

## Evaluation of Bristol Thrive at Night (TAN)

### Project Summary

<b>Study Title</b>	Evaluation of Bristol Thrive at Night (TAN)
<b>Local Authority</b>	Bristol City Council
<b>Planned study period</b>	March 2024 to March 2025
<b>Research aim/s</b>	<p>Evaluation Aims:</p> <ol style="list-style-type: none"> <li>(1) To understand the <i>uptake, reach, and effectiveness</i> of TAN.</li> <li>(2) To understand the <i>adoption, implementation and maintenance</i> of TAN.</li> <li>(3) To explore any internal or external <i>contextual factors</i> that influenced uptake, reach, adoption, implementation and/or maintenance of TAN.</li> <li>(4) To understand <i>barriers and enablers</i> for engagement with TAN.</li> <li>(5) To explore published evidence relating to the cost or cost-effectiveness of MHWB interventions targeted at NTE workers.</li> </ol>
<b>Study Methods</b>	<p>Mixed methods:</p> <p>Scoping review of economic evidence, monitoring data (including training attendance surveys and cost data collection), online survey, qualitative interviews.</p>
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<b>Funder</b>	<p>National Institute for Health and Care Research (NIHR)  Award ID: 161857</p>
<b>Protocol version number and date</b>	V1.2 July 2024

## Plain English Summary

### Background

Night-time workers operate and work between 6pm and 6am. Around 116,339 people in Bristol work in the nighttime economy (NTE), which represents around 41% of all jobs in the city. This includes around 1,176 night-time premises including restaurants, public houses, café bars, takeaways, social clubs, hotels, open-air spaces, breweries, music venues, theatres, and nightclubs. Workers in the NTE have experienced many challenges, including the long-lasting impacts of the 2007–2008 global financial crisis (GFC) and subsequent austerity, the current cost-of-living crisis in the UK and the COVID-19 pandemic which impacted heavily on cultural and leisure activities. Promoting mental health and wellbeing at work is becoming increasingly important but current support for wellbeing tends not to reach or meet the unique needs of NTE workers.

The Thrive at Night (TAN) intervention was developed by Bristol City Council and provides mental health and wellbeing support to NTE hospitality sector businesses and workforce. This support includes resources, training, peer support and trauma response support sessions. The objectives of TAN are to positively impact on attitudes and behaviours relating to the mental health and wellbeing of workers in the hospitality sector of NTE, and to support team leaders and managers to develop policies and practices that will promote mental wellbeing, compassionate leadership and a positive workplace culture.

### What are we doing?

The PHIRST-Light research team have been asked by Bristol City Council to help evaluate the Thrive at Night intervention. The Council would like to answer important questions such as whether TAN has improved attitudes towards mental health and wellbeing in the NTE, who comes to the training, and how TAN is delivered.

### Evaluation Aims (1-5) and Research Questions (RQ 1-14):

- (1) To understand the *uptake*<sup>RQ1</sup> and *reach*<sup>RQ2</sup> (e.g., absolute number and characteristics of individual workers and team leaders participating), *acceptability*<sup>RQ3</sup> and *appropriateness*<sup>RQ4</sup>, and *effectiveness*<sup>RQ5-6</sup> (e.g., impacts on worker mental wellbeing, presenteeism and morale; impacts on team leader wellbeing and compassionate leadership practices, impacts on organisational culture and policies) of TAN.

**RQ1.** Were NTE employees willing to take part in Thrive at Night? What was the proportion of individuals across the NTE that accessed any element of the programme? (i.e., proportion of workers, worker and team leader profile).

**RQ2.** What are the characteristics of participants compared to non-participants (or to the NTE population)?

**RQ3.** Was Thrive at Night acceptable for its target audience? (i.e., what do the people who take part think of TAN resources and training)?

**RQ4.** Was Thrive at Night appropriate for its target audience? (i.e., what do the training instructors and local authority service providers think of TAN?)

**RQ5.** What was the effectiveness of Thrive at Night? (i.e., perceived changes in mental health and wellbeing, organisational culture, objective indicators)

**RQ6.** What organisational changes in policy and practice have been made in organisations where staff accessed TAN?

- (2) To understand the *adoption*<sup>RQ7</sup> (e.g., characteristics of settings participating; qualitative perceptions and expectations of participants versus 'typical'), *implementation*<sup>RQ8,9</sup> (e.g., fidelity and costs) and *maintenance*<sup>RQ10</sup> (e.g., continued engagement, sustained delivery, sustained impacts, intentions to maintain) of TAN.

**RQ7.** Were organisations willing to take part in Thrive at Night? What is the typology of organisations that take part (i.e., organisation type, size) and are they 'typical' of the NTE?

**RQ8.** Was Thrive at Night implemented as intended? (e.g., consistency across staff/time/settings/subgroups, adaptations, perceptions of cost in time and money).

**RQ9.** Was Thrive at Night feasible for its target audience? (i.e., based on local data capture, how much does it cost the local authority to deliver TAN to the NTE?)

**RQ10.** Do service providers, NTE organisations, team leaders and workers intend to maintain the intervention over time? (e.g., What were the training attendance rates over time? Were there differential attendance rates by team leader / organisation type? What are the perceptions and expectations of individual- and setting-level changes, maintenance and impacts over time?).

- (3) To understand *barriers and enablers*<sup>RQ11</sup> for engagement with TAN (e.g., engagement with training and/or online materials).

**RQ11.** What factors influence engagement or non-engagement with TAN (i.e., at the organisational, team leader and worker level)?

- (4) To explore any internal or external *contextual factors*<sup>RQ12</sup> that influenced uptake, reach, adoption, implementation and/or maintenance of TAN.

**RQ12.** What were the key contextual or cultural factors that influenced the implementation of Thrive at Night and the translation of learning into workplace policy and practice? (e.g., the participant, population, provider characteristics, the organisations' characteristics, multi-level perspectives, resources, and external factors like policies, funding, etc).

- (5) To explore what is known about the *cost and cost-effectiveness*<sup>RQ13-14</sup> of mental wellbeing (MWB) interventions targeting NTE workers.

**RQ13.** Is there existing published evidence relating to the economic cost / impacts of mental wellbeing interventions targeted at NTE workers?

**RQ14.** What recommendations can be made to inform the design of a future economic analysis of MWB interventions for NTE workers?

In this evaluation we will use different tools to answer these questions. This will include a scoping review of published evidence, analysis of existing data held by the local authority, including cost data, post-training surveys and any data that is automatically collected to show website / resource access. An online survey and informal interviews will be conducted with people who have attended training sessions or engaged with other aspects of TAN, such as the website and online resources. This is so that we can find out what type of worker accesses TAN and get their views on the value of the training, handbooks, and toolkits. It will also help to determine whether and how they used their learning in the workplace setting. Informal interviews will take place with people who have been involved in delivering TAN, such as training instructors, and members of the council. We will do this to find out their views about TAN and whether it is being delivered as intended. Finally, we will collect information from training instructors and members of the council about how much it costs to deliver TAN, and whether this is something that they can do going forwards. Our scoping review of published evidence relating to cost-effectiveness will help us to understand how cost-effectiveness of interventions like TAN could be assessed in the future. Through the project we will work with a group of public advisors involved in the NTE. This group helps us to think about issues affecting local people who might be accessing TAN. They will help us to make sure the way we are asking questions makes sense and will help us decide how we let people know about the findings of our study.

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## 1. Evaluation details

### 1.1 Full evaluation title

Evaluation of Bristol Thrive at Night: a mental wellbeing intervention for the night-time economy.

### 1.2 Funding

This evaluation is supported by the National Institute for Health and Care Research (NIHR) PHIRST initiative (Public Health Research funding stream).

Funder's reference: **NIHR161857**

### 1.3 Core working team contact details

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## 2. Background

### 2.1 Overview of intervention to be evaluated and contextual information.

The Night-Time Economy (NTE) sector has been significantly impacted by both the COVID-19 pandemic and now the cost-of-living crisis, with particular impacts on the hospitality sector. So, supporting businesses and the workforce in this sector is a priority. Night-time workers are identified through the Labour Force Survey and are people who "usually" work during the evening and/or during the night (irrespective of whether they also work during the day). NTE workers are therefore operating and

working between 6pm and 6am. According to Office for National Statistics (ONS, 2022) data, 116,339 people in Bristol work in the NTE, which represents around 41% of all jobs in the city. In the hospitality sector this includes around 1,176 night-time premises: 340 restaurants, 286 public houses, 158 café bars, 107 takeaways, 81 social clubs, 52 hotels, 46 open-air spaces, 13 breweries, 12 music venues, 5 theatres and 27 nightclubs.

The NTE is economically important, with a third of total spend occurring at night-time. While the night-time workforce is spread across different industries, most night-time spending occurs within the “night-time cultural and leisure activity” and “activities which support night-time cultural and leisure activities” groupings. Night-time workers in the “night-time cultural and leisure activities” (and “activities which support night-time cultural and leisure activities”) groupings tend to be younger, with around 40% being aged under 24 years (ONS, 2022). Employees in night-time industries are more likely to be low earners (defined as less than two-thirds of the median hourly pay), and women are more likely to be lower earners compared to men. In the cultural and leisure activities grouping, 38.5% of workers are low paid.

For myriad reasons, night-time work is associated with mental-ill health (Sato et al, 2020; Fujino et al, 2006). However, the published evidence is limited and much of the literature in this field focuses on irregular or unpredictable shift work rather than night/evening work specifically (e.g., Zhao et al, 2019; Torquati et al, 2019). Promoting mental health and wellbeing at work is advocated in national and international guidelines and policies (HSE, 2024; NICE, 2022; WHO, 2022). Yet, while there are many existing interventions to support the mental health and wellbeing of workers in diverse occupational settings, these do not reach, or meet the needs of NTE hospitality workers.

Therefore, the Thrive at Night (TAN) intervention was established to provide mental health and wellbeing support to businesses and workforce within the NTE hospitality sector. TAN was developed by Bristol City Council, launched in 2022 and delivery remains underway. However, it is not yet known *whether* and *how* this intervention meets the needs of its target audience, and therefore a comprehensive process evaluation is required to inform future investment policies of local authority service providers. We need to know more about how this multilevel, multicomponent intervention works, and understanding how the intervention interacts with the context, settings, and population. Findings will have relevance to the broader workplace health literature which currently has very little evidence regarding interventions targeted to the NTE sector.

## The intervention

Thrive at Night (TAN) provides mental health and wellbeing support to the NTE hospitality workforce in Bristol, through resources, training, peer support and trauma response support sessions. This includes (a) the provision of web-based resources (including a team member workbook and a manager handbook), (b) training sessions open to workers and managers (including mental health and wellbeing, wellbeing champion training and a range of sessions of specific topics such as team building and communication; recovering from a serious incident), (c) a Mental Health and Wellbeing Policy Framework, and (d) advice for organisations on implementing employee assistance programmes (EAPs). The objectives of TAN are to positively impact on attitudes and behaviour relating to the mental health and wellbeing of workers in the hospitality sector of NTE, and to support organisational leads and managers to develop mental health and wellbeing policies and practices to support the NTE workforce, thus creating an improved workplace culture with compassionate leadership.

### 3. Co-production of the proposal

Partnership working is a core feature of the PHIRST initiative and will be incorporated throughout our evaluation. This evaluation has been co-designed by the PHIRST-Light team with Bristol City Council, local partners and stakeholders. To accomplish this, we worked with Bristol City Council to map key stakeholders and invited them to attend a series of online workshops (delivered via Microsoft Teams). Attendees included public health and Nighttime Economy Advisor local authority members, industry partners, and PHIRST research and PAG team (total N = 11). The focus of these workshops was to gain consensus on the primary research questions and explore the most appropriate methodology to answer those questions. Key elements to be tested within the programme logic model were defined, allowing drafting of a logic model and theory of change. This was presented for iteration at a second stakeholder session and finalised following feedback (see appendix 1). We proposed a series of research aims to test the theory of change and used this as a discussion point to reach consensus about the questions of greatest interest and importance across all stakeholders. During this process, it emerged that Bristol City Council were interested in understanding more about whether TAN has improved attitudes towards mental health and wellbeing in the NTE, who comes to the training, and how TAN is delivered. These items were considered to be of importance and have been included in the evaluation. Stakeholders will continue working together to deliver and disseminate the evaluation through frequent communication and consultation, in the form of co-production workshops.

#### 3.1 Public contribution

The PHIRST-Light research team are committed to ensuring public voices are included throughout the entirety of each evaluation, with an additional emphasis on capacity building for effective and inclusive



public contribution within local authorities. Following the principles promoted by the National Institute for Health and Care Research (NIHR) on patient and public involvement (PPI), the PHIRST-Light team have established an overarching Public Advisory Group (PAG) comprising members of the public and local authority service users. All PPI activities are monitored by the PAG, which is co-ordinated by our PPI (Pam Rees) and academic PPI (Dr Jo Morling) leads. In addition to the PAG, we have supported the Bristol team to form a project specific PPI group to advise on and assist with the evaluation design and delivery. This group is coordinated by two members of the PAG and comprises six individuals with lived experience of NTE work and/or workplace mental health wellbeing. We will work with the group to co-produce recruitment strategies and materials that are accessible and inclusive, including wording of the interview guides, alongside developing our dissemination approach. We envisage this occurring predominantly through online workshops and document review. Members of the group are reimbursed for their time in accordance with NIHR guidance on honorarium payments. Members of the PPI group have already been included as key stakeholders throughout the proposal development, ensuring lived experience voices inform the evaluation strategy. Thus far, our PPI contributors have attended all research meetings and the stakeholder workshops, and we have held one targeted PPI meeting in which the methodological approaches and questions were reviewed, with the received feedback shaping this proposal.

#### 4. Key evaluation aims, objectives and research questions.

##### 4.1 Evaluation aims and objectives

This study is a mixed methods evaluation of TAN.

##### **Evaluation Aims (1-5) and Research Questions (RQ 1-14):**

- (1) To understand the *uptake*<sup>RQ1</sup> and *reach*<sup>RQ2</sup> (e.g., absolute number and characteristics of individual workers and team leaders participating), *acceptability*<sup>RQ3</sup> and *appropriateness*<sup>RQ4</sup>, and *effectiveness*<sup>RQ5-6</sup> (e.g., impacts on worker mental wellbeing, presenteeism and morale; impacts on team leader wellbeing and compassionate leadership practices, impacts on organisational culture and policies) of TAN.

**RQ1.** Were NTE employees willing to take part in Thrive at Night? What was the proportion of individuals across the NTE that accessed any element of the programme? (i.e., proportion of workers, worker and team leader profile).

**RQ2.** What are the characteristics of participants compared to non-participants (or to the NTE population)?

**RQ3.** Was Thrive at Night acceptable for its target audience? (i.e., what do the people who take part think of TAN resources and training)?

**RQ4.** Was Thrive at Night appropriate for its target audience? (i.e., what do the training instructors and local authority service providers think of TAN?)

**RQ5.** What was the effectiveness of Thrive at Night? (i.e., perceived changes in mental health and wellbeing, organisational culture, objective indicators)

**RQ6.** What organisational changes in policy and practice have been made in organisations where staff accessed TAN?

- (2) To understand the *adoption*<sup>RQ7</sup> (e.g., characteristics of settings participating; qualitative perceptions and expectations of participants versus 'typical'), *implementation*<sup>RQ8,9</sup> (e.g., fidelity and costs) and *maintenance*<sup>RQ10</sup> (e.g., continued engagement, sustained delivery, sustained impacts, intentions to maintain) of TAN.

**RQ7.** Were organisations willing to take part in Thrive at Night? What is the typology of organisations that take part (i.e., organisation type, size) and are they 'typical' of the NTE?

**RQ8.** Was Thrive at Night implemented as intended? (e.g., consistency across staff/time/settings/subgroups, adaptations, perceptions of cost in time and money).

**RQ9.** Was Thrive at Night feasible for its target audience? (i.e., based on local data capture, how much does it cost the local authority to deliver TAN to the NTE?)

**RQ10.** Do service providers, NTE organisations, team leaders and workers intend to maintain the intervention over time? (e.g., What were the training attendance rates over time? Were there differential attendance rates by team leader / organisation type? What are the perceptions and expectations of individual- and setting-level changes, maintenance and impacts over time?).

- (3) To understand *barriers and enablers*<sup>RQ11</sup> for engagement with TAN (e.g., engagement with training and/or online materials).

**RQ11.** What factors influence engagement or non-engagement with TAN (i.e., at the organisational, team leader and worker level)?

- (4) To explore any internal or external *contextual factors*<sup>RQ12</sup> that influenced uptake, reach, adoption, implementation and/or maintenance of TAN.

**RQ12.** What were the key contextual or cultural factors that influenced the implementation of Thrive at Night and the translation of learning into workplace policy and practice? (e.g., the participant, population, provider characteristics, the organisations' characteristics, multi-level perspectives, resources, and external factors like policies, funding, etc).

- (5) To explore what is known about the *cost and cost-effectiveness*<sup>RQ13-14</sup> of mental wellbeing (MWB) interventions targeting NTE workers.

**RQ13.** Is there existing published evidence relating to the economic cost / impacts of mental wellbeing interventions targeted at NTE workers?

**RQ14.** What recommendations can be made to inform the design of a future economic analysis of MWB interventions for NTE workers?

## 5. Study design overview

The study is a process evaluation of TAN, based on a logic model for TAN, and informed by the RE-AIM/PRISM evaluation framework. The study will use mixed methods, including collection of monitoring data (website access, training attendance records), analysis of existing service evaluation data, an online questionnaire survey and qualitative interviews. We will work collaboratively with an economist (Bourke) and the local authorities in Bristol to lead on a simple exploration of economics associated with delivery of mental wellbeing interventions in the NTE, including (i) a description of the cost of implementing TAN, (ii) a scoping review of published economic evidence relating to mental wellbeing interventions in the NTE, (iii) production of recommendations (e.g., guidance and measures) to inform a future larger-scale economics analysis.

RE-AIM and PRISM are an integrated framework developed to improve the adoption and sustainable implementation of evidence-based interventions in a wide range of health, public health, educational, community, and other settings.

- RE-AIM: is a framework to guide the planning and evaluation of programs according to the 5 key RE-AIM outcomes: Reach, Effectiveness, Adoption, Implementation, and Maintenance.
- PRISM: The Practical Implementation Sustainability Model (PRISM) includes key, multilevel contextual factors relevant to program implementation (including RE-AIM outcomes) throughout all stages from planning through sustainment.

### 5.1 Methods overview

The planned sampling strategy will help to answer research questions relating to whether and how the intervention has (or has not) influenced attitudes and behaviours across different settings and contexts.

Worker and team leader survey data that has already been collected by the local authorities via their register of trainees, will be obtained from local authority partners (convenience sampling). Approximately 120 NTE workers and team leaders have attended prior training sessions and completed an evaluation survey immediately post-exposure. Training sessions will continue throughout 2024, and it is anticipated that a further 120 NTE workers / team leaders will complete surveys for future sessions (approx. 240 evaluation surveys in total). We will conduct analysis of all available data, which focuses on participants' perceptions towards the training. We will also send an online survey to all individuals who have participated in this training (approx. 240) to explore mental health and wellbeing outcomes, and views on and actions taken due to engagement with the TAN project. We will aim for 100% response rate from participants although 50% response is anticipated based on similar surveys. There is a need for flexibility with sample size due to known challenges in reaching the NTE hospitality workforce.

General NTE worker and team leader survey participants will be identified through an open survey conducted via social media (e.g., X, Facebook, LinkedIn), professional networks, emails and distribution lists held by NTE leads at Bristol local authorities (convenience sampling). This is to maximise recruitment from a challenging population to engage in research. We cannot identify the total NTE worker population size in Bristol, so will target a sample size of 300 for a maximum sampling error of 5.0% (Weisberg et al, 1989). The survey will be open to anyone who works in NTE hospitality sector in Bristol at the time of the study. However, since the population is underserved and challenging to engage in research (low paid staff, high absence and turnover), we anticipate a much lower response rate than targeted, which is why we are collecting data using both quantitative and qualitative methods, and via several different routes. Workers and team leaders who have engaged with TAN will receive the same survey as general NTE workers described above, however, different filter questions will be provided for the different groups.

Interview participants are (1) NTE workers, (2) NTE team leaders and (3) TAN service providers/stakeholders (this includes members of the local authorities and individuals who were involved in the design and/or development and/or delivery of TAN). Participants will be identified through a range of routes to maximise recruitment from an underserved sample (purposive and snowball sampling). We will aim to recruit NTE workers and team leaders who have, and have not, engaged in TAN, from a range of job roles, ages, genders, organisation sizes, and types. We will aim to recruit service providers, and other stakeholders who have played a key role in TAN now, or will do in the future (e.g., those involved in design, set-up, delivery, implementation, policymakers, or those involved in sharing or upscaling of findings nationally and internationally). We aim to recruit 12-15 participants from each of the three target groups, although the final number will be determined at the point that data saturation is reached.

## 5.2 Data Collection

**Scoping review** It is not possible to conduct an economic analysis of TAN during the timescale of this project due to the lack of availability of data which would be required (perceived by the LA as not possible to collect at this time). Therefore, we will scope the published evidence to explore what has already been published relating to cost or cost-effectiveness of mental wellbeing interventions in the NTE. *This relates to aim 5.*

**Collection of monitoring data** This is so we can look at who is engaging (in different elements of TAN) and from what type of venue, get some preliminary data on their views towards training, and describe how much the intervention costs to deliver. Monitoring data will include training attendance records, automated data capture to log website engagement, indicative costs and resources associated with TAN delivery. Data will be collected from local authorities and service providers. Data sharing agreement will be in place to obtain this data. *This relates to aims 1+2.*

**Analysis of existing service evaluation survey data** (collected with training session attendees). Data will be collected from local authorities and service providers. Data sharing agreement will be in place to obtain this data. *This relates to aims 1 + 2.*

**Field notes** recorded by the project team members during project / stakeholder / PPI meetings, via email or during interviews. These will be referred to as an additional source of data should recruitment be challenging. *This relates to aims 1, 2, 3 + 4.*

### **A single online questionnaire survey**

An open anonymised survey with NTE workers and team leaders. The survey will be for both engagers and non-engagers of TAN to allow for comparison between those who received and did not receive the TAN intervention. For both groups, the survey will include socio-demographics, workplace outcomes (e.g., job role, time in role), health and wellbeing outcomes, work performance and health at work, mental health and wellbeing (MHWB) policy / practices, organisational culture, and awareness of TAN. For those who have not engaged with TAN, further filter questions will include barriers and facilitators to engagement and views on the TAN components (i.e., could they potentially be beneficial for their workplace). We will include the following standardised measures:

The World Health Organisation – Five Wellbeing Index (WHO-5); Patient Health Questionnaire (PHQ-2); Generalized Anxiety Disorder Scale (GAD-7); Single item of Burnout from the Physician Work Life Scale; Copenhagen Psychosocial Questionnaire, Version III (COPSOQ-III) short form; dedication subscale of the 9-item Utrecht Work Engagement Scale (UWES-9, 3 items: DE2, DE3, DE4); turnover intentions.

For TAN engagers, further filter questions will identify the TAN components they have engaged with and views on these experiences. The participant information sheet, consent form and survey will all be available via Qualtrics.

*This contributes to aims 1, 2, 3 +4.*

**Qualitative interviews with three stakeholder groups** to explore their views and perceptions towards TAN and its value, acceptability, implementation, and impact within the NTE. Interviews will be 30-45 minutes and conducted via videoconferencing (e.g., MS Teams), by telephone or face-to-face at participant preference (we will take the approach of maximum flexibility due to known challenges in reaching this population). Audio and/or video-recorded with participant consent, and fully transcribed. Participants in interviews could be located in their home, at their workplace or in another public venue. *This contributes to aims 1, 2, 3 + 4.*

Interviews will be conducted with:

**(1) NTE workers.**

This is to explore wellbeing in workers, awareness/access of TAN resources or training, views towards organisational culture in NTE. What impact it has had (or not) – on worker MHWB and perceptions of teams/leadership/orgs, attitudes, behaviours, stigma, workplace practices, etc.

## **(2) NTE managers/team leaders.**

The interviews with team leaders will focus on perceived changes (or intentions) relating to attitudes, knowledge, skills and confidence relating to mental health at work, barriers/enablers of TAN engagement, impact of TAN on individual wellbeing, teams and leaders, organisational changes.

## **(3) TAN service providers and stakeholders.**

The interviews with service providers will focus on the implementation and delivery of TAN, resource implications, observed changes, contextual factors, partnership working and potential for TAN improvements, future sustainability / scalability.

### Overview of data collection

Method	Target population	Routes for gaining data / recruitment
1. Scoping review	N/A	Database searches for published evidence.
2. Collection of monitoring data	TAN engagers	Service provider data
3. Analysis of existing service evaluation survey data	TAN engagers	Service provider data
4. Field notes	N/A	Service provider data / research team records
5. Single online questionnaire survey	TAN engagers and non-engagers	<ul style="list-style-type: none"> <li>- Social media posts including targeted social media groups (e.g., NTE hospitality groups on Facebook). <b>TAN Engagers and non-engagers.</b></li> <li>- Direct promotion via service provider industry networks (email and/or web posts). <b>TAN Engagers and non-engagers.</b></li> <li>- Direct contact of previous TAN workshop/training attendees (email). Email address gained via method 3. <b>TAN engagers only.</b></li> </ul>

6. Qualitative interviews	TAN engagers and non-engagers	<ul style="list-style-type: none"> <li>- Social media posts including targeted social media groups (e.g., NTE hospitality groups on Facebook). <b>TAN Engagers and non-engagers.</b></li> <li>- Direct contact via service providers and their industry networks (email). <b>Engagers and non-engagers.</b></li> <li>- Direct contact of previous TAN workshop/training attendees (email). Email address gained via method 3. <b>TAN engagers only.</b></li> <li>- Single online questionnaire survey (method 5) via filter questions determining interest in an interview (email address provided for contact). <b>Engagers and non-engagers</b></li> </ul>
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### 5.3 Recruitment

Survey participants will be identified through 1) social media (e.g., X, Facebook, LinkedIn), professional networks, emails and distribution lists held by NTE leads at Bristol local authorities, and 2) a register of TAN training attendees held by the trainers and local authorities. The service providers and training instructors will forward our study information and invitation to participate directly to past training attendees who have previously consented to be contacted again.

Inclusion criteria for participants in the survey are:

- A worker or team leader in the NTE hospitality sector – e.g., bar, night club, music venue, restaurant, hotel
- 18 years of age or over.

Inclusion criteria for participants in the interviews are:

- Team leader role in NTE, OR worker in the NTE, OR service provider/other stakeholder.
- 18 years of age or over.

Exclusion criteria are:

- Not working in or associated with the NTE.
- <18 years of age.

Interview participants will be identified through a range of routes to maximise recruitment from a seldom heard sample.

- To identify NTE workers and team leaders: we will use a combination of methods, including identification of participants via the local authorities, NTE team leaders, service providers and other stakeholders, and through professional networks and social media postings accessed by the NTE workforce. We aim to recruit NTE workers and team leaders who have, and have not, engaged in TAN, from a range of job roles, ages, genders, organisation sizes, and types.
- To identify service providers and stakeholders: we will invite all those who are involved to participate. Specifically, we will aim to recruit service providers, and other stakeholders who have played a key role in TAN now, or will do in the future (e.g., those involved in design, set-up, delivery, implementation, policymakers, or those involved in sharing or upscaling of findings nationally and internationally).

We aim to recruit 12-15 participants from each of the three target groups, although the final number will be determined at the point that data saturation is reached.

#### 5.4 Data Analysis

Survey data will be analysed using descriptive statistics (e.g., to describe sample characteristics and summary statistics for standardised measures) and non-parametric statistics to compare group differences e.g., chi square test, Kruskal Wallis test. A separate data analysis plan will be produced prior to analysis being undertaken. Analysis of qualitative data will be informed by a framework approach with analysis mapped to the RE-AIM / PRISM framework and the Technology Acceptance Model (TAM; Davis, 1989). Barriers and facilitators to implementation will be mapped to the 'Capability, Opportunity, Motivation–Behaviour' (COM-B) behaviour change framework.

### 6. Ethics and governance

The study has received a favourable REC opinion from the University of Nottingham Faculty of Medicine and Health Sciences Research Ethics Committee (FMHS 192-0524).

#### 6.1 Data management

Only the research team will have access to the study data. Direct access will be granted to authorised representatives from the University of Nottingham and any host institution for monitoring and/or audit of the study to ensure compliance with regulations. Data will be stored on OneDrive/Sharepoint/Teams. Only the study researchers and Chief Investigator will be able to access personal data. Personal data (i.e., names and contact details) will be destroyed as soon as data collection has taken place.



Research data and records will be stored for a minimum retention period of 7 years after the end of the study. At the end of the storage period the data will be destroyed. To comply with the data protection act, personal data will be deleted as soon as possible after it is no longer needed for the study. Our survey will provide participants with the option to share their contact details to allow us to contact them about taking part in an individual interview. This is detailed in the PIS and consent form. Any contact details provided will be separated from the survey responses and stored separately and securely, only accessible to the research team.

All study data will be entered on an Excel and/or SPSS spreadsheet. The participants will be identified by a unique study specific number and/or code in any database. Their name or any other identifying detail will NOT be included in any study data electronic file. Any documentation with identifiable (personal) data will be stored securely and separate from the research data.

## 6.2 Risks

Risks are: (1) low recruitment due to NTE workforce being hard to reach (potential threat to project timescales), therefore need to be flexible with sampling approach (to maximise recruitment), (2) lone researcher working (in any cases where data collection is face-to-face), (3) flexible working requirement (i.e., potential need for working outside of standard office hours to reach the NTE workforce), (4) participant disclosure to researcher (e.g., mental ill-health, safeguarding issue) during interviews.

## 7. Timeline and milestones

The following Gantt chart outlines the key project milestones and completion timeline:



## 8. Outputs

### 8.1 Dissemination plan

Study outcomes will be reported in a highlight project report for the funder and service providers. We will actively engage with the local PPI group, PAG and wider stakeholder group to consider how the evaluation findings are most effectively communicated, alongside formalising a knowledge mobilisation plan. A lay summary will be made available for NTE workers and managers which will be circulated by the service providers (e.g., through the Thrive at Night and associated websites). We will disseminate study findings through written paper(s) in academic journals, conferences and other stakeholder engagement and PPI events.

Broadly, dissemination will occur through the following channels:

- The PHIRST website, including publication of this protocol.
- Public facing summaries of the findings (print and web formats)
- Conference presentations and peer-reviewed, open access journal articles
- Creative outputs such as video and interactive content
- PHIRST Light and PHIRST social media channels
- Dissemination through professional networks
- Local Authority workshops and events

## 9. References

Davis FD. Technology acceptance model: TAM. Al-Suqri, MN, Al-Aufi, AS: Information Seeking Behavior and Technology Adoption, 1989; 205:219.

Fujino Y, Mizoue T, Izumi H, Kumashiro M, Hasegawa T, Yoshimura T. Job Stress and Mental Health among Permanent Night Workers. *Journal of Occupational Health*, 2001; 43; 6: 301-306.

Health and Safety Executive. Mental health conditions, work and the workplace. HSE, London. 2024. Available at: <https://www.hse.gov.uk/stress/mental-health.htm>

National Institute for Health and Care Excellence. Mental wellbeing at work. NICE guideline [NG212] Published: 02 March 2022. Available at: <https://www.nice.org.uk/guidance/ng212>

Office for National Statistics. The night-time economy, UK: 2022. Census 2021. Available at: <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/articles/thenighttimeeconomyuk/2022#:~:text=The%20total%20number%20of%20night,25.1%25%20of%20purely%20daytime%20workers>

Sato K, Kuroda S, Owan H. Mental health effects of long work hours, night and weekend work, and short rest periods. *Social Science & Medicine*, 2020; 246: 112774.

Torquati L, Mielke GI, Brown WJ, Burton NW, Kolbe-Alexander TL. Shift Work and Poor Mental Health: A Meta-Analysis of Longitudinal Studies, *American Journal of Public Health*, 2019; 109: e13\_e20.

World Health Organization. Guidelines on mental health at work. Published 28 September 2022. Available at: <https://www.who.int/publications/i/item/9789240053052>

Zhao, Y., Richardson, A., Poyser, C. et al. Shift work and mental health: a systematic review and meta-analysis. *Int Arch Occup Environ Health* 92, 763–793 (2019). <https://doi.org/10.1007/s00420-019-01434-3>

## 10. Appendix 1: Logic model

