensed trade cannot be left to the responsibility of the industry itself, but that EHPs require further support for enforcement through the involvement of the police in a multiagency approach to prevention.

### Limitations

The trial was underpowered owing to an unexpected number of premises closing between identification of premises in police data and delivery of the intervention. Premises were eligible if they had registered police-recorded violence in the 12 months leading up to the start of the project. It was expected that a number of premises would close and that, therefore, trial arms were oversampled to account for this. However, a larger number of premises were identified in police data that were open for business at the time of audit. One reason for this was the inadequacy of LA licensing data, the initial source from which premises were assessed for their economic activity. It would appear that many LAs do not hold accurate information on the premises in their catchment. Another source of this variation was duplication. Some premises were identified in the police data with more than one address. Large premises in particular would have more than one entrance or exit on more than one street. This is the nature of the data to hand in this trial, where event data were reduced to identify at-risk premises. Nevertheless, future work should consider how police information on violent crime is linked with LA licensing data and how information on premises can be improved. There is a potentially rich source of information that might inform practice if it were adequate. As a minimum, future work needs to consider the availability and use of A&E data.

A similar issue concerns measures of violence. This trial relied on police-recorded violence, a source with known recording biases. These biases are, potentially, one reason for the observed increase in violence for the intervention group, that intervention premises received greater attention. The alternative, health data, in particular A&E data on assaults, do not have the same level of coverage as police data, but are less susceptible to recording biases.

### Generalisability

While this trial focused on premises licensed in Wales, it is likely that the approach adopted here is generalisable to the rest of the UK and internationally. Our approach in developing intervention materials was theoretically robust, focusing on risks and adopting theoretical models identified in the international research literature. Fundamentally, however, and as identified above, the sole reliance on police-recorded violence as an outcome measure reduces the external validity of the results presented here.

The expectation was that, should a significant effect be observed, the 12-month follow-up period would allow us to test for sustainability: whether the effect wore off because of staff turnover in premises or for other reasons. Under the circumstances this was not feasible. Nevertheless, the model presented here, one where EHPs respond to violence in licensed premises, would provide one that could be implemented in the long term. Premises that fail to heed advice would be expected to show heightened levels of violence, thereby warranting further visits from EHPs.

Finally, RCTs are generally seen as a suitable and fairly robust method for capturing meaningful evidence to inform service development. However, this approach is underused and, therefore, opportunities exist for further development. Such areas include addressing the needs of practitioners, upskilling the practitioner workforce and more fully involving robust evaluations into policy development.

### *Implications for practice*

#### **Intervention**

Environment Health is now a responsible authority under the 2003 Licensing Act and, despite having a violence at work remit, has had little input into licensing decisions. It is, therefore, appropriate that theoretically robust intervention materials are developed for use by EHPs. The intervention materials developed for use in the current project make important inroads into this objective but should be regarded as a working model on which further development can be enacted. While our endeavours did bring what is known about risks in licensed premises into the area of health and safety, there are opportunities for further development. Notably, many EHPs recognised a need to involve other partners, in particular licensing, and so further development could seek to develop materials that make these collaborations explicit.

Further work needs to be undertaken to determine the effect of follow-up visits. Work on both the earlier feasibility trial<sup>21</sup> and, to a lesser extent, the current project found a general lack of enthusiasm in premises for harm-reduction initiatives. Indeed, the main reason for working with EHPs was their authority in enforcing change on small businesses. It is plausible that a second visit to ensure premises have responded to advice is a critical active ingredient. Without it, premises may only pay lip service to the idea of change, rather than engage with it fully. Any future work in this area needs to make this requirement explicit.

#### **Stakeholder engagement**

One reason why collaboration with EHPs was deemed necessary was a lack of interest in violence-reduction interventions of premises staff during earlier feasibility trials. EHPs have a statutory authority providing them with access to premises. While inconclusive, the results in this study suggest that this reluctance may have continued into the current trial. While EHPs were able to access intervention premises, it is feasible that there was very little engagement beyond that initial visit. It is feasible that premises' engagement with EHPs was limited and that without any further follow-up visit from EHPs requested changes were not made. Further work in this area may consider this further and investigate opportunities for more robust follow-up visits.

#### **Research**

Previous work has highlighted the need for objective measures of violence associated with licensed premises,<sup>8,16,21,69,89,92,93</sup> in particular the use of data from A&E departments. Health data are not subject to the same biases as police data, as they are driven by patient need rather than police attention. Further work is required to make full use of these data in trials. Secondary analyses suggest that the follow-up visit could be essential to ensure that suggested changes have been made. This warrants further testing.

## Conclusions

This project has demonstrated that a RCT methodology can be deployed to assess service innovations in challenging environments. The project successfully translated fundamental research into practice and developed processes that supported EHPs in delivering interventions to licensed premises. While the project did not show that a reduction in police-recorded violence was associated with the intervention, some evidence suggests that this was a result of partial implementation failure and that it may be effective if risk audit advice is more formally enforced.



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## Contributions of authors

**Simon C Moore** conceived the study and was the overall lead.

**Mohammed Fasihul Alam** and **David Cohen** conducted the cost-effectiveness analyses and write-up.

**Kerenza Hood** contributed to the overall design and analytic strategy.

**Chao Huang** conducted statistical modelling.

**Simon Murphy** managed the process evaluation.

**Rebecca Playle** contributed to the statistical modelling.

**Laurence Moore** contributed to the study design.

**Jonathan Shepherd** contributed to the report.

**Vasekaran Sivarajasingam** contributed to the report.

**Irena Spasic** contributed to the methods and analytic strategy.

**Helen Stanton** contributed to the report.

**Anne Williams** contributed to the process evaluation.

All authors contributed to the final report.

### **Contribution of others**

**Claire Shovelton** contributed to the report.

### **Data sharing statement**

Anonymised data from this study can be obtained from the corresponding author.

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# Appendix 1 The SMILE audit tool



**Safety Management in the Licensed  
Environment  
EHP Audit**



## **Safety Management in the Licensed Environment (SMILE)**

### **Audit**



ID:

Premises:

A:

Please return to:

AWLPI

Violence &amp; Society Research Group

School of Dentistry

Cardiff University

Cardiff CF14 4XY

Version 3.2 – 7 Nov 2012

## Safety Management in the Licensed Environment

### Risk Control Indicators

A score of 1 must only be allocated when all the elements are in place and should represent a situation where the inspector believes that no further improvement is possible. For scores of 2 and 3 enforcement action may be appropriate. A score of 4 or more will indicate that enforcement action is appropriate.

Risk Control Indicator	Guidance
1	<b>High standards</b> with some meeting best practice
2	<b>One or more minor shortcomings</b> can be dealt with orally & informally
3	<b>Standards patchy:</b> one or more of the shortcomings must be dealt with by formal instructions for remedial action to be taken.
4	<b>Standards generally unsatisfactory</b> Typically, there is at least one contravention that gives rise to a discernible risk gap
5	<b>Standards generally unacceptable</b> unless the EHO identifies duty holder factors that provide strong mitigation, issuing a notice and/ or prosecution is likely to be appropriate
6	<b>Standards unacceptable.</b> Issuing a notice and/ or prosecution is likely to be appropriate

### Legislation guide

Law/Regulation	Acronym used
Health and Safety at Work etc Act 1974 section 2(3)	HSWA 1974
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995	RIDDOR 1995
Management of Health and Safety at Work Regulations 1999	MHSW 1999
Control of SHH Regulations (2002).	COSHH 2002
Workplace (Health, Safety and Welfare) Regulations 1992	WHSW 1992
The Health and Safety (First-Aid) Regulations 1981	HSFAR 1981
The Regulatory Reform (Fire Safety) Order 2005	RRO 2005
The Licensing Act 2003	LA 2003

### SMILE AUDIT

Audit Area	Audit guidance
Q3. Premises	
E1 & E2. Total no. employees	People on employers books who can be called on to work at establishment
C2. Entertainment	Please ensure you clarify the type of entertainment rather than delivery method e.g. music is music regardless of how it is delivered (juke box, TV, digital)

Premises ID:



## **Safety Management in the Licensed Environment**

---

Premises ID:

## Safety Management in the Licensed Environment

### Q4. PREMISES CHARACTERISTICS

When does the premises typically stop serving alcohol to the public?  
Please use the 24HR format (e.g. for 11pm write 23:00)

CT1. Mon	CT2. Tue	CT3. Wed	CT4. Thur	CT5. Fri	CT6. Sat	CT7. Sun
_____	_____	_____	_____	_____	_____	_____

What are the premises busiest periods (when premises is at or near to capacity) tick all that apply

	Mon	Tues	Wed	Thur	Fri	Sat	Sun
BP1. Up to 3pm	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)
BP2. 3pm to 8pm	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)
BP3. 8pm to 11:30pm	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)
BP4. 11:30pm onwards	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)
BP5. Approximate number of customers during busiest times	_____						

### Q5. INTERVIEWEES

Space is provided to list all those involved with the audit,  
it is not expected that three people are interviewed

<b>Interviewee #1</b>	
S1A. Name	_____
S1B. Position	DPS/Manager <input type="checkbox"/> (1)    Shift Manager <input type="checkbox"/> (2)    Bar Staff <input type="checkbox"/> (3)    Other <input type="checkbox"/> (4)
S1C. Other	_____
<b>Interviewee #2</b>	
S2A. Name	_____
S2B. Position	DPS/Manager <input type="checkbox"/> (1)    Shift Manager <input type="checkbox"/> (2)    Bar Staff <input type="checkbox"/> (3)    Other <input type="checkbox"/> (4)
S2C. Other	_____
<b>Interviewee #3</b>	
S3A. Name	_____
S3B. Position	DPS/Manager <input type="checkbox"/> (1)    Shift Manager <input type="checkbox"/> (2)    Bar Staff <input type="checkbox"/> (3)    Other <input type="checkbox"/> (4)
S3C. Other	_____

Premises ID: \_\_\_\_\_

## Safety Management in the Licensed Environment

Management area	Relevant legislation, regulations & guidelines	Audit Score Guidance
Q6. Records: NB. For R1 – R3 'no evidence' is response if auditor has not seen records.		
<b>R1A: Safety Policy</b>	<p>All employers have a duty of care to protect their employees and others from harm arising from work activities. Businesses employing five or more people are legally required to have a written health and safety policy containing:</p> <ol style="list-style-type: none"> <li>Statement general policy on health and safety at work</li> <li>Organisation and arrangements needed for putting that policy into practice. (HSWA 1974 section 2(3))</li> </ol> <p>Employers have to bring policy to the attention of all employees. Policy should be reviewed and revised as often as necessary.</p> <p>While not legally required it is good practice for the policy to also consider the safety of all who might be effected by business activities, i.e. volunteers, contractors and the general public.</p>	<p>If written safety policy is legally required but none exists for inspection RCI 4, 5 or 6 awarded. If visible policy exists 2 or 3 may be awarded.</p> <p>Score depends on:</p> <ul style="list-style-type: none"> <li>whether policy meets criteria in column two</li> <li>manager knowledge of policy</li> <li>legislation &amp; best practice</li> <li>attitude to policy and evidence of dissemination of knowledge to staff</li> <li>evidence of regular revision/review of policy</li> <li>positive attitude to making changes</li> </ul> <p>1 awarded if all requirements met and further evidence or demonstration of good practice. If written safety policy (premises with &lt; 5 employees) not legally required, score dependent on factors above.</p> <p><b>In 'comments' please identify any inclusion of safety policy to address violence or aggression</b></p>
<b>R2A: Written Risk Policy</b>	<p><b>MHSW 1999 Reg 3</b> Employers with 5 or more staff must keep written records of assessment of risks to employee health and safety. Detail in leaflet INDG423 at <a href="http://www.hse.gov.uk/pubns/indg423.pdf">http://www.hse.gov.uk/pubns/indg423.pdf</a> which advises records should evidence efforts to:</p> <ol style="list-style-type: none"> <li><b>Identify hazards:</b> Particular risk may be due to customer disagreements, intoxication/illegal drug use. Evidence of consultation with staff and incident records to identify existing hazards.</li> <li><b>Decide who may be harmed &amp; how they may be harmed:</b> Vulnerable staff/groups (e.g. lone, young, new workers) entrances can be 'hot spots' for violence, times of day, events.</li> <li><b>Evaluate risk &amp; seriousness of potential harm:</b> Have employees been consulted about potential risks hazards. Has knowledge/evidence of actions been taken &amp; precautions made?</li> <li><b>Write down findings and actions.</b> (RIDDOR 1995 legal duty to report some incidents of physical violence). Record incidents in incident book.</li> <li><b>Review and update if/when necessary.</b> Risk assessment must include assessment risk of hazardous substances and actions to prevent or adequately control those risks <b>COSHH 2002</b></li> </ol>	<p>If written risk policy legally required but none exists for inspection 4, 5 or 6 should be awarded. If visible written risk policy exists 2, 3, 4, 5 may be awarded.</p> <p>The score awarded depends on whether risk assessment meets criteria in column 2:</p> <ul style="list-style-type: none"> <li>all areas met = 2</li> <li>one or two area not met = 3</li> <li>three to four areas not met = 4</li> <li>four areas not met = 5</li> <li>none met = 6</li> </ul> <p>Actual score awarded dependent on extent of:</p> <ul style="list-style-type: none"> <li>staff and management knowledge of risk and possible harms</li> <li>actions taken to combat risk</li> <li>attitude to risk policy/risk reduction action and attitudes to necessary changes.</li> </ul> <p>1 to be awarded if written risk assessment &amp; policy meets all requirements, and further evidence or demonstration of good practice exists. If written risk assessment and policy not required score dependent on factors above</p> <p><b>Please comment on any inclusion of the risk of violence or aggression</b></p>
<b>R3A. Opening Checks and Walkabouts</b>	<p>Extra security at the time of opening/closing may reduce threat of attack and increase employee confidence. Viewing before entry for signs of forced entry can increase safety. Keep doors locked before official opening times. Ensure premises are clean, maintained, and environments not irritating.</p>	<p>No evidence or knowledge of specific opening checks score 3.</p> <p>Specific opening checks in place score 2.</p> <p>Above requirements met, with further evidence of good practice, score 1.</p> <p><b>Please specify any evident risk or concern in comments</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q6. RECORDS

HASWA 1974; MHSW Regs 1999

#### R1A. Safety policy

This is a legal requirement for premises with five or more employees

Visible evidence	<input type="checkbox"/> (1)	R1B. Comments (relevant, up-to-date, communicated to staff)
No evidence	<input type="checkbox"/> (2)	
Not applicable	<input type="checkbox"/> (3)	

#### R2A. Written Risk Assessment

This is a legal requirement for premises with five or more employees

Visible evidence	<input type="checkbox"/> (1)	R2B. Comments (relevant, up-to-date, communicated to staff, staff engaged with policy development)
No evidence	<input type="checkbox"/> (2)	
Not applicable	<input type="checkbox"/> (3)	

R2C. Does it include violence and aggression?

Yes  (1)      No  (0)      N/A  (9)

R2D. Does it include lone working?

Yes  (1)      No  (0)      N/A  (9)

#### R3A. Opening Checks and Walkabouts

Visible evidence	<input type="checkbox"/> (1)	R3B. Comments (relevant, up-to-date, communicated to staff)
No evidence	<input type="checkbox"/> (2)	
Not applicable	<input type="checkbox"/> (3)	

R4. RCI Score (see appendix)	N/A	ENFORCEMENT					
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

#### ACTION TAKEN

ATR1. Verbal advice	Yes	<input type="checkbox"/> (1)	ATR3. Improvement notice	Yes	<input type="checkbox"/> (1)
	No	<input type="checkbox"/> (0)		No	<input type="checkbox"/> (0)
ATR2. Written advice	Yes	<input type="checkbox"/> (1)	ATR4. Prohibition notice	Yes	<input type="checkbox"/> (1)
	No	<input type="checkbox"/> (0)		No	<input type="checkbox"/> (0)
Referral to other statutory body					
ATRP. Police	<input type="checkbox"/> (1)	ATRF. Fire		<input type="checkbox"/> (2)	
ATRO. Other	<input type="checkbox"/> (3)	ATRL. LA Licensing		<input type="checkbox"/> (4)	
ATROC. If Other please specify					

Premises ID:

## Safety Management in the Licensed Environment

Q7. Visibility & Lighting: is it good throughout premises?		
<p>Are entrances/exits</p> <p>V1. clearly visible</p> <p>V2. Well lit</p> <p>V3. Is indoor lighting suitable?</p> <p>V4 . Is outdoor lighting suitable</p>	<p>HSWA 1974: Workplace Regulation 1992 expands on HSWA 1974. Advice on HSE site: <a href="http://www.hse.gov.uk/violence/toolkit/visibility.htm">http://www.hse.gov.uk/violence/toolkit/visibility.htm</a></p> <p>Lighting should be sufficient to enable people to work and move about safely. If necessary, local lighting should be provided at individual workstations and at places of particular risk such as crossing points on traffic routes. Lighting and light fittings should not create any hazard. Automatic emergency lighting, powered by an independent source, should be provided where sudden loss of light would create a risk. Are entrances and exits clearly visible? Any measures (e.g. mirrors) used to access vision of awkward areas.</p>	<p>If lack of/inadequate external or internal lighting makes it difficult and a risk for people to work properly or move about safely, 4, 5, or 6 should be awarded.</p> <p>If lighting and visibility is generally satisfactory and no apparent risk obvious 2 or 3 should be awarded.</p> <p>Actual score dependant on:</p> <ul style="list-style-type: none"> <li>• extent of risk posed by inadequate lighting and extent of problem areas</li> <li>• management attitude to provision and need for good lighting and visibility</li> <li>• evidence of regular upkeep of lighting and maintaining good visibility</li> <li>• good attitude to necessary changes</li> </ul> <p>Score 1 if all requirements for visibility and lighting are met with further evidence or demonstration of good or additional practice to improve or ensure good lighting and visibility.</p> <p>Please specify any evident risk or concern in 'comments'</p>

Premises ID:

## Safety Management in the Licensed Environment

### Q7. VISIBILITY AND LIGHTING

Is the visibility and lighting good throughout the premises?

HASWA 1974; The Regulatory Reform (Fire Safety) Order 2005

V1. Entrances / exits clearly visible?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
V2. Entrances / exits well lit?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
V3. Suitable lighting in indoor areas?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
V4. Suitable lighting in outdoor area?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

V5. RCI Score (see appendix)	N/A	ENFORCEMENT					
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

### ACTION TAKEN

ATV1. Verbal advice	Yes <input type="checkbox"/> (1)	ATV3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATV2. Written advice	Yes <input type="checkbox"/> (1)	ATV4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
Referral to other statutory body			
ATVP. Police	<input type="checkbox"/> (1)	ATVF. Fire	<input type="checkbox"/> (2)
ATVO. Other	<input type="checkbox"/> (3)	ATVL. LA Licensing	<input type="checkbox"/> (4)
ATVOC. If Other please specify			
_____			

Premises ID:

## Safety Management in the Licensed Environment

<b>Q8. Health and Safety Observation Checks: Visual Check by Auditor</b>		
<p><b>HS1. Are electrical safety records available/up to date?</b></p> <p><b>HS2. Are gas safety records available/up to date?</b></p> <p><b>HS3. Fire checks evident?</b></p> <p><b>HSE. 4 Are fire extinguishers serviced/maintained?</b></p> <p><b>HSE 5. Do fire exit external routes have any hazards or risks preventing their safe use?</b></p> <p><b>HSE 6. Are there any visible risks?</b></p>	<p>HSWA 1974, MHSW 1999, require all electrical equipment to be installed /maintained by competent person. Recommendations (IEE wiring regs BS 7671) fixed system inspected/tested at least every 5 years, with certificate issued to provide the duty holder with accurate assessment of the condition of the electrical installation. These recommendations are not legal requirements.</p> <p><b>Gas Safety (Installation and Use) Regulations 1998:</b> Any work based gas installation or gas appliances must be maintained to prevent risk of personal injury. Appropriate maintenance will be determined by the installation's age, condition and usage. Installations should be inspected by a competent person. Annual inspections are reasonable minimum frequency. If an inspector feels installations are not properly maintained and may be a danger, enforcement action may be taken.</p> <p><b>The Regulatory Reform (Fire Safety) Order 2005:</b> the responsible person must carry out a fire safety risk assessment and implement and maintain a fire management plan.</p>	<p>If there is no evidence that electrical or gas installations have been carried out and maintained by a competent person, and/or a fire assessment carried out with any recommended actions implemented 4, 5 or 6 should be awarded.</p> <p>If competent installation and satisfactory fire checks have been carried out, actions taken and visible records to ascertain this are available than 2 or 3 may be awarded.</p> <p>Actual score dependant on:</p> <ul style="list-style-type: none"> <li>• extent of certification</li> <li>• management attitude to health and safety checks</li> <li>• evidence of regular revision and review of electrical</li> <li>• gas and fire maintenance standards and needs</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 to be awarded if all health and safety checks are met, with further evidence or demonstration of good practice.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>
<p><b>HSE 7. Floor conditions</b></p> <p><b>HSE 8. Housekeeping</b></p> <p><b>HSE 9. Ventilation</b></p> <p><b>HSE 10. Heating</b></p> <p><b>HSE 11. Public WC condition</b></p> <p><b>HSE 12. First Aid</b></p>	<p>Floors pose risk if possibility of slip/twist anywhere exists. <b>WHSW 1992</b> requires floors be in good condition/obstruction free. <b>MHSW (1999)</b> requires employers assess risks &amp; take needed action. Inside flooring should, as is reasonably practicable, be able to be kept sufficiently clean, waste material should not be allowed to build up.</p> <p><b>HSWA 1974 &amp; Fire Safety Order 2005</b> acknowledge windows/openings can provide sufficient ventilation but demand mechanical ventilation be provided and regularly maintained if needed.</p> <p><b>WHSW 1992</b> requires employers to provide "reasonable" work temperature (sedentary work at least 16 °C, physical work 13 °C).</p> <p><b>WHSW 1992</b> demand sufficient, clean, well lit, ventilated toilets &amp; washbasins with: hot/cold running water; supply of toilet paper; means of sanitary dressing disposal; enough washing agents; separate facilities for both genders or lockable doors; basin large enough to wash hands/forearms if needed; means for drying hands; showers if needed.</p> <p><b>First Aid: HSFAR 1981.</b> All employers must provide adequate/appropriate first aid equipment, facilities and personnel to ensure employees receive immediate attention if they are injured/taken ill at work.</p>	<p>If it is felt that the conditions of floors, housekeeping, ventilation, heating, WCs, First Aid are generally unsatisfactory/unacceptable 4, 5 or 6 should be awarded.</p> <p>If standards are generally acceptable with but few, minor changes necessary 2 or 3 may be awarded.</p> <p>Actual score dependant on:</p> <ul style="list-style-type: none"> <li>• the number of problems</li> <li>• the extent of the problems</li> <li>• management attitude to the problems in areas under check</li> <li>• evidence of regular revision and review of health and safety standards in these areas</li> <li>• attitude to necessary changes</li> </ul> <p>1 to be awarded if all areas are satisfactory, with further evidence or demonstration of good practice.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q8. HEALTH & SAFETY OBSERVATION & CHECKS

Health and Safety visual check by auditor.

HASWA 1974; MHSW Regs 1999

HS1. Are electricity safety records available and up to date?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
HS2. Are gas safety records available and up to date?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
HS3. Are Fire checks evident?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
HS4. Are fire extinguishers maintained and serviced?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
HS5. Do the fire exit external routes have any hazards or risks preventing their safe use?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
HS6. Are there any visible risks?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

Please record details of any risks or hazards you see:

				Comment
HS7. Condition of floors	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS7B	_____
HS8. Housekeeping	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS8B	_____
HS9. Ventilation	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS9B	_____
HS10. Heating	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS10B	_____
HS11. Public WC Condition	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS11B	_____
HS12. First Aid	Risk <input type="checkbox"/> (1)	No Risk <input type="checkbox"/> (0)	HS12B	_____

HS13. RCI Score (see appendix)	N/A	ENFORCEMENT					
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

### ACTION TAKEN

ATHS1. Verbal advice	Yes <input type="checkbox"/> (1)	ATHS3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATHS2. Written advice	Yes <input type="checkbox"/> (1)	ATHS4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)

### Referral to other statutory body

ATHSP. Police	<input type="checkbox"/> (1)	ATHSF. Fire	<input type="checkbox"/> (2)
ATHSO. Other	<input type="checkbox"/> (3)	ATHSL. LA Licensing	<input type="checkbox"/> (4)
ATHSOC. If Other please specify			
_____			

Premises ID:

## Safety Management in the Licensed Environment

Q9. Surveillance: Are arrangements sufficient to protect health and safety?		
<p>SR1. CCTV at premises?</p> <p>SR2. Signage displayed?</p> <p>SR3. Position of cameras suitable?</p> <p>SR4. Blind Areas from the bar?</p> <p>SR5. Blind Areas from Door staff?</p>	<p><b>HSWA 1974, RRO 2005, WHSW 1992, MHSW 1999</b> requires employers to carry out risk reduction using a clear hierarchy of controls.</p> <p>Where it is <i>reasonably practicable</i> control actions include: substitution of a hazardous activity with one less hazardous, or use of improved equipment or technical solutions to reduce the level of risk, e.g. use CCTV or improved surveillance by staff.</p> <p>If it is felt premises need CCTV, CCTV should be inside and outside the premises. Surveillance should cover all internal areas accessible to the public, and areas immediately outside the premises. The date and time settings on the system must be correct. CCTV images should give full face good quality images &amp; cover areas blind to bar and door staff. Recordings should be in real time and on hard drive with the ability to copy for other agencies (e.g. police). Recordings should be kept for a minimum of 31 days.</p> <p>It is preferable that security systems should be integrated so CCTV and lighting work together effectively. Are CCTV images properly monitored, is there a control room? If so, how is communication with floor staff organised?</p> <p>Signage of CCTV should exist so staff &amp; clients know CCTV is in operation. It should be in the immediate vicinity of the CCTV, clearly visible and legible to the public, A4 or A3 in size. Signage should state that CCTV is in operation, identify a responsible person and contact number.</p>	<p>If it is felt that CCTV is needed, it is <i>reasonably practicable</i> but not provided 4, 5 or 6 should be awarded.</p> <p>If CCTV is not needed, not <i>reasonably practicable</i>, or in place with suitable signage and no blind areas with few, minor changes necessary 2 or 3 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the needs of the establishment</li> <li>• practice in use of CCTV</li> <li>• the extent of associated problems (signage, blind-spots)</li> <li>• management attitude to surveillance</li> <li>• evidence of regular revision and review of surveillance standards and needs</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 to be awarded if all health and safety checks are satisfactory, with further evidence or demonstration of good practice.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q9. SURVEILLANCE

Are the surveillance arrangements sufficient to protect Health and Safety?

HASWA 1974; MHSW Regs 1999

SR1. CCTV at premises?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
SR2. Signage displayed?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
SR3. Position of cameras suitable?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
SR4. Blind areas from the bar?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
SR5. Blind areas from Door Staff?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
SR6. How many months are CCTV images kept?			N/A <input type="checkbox"/> (9)
SR7. Where are CCTV images kept?			N/A <input type="checkbox"/> (9)

#### Auditor

SR8. Is CCTV storage adequate?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
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SR9. RCI Score (see appendix)	N/A	<input type="checkbox"/>								
	0	1	2	3	ENFORCEMENT			4	5	6

#### ACTION TAKEN

<table style="width: 100%;"> <tr> <td style="width: 50%;">ATSR1. Verbal advice</td> <td style="width: 10%;">Yes <input type="checkbox"/> (1)</td> <td style="width: 10%;">No <input type="checkbox"/> (0)</td> </tr> <tr> <td>ATSR 2. Written advice</td> <td>Yes <input type="checkbox"/> (1)</td> <td>No <input type="checkbox"/> (0)</td> </tr> </table>	ATSR1. Verbal advice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	ATSR 2. Written advice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	<table style="width: 100%;"> <tr> <td style="width: 50%;">ATSR3. Improvement notice</td> <td style="width: 10%;">Yes <input type="checkbox"/> (1)</td> <td style="width: 10%;">No <input type="checkbox"/> (0)</td> </tr> <tr> <td>ATSR4. Prohibition notice</td> <td>Yes <input type="checkbox"/> (1)</td> <td>No <input type="checkbox"/> (0)</td> </tr> </table>	ATSR3. Improvement notice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	ATSR4. Prohibition notice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)
ATSR1. Verbal advice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)											
ATSR 2. Written advice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)											
ATSR3. Improvement notice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)											
ATSR4. Prohibition notice	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)											
Referral to other statutory body													
ATSRP. Police <input type="checkbox"/> (1)	ATSRF. Fire <input type="checkbox"/> (2)												
ATSRO. Other <input type="checkbox"/> (3)	ATSRL. LA Licensing <input type="checkbox"/> (4)												
ATSR0C. If Other please specify  <hr/>													

Premises ID:

## Safety Management in the Licensed Environment

<b>Q10. Noise and communication ; can staff communicate about risk effectively</b>		
<p><b>N1. What sources of noise might affect communication between staff?</b></p> <p><b>N3. How do staff communicate during busy periods?</b></p>	<p>LA 2003. Licences are often granted with conditions to prevent public nuisance arising. If any conditions exist have they been breached?</p> <p>Powers to control statutory noise nuisance given by the Environmental Protection Act 1990. MHSW 1999 demand staff are not put in situations of increased risk to prevent this staff must be able to communicate about risk effectively.</p>	<p>If conditions exist and there is evidence they have been breached, and/or staff are unable to communicate about risk effectively 4, 5 or 6 should be awarded.</p> <p>If license conditions do not exist or are met but there is evidence staff cannot communicate effectively then 3, 4, 5, can be awarded.</p> <p>If license conditions do not exist or are met and there is evidence that staff can communicate effectively 2 or 3 may be awarded.</p> <p>Actual score dependant on:</p> <ul style="list-style-type: none"> <li>• the license of the establishment</li> <li>• how well license is met</li> <li>• existing communication levels among staff</li> <li>• management attitude to staff communication</li> <li>• evidence of regular revision and review of communication standards and needs</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 awarded when no license conditions exist or conditions are met and all staff communication about risk appears to be effective, with further evidence of good practice.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q10. NOISE AND COMMUNICATION

Can staff communicate about risks effectively?

HASWA 1974; MHSW Regs 1999

<p>N1. What sources of noise might affect communication between staff (tick all that apply)</p>	Music <input type="checkbox"/> (1)	Customers <input type="checkbox"/> (2)	Other <input type="checkbox"/> (3)
<p>N2. If other, specify _____</p>			
<p>N3. How do staff communicate during busy periods?</p>	Verbally <input type="checkbox"/> (1)	Radio <input type="checkbox"/> (2)	Other <input type="checkbox"/> (3)
<p>N4. If other, specify _____</p>			

N5. RCI Score (see appendix)	N/A	<input type="checkbox"/>									
		0	1	2	3	<b>ENFORCEMENT</b>			4	5	6

### ACTION TAKEN

<p>ATN1. Verbal advice</p> <p style="text-align: right;">Yes <input type="checkbox"/> (1)</p> <p style="text-align: right;">No <input type="checkbox"/> (0)</p>	<p>ATN3. Improvement notice</p> <p style="text-align: right;">Yes <input type="checkbox"/> (1)</p> <p style="text-align: right;">No <input type="checkbox"/> (0)</p>
<p>ATN2. Written advice</p> <p style="text-align: right;">Yes <input type="checkbox"/> (1)</p> <p style="text-align: right;">No <input type="checkbox"/> (0)</p>	<p>ATN4. Prohibition notice</p> <p style="text-align: right;">Yes <input type="checkbox"/> (1)</p> <p style="text-align: right;">No <input type="checkbox"/> (0)</p>
Referral to other statutory body	
<p>ATNP. Police <input type="checkbox"/> (1)</p> <p>ATNO. Other <input type="checkbox"/> (3)</p>	<p>ATNF. Fire <input type="checkbox"/> (2)</p> <p>ATNL. LA Licensing <input type="checkbox"/> (4)</p>
ATNOC. If Other please specify _____	

Premises ID:

## Safety Management in the Licensed Environment

Q11. Risk planning. Engagement in local licensee fora		
<p>RP1: Regular engagement with Pub-watch or similar?</p> <p>RP2: Visible evidence of alcohol promotions?</p> <p>RP3. Number of front of house staff during quiet times?</p> <p>RP4. Busy times?</p> <p>RP5 During special events or promotions?</p>	<p>Pubwatch provides good practice information. Licensed premises in the scheme must agree on a number of policies for individuals who cause, or threaten, violence, abuse or damage. 'Best Bar None' raises standards of operation, with key elements being the promotion of: responsible licensed trade management, socially responsible drinking, customer care, and a commitment to reducing crime and disorder in town centres and public places due to alcohol abuse.</p> <p>Literature has identified factors leading to excessive drinking and possible violence. These include heavy drinking culture, low alcohol price and easy availability, alcohol advertising and low price promotion. Alcohol promotions include any advertised offer that might encourage consumers to drink more, e.g. double up for £1 on spirits, liquid nitrogen in cocktails, free glass of wine if you buy 2, any alcohol discount.</p> <p>The law (HSWA, 1974) requires employers to carry out risk reduction. Where it is <i>reasonably practicable</i> controls including safe systems of work and personal protective measures should be adopted. Guidance in <a href="http://www.hse.gov.uk/violence/toolkit/staffing.htm">http://www.hse.gov.uk/violence/toolkit/staffing.htm</a> states that inadequate staffing levels can lead to unsatisfactory customer service thus increasing risk of violence/aggression from customers, and increasing factors such as increased crowding and poor cleanliness of premises. Actions may include increasing staff levels at peak times; having a safe room where staff can easily retreat; having a male/female balance in staffing; avoiding staff isolation. Staff should be encouraged to engage in local communities, police and LAs to identify future events and potential problems (aggressive customers)</p>	<p>If it is felt to be <i>reasonably practicable</i> for a premises to carry out controls for staff risk reduction by increasing staff numbers at busy times but no such action is taken then 4, 5 or 6 should be awarded.</p> <p>If staff numbers are found to vary to meet the needs of busy periods 2 or 3 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the extent of fluctuation in staff numbers</li> <li>• when staff numbers fluctuate (busy times, events)</li> <li>• management attitude to staff numbers</li> <li>• evidence of regular revision and review of need to vary staff numbers</li> <li>• use and extent of alcohol promotions</li> <li>• good attitude to necessary changes</li> <li>• membership of 'Pubwatch' or similar (if not used, could recommend premises manager investigate availability and use, or ask licensing to initiate a local branch)</li> </ul> <p>Score of 1 to be awarded if all above requirements for training and records are met, and further evidence or demonstration of good practice and or participation in Pubwatch or similar.</p> <p>Please specify any evident risk or concern in 'comments'</p>

Premises ID:

## Safety Management in the Licensed Environment

### Q11. RISK PLANNING

#### Engagement in local licensee fora

RP1. Is there regular engagement with PubWatch or similar? Yes  (1) No  (0) N/A  (9)

#### Alcohol promotions

RP2. Is there visible evidence of alcohol promotions? Yes  (1) No  (0) N/A  (9)

Number of front-of-house staff (not including door staff and cleaners)?

RP3. During quiet times _____	RP6. How are emergency staff shortages dealt with?
RP4. During busy times _____	_____
RP5. During special events/promotions _____	_____

This RCI Score is based on the management of promotions and busy periods, NOT just on whether or not the premises runs promotions

	N/A	ENFORCEMENT					
RP7. RCI Score (see appendix)	<input type="checkbox"/>						
	0	1	2	3	4	5	6

### ACTION TAKEN

ATRP1. Verbal advice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)	ATRP3. Improvement notice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)
ATRP2. Written advice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)	ATRP4. Prohibition notice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)
Referral to other statutory body	
ATRPP. Police <input type="checkbox"/> (1)	ATRPF. Fire <input type="checkbox"/> (2)
ATRPO. Other <input type="checkbox"/> (3)	ATRPL. LA Licensing <input type="checkbox"/> (4)
ATRPOC. If Other please specify _____	

Premises ID:

## Safety Management in the Licensed Environment

Q.12. Door management: Is the door managed effectively?		
<p><b>DS1: Door security staff SIA licensed?</b></p> <p><b>DS2: Is there a door staff register?</b></p> <p><b>DS3: Are SIA registration numbers present on registers?</b></p> <p><b>DS4. Do security staff monitor the internal environment as well as the door?</b></p> <p><b>DS5. Number of DS at busy times?</b></p> <p><b>DS6. Is there a policy for ID checks?</b></p> <p><b>DS7. Is there a policy for refusal of entry to intoxicated or disorderly customers?</b></p> <p><b>DS8 Is there a queuing system in place?</b></p>	<p><b>LA 2003:</b> If premises license stipulates that one or more people must be at the premises to carry out security commitments it is a legal requirement that they are SIA licensed.</p> <p>There should be a door-staff register. If so, does it include</p> <p>a. Staff SIA numbers?</p> <p>b. Number of DS staff at busy times?</p> <p>Do management encourage a relaxed friendly approach by door supervisors, as this can result in reduced violence? Door staff should ask for ID checks, even at busy times. Is there a queuing system, are staff or door supervisors trained in crowd control. Who is supervising queuing?</p> <p><b>LA 2003 section 140</b> demands disorderly people are not be allowed on the premises.</p> <p>Is there a policy in place for shared responsibility for dealing with disorderly/intoxicated customers? Does this include recognised cross-premise policy for identifying intoxicated customers and for resultant action?</p>	<p>If premises license stipulates that security staff are needed at premises, and no staff are employed, or staff that are employed do not have SIA licenses then 4, 5 or 6 should be awarded.</p> <p>If licensed door staff are required and employed 2, 3 or 4 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the existence and contents of door staff register</li> <li>• extent of fluctuation in security staff numbers</li> <li>• existence of queuing system</li> <li>• policy for intoxicated/disorderly customers</li> <li>• policy for ID checks</li> <li>• management attitude to door management and staff policies</li> <li>• evidence of regular revision and review of door needs</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 to be awarded if all above requirements for training and records are met, and further evidence or demonstration of good practice.</p> <p>Please specify any evident risk or concern in 'comments'</p>

Premises ID:

## Safety Management in the Licensed Environment

### Q12. DOOR MANAGEMENT

During periods when the premises is busy, including special events, is the door managed effectively?

Licensing Act 2003

DS1. Are all security staff SIA licensed?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS2. Is there a door staff register?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS3. Are SIA registration numbers present on the door staff register?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS4. Do security staff monitor the internal environment as well as the door?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS5. Number of DS at busy times			
DS6. Is there a policy for ID checks?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS7. Is there a policy for refusal of entry to intoxicated / disorderly customers?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
DS8. Queuing system in place?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

DS9. RCI Score (see appendix)	N/A			ENFORCEMENT		
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

### ACTION TAKEN

ATDS1. Verbal advice	Yes <input type="checkbox"/> (1)	ATDS3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATDS2. Written advice	Yes <input type="checkbox"/> (1)	ATDS4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
Referral to other statutory body			
ATDSP. Police	<input type="checkbox"/> (1)	ATDSF. Fire	<input type="checkbox"/> (2)
ATDSO. Other	<input type="checkbox"/> (3)	ATDSL. LA Licensing	<input type="checkbox"/> (4)
ATDSOC. If Other please specify			

Premises ID:

## Safety Management in the Licensed Environment

<p><b>Q13. Managing people: Are visibly intoxicated or disorderly people inside premises being properly managed?</b></p>		
<p><b>MP1. Are staff trained to manage drunk/disorderly customers?</b></p> <p><b>MP3. What characteristics are used for staff to decide if someone is too drunk?</b></p> <p><b>MP5. What action is taken in respect of severely intoxicated individuals?</b></p> <p><b>MP7. What action is taken in respect of disorderly individuals?</b></p> <p><b>MP9. Are there barriers preventing staff from following set procedures?</b></p>	<p>HSWA 1974 demands employers protect the health, safety and welfare of employees, this duty includes all forms of work-related violence, defined by HSE as: 'Any incident in which a person is abused, threatened or assaulted in circumstances relating to their work'. This includes: physical violence, verbal abuse, racial or sexual abuse, threats and intimidation.</p> <p>Employers are required by law to carry out a risk assessment, including identification of which groups of people in a business could be harmed by physical assaults, threats, intimidation or verbal abuse. If a business employs 5 or more people it must record findings and resultant control measures.</p> <p>Under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) certain incidents of physical violence must be recorded. It is good practice to record all incidents in an incident book, including cases of verbal abuse and near misses.</p> <p>People who work in pubs/clubs have identified the following methods for dealing with potential violence: staff training – particularly on identifying and resolving conflict; having approachable and active managers; giving accurate information to give to the police if needed; banning persistent offenders.</p>	<p>If a premises employs 5 or more employees, no assessment of the risk of work-related violence and necessary actions has been carried out, and/or a system of recording and reporting injuries etc. does not exist then 4,5 or 6 should be awarded.</p> <p>If a risk assessment, action and incident reporting system is in place 2, 3 or 4 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the extent of the risk assessment and action</li> <li>• the practice and use of a system to record and report incidents</li> <li>• the extent of staff training for dealing with potential violence.</li> </ul> <p>Score of 1 to be awarded if all above requirements are met, and further evidence or demonstration of good practice.</p> <p>If the premises employs less than 5 and risk assessment is not required, scores depend on the incident reporting system and the factors itemised.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q13. MANAGING PEOPLE

Are people who are visibly intoxicated and / or disorderly inside the premises being properly managed?

Licensing Act 2003

MP1. Are staff trained to manage intoxicated / disorderly customers? Yes  (1) No  (0) N/A  (9)

MP2. If yes, specify \_\_\_\_\_

MP3. What characteristics are used to decide whether someone is too drunk by staff? Staggering gait  (1) Slurred speech  (2) Other  (3)

MP4. If other, specify \_\_\_\_\_

MP5. What action is taken in respect of severely intoxicated customers? Refuse service  (1) Asked to leave  (2) Other  (3)

MP6. If other, specify \_\_\_\_\_

MP7. What action is taken in respect of disorderly customers? Refuse service  (1) Asked to leave  (2) Other  (3)

MP8. If other, specify \_\_\_\_\_

MP9. Are there barriers that prevent staff/management from following the correct procedures? Yes  (1) No  (0) N/A  (9)

MP10. If yes, specify \_\_\_\_\_

MP11. RCI Score (see appendix)

N/A	<input type="checkbox"/>						
0	1	2	3	ENFORCEMENT			6
				4	5	6	

### ACTION TAKEN

ATMP1. Verbal advice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)	ATMP3. Improvement notice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)
ATMP2. Written advice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)	ATMP4. Prohibition notice Yes <input type="checkbox"/> (1) No <input type="checkbox"/> (0)

### Referral to other statutory body

ATMPP. Police <input type="checkbox"/> (1)	ATMPF. Fire <input type="checkbox"/> (2)
ATMPO. Other <input type="checkbox"/> (3)	ATMPL. LA Licensing <input type="checkbox"/> (4)
ATMPOC. If Other please specify _____	

Premises ID: \_\_\_\_\_

## Safety Management in the Licensed Environment

Q14. Staff training: Is adequate training for Responsible Beverage Service staff provided?		
<p><b>ST1: Induction programme for PT &amp; FT staff that includes disorderly/drunken customers?</b></p> <p><b>ST2. Is there on-going training and refreshers for both PT &amp; FT staff that includes information on disorderly and/or intoxicated customers?</b></p> <p><b>ST3. Is there Health and Safety training, including fire training?</b></p>	<p>Staff can be verbally assaulted or physically injured during interaction with disorderly or intoxicated customers.</p> <p>It is illegal to allow disorderly people to access premises.</p> <p>MHSW 1999 requires employers to assess risks and where necessary take action. This demands induction training for new staff.</p> <p>HSE Guidance for training to combat violence in licensed and retail premises  <a href="http://www.hse.gov.uk/violence/toolkit/training.htm">http://www.hse.gov.uk/violence/toolkit/training.htm</a>  recommends:</p> <ul style="list-style-type: none"> <li>• Training should reflect premises policy on violence</li> <li>• Training should focus on coping with violence once it occurs and with how to reduce the risks in the first place</li> <li>• Training should cover issues from legal requirements to prevention measures</li> <li>• Training should be provided for all staff, part time as well as full time</li> <li>• Staff should be consulted to inform training needs</li> <li>• Training should be evaluated and any improvements made</li> </ul>	<p>New staff will need training to deal with disorderly customers and to combat violence and aggression.</p> <p>If no appropriate induction training is in place then 4, 5 or 6 should be awarded.</p> <p>If induction training is in place 2 or 3 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the existence and contents of training: whether it reflects existing premises policy</li> <li>• if it addresses both how to cope with and prevent violence</li> <li>• if staff are aware of legislation and prevention methods</li> <li>• whether staff have been consulted to inform training</li> <li>• management attitude to induction training</li> <li>• evidence of regular revision of induction training needs</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 to be awarded if all above requirements for induction training including adequate training for responsible beverage service and dealing with violence and aggression are met, and further evidence or demonstration of good practice exists.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q14. STAFF TRAINING

Is adequate Responsible Beverage Service staff training provided?  
MHSW Regs 1999

ST1. Is there an induction programme for both PT and FT staff that includes information on disorderly and/or intoxicated customers?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
ST2. Is there ongoing training and refreshers for both PT and FT staff that includes information on disorderly and/or intoxicated customers?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
ST3. Is there Health and Safety training, including fire training?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

ST4. RCI Score (see appendix)	N/A	ENFORCEMENT					
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

### ACTION TAKEN

ATST1. Verbal advice	Yes <input type="checkbox"/> (1)	ATST3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATST2. Written advice	Yes <input type="checkbox"/> (1)	ATST4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
Referral to other statutory body			
ATSTP. Police	<input type="checkbox"/> (1)	ATSTF. Fire	<input type="checkbox"/> (2)
ATSTO. Other	<input type="checkbox"/> (3)	ATSTL. LA Licensing	<input type="checkbox"/> (4)
ATSTOC. If Other please specify			
_____			

Premises ID:

## Safety Management in the Licensed Environment

Q15. Incident reporting: Are incidents in line with RIDDOR?		
<p>IR1. Is there an accident book/log sheets?</p> <p>IR2. Is a written record of reportable incidents kept?</p> <p>IR3. Evidence of RIDDOR reportable incidents?</p> <p>IR4. Were these reported to RIDDOR?</p> <p>IR5. Evidence of any near misses?</p> <p>IR6. Are incidents used in future risk planning?</p>	<p>RIDDOR 1995 states that employers and people in control of premises must report any work-related deaths, certain injuries to members of the public and self-employed people on your premises (including door security), and dangerous occurrences (some near miss incidents) that occur on premises.</p> <p>Reportable deaths and injuries from an act of <b>non-consensual physical violence</b> to a person at work must be reported.</p> <p>The requirement to report does not extend to verbal abuse.</p> <p>A record of reportable incident must be kept. They must include the date and method of reporting; the date, time and place of the event; personal details of those involved; and a brief description of the nature of the event or disease.</p> <p>Records can be made in any form, and must be kept for 3 years after date of report.</p>	<p>If there are no accident books, log sheets, written records of reportable incidents kept and no evidence that incidents have been reported to RIDDOR then 4, 5 or 6 should be awarded.</p> <p>If accident books and written reports of reportable incidents are kept and there is evidence that RIDDOR was aware of reportable incidents 2 or 3 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the existence and content of accident books and reports</li> <li>• management attitude to accident books and incident reporting</li> <li>• good attitude to necessary changes</li> </ul> <p>Score of 1 to be awarded if all above requirements for incident reporting are met, with evidence of further action such as using incidents to inform risk planning and training.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q15. INCIDENT REPORTING

Are incidents reported in line with RIDDOR?  
RIDDOR 1995

IR1. Is there an accident book / accident log sheets?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
IR2. Is a written record of reportable incidents kept?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

#### Auditor

IR3. Evidence of RIDDOR reportable incidents?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
IR4. Were these reported to RIDDOR?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
IR5. Evidence of any 'near misses' (i.e. serious but not reportable)?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
IR6. Are incidents used in future planning, risk assessment?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

IR7. RCI Score (see appendix)	N/A	ENFORCEMENT					
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

#### ACTION TAKEN

ATIR1. Verbal advice	Yes <input type="checkbox"/> (1)	ATIR3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATIR2. Written advice	Yes <input type="checkbox"/> (1)	ATIR4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
Referral to other statutory body			
ATIRP. Police	<input type="checkbox"/> (1)	ATIRF. Fire	<input type="checkbox"/> (2)
ATIRO. Other	<input type="checkbox"/> (3)	ATIRL. LA Licensing	<input type="checkbox"/> (4)
ATIROC. If Other please specify			

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## Safety Management in the Licensed Environment

Q16. Glassware policy: Which glasses/bottles are being used?		
<p>GP1: glass only?</p> <p>GP2: Some Polycarbonate or similar?</p> <p>GP3: All polycarbonate or similar?</p> <p>GP4: No Glass after midnight?</p> <p>GP5: Are customers (e.g. smokers) allowed to take glass outside?</p> <p>GP6. If yes to GP5 are staff assigned a role of collecting outside empties?</p>	<p>Glassware and glass bottles are often used to injure people or can be involved in accidents that injure people.</p> <p>A body of literature (reviewed in HSH RR698 research report) suggests use of toughened glass or plastic reduces risk of injury, especially during violent or aggressive interactions.</p> <p>In 1997 the Brewers and Licensed Retailers Association (now the British Beer &amp; Pub Association), recommended the use of toughened glass to all members.</p> <p>In 2006 the institute of Alcohol Studies recommended injury could be reduced through:</p> <ul style="list-style-type: none"> <li>• Use of toughened glass</li> <li>• Use of plastic cups</li> <li>• The banning of bottle-served alcohol</li> <li>• Swift removal of any glassware used</li> </ul> <p>Guidance from the HSE advocates use of toughened glass and plastic cups.</p>	<p>If there is no use of toughened glass or plastic, no restriction of taking glass outside, or no assigned staff to collect outside drink-ware then 3 or 4 should be awarded.</p> <p>If toughened glass etc is used 2 or 3 may be awarded.</p> <p>Actual score awarded dependant on:</p> <ul style="list-style-type: none"> <li>• the existence and use of toughened glass or plastic drinking</li> <li>• staff practices</li> <li>• management attitude using safer drink vessels</li> <li>• supervision of ordinary glass ware</li> </ul> <p>A score of 1 to be awarded if all above recommendations are met.</p> <p><b>Please specify any evident risk or concern in 'comments'</b></p>

Premises ID:

## Safety Management in the Licensed Environment

### Q16. GLASSWARE POLICY

What type of glasses / bottles are being used?

GP1. Glass only	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
GP2. Some polycarbonate (or similar)	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
GP3. All polycarbonate (or similar)	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
GP4. No glass after midnight	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
GP5. Are customers allowed to take glass outside (e.g. smokers)?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
GP6. If yes, are staff assigned the role of collecting empties from outside?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

GP7. RCI Score (see appendix)	N/A			ENFORCEMENT		
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

### ACTION TAKEN

ATGP1. Verbal advice	Yes <input type="checkbox"/> (1)	ATGP3. Improvement notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
ATGP2. Written advice	Yes <input type="checkbox"/> (1)	ATGP4. Prohibition notice	Yes <input type="checkbox"/> (1)
	No <input type="checkbox"/> (0)		No <input type="checkbox"/> (0)
Referral to other statutory body			
ATGPP. Police	<input type="checkbox"/> (1)	ATGPF. Fire	<input type="checkbox"/> (2)
ATGPO. Other	<input type="checkbox"/> (3)	ATGPL. LA Licensing	<input type="checkbox"/> (4)
ATGPOC. If Other please specify			
_____			

Premises ID:

## **Safety Management in the Licensed Environment**

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Premises ID:

## Safety Management in the Licensed Environment

### Q17. QUESTIONS FOR SERVERS (IF AVAILABLE)

<b>Interviewee</b>			
QSI1. Name	_____		
QSI2. Position	DPS/Manager <input type="checkbox"/> (1)	Shift Manager <input type="checkbox"/> (2)	Bar Staff <input type="checkbox"/> (3) Other <input type="checkbox"/> (4)
QSI3. Other	_____		
QSI4. Have you received training on violence and aggression?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
QSI5. Have you received training on dealing with very intoxicated customers?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
QSI6. What action is taken in respect of severely intoxicated customers?	Refuse service <input type="checkbox"/> (1)	Asked to leave <input type="checkbox"/> (2)	Other <input type="checkbox"/> (3)
QSI7. If other, specify	_____		
QSI8. What action is taken in respect of disorderly customers?	Refuse service <input type="checkbox"/> (1)	Asked to leave <input type="checkbox"/> (2)	Other <input type="checkbox"/> (3)
QSI9. If other, specify	_____		
QSI10. Are there barriers that prevent you from following the correct procedures for disorderly / severely intoxicated customers?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
QSI11. If yes, specify	_____		
QSI12. Is there a glass collection policy?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)
<b>Auditor</b>			
QSI13. Are there discrepancies between DPS/manager and front-of-house staff responses and do you think that staff are engaged in H&S processes adequately?	Yes <input type="checkbox"/> (1)	No <input type="checkbox"/> (0)	N/A <input type="checkbox"/> (9)

A5. Audit Time End  
(24 HR Clock)

\_\_\_\_\_ : \_\_\_\_\_  
Hours      Mins

Premises ID:

## **Safety Management in the Licensed Environment**

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Premises ID:

## Safety Management in the Licensed Environment

### Q18. CONFIDENCE IN MANAGEMENT

Rate your confidence in the premises management (see guidance for further explanation of ratings)

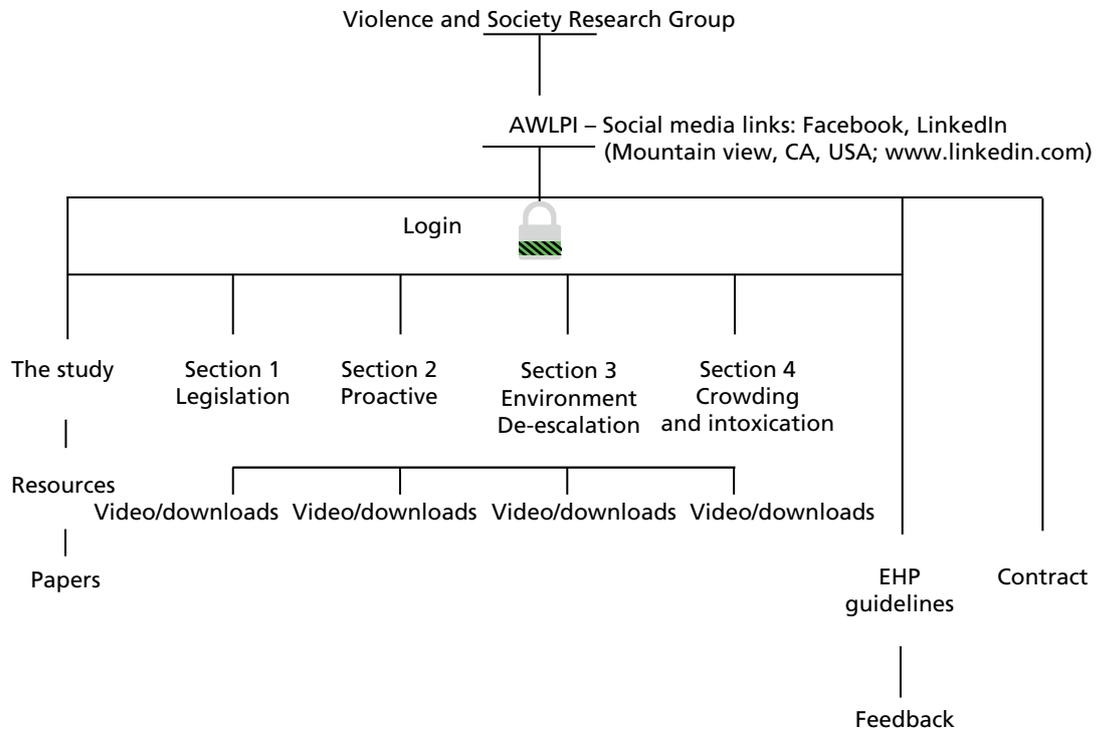
LAC 67/2 (Section 3)

	Poor		Good	Score
	Score 5 or 6	Score 3 or 4	Score 1 or 2	
<b>C1. Leadership</b>	Nothing done before it goes wrong, critical of need for H&S, blames people. No effort to allocate time or resources to H&S.	Some implementation but not complete. A policy, but commitment unfulfilled.	Leads by example, takes responsibility, and sets targets. Up-to-date meaningful policies.	
<b>C2. Organisation and Risk Assessment</b>	Poor attempts to plan for risks.	Recognition of risk but inadequate risk assessments.	Written assessments for all significant risks.	
<b>C3. Organising Cooperation Communication</b>	No workforce involvement, poor leadership, no staff engagement. Inadequate information and guidance.	Some evidence of staff involvement and teamwork. Some written information.	Captures staff ideas, involvement in procedure development, accident and near miss reporting and investigation.	
<b>C4. Organising Competence</b>	No competent advice. No awareness of training needs, statutory training not given.	Basic training provided, induction briefings. Statutory training achieved	Robust training and refreshers in place, staff competent for the tasks they have to undertake. Management competent	
<b>C5. Planning Implementing Health Controls</b>	Significant absence of control of health hazards. Feels unhealthy. Dirty or inadequate welfare facilities.	Controls identified but not fully implemented or have become ineffective.	Implemented operational health procedures and risk assessments, including the health of Members of the Public	
<b>C6. Measuring Performance and Review</b>	Nothing done before it goes wrong. No management oversight or enforcement of standards. Accidents and near misses not evaluated, lessons not learnt	Systematic monitoring exists, risk assessments reviewed. Some surveillance e.g. incident log. Underlying causes of accidents identified and solutions implementation	Active interest in performance, employees perform to agreed standards. Proactive e.g. safety checks, reactive monitoring, accident and near miss reviews inform decision making	
<b>C7. Overall Business Performance</b>	Exposed to disorder and violence, review likely. Lost staff time, high turnover. Struggling to survive.	Good quality service, few incidents. Not pushing for continuous improvement, quality schemes	Reputation for quality and safety. Popular.	
<b>C8. Management Attitude</b>	Negative, hostile, complacent. Cynical, and does things only as a result of outside pressure.	Motivated though lacking commitment, skills and prioritisation; appoints others to take responsibility.	Positive, proactive, recognises business benefit, moral argument for continuous improvement. Sees things through. Achieves sensible H&S	

Premises ID:



## Appendix 2 The SMILE website map





## Appendix 3 Web-based materials

The following are the questions included on the SMILE website.

Q1. Which of the following can the use of drugs in a venue lead to?

- A1. Penalty.
- A2. Loss of licence.
- A3. Conviction.
- A4. All of the above.

Q2. Which are more effective: routine door searches or random door searches?

- A1. Routine door searches.
- A2. Random door searches.

Q3. How can disputes be avoided at the door when asking for ID?

- A1. By maintaining an authoritative manner.
- A2. By having a policy such as Challenge 25 publicly displayed.
- A3. By asking everyone for their date of birth.
- A4. By separating males from females.

Q4. Whose responsibility is it to monitor customers once they are inside premises to ensure they are not too intoxicated or rowdy?

- A1. Door staff.
- A2. Everyone.
- A3. DPS.
- A4. Bar staff.

Q5. What are the three stages of anger development?

- A1. Cause, action, effect.
- A2. Argument, shouting, fighting.
- A3. Trigger, escalation, crisis.
- A4. Incident, conflict, reaction.

Q6. Identify three signs that anger is beginning to develop.

- A1. Physical agitation.
- A2. Stretching arms.
- A3. Looking at the floor.
- A4. Raised voice.
- A5. Eyeballing someone.

Q7. Which of these should you NOT do when trying to diffuse a situation at the TRIGGER stage?

- A1. Maintain an open and relaxed body posture.
- A2. Request that people calm down.
- A3. Introduce yourself and ask if there is anything you can do to help.
- A4. Let people express themselves and show you're listening.

Q8. Which TWO sets of signals would help you recognise that someone is in the ESCALATION stage of anger?

- A1. Salivating mouth and colour drained from face.
- A2. Looking tense and taking up more space.
- A3. Red face, dry mouth and sweaty hands.
- A4. Looking down with crossed arms.

Q9. Which of these should you NOT do when trying to diffuse a situation at the ESCALATION stage?

- A1. Touch someone, for example to usher them to a quieter place.
- A2. Listen and smile.
- A3. Move to a quieter area to distract their attention.
- A4. Suggest you both go to get some fresh air.

Q10. How can you spot that someone is in the CRISIS stage?

- A1. They are pacing the floor, looking down and not talking to anyone.
- A2. They are vigorously dancing.
- A3. They are in a trance-like state and completely irrational, possibly being abusive/violent.
- A4. It's impossible to tell.

Q11. What should you do if you feel that there is the possibility of physical danger?

- A1. Ask the person to leave immediately.
- A2. Call for a member of door staff/manager.
- A3. Approach the person face-on and ask them to stop their behaviour.
- A4. Ask other customers for help.

Q12. In relation to antisocial behaviour, why is it important to keep a clean, well-maintained bar environment?

- A1. It means you can easily identify people who are behaving antisocially.
- A2. It helps to stop germs from spreading.
- A3. It gives customers the impression that the venue does not tolerate vandalism, criminal or disrespectful behaviour.
- A4. It means less time has to be spent tidying up at the end of your shift.

Q13. What could you do to help prevent glasses causing injuries (deliberate or accidental)?

- A1. Keep a dustpan and brush behind the bar.
- A2. Ask customers to return their glasses to the bar when they have finished their drinks.
- A3. Get door staff to clear tables when they have some spare time.
- A4. Use plastic glasses at busy times and regularly clear tables of glasses.

Q14. Which TWO ways can help you reduce the risks of crowding outside your venue?

- A1. Have a cordon to separate queues for your venue and other things such as cashpoints.
- A2. Have separate queues for males and females.
- A3. Make everybody line up in pairs.
- A4. Ensure the smoking area does not interfere with the venue's entrance.

Q15. Why is crowding in internal areas such as the bar and toilets a risk factor?

- A1. It is a fire risk.
- A2. Customers may buy more than one drink at the bar increasing their chance of getting drunk quickly.
- A3. Close physical contact between customers may lead to agitation.
- A4. All of the above.

Q16. What is a key risk factor to consider when special events (e.g. large sporting events, live music) attract more customers than usual to your venue?

- A1. People may not be able to see the television screen/band clearly.
- A2. Crowding at the bar during half-time/breaks.
- A3. Having extra cash in the tills.
- A4. Not being able to close on time.



## Appendix 4 Environmental health practitioner interview schedule

Q1. What were your feelings about ARV before this project?

- Prompts:
  - Did you think alcohol use caused problems?
  - What did you think the costs were to society, communities, individuals?
  - Do you know the financial cost of alcohol-related harm to England and Wales? (If no, what would your guess be?) (£21B)
  - Did you think there was a relationship between alcohol and violence?
  - Did you think ARV was a problem?
  - What kind of problem?
  - Any specific times, locations, groups of people?
  - What caused/affected ARV:
    - in society (national legislation, policy, economics, culture)
    - in communities (local policy, economics, culture)
    - in your local area (local policy, economics, culture, work type/patterns, leisure)
    - in the NTE (all above)
    - in the NTE within the local authority you work in?
  - Have you noticed any changes over the last 5 years? In the NTE?
  - Do you think the recession has had an impact on the work and actions of licensed premises in relation to ARV this area? In the NTE?
  - Did you think licensed premises (policy, practice) have a role in ARV?
  - Can you describe this?

Q2. Can you describe your typical type of work before this project began?

- Prompts:
  - What area of environmental health do you work in?
  - Can you describe your job generally?
  - Was the identification of risk factors part of your work?
  - To what extent was dealing with violence in the workplace part of your work?
  - Was ARV part of your remit?
  - Have you taken part in project work before?
  - How do you feel about research and the value of evidence-based research?

Q3. Can you describe your organisation's role in addressing ARV and injury in licensed premises or associated risks before this project began?

- Prompts:
  - Do you think your organisation had a role?
  - Can you describe it?
  - Was there any specific guidance about referral to RIDDOR after accidents/injury due to ARV?
  - How did your managers feel about this role?
  - Did you feel it was adequate?
  - Did your organisation work with other agencies?
  - Can you describe it?
  - Did you feel it was adequate?

Q4. Can you describe your work role in licensed premises before this project began?

- Prompts:
  - Did it include any risk assessment?
  - Were you aware of any risk factors in licensed premises that influenced ARV?
  - Was dealing with violence in licensed premises in a workplace part of your work?
  - How about dealing with any aggression or violence in licensed premises whatever the cause?
  - Certain accidents and injuries have to be reported to RIDDOR. How does this apply to injuries from violence and aggression in licensed premises? In your opinion what percentage of accidents/injuries related to ARV are RIDDOR reported?
  - Did your work in licensed premises include work with other agencies? Can you describe it?
  - Did you feel you it was adequate?
  - To your knowledge what did other EHPs (in your LA/in wider LAs) do?

Q5. Can you describe how you became involved in the project (AWLPI)?

- Prompts:
  - What was your first contact with the project?
  - How was the project presented or described to you?
  - Who was consulted about your team's involvement?
  - What did you think about it?
  - How did the project map on to work you did already?
  - How widespread was knowledge of the project in your office?
  - What was the general attitude to the project in the office?
  - Do you know why some have performed audits and others haven't?
- Did you attend a training day?
  - If yes:
    - What did you think of the day (good/poor bits)?
    - Would you change anything about the training day?
    - How did you feel about the project afterwards?
    - Did you feel confident you could deliver the interventions?
    - Did the training day/manual provide enough resources?

- If no:
  - Did you get a training manual?
  - Were you given any related information and/or training?
  - How did you feel about the project?
  - Did you feel confident you could deliver the interventions?
  - Did you use your organisational hub?
  - Did you access the project website? What did you think of it?
  - Did you feel you had been supplied with enough resources?
- All:
  - Could you envisage any barriers to implementing the project?
  - Any ideas on how this could be overcome?

Q6. (Only for those attending training days) Do you feel your organisation and your office/you were involved in the development of the project interventions (audit, website and films) enough?

- Prompts:
  - Through the training day?
  - Through feedback after use?

Q7. Can you describe your reaction to the Audit and Guidance document?

- Prompts:
  - How did you feel about it?
  - What did you think about its layout? Content?
  - When did you get the audit? Was there enough time to prepare for visit?
  - What was the document like to read?
  - Would you make any changes to it? Any risks we should have included?
  - Anything we should add to guidance?
  - Do you feel it had a use in preventing violence in licensed premises?
  - Did you feel it was the role of EHPs to undertake such an audit?
  - What do you feel were the most important part(s) of the audit in addressing factors associated with violence in licensed premises?
  - How did colleagues react to the audit?

Q8. Can you describe your reaction to the website and films?

- Prompts:
  - How did you feel about it?
  - What did you think about the website form and content?
  - What did you think about the film content?
  - If you tried it what was it like to use?
  - Did you feel it was the role of EHPs to promote the website and films?
  - What was your colleagues' reaction to the website and films?

Q9. Can you tell me a little about the premises you audited?

- Prompts:
  - How many audits did you do?
  - Can you tell me a little about the premises you audited?
    - Size.
    - The area it is located in (NTE, recognised area of alcohol problems).
    - The premises history and reputation for ARV.
    - Existing policy and practice in relation to preventing ARV.
    - Existing policy and practice in relation to dealing with ARV.
  - Were all owners/duty managers aware of RIDDOR?
  - Are alcohol-related violent incidents included in reports and accidents?
  - Can you describe the owner's/manager's/DPS's feelings about regulating ARV?
  - Do you feel overall that you conducted audits at a wide range of premises?
  - Do you think the right premises were identified and involved?

Q10. Can you describe your experiences doing the audit and promoting the website?

- Prompts:
  - What were the interventions like to use?
  - Can you tell me about arranging the inspections (easy, difficult)?
  - Did you conduct the audit alone, with other EHPs or with staff from other agencies?
  - If with others, can you tell me about that?
  - Who did you deal with while conducting the audit at the premises?
  - Do you feel this was the most appropriate staff (owner, manager, DPS)?
  - Did you get to speak to other staff members?
  - What were bar staff attitudes to the audit (typical, variations)?
  - Did you promote the website and leave access details?
  - What were bar staff attitudes to the website/films (typical, variations)?
  - Can you describe any problems implementing the interventions?
  - Do you think it was a worthwhile process? In what ways?
  - How does it compare with colleagues' experiences?

Q11. Can you tell me about scoring and actions that resulted from the audit?

- Prompts:
  - How did you decide on scores?
  - Actions within the premises.
  - What did you do?
  - How did actions relate to scores?
  - What was the staff response?
  - What was the outcome?
  - Referrals to other authorities.
  - To whom?
  - Why?
  - What was the reaction of the other agencies?
  - How did your actions compare with your colleagues'?

Q12. Can you tell me about any monitoring/reaudits you did?

- Prompts:
  - Can you describe any changes in the premises?
  - Were there any changes in the attitudes, policies and practices of staff?

Q13. Looking back would you make any changes to the way the audit and/or website was developed? Or changes that would help implementation for future use? Will the new enforcement code that identifies hazard rather than risk as the focus have any effect on audit use or scoring in the future?

Q14. In the light of your work on the project what are your current thoughts about the role of EHPs in intervening in licensed premises to address factors affecting ARV?

Q15. Do you think the changes in the licensed premises you audited that you described will have a positive impact on the levels of ARV in those licensed premises? Could this apply to the NTE in other premises and in districts generally?

- Do you think this will be sustained?
- Is there anything else you think the environmental health organisation can do?
- Your work in this project has stemmed from police data: what are your thoughts on this interagency working?
- What are your thoughts on strengthening this by sharing environmental health data – such as the RIDDOR data on assaults in licensed premises with the police? What impact do you think it may have?
- What are your thoughts on extending this to more interagency work and data sharing with other agencies such as fire services, licensing panels and the health services?



# Appendix 5 Licensed premises staff interview schedule

## Intervention premises

Q1. Can you tell me a little about your work in the licensed trade?

- Prompts:
  - How long and where?
  - Have you worked in a range of different environments?
  - Have they been local, other parts of the UK or abroad?
  - Have you worked in similar premises to these (organisation, size, location, clientele)?

Q2. What are your feelings about the alcohol and violence debate?

- Prompts:
  - Do you think there is a relationship?
  - Do you think ARV causes problems in:
    - society
    - communities
    - licensed premises generally
    - your premises?
  - What kind of problems?
  - Are they related to any specific times, locations, groups of people?
  - What do you think caused them?
  - Did you have any policies or practices to deal with these problems within your premises?
  - Did you feel this was your responsibility to do?
  - Were there any other actions you can think of that you could have taken?
  - Who else do you feel is/should be responsible?

Q3. Can you describe how your premises became involved in the project (AWLPI)?

- Were you aware of the incident that led to the police record(s)?
- What was your first contact with the EHP?
- What information were you given?
- What did you think about the contact, your premises being involved?
- Did this lead to any response or action?
- Did you know what the EHP visit was about? What were you expecting?
- How was the appointment date and time agreed?
- Did you do anything to prepare for the visit?

Q4. Can you describe what happened when the EHP inspection took place?

- Prompts:
  - What did the EHP ask about?
  - What did the EHP look at?
  - Who did the EHP talk to?
  - What did the EHP do?
  - What information did the EHP give you?
  - Were you shown the website and/or films?
  - What did you think about the visit?
  - What was the visit outcome (informal advice, formal written advice, and referral)?
  - Could you see how the visit was related to alcohol and violence in your premises?

Q5. Can you describe any actions taken by the EHP/other authorities after the inspection?

- Prompts:
  - What did the EHP do?
  - Did you receive any letters or notices?
  - Were any referrals made to other authorities (LA licensing officers, police, fire)?
  - If they were, what did they do?

Q6. Can you tell me about any changes made in your premises, or in premises policy or practices, after the audit and how much you think these have cost you?

- Prompts:
  - changes in equipment (CCTV, mirrors, glassware, communication)
  - structural changes
  - staff changes
  - staff training
  - records, assessments, risk planning and checks
  - membership of PubWatch or similar
  - door management
  - any other changes
  - costs:
    - buying items
    - fitting
    - paying for specialist services (gas, electricity, decorators, plumbers, etc.)
    - employing new staff (security, door, extra staff for busy periods)
    - training
    - lost staff time
    - travelling (purchase items, attend courses).

Q7. Do you have any plans for changes in the near future (by Easter) to reduce the chance of violence; any idea of how much this will cost?

- Prompts:
  - See Q6.

Q8. To return to the EHP visit, can you tell me what use you made of the website after the inspection?

- Prompts:

- Did you access it?
- If so which bits did you view?
- Did you complete the quiz?
- Did you use any resource links? If so which ones?
- What did you think of the site?
- Can you describe any effects website use had on you and/or your premises?
- Did you tell any other staff about the site?
- Do you know if they use it?

Q9. Did the EHP make a follow-up visit?

- Prompts:

- If yes, do you know why?
- Can you describe what happened?
- What was the outcome?
- Will you have any further contact with the EHP?

Q10. In your opinion did this experience have any impact, both negative and positive?

- Prompts:

- On your premises?
- On premises policy and practice?
- On the levels of violence in your premises?
- On your/your staff's awareness of the link between alcohol and violence?
- On your/your staff's awareness of what can be done within the premises to reduce the risk of ARV?
- Do you think EHPs have a role in preventing violence in licensed premises?

Q11. Is there anything else you think health and safety can do to help you reduce the risk of ARV in your premises?

## Control premises

Q1. Can you tell me a little about your work in the licensed trade?

- Prompts:

- How long and where?
- Have you worked in a range of different environments?
- Have they been local, in other parts of the UK or abroad?
- Have you worked in similar premises to these (organisation, size, location, clientele)?

Q2. What are your feelings about alcohol and violence?

- Do you think there is a relationship?
- Do you think ARV causes problems in society/communities/licensed premises generally?
- In your premises?
- What kind of problems?
- Are they related to any specific times, locations, groups of people?
- What do you think caused them?
- Did you have any policies or practices to deal with these problems within your premises?
- Did you feel this was your responsibility to do?
- Were there any other actions you can think of that you could have taken?
- Who else do you feel is/should be responsible?

Q3. Can you describe how your premises became involved in the project (AWLPI)?

- What was your first contact about the project?
- What information were you given?
- Do you know why your premises were included in the project?
- What did you think about your premises being involved?
- Did this lead to any response or action?

Q4. Can you think of any factors in or around your premises that may affect ARV?

- Prompts:
  - hours of opening/serving
  - safety policy and risk assessments
  - visibility, lighting
  - health and safety around the premises
  - noise and communication
  - sharing information with other premises
  - alcohol promotions
  - staff levels at busy times
  - door management
  - people management: staff training re: drunk disorderly clients; barriers to training
  - provision of RBS staff training
  - log book/accident book
  - glassware policy.

Q5. Have there been referrals to authorities since the incident(s) that led to the police notification in the last year?

- Prompts:
  - EHP?
  - LA?
  - Fire and rescue?
  - Police?
  - If there were, what did they do?

Q6. Can you tell me about any changes made in your premises, or in premises policy or practices, this year that may influence levels of ARV, and can you estimate just how much these changes or actions have cost you?

- Prompts:
  - Changes in:
    - equipment (CCTV, mirrors, glassware, communication)
    - structural changes
    - staff changes
    - staff training
    - records, assessments, risk planning and checks
    - membership of PubWatch or similar
    - door management
    - any other changes.
  - Costs:
    - in buying items
    - fitting
    - paying for specialist services (gas, electricity, decorators, plumbers, etc.)
    - employing new staff (security, door, extra staff for busy periods)
    - training
    - lost staff time
    - travelling (purchase items, attend courses).

Q7. Do you have any plans for changes in the near future (by Easter) to reduce the chance of violence ... any idea of how much this will cost?

- Prompts:
  - See Q6.

Q8. In your opinion have your actions in the last year had any impact, both negative and positive?

- Prompts:
  - On your premises?
  - On premises policy and practice?
  - On the levels of violence in your premises?
  - On your/your staff's awareness of the link between alcohol and violence?
  - Of your/your staff's awareness of what can be done within the premises to reduce the risk of alcohol-related awareness?
  - Do you think environmental health officers have a role in preventing violence in licensed premises?

Q9. Is there anything else you think can be done to help you reduce the risk of ARV in your premises?



## Appendix 6 Focus group schedule for initial focus group with senior environmental health practitioners

Interview schedule for chief executive officers and senior management.

Q1. We are really interested in the role of health and safety in the licensed trade: can you tell me about your organisation's relationship with health and safety?

- Have health and safety been involved with the organisation to date?
- What was the result of the contact?
- Did this contact impact on health and safety within licensed premises (staff and clients)?
- Did you feel it was a positive experience?
- Could they have been more helpful? How?
- Do you feel the involvement of EHPs was standardised across the licensed field in England and Wales?
- Was there/do you feel there would there be a benefit to this?

Q2. On a more general level, how do you think people living in the UK feel about alcohol use?

- Do you think it is seen as a normal part of our culture?
- Does this vary with different populations and contexts? Age, gender, geography, culture, ethnicity, venue, daytime, night-time, NTE?
- Has acceptability changed over time?
- What do you think has influenced any changes?

Q3. What about drinking and related violence?

- Do you think people drink too much?
- Do you think this is related to aggression and violence?
- Is this also seen as a normal part of our culture?
- Again does this vary with different populations and contexts? Age, gender, geography, culture, ethnicity, venue, daytime, night-time, NTE?
- Has attitude to excessive alcohol use and consequences changed over time?
- What do you think has influenced any changes?
- How do we get to know about levels in the UK?
- How do those who work in the industry hear about ARV, both single incidents and general levels?
- What are your feelings about binge drinking? Do you think it impacts on business in the licensed trade? For good or bad?

Q4. It has been argued that ARV is linked to many different factors. What do you think promotes violence in and around pubs and clubs?

- External: culture – national/local/area licensed premises set in.
- Population: young, male/female split.
- Economics: preloading.
- Failure of feeder pubs to stop further drinking.
- Failure of other authorities to address problem.
- Within industry: risk factors – refer to audit.

Q5. If any risks are identified in your organisation's licensed premises (licensed premises your organisation supplies) do you have a set procedure for reporting and dealing with them?

- Are you made aware of all incidents?
- Only incidents leading to actions such as referrals, involvement of other officials?
- Only if a RIDDOR notification is needed or made?
- Whose responsibility is it to plan resultant actions and follow up?

Q6. Again more generally, where do you feel responsibility for regulating ARV in the NTE should lie?

- National legislation and policy?
- Policy and action with/by:
  - police
  - fire and rescue
  - Trading Standards
  - licensing officers
  - local councils
  - (health and safety – don't prompt if they don't volunteer this)
  - the industry
  - licensed premises staff/managers
  - individuals?

- Does that reflect the national picture or do you think it varies locally?

Q7. What are the benefits and challenges of addressing ARV in licensed premises from your company's perspective?

- Disadvantages: cost (staff, security, fewer promotions, decreased number of clients).
- Advantages: safer environment, better atmosphere, attract more clients.

Q8. Has your organisation ever discussed or formulated policy or practices to address ARV on premises?

- What were they?
- Would you say they were proactive or reactive?
- How often are they implemented?
- Is this standard across establishments or applied on a site-to-site basis?

Q9. Some feel that action to address ARV from within the industry would be best: do you agree or do you feel actions from other agencies or sources (police, legislation, health and safety, licensed officers) would be better?

- What would be positive about internally driven change?
- Would this produce any problems?
- Problems and benefits of external changes?

Q10. Should there be a standard approach across the UK to address ARV, or do you think local schemes would be better? Explain rationale.

Q11. Do you know how one of your premises became involved in the project (AWLPI)?

- Were you aware of the incident that led to the police record(s)?
- What was your first contact with the EHP?

- What information were you given?
- What did you think about the contact, your premises being involved?
- Did your staff do anything to prepare for the visit?

Q12. Do you know anything about the EHP inspection?

- If yes, prompts:
  - What did the EHP ask about?
  - What did the EHP look at?
  - Who did the EHP talk to?
  - What did the EHP do?
  - What information did the EHP give?
  - Were you or your staff shown the website and/or films?
  - What did you think about the visit?
  - What was the outcome of the visit (nothing, informal advice, formal written advice, referral)?
  - Could you see how the visit was related to alcohol and violence on the premises?

(If yes to Q12) Q13. Can you describe any actions taken by the EHP/other authorities after the inspection?

- Prompts:
  - What did the EHP do?
  - Did your staff receive any letters or notices?
  - Were any referrals made to other authorities (LA licensing officers, police, fire)?
  - If they were, what did they do?

(If yes to Q12) Q14. Do you know if any changes were made in the premises, policy or practices after the audit? Did this extend to other premises?

- Prompts:
  - changes in equipment (CCTV, mirrors, glassware, communication)
  - structural changes
  - staff changes
  - staff training
  - records, assessments, risk planning and checks
  - membership of PubWatch or similar
  - door management
  - any other changes.

(If yes to Q12) Q15. Do you know if any use was made of the website after the inspection?

- Prompts:
  - Did you access it?
  - If so which bits did you view?
  - Did you complete the quiz?
  - Did you use any resource links? If so, which ones?
  - What did you think of the site?
  - Can you describe any effects website use had on you and/or your premises?
  - Did you tell any other staff about the site?
  - Do you know if they use it?

(If yes to Q12) Q16. Did the EHP make a follow-up visit?

- Prompts:
  - If yes – do you know why?
  - Can you describe what happened?
  - What was the outcome?
  - Will you have any further contact with the EHP?

(If yes to Q12) Q17. In your opinion did this experience have any impact, negative or positive?

- Prompts:
  - On your premises/organisation?
  - On premises/organisation policy and practice?
  - On the levels of violence in your premises?
  - On organisational awareness of the link between alcohol and violence?
  - On organisational awareness of what can be done within the premises to reduce the risk of alcohol-related awareness?

Q18. Is there anything else you or other authorities could do to help you reduce the risk of ARV in your organisational premises?

## Appendix 7 Focus group schedule for second focus group with senior environmental health practitioners

Interview schedule: senior EHPs (involved in development).

In each box the major question is in the top row. The following row contains prompts to ensure that pertinent data is collected.

Q1. Before the project what did you feel about the role of EHPs in licensed premises?

- Did you feel they had a role?
- What was the extent of that role?
- What were the main issues that brought EHP involvement?
- To what extent were events related to RIDDOR a part of this?
- Do you feel poor RIDDOR reporting prevented more EHP involvement?

Q2. What were your feelings about alcohol before this project?

- Prompts:
  - Did you think alcohol use caused problems?
  - Did you think there was a relationship between alcohol and violence?
  - Did you think ARV was a problem?
  - What kind of problem?
    - In society (national legislation, policy, economics, culture)?
    - In communities (local policy, economics, culture)?
    - In your local area (local policy, economics, culture, work type and patterns, leisure)?
    - In the NTE (all above)?
  - Any specific times, locations, groups of people?
  - Have you noticed any changes over time?
  - Any additional problem in the NTE?
  - Did you think licensed premises (policy, practice) had a role in ARV?
  - Can you describe this?

Q3. To your knowledge, who should be responsible for regulating ARV in the licensed trade?

- Prompts:
  - police
  - fire and rescue
  - Trading Standards
  - licensing officers
  - local councils
  - (health and safety – don't prompt if they don't volunteer this)
  - licensed premises staff/managers
  - individuals?
- Does that reflect the national picture or do you think it varies locally?

Q4. To your knowledge did health and safety play a role in combating alcohol-induced violence and injury in licensed premises before this project began?

- If yes to above:
  - Can you describe it?
  - Did it involve interagency work with any other responsible bodies (authorities and licensed premises)?
  - Can you describe that?
  - Did you feel it was adequate?
  - How did it impact on your organisation's workload?
  - Was that a national policy or did it vary locally?

Q5. Can you describe the usual work of environmental health officers before the project?

- Prompts:
  - in general
  - in the retail sector
  - in licensed premises.

Q6. Can you describe how you became involved in the project (AWLPI)?

- Prompts:
  - What was your first contact with anyone about the project?
  - Did you know anything about this type of work before?
  - How was the project described to you?
  - Why did you become involved?
  - Were any colleagues involved?
  - Could you envisage any barriers to implementing the project?

Q7. Can you describe what you did and who you worked with during development of the project interventions (audit, website, films)?

- Prompts:
  - Initial development – can you tell me about your work in relation to the intervention development with Cardiff University?
  - Were you involved enough?
  - Can you describe any problems that arose during your involvement?
  - Did you have sufficient impact on the development process?
  - Would you make any changes to the developmental process?

Q8. After the audit had been completed can you tell me about its finalisation and production?

- Prompts:
  - Were you consulted before the final go-ahead?
  - If so, what happened during consultation?
  - If any further changes were made were you informed?

Q9. Can you describe your reaction to the completed Audit and Guidance document?

- What did you think about the audit?
- What did you think about the form of the document?
- The timing of receipt?
- What was the document like to read?
- Would you make any changes to it?
- Did you feel it promised to have a use in preventing violence in licensed premises?
- What did you think was the EHPs' reaction to the audit?
- Did you feel it was the role of EHPs to undertake such an audit?
- What do you feel were the most important part(s) of the audit in addressing factors associated with violence in licensed premises?

Q10. Can you describe EHPs' reaction to the concept of the project?

- What did they think about it?
- Did responses vary?
- How did it meet perceptions of their roles?

Q11. Can you describe what you thought about the running of the training days?

- Was it easy to disseminate knowledge about it?
- How was the process of getting EHPs to attend?
- What did you think of the:
  - organisation
  - content
  - timing?
- Have you received any feedback from EHPs who attended?
- How did you feel about your role in it? Enough? Too limited?

Q12. Can you describe general EHP reaction to the Audit and Guidance document?

- What did they think about the audit?
- What did they think about the form of the document?
- The timing of receipt?
- How did they find the document to read?
- Do you think they felt it was their role to undertake such an audit?
- Did responses vary?

Q13. Can you describe EHPs' reaction to the website and films?

- What did they think about the website form and content?
- What did they think about the film content?
- What was it like to use?
- Did they feel it was the role of EHPs to promote the website and films?
- What did you think was the EHPs' reaction to the website and films?
- Did responses vary?

Q14. Looking back would you make any changes to the way the audit and/or website was developed or implemented?

Q15. How would you describe your organisation's response to the project?

- Overall.
- LAs.
- Managers.
- EHPs.

Q16. What are your current thoughts about regulating alcohol and violence in licensed premises? Have there been any changes during your involvement in the project?

Q17. Is there anything else you think EHPs/health and safety could do to address factors in licensed premises affecting ARV?

## Appendix 8 Descriptive statistics: audit

**TABLE 25** Descriptive statistics from the audit

Q6. Records	Visible evidence	No evidence	N/A	Missing
R1A. Safety policy	119	71	88	3
R2A. Written risk assessment	128	73	75	5
Per cent				
R2C. Includes violence and aggression	40.65			
R2D. Includes lone working	24.10			
R3A. Opening checks and walkabouts	145	116	17	3
Q7. Visibility and lighting	Yes	No	N/A	Missing
V1. Entrances/exits clearly visible?	276	5		
V2. Entrances/exits well lit?	276	5		
V3. Suitable lighting in indoor areas?	274	7		
V4. Suitable lighting in outdoor area?	259	7	9	6
Q8. Health and safety, observation and checks	Yes	No	N/A	Missing
HS1. Are electricity safety records available and up to date?	176	101		4
HS2. Are gas safety records available and up to date?	154	84	39	4
HS3. Are fire checks evident?	241	40		
HS4. Are fire extinguishers maintained and serviced?	254	26		1
HS5. Do the fire exit external routes have any hazards or risks preventing their safe use?	45	236		
HS6. Are there any visible risks?	29	249	1	2
	Risk	No risk	N/A	Missing
HS7. Condition of floors	33	248		
HS8. Housekeeping	19	261		
HS9. Ventilation	7	273		1
HS10. Heating	13	267		1
HS11. Public WC condition	18	261		2
HS12. First aid	16	261		4
Q9. Surveillance	Yes	No	N/A	Missing
SR1. CCTV at premises?	224	39		18
SR2. Signage displayed?	162	68	47	4
SR3. Position of cameras suitable?	218	10	50	3
SR4. Blind areas from the bar?	110	134	33	4
SR5. Blind areas from door staff?	44	110	121	6
SR8. Is CCTV storage adequate?	212	10	52	7

continued

TABLE 25 Descriptive statistics from the audit (continued)

Q10. Noise and communication	Music	Customers	Other	Missing
What sources of noise might affect communication between staff (tick all that apply)?	208	177	19	28
	Verbally	Radio	Other	Missing
How do staff communicate during busy periods?	266	70	23	5
Q11. Risk planning	Yes	No	N/A	Missing
RP1. Is there regular engagement with PubWatch or similar?	173	92	16	
RP2. Is there visible evidence of alcohol promotions?	103	176		2
	Mean	SD		
RP4. Number of front-of-house staff at busy times?	5.78	6.12		3
Q12. Door management	Yes	No	N/A	Missing
DS1. Are all security staff SIA licensed?	140	7	132	2
DS2. Is there a door staff register?	117	27	135	2
DS3. Are SIA registration numbers present on the door staff register?	119	15	144	3
DS4. Do security staff monitor the internal environment as well as the door?	140	5	133	3
DS6. Is there a policy for ID checks?	236	4	39	2
DS7. Is there a policy for refusal of entry to intoxicated/disorderly customers?	234	5	41	1
DS8. Queuing system in place?	77	68	132	4
Q13. Managing people	Yes	No	N/A	Missing
MP1. Are staff trained to manage intoxicated/disorderly customers?	243	31	6	1
	Staggering gait	Slurred speech	Other <sup>a</sup>	Missing
MP3. What characteristics are used to decide whether or not someone is too drunk by staff?	263	257	62	2
	Refuse service	Asked to leave	Other <sup>b</sup>	Missing
MP5. What action is taken in respect of severely intoxicated customers?	238	260	46	3
MP7. What action is taken in respect of disorderly customers?	263	232	38	4
	Yes	No	N/A	Missing
MP9. Are there barriers that prevent staff/management from following the correct procedures	12	259	8	2
Q14. Staff training	Yes	No	N/A	Missing
ST1. Is there an induction programme for both PT and FT staff that includes information on disorderly and/or intoxicated customers?	222	41	17	1
ST2. Is there ongoing training and refreshers for both PT and FT staff that includes information on disorderly and/or intoxicated customers?	195	64	20	2
ST3. Is there health and safety training, including fire training?	211	53	14	3

**TABLE 25** Descriptive statistics from the audit (*continued*)

Q15. Incident reporting	Yes	No	N/A	Missing
IR1. Is there an accident book/accident log sheets?	232	48		1
IR2. Is a written record of reportable incidents kept?	196	67	16	2
IR3. Evidence of RIDDOR reportable incidents?	56	204	20	1
IR4. Were these reported to RIDDOR?	43	41	194	3
IR5. Evidence of any 'near misses' (i.e. serious but not reportable)?	53	152	74	2
IR6. Are incidents used in future planning, risk assessment?	134	62	83	2
Q16. Glassware policy	Yes	No	N/A	Missing
GP1. Glass only	177	97	6	1
GP2. Some polycarbonate (or similar)	143	98	32	8
GP3. All polycarbonate (or similar)	31	181	60	9
GP4. No glass after midnight	22	166	87	6
GP5. Are customers allowed to take glass outside (e.g. smokers)?	152	112	16	1
GP6. If yes, are staff assigned the role of collecting empties from outside?	187	6	86	2

FT, full-time; N/A, not applicable; PT, part-time; SIA, Security Industry Association; WC, water closet.

a Others include loud, aggressive and abusive behaviour, fumbling and glazed eyes.

b Others include contact the police, provide first aid, telephone for a taxi, give them water or a soft drink and call an ambulance.





A decorative graphic consisting of numerous thin, parallel green lines that curve from the left side of the page towards the right, creating a sense of movement and depth.

**EME  
HS&DR  
HTA  
PGfAR  
PHR**

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