

# Multi-method evaluation of the 'How to save a life' mass media campaign

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## Executive summary

Scotland has the highest reported rates of drug-related deaths in Europe. Take-home naloxone (THN) programmes are the single most effective tool to reduce the likelihood of opioid-related mortality immediately following an opioid overdose.

The “How to Save a Life” (hereafter HTSAL) campaign was a large-scale nationwide social marketing campaign on drug-related deaths commissioned by the Scottish Government (SG) in collaboration with Scottish Drugs Forum (SDF). The campaign was delivered using a variety of strategies, including TV and radio adverts, social media, and large billboards in transport hubs, shopping centres and outdoor locations. Campaign materials directed people to the ‘Stop the Deaths’ website<sup>1</sup> which provided information about how to recognise and respond to an overdose. From the website, people were directed to an SDF overdose response and naloxone eLearning course<sup>2</sup> and also to another link where they could order a THN kit directly from Scottish Families Affected by Alcohol and Drugs (SFAD)<sup>3</sup>. The campaign ran for 8 weeks from the 30<sup>th</sup> August 2021 - 24<sup>th</sup> October 2021. This was followed by a booster campaign, which ran from 13<sup>th</sup> December 2021 - 13<sup>th</sup> January 2022. The main objectives of the campaign were to:

- Increase awareness of drug-related deaths, the signs and symptoms of an overdose and how to respond to an overdose
- Increase the supply of THN

Secondary objectives of the campaign were to:

- Increase awareness and generate discussion of drug-related deaths as an important public health issue

We conducted a multi-component evaluation of the HTSAL campaign that combined analysis of routine administrative data of THN distribution in Scotland with bespoke data generated from a panel survey of a representative sample of the Scottish population. Data from media sources was also utilised to provide a broad understanding of the impact of the campaign with respect to reach and engagement. The research components of this evaluation were

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<sup>1</sup> <https://www.stopthedeaths.com/home>

<sup>2</sup> <https://www.sdftraining.org.uk/online-learning/156-overdose-prevention-intervention-and-naloxone-3>

<sup>3</sup> <https://www.sfad.org.uk/support-services/take-home-naloxone>

developed independently of funders who had no influence on research questions and design, analysis, interpretations and conclusions generated from this study.

Academic literature suggests that mass media campaigns can be effective at increasing knowledge and awareness of public health issues, but their effectiveness in directly driving behaviour change is generally limited or inconclusive. The success of the HTSAL campaign should be considered in this context, and in relation to the primary objectives of the campaign:

**Primary objective one: Increase awareness of the signs and symptoms of an overdose, and how to respond to an overdose**

Data from media sources highlighted that the HTSAL campaign had wide impact relating to both impressions<sup>4</sup> and reach<sup>5</sup>. The largest reach and engagement of the campaign was generated through TV, radio and social media. The main campaign which ran on TV was estimated to have reached over 2 million people, while the radio and social media components of the reached over 250,000 and 180,000 people, respectively. The most successful engagement with the campaign was through social media, which generated over 14,000 link clicks to the Stop the Deaths website. Furthermore, during the campaign nearly 3,000 people completed the naloxone eLearning training offered by SDF, which taught people both how to recognise an overdose, and how to administer naloxone.

Findings from a panel survey representative of the Scottish public suggested a high level of awareness of the campaign (30% unprompted, 60% after prompting with examples). Although there are no equivalent drug-related mass media campaigns that we could compare the HTSAL campaign to, this level of recognition is favourable compared to other health campaigns that have been delivered in Scotland and internationally. Results from an experimental component embedded in the survey also demonstrated that exposure to campaign materials increased knowledge about the signs and symptoms of an overdose, with the video being most effective. We did not find any effects on knowledge of how to respond to an overdose or readiness to intervene from the general public survey; potentially because basic first aid awareness (e.g. call 999, stay with the person) was already high within the sample, and these are also recommended responses to overdose.

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<sup>4</sup> Impressions: estimated number of times seen or heard (TV, radio, outdoor and transport)

<sup>5</sup> Reach: estimated number of unique individuals who saw or heard the campaign (TV and radio only)

**Primary objective two: Increase the supply of take-home naloxone**

Using routine national administrative data on THN distribution in Scotland, we found strong evidence that the HTSAL campaign was associated with an increase in the supply of THN for the duration of the campaign. The week the campaign was launched, the number of THN kits distributed in Scotland increased by 75% but returned to a stable trend once the campaign had finished. Therefore, other interventions are necessary to sustain and boost the supply of THN outside of focussed campaign periods. Furthermore, using SFAD distribution data we found that the majority of people who received a THN kit during the HTSAL campaign received a kit as their first supply and were members of the public. Therefore, the campaign was successful in equipping a cohort of new first responders in Scotland to respond to an overdose.

**Secondary objective one: Increase awareness of drug-related deaths as an important public health issue**

The campaign was received positively. This was evident from multiple data sources, including the survey of the Scottish public, and the sub-survey of people who work the drug sector, people who use drugs and their family and friends. Furthermore, within digital and print media, 98% of articles presented a positive view of the campaign.

Survey data suggested that action after exposure to campaign materials was low, which is typical of mass media campaigns. However, the most common response was to have a conversation about drug-related deaths. This is an important finding as in addition to promoting specific actions, mass media campaigns can also have secondary effects, influencing discussions, improving public understanding and interest in a topic, and signifying support for particular policy actions.

We also found a high level of support for harm reduction policies generally, including the distribution of naloxone and drug treatment services. This is also an important finding and could suggest that public attitudes are shifting as previous research conducted in Scotland has found a low level of support for drug treatment programmes. However, we also found evidence relating to misunderstanding of naloxone. For example, survey respondents believed that naloxone could lead to increases in opioid use among people who use drugs because they would assume that an overdose could be reversed, or that people would continue to use opioids and would overdose again in future. The high support for harm reduction policies generally could be capitalised on for future mass media campaigns, to reduce stigma towards people who use drugs and promote the most effective responses towards reducing drug

related deaths. Correcting inaccurate beliefs about naloxone and other harm reduction interventions should also be a focus of future campaigns.

### ***Recommendations for future campaigns***

TV, radio and social media, and in particular the campaign video, were the most effective at delivering messages and motivating action (e.g. visiting the Stop the Deaths website). Future campaigns or booster campaigns should focus on these specific channels of communication.

The HTSAL campaign had positive impacts on raising awareness of drug-related deaths, the signs and symptoms of an overdose, and led to an increase in the distribution of THN. Momentum could be built by promoting an annual mass media campaign related to drug-related deaths, and stigma towards people who use drugs. Research has shown that awareness of campaign messages increases after multiple exposures to materials, but this should be accompanied by practical actions that help target audiences put recommendations into action (e.g. free and easy access to naloxone training).

Segmentation of campaign messages for different groups could also be beneficial. This should include different campaign messages for the public in general, and more specific messages targeted towards audiences who are more likely to witness an overdose. We found increased THN distribution to the general public, but low levels of willingness to intervene in the event of an overdose. It may be more efficient in future to target the distribution of THN, with materials designed to improve recognition of the signs of overdose, and improve self-efficacy to respond to overdose in those people who are most likely to witness an overdose (people who use drugs themselves and their family and friends; people who live and work in place with high levels of street-based drug use). Messages for the general public could be less specific, and focus on basic first aid actions (e.g. calling 999), reducing stigma, and fostering support for harm reduction policies and other responses designed to reduce drug-related deaths.

### ***Conclusions***

HTSAL was the largest and most extensive mass media campaign on drugs ever delivered in Scotland and the first to focus on drug-related deaths internationally. The campaign successfully raised awareness of drug-related deaths as a public health issue, improved knowledge of the signs and symptoms of an overdose and increased the national supply of THN.

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# 1 Introduction

## 1.1 Drug-related morbidity and mortality in Scotland

Scotland is currently experiencing record levels of overdose mortality. In 2021, there were 1,330 drug-related deaths registered. Rates in Scotland are the highest in Europe and 3.7 times higher than elsewhere in the UK (National Records of Scotland, 2022; Official Office for National Statistics, 2022). Increased risk of drug-related morbidity and mortality is associated with multiple risk factors, including age, gender (males have a higher risk) and polydrug use (use of multiple drugs at once such as opioids, stimulants and benzodiazepines) (Andrews and Kinner, 2012; Colledge et al., 2019). People also have a higher risk of death after a period of relative abstinence, including following release from prison, hospital discharge, and cessation of drug treatments such as methadone (Cousins et al., 2011; Merrall et al., 2013, 2010; White et al., 2015). Drug-related mortality rates are also affected by environmental factors, including socio-economic deprivation and service access, quality and funding (Koltai et al., 2021; Rönkä et al., 2017).

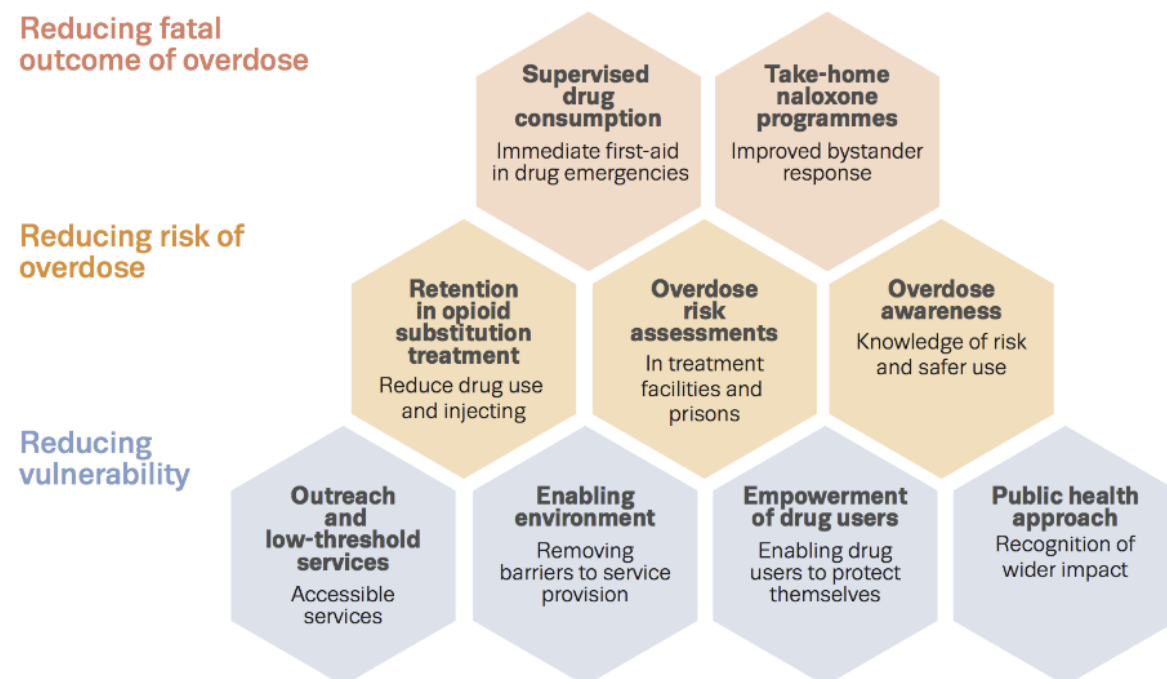
## 1.2 Prevention of drug-related morbidity and mortality

The risk of drug-related morbidity and mortality can be reduced. Prevention requires multiple interventions and can be conceptualised at three levels (Figure 1.1). Firstly, by reducing vulnerability and risk through a broader public health approach through the provision of low threshold harm reduction services and empowering people who use drugs in order to create environments where risk of death is less likely. The second level relates to interventions that prevent the occurrence of overdose, with one of the most important interventions being retention in opioid agonist therapy (OAT) (Sordo et al., 2017). Increasing awareness of overdose risks among people who use drugs is important, including how to recognise and respond to an overdose, and how to reduce risk of death (e.g. not using alone) (Giglio et al., 2015; Green et al., 2008; Walley et al., 2013). The third level focusses on the reduction of morbidity and mortality if an overdose occurs. This includes the provision of drug consumption rooms (DCRs), where individuals are supervised when injecting and thus can receive medical attention immediately in the event of an overdose (Marshall et al., 2011; Pardo et al., 2018), and the provision of take-home naloxone (THN) programmes (McAuley et al., 2015; McDonald and Strang, 2016).



## Figure 1.1. Key approaches for reducing drug-related morbidity and mortality

Source: European Monitoring Centre of Drugs and Drug Addiction.



### 1.3 Take-home naloxone (THN) programmes

Naloxone is an opioid antagonist and is the single most effective tool to reduce the likelihood of opioid-related mortality when administered immediately following an opioid overdose. Overdoses often occur in the presence of peers or family members. Community THN programmes aim to train people who are both at risk of an overdose themselves, or likely to witness an overdose, in two key areas: (1) how to recognise the signs and symptoms of an overdose, and (2) how to respond appropriately including assessing the person's airway, ventilation and how to administer naloxone (Clark et al., 2014). There is evidence to suggest that THN programmes are both effective and cost-effective at reducing overdose-related mortality at the population level (Coffin and Sullivan, 2013; Irvine et al., 2019; McDonald and Strang, 2016; Walley et al., 2013). In Scotland, THN has been associated with significant reductions in opioid-related deaths following release from prison (Bird et al., 2016; Bird and McAuley, 2019)

### 1.4 The 'How to Save a Life' mass media campaign

The "How to Save a Life" (hereafter HTSAL) campaign was a large-scale nationwide social marketing campaign on drug-related deaths commissioned by the Scottish Government (SG)

in collaboration with the Scottish Drugs Forum (SDF). It was the most wide-ranging public awareness campaign on drug death prevention ever conducted in Scotland, and to the best of our knowledge, internationally. The main objectives of the campaign were to:

- Increase awareness of drug-related deaths, the signs and symptoms of an overdose and how to respond to an overdose
- Increase the supply of THN

Secondary objectives of the campaign were to:

- Increase awareness and generate discussion of drug-related deaths as an important public health issue

The campaign was delivered using a variety of strategies, including TV and radio adverts, large billboards in transport hubs, shopping centres and outdoor locations (Appendix A). The campaign also utilised social media to promote campaign materials. Campaign materials directed people to the 'Stop the Deaths' website<sup>6</sup>, which provided information about how to recognise and respond to an overdose. From the website, people were directed to an SDF overdose response and naloxone eLearning course<sup>7</sup> and another link to order a THN kit directly from Scottish Families Affected by Alcohol and Drugs (SFAD)<sup>8</sup>. The official campaign ran for 8 weeks from the 30<sup>th</sup> August 2021 - 24<sup>th</sup> October 2021. This was followed by a booster campaign, which ran from 13<sup>th</sup> December 2021 - 13<sup>th</sup> January 2022. Some campaign materials were available outside of these periods, such as those displayed on public transport and public places, and social media posts (Appendix B).

## **1.5 Evidence base: effectiveness of mass media campaigns**

Mass media campaigns aim to increase knowledge, influence attitudes and to motivate target populations to engage in behaviour change (Wakefield et al., 2010). They utilise a set of coordinated communication activities across multiple media platforms, including television, radio, newspapers, magazines and billboards. They can also utilise new digital media, including social media, websites and banner advertisements. Campaigns with a social media component also feature an element of interactivity (i.e. sharing, commenting or liking posts) (Stead et al., 2019). They are widely used to expose populations to public health messages as they can be delivered at a population level to reach large numbers of people for a relatively

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<sup>6</sup> <https://www.stophedeaths.com/home>

<sup>7</sup> <https://www.sdftraining.org.uk/e-learning/156-overdose-prevention-intervention-and-naloxone-3>

<sup>8</sup> <https://www.sfad.org.uk/support-services/take-home-naloxone>

low cost. However, exposure to campaigns is passive and messages have to compete with commercial advertising (e.g. alcohol marketing) or routine media activity (e.g. news reports of drugs issues) which can affect their impact (Stead et al., 2019; Wakefield et al., 2010). Although they have been utilised extensively, there is limited evidence on the effectiveness of mass media campaigns (Allara et al., 2015). However, some research suggests that longer campaigns delivered on multiple platforms with high intensity (including booster campaigns) and targeting of specific audience segments can be effective (Noar et al., 2010; Stead et al., 2019).

Although there is evidence that mass media campaigns can be effective in delivering public health messages and improving knowledge and awareness of issues, evidence is mixed with regards to effects on behaviour change (Stead et al., 2019). Research also suggests that most effects of mass media campaigns are achieved in the short-term, especially if they are not accompanied by structural or systems changes (e.g. provision of smoking cessation services) (Abrams and Maibach, 2008; Allara et al., 2015). A recent systematic review (Stead et al., 2019), assessed the effectiveness of mass media campaigns on six health behaviours (alcohol, illicit drugs, physical activity, sexual and reproductive health, and tobacco). Relating to illicit drug use, the research was assessed as limited and of a poor quality. The majority of research focussed on the prevention or reduction of illicit drug use. The evidence base was inconsistent, but generally suggests that mass media campaigns do not have an impact on reducing or preventing illicit drug use, or only have small effects (Allara et al., 2015; Anker et al., 2016; Stead et al., 2019; Werb et al., 2011). Relating to engagement with healthcare, a review assessing the impact of mass media campaigns on health service utilisation found mixed evidence, but did report some evidence of a positive effect on some engagement with interventions including vaccination, cancer screening and HIV testing (Grilli et al., 2002). To the best of our knowledge, there is no research that has assessed the impact of mass media campaigns on promoting the uptake of harm reduction services. A systematic review assessed the impact of 'overdose education' on knowledge, attitudes towards naloxone and likelihood of naloxone use and found that there was strong evidence that overdose education produces long-term knowledge improvements regarding overdose recognition, overdose risk factors, overdose response and naloxone administration (Razaghizad et al., 2021). However, this review did not focus on overdose education delivered through mass media channels or its impact on naloxone distribution.

Mass media campaigns are also used to increase the amount of publicly available information about a given topic, or to redefine or reframe a topic as a public health 'problem' requiring attention (Randolph and Viswanath, 2004). Evidence reviews suggest that campaigns can be

effective in improving awareness, understanding and attitudes towards public health and social issues (Abrams and Maibach, 2008; Noar et al., 2010; Stead et al., 2019). Public opinion makes an important contribution to drug policy development, whether through creating pressure for change, signifying acceptance of a given policy direction, or confirming the credibility of policymakers (Burstein, 2003; Reynolds et al., 2020; Ritter, 2021). However, media representations of people who use drugs may lead to public stigma, and level of stigma is associated with differential public and political support for drug policies and preferences for resource allocation (Silverman, 2010). One example of this is pharmacological drug treatment. Despite evidence of the effectiveness of OAT for the prevention of drug-related harm (Dunleavy et al., 2017; MacArthur et al., 2014; Platt et al., 2018; Sordo et al., 2017), it receives much negative media attention in Scotland and the rest of the UK (Eastwood and Lines, 2021; The Daily Record, 2020, 2015). A Scottish cross-sectional survey which assessed public opinion of drug treatment policy found a gap between public attitudes and evidence regarding drug treatment, with over half of respondents indicating that they would not be willing to spend any public money on drug treatment services (Matheson et al., 2014). There is also limited research on the effect of mass media campaigns on attitudes towards drug-related issues and people who use drugs. In related fields, one systematic review assessed the impact of mass media campaigns to address mental health-related stigma, and found some evidence that mass media campaigns could have a small to medium effect on reducing prejudice towards people with mental health issues (Clement et al., 2013). Furthermore, evidence suggests that the use of mass media campaigns has contributed towards the denormalisation and change in attitudes towards smoking among young people (Stead et al., 2019).

The HTSAL campaign is unique and, as such, there are no similar drug-related mass media campaigns that we can draw comparisons to. This project therefore provides an opportunity to both evaluate the HTSAL campaign and address important gaps in the international evidence base, including:

- Assess the effectiveness of mass media campaigns in raising awareness of drug-related deaths, improving knowledge of the signs and symptoms of an overdose and how to respond
- Assess the effectiveness of mass media campaigns in influencing the uptake of THN
- Assess the effectiveness of mass media campaigns in influencing public attitudes towards drug-related deaths, drug policy and associated drug-related issues

## 2 Aims and objectives

The overall aim of this project was to evaluate the HTSAL mass media campaign. This project consisted of three evaluation strands, with specific objectives:

### ***The media strand:***

- a) Examine the reach of the campaign, defined as how many people were exposed to campaign materials
- b) Assess and quantify public engagement with the campaign both on social media and in national and local print/digital media coverage
- c) Quantify the effect of the campaign on naloxone education, including visits to the campaign website and further action by completing naloxone training.

### ***The general public strand:***

- a) Examine awareness and recall of the HTSAL campaign among the Scottish general public
- b) Assess the effect of exposure to different HTSAL campaign materials among the Scottish general public
- c) Examine any actions that arose among the Scottish general public after exposure to the campaign

### ***Take-home naloxone strand:***

- a) Assess whether the campaign had an effect on the supply of THN in Scotland

### 3 Methods

We conducted a multi-method evaluation of the HTSAL campaign. We triangulated and combined analysis of data from multiple sources. A summary of the data sources and methods employed are shown in Table 3.1. Full methods are outlined in subsequent chapters.

**Table 3.1. Data sources and methods used to evaluate the HTSAL campaign**

Evaluation strand	Data sources	Methods
Media	<ul style="list-style-type: none"> <li>• Media data (reach and impressions) relating to TV, radio, outdoor and transport</li> <li>• Social media data (Facebook)</li> <li>• Sub-survey of people who work in drug and alcohol services, family and friends affected by drug use, and people who use drugs</li> <li>• Scottish Drugs Forum (SDF) stop the death website analytics and naloxone eLearning statistics</li> <li>• National and local print and digital media articles</li> </ul>	<ul style="list-style-type: none"> <li>• Descriptive analysis of media data</li> <li>• Descriptive analysis of SDF website analytics and eLearning statistics</li> <li>• Quantitative and qualitative analysis of social media comments and national/local print and digital media</li> </ul>
General public	<ul style="list-style-type: none"> <li>• Panel survey representative of the Scottish general public</li> </ul>	<ul style="list-style-type: none"> <li>• Descriptive and multi-variate analysis of cross-sectional survey data</li> </ul>
Take-home naloxone (THN)	<ul style="list-style-type: none"> <li>• National administrative data on the distribution of THN</li> </ul>	<ul style="list-style-type: none"> <li>• Interrupted time series analysis</li> </ul>

## 4 Media analysis: reach and engagement with the ‘How to save a life’ campaign

This chapter will focus on the media evaluation strand. Here we quantify: 1) the reach of the HTSAL campaign, 2) engagement with the campaign on social media, print/digital media coverage and among people working in the drugs field, friends and family of people who use drugs and people who use drugs themselves, and 3) the effect of the campaign on naloxone education (including engagement with the stop the deaths website and the SDF naloxone eLearning course).

### 4.1 Methods

The media strand of the evaluation combined and triangulated analysis from several data sources which are summarised in Table 4.1. The overall study period was 30<sup>th</sup> August 2021 – 16<sup>th</sup> January 2022, which included both the main campaign and the booster campaign. Ethical approval was not required as the analysis involved aggregate data relating to media sources. Ethical advice was sought regarding the sub-survey from the Glasgow Caledonian University School of Health and Life Sciences ethics committee and approval was not required as we did not collect any identifying information and the survey was only distributed among SDF mailing list networks.

**Table 4.1. Summary of data sources and methods used in the media evaluation strand.**

Data source	Methods	Key outcomes
<b>Media campaign data</b>	Descriptive analysis of data provided by media providers (TV, radio, outdoor billboards, transport hubs) and Facebook Time period: 30 <sup>th</sup> August 2021–14 <sup>th</sup> January 2022	<ul style="list-style-type: none"> <li>• <b>Reach:</b> number of individuals who saw the HTSAL campaign</li> <li>• <b>Impressions:</b> total number of times HTSAL material were seen/heard</li> </ul>
<b>Facebook social media comments</b>	Quantitative content analysis of comments left in response to the Facebook adverts, which showed the campaign video advert and a link to stopthedeaths.com. Time period: 20 <sup>th</sup> September 2021 – 13 <sup>th</sup> January 2022	<ul style="list-style-type: none"> <li>• Thematic codes derived from quantitative content analysis</li> </ul>
National and local <b>print and digital media articles</b>	Quantitative content analysis of articles that referred to the HTSAL campaign.	<ul style="list-style-type: none"> <li>• Support of the campaign (positive, negative, neutral)</li> </ul>

Data source	Methods	Key outcomes
	Time period: 1st August 2021- 18th January 2022	<ul style="list-style-type: none"> <li>• Thematic codes derived from quantitative content analysis</li> </ul>
<b><i>Sub survey of people who work in drug and alcohol services, people who use drugs, and family and friends affected by drug use</i></b>	Descriptive and thematic analysis of responses to a survey distributed via SDF email lists. Time period: 7 <sup>th</sup> March 2022 – 22 <sup>nd</sup> March 2022	<ul style="list-style-type: none"> <li>• Support of the campaign (positive, negative, neutral)</li> <li>• Free text answers on opinions of the campaign, and how it would be received by the general public</li> </ul>
<b>Scottish Drugs Forum (SDF) <i>Stop the Deaths website analytics and naloxone eLearning statistics</i></b>	Descriptive analysis of website analytics and naloxone eLearning statistics Time period (website): 30 <sup>th</sup> August 2021 – 14 <sup>th</sup> January 2022 Time period (eLearning): 30 <sup>th</sup> August 2021 – 16 <sup>th</sup> January 2022	<ul style="list-style-type: none"> <li>• Number of website visits</li> <li>• Link clicks to naloxone eLearning</li> <li>• Link clicks to order naloxone from SFAD</li> <li>• Number of people who registered for naloxone eLearning</li> <li>• Number of people who completed naloxone eLearning</li> </ul>

#### 4.1.1 Media campaign data: reach and impressions

The media campaign consisted of TV/broadcast adverts, outdoor billboards, transport posters, and radio adverts (Appendix A). The overall scale of the media campaign was measured in ‘impressions’ (the total number of times an advert was seen or heard). Data on unique reach (number of individuals who were exposed to HTSAL campaign materials) were available for the TV and radio adverts only (Table 4.1).

#### 4.1.2 Facebook: social media reach and engagement

Facebook was the primary social media platform targeted by the HTSAL campaign. Data on user interactions with social media adverts were extracted from Facebook, with a date range of 30<sup>th</sup> August 2021 - 14<sup>th</sup> January 2022. The Facebook data contained several variables of interest for the evaluation (Table 4.2).



**Table 4.2. Facebook variables used to assess the HTSAL campaign.**

<b>Variable</b>	<b>Description</b>
Reach	The number of unique people who saw the Facebook posts
Impressions	The total number of times the posts were seen, including by the same person multiple times
Amount spent	The £GBP cost of the posts
Link clicks	The number of times the stopthedeaths.com link in the post text was clicked
Cost per click (CPC)	Amount spent divided by number of link clicks
Click-through rate (CTR)	Link clicks as a proportion of impressions
Post engagement	All user actions, including shares, reactions, comments, likes, video plays, and link clicks
3-second video plays	In Facebook metrics, a 3-second play is considered a video view, as it demonstrates the viewer has shown some intent to watch the video

Facebook comments left on HTSAL campaign materials from 20<sup>th</sup> September 2020 to 13<sup>th</sup> January 2021 were analysed and coded using quantitative content analysis (Atkinson et al., 2019). Descriptive statistics were used to summarise the proportion of comments that referred to each theme.

### **4.1.3 National and local newspaper articles**

Coverage of the campaign was identified through searching for references to the campaign in digital/print media articles published in all UK countries (England, Scotland, Wales, Northern Ireland) between 1st August 2021- 18th January 2022 using the Factiva database. Search terms used to identify articles were #stopthedeaths, 'stop the deaths', naloxone, and overdose. Articles were first coded as 'positive', 'negative' and 'neutral' relating to their support of the HTSAL campaign. Quantitative content analysis was conducted using deductive and inductive coding (Atkinson et al., 2019). Descriptive statistics were subsequently used to examine common themes that arose across articles included.

### **4.1.4 Sub-survey of people who work in the drugs field, people who use drugs, and the friends/family of people who use drugs**

To assess the response to the campaign in the drugs field more specifically, we designed a survey and distributed this through SDF mailing lists from the 7<sup>th</sup> of March 2022 – 22<sup>nd</sup> of March 2022. Respondents were asked fixed-response questions about their awareness of the

campaign, how they were exposed to it (e.g., TV, billboard), and their overall sentiment (positive/negative/neutral) towards the campaign. We also included free text boxes so respondents could provide details of their own feelings towards the campaign and how they thought the campaign would be received by the general public (Appendix C1).

#### **4.1.5 Campaign website analytics and naloxone eLearning statistics**

Website analytics from <https://www.stopthedeaths.com/> were extracted by the SDF communications teams, from 30<sup>th</sup> August 2021 – 14<sup>th</sup> January 2022. This included data on traffic, page views, and button clicks (e.g., the ‘free eLearning’ and ‘get naloxone’ buttons). These button clicks were important outcomes for the campaign, as each click represented the campaign messaging being translated into further action.

The SDF naloxone eLearning statistics were examined to measure whether the campaign led to increased registrations and completions of the course, from 30<sup>th</sup> August 2021 – 16<sup>th</sup> January 2022. The absolute and proportionate increases were compared to the baseline pre-campaign figures.

## **4.2 Results**

### **4.2.1 Media campaign details: reach, impressions and costs**

#### **4.2.1.1 TV, outdoor and rural radio**

The main campaign TV/broadcast adverts, outdoor billboards, transport billboards, and radio adverts generated 43,177,517 impressions at a cost of £348,874. The booster campaign generated 9,994,460 impressions from a cost of £46,171. In sum, this made a total of 53,171,977 impressions for a cost of £395,045 over the main and booster campaigns. A breakdown of the impressions and spend for each component is shown in Table 4.3.

Unique reach data were only available for TV and radio. The STV National campaign had a reach of 2,621,450 people at a cost of £100,000. The Sky Adsmart campaign reached 1,510,058 people at a cost of £38,026. The rural radio campaign reached 108,000 for £10,050. An additional STV National booster reached 1,767,480 at a cost of £36,000 (Table 4.3).

**Table 4.3. Summary of media data impressions, reach and cost.**

<b>Media</b>	<b>Impressions<sup>a</sup></b>	<b>Reach<sup>b</sup></b>	<b>Spend</b>
<b>TV broadcast</b>	25,633,983	N/A*	£162,011
STV National	22,282,325	2,621,450	£100,000
SKY Adsmart	3,276,000	1,500,000	£35,000
SKY Adsmart Targeted (Inverclyde)	75,658	10,058	£3,026
<b>Outdoor (billboards, etc.)</b>	11,499,083	N/A	£97,188
<b>Transport</b>	4,955,045	N/A	£86,741
<b>Rural radio</b>	108,000	108,000	£10,050
<b>Misc.</b>	981,406	N/A	£6,714
<b>Booster – TV broadcast (STV National only)</b>	7,069,920	1,767,480	£36,000
<b>Outdoor booster</b>	2,924,540	N/A	£10,171
<b>Main campaign total</b>	43,177,517	N/A*	£348,874
<b>Booster campaign total</b>	9,994,460	N/A*	£46,171
<b>Total (main campaign and booster)</b>	53,171,977	N/A*	£395,045

<sup>a</sup> Impressions: defined as the number of times seen or heard (TV, radio, outdoor and transport)

<sup>b</sup> Reach: defined as the number of unique individuals who saw or heard the campaign (TV and radio only)

\* Cannot combine unique reach figures from different broadcasters

### **4.2.1.2 Radio campaign**

The main radio campaign was delivered by Bauer Media™ from 30<sup>th</sup> August 2021– 24<sup>th</sup> October 2021 on a wide range of local and national radio stations that covered most of Scotland. A total of 925 broadcast slots were delivered on various local radio stations across Scotland. The ‘Bauer Instream’ report shows figures for adverts targeted to digital listeners, through smart speakers, mobile phones, and desktop applications. This delivered 1,509,447 audio impressions and a total reach of 257,323 unique users. The listen through rate (LTR) (99%) indicates a very high proportion listened to the advert in full (Table 4.4).

**Table 4.4. Bauer media™ radio campaign: digital instream report**

Campaign date	Audio impressions <sup>a</sup>	Listen-through rate (LTR)	Unique reach <sup>b</sup>
30 <sup>th</sup> August 2021 – 24 <sup>th</sup> October 2021	1,509,447	98.6%	257,323

<sup>a</sup>Impressions: estimated number of times the campaign was heard

<sup>b</sup>Reach: estimated number of unique individuals who heard the campaign

### 4.2.1.3 Social media: Facebook reach and engagement

There were 58 separate advertising slots purchased on Facebook. The total cost of the Facebook campaign was £22,752.91, or £47.46 per slot (Table 4.5). In total, the advert received 14,208 link clicks (mean = 279, SD = 310). This amounts to a Cost-Per-Click of £0.19 per click. The click-through rate i.e. the total proportion of impressions that led to a click, was 1.9% (Table 4.5).

**Table 4.5. Summary of Facebook reach and engagement figures**

Measure	Sum	Mean per slot (SD)
Reach	183,279	3,333 (2,863).
Impressions	762,525	12,924 (13,067)
Post engagement	175,350	3,247 (3,363)
3-second video plays	160,688	2,976 (3,098)
Link Clicks to the stop the deaths website	14,208	279 (310)

### 4.2.1.4 Sentiment analysis of Facebook comments

Analysis of 730 comments underneath the Facebook adverts showed nine main themes. The most common theme was debating the political responsibility for the issue (27%, n=198), followed by discussions of solutions to the issue other than naloxone (23%, n=166). A minority, 8% (n=56) of comments contained derogatory language towards people who use drugs (Table 5.6).

**Table 5.6. Sentiment analysis of Facebook comments.**

Comment sentiment	Proportion of comments
Debating political responsibility for the issue (e.g., SNP or UK government)	198 (27%)
Discussion of solutions other than naloxone (e.g., legalisation, rehab, law enforcement)	166 (23%)
Discussion of causes or consequences of drug use (e.g., trauma, lack of purpose)	123 (17%)

<b>Comment sentiment</b>	<b>Proportion of comments</b>
Empathy towards people affected by the issue	77 (11%)
Statement of having been personally affected by the issue (e.g., personal/family lived experience)	70 (10%)
Derogatory towards people who use drugs (e.g., 'personal choice', stigma, don't deserve help)	56 (8%)
Positive sentiment towards the campaign (e.g., praising campaign directly, encouraging people to do the training)	43 (6%)
Negative sentiment towards the campaign (e.g., this should be a govt responsibility not members of public)	24 (3%)
Mixed sentiment towards the campaign (e.g., stating the campaign is good but doesn't do enough to address root causes)	9 (1%)

#### 4.2.2 Print and digital media coverage of the campaign

Twenty-eight print and digital media articles that referred to the HTSAL campaign were identified and included in the analysis. Of those included, 96% (n=27) provided positive representations of the campaign. Just under two-thirds (61%, n=17) had the HTSAL campaign as the main focus and half (50%) had drug-related deaths as the main focus (Table 5.7).

Table 5.7 describes the thematic codes identified through quantitative content analysis. The most common theme was references to drug-related deaths in Scotland (96%, n=27). Some key campaign messages were reported more frequently than others, including 'Stop the Deaths' (86%, n=24) (the main phrase used by the HTSAL campaign) and reporting the key campaign aims (79%, n=22).

**Table 5.7. Thematic codes identified through content analysis of print and digital media articles that referenced the HTSAL campaign.**

<b>Thematic codes identified through content analysis</b>	<b>Proportion of articles, N (% of N)</b>
<b>Overall sentiment</b>	
Positive	27 (96%)
Neutral	1 (4%)
Negative	0 (0%)
<b>Main focus of article</b>	
The HTSAL campaign	17 (61%)
Drug-related deaths	14 (50%)
Martin Compston support/voiceover	7 (25%)

<b>Thematic codes identified through content analysis</b>	<b>Proportion of articles, N (% of N)</b>
<b>Themes present in article*</b>	
Drug-related deaths	27 (96%)
Stop the Deaths	24 (86%)
Naloxone	22 (79%)
Key campaign aims of raising awareness of signs of overdose and naloxone availability	22 (79%)
Stopthedeaths website	17 (61%)
Public 'intervention' encouraged, by carrying naloxone and intervening in overdoses	15 (54%)
Used the campaign slogan, 'Save a Life' or 'Save Lives'	12 (43%)

\*Multiple themes could be present in each article

### **4.2.3 Views of the campaign amongst people who work in the drugs sector, people who use drugs, and the friends/family of people who use drugs**

Our survey generated 255 responses. The majority worked in the drugs sector (including drug treatment) (86%, n=212), and over 86% (n=173) of respondents had a positive view of the campaign. The majority reported that they saw the TV adverts (58%, n=119) and materials on social media (57%, n=117) (Table 5.8).

**Table 5.8. Summary of findings from the survey of people who work in the addictions field, people who use drugs and the friends and family of people who use drugs**

	<b>Responses, N (% of N)</b>
<b>Total sample, N</b>	255
<b>Region (n=8 missing/not recorded)</b>	
Greater Glasgow and Clyde	70 (28%)
Lothian	41 (17%)
Grampian	32 (13%)
Other	104 (42%)
<b>Population group*(n=9 missing/not recorded)</b>	
Works in drugs sector	212 (86%)
Family/friend	55 (22%)
Person who uses drugs	13 (5%)
<b>Aware of the campaign (n=26 missing/not recorded)</b>	

	Responses, N (% of N)
Yes	206 (90%)
No	23 (10%)
<b>Exposure to the campaign*(n=51 missing/not recorded)</b>	
Saw the TV adverts	119 (58%)
Saw on social media	117 (57%)
Saw the outdoor billboards	98 (48%)
Heard the radio adverts	86 (42%)
Visited the campaign website	70 (34%)
Saw it in the news (print, radio, TV, or online)	65 (32%)
Saw it on the side of a taxi	23 (11%)
<b>Sentiment towards the campaign (n=54 missing/not recorded)</b>	
Positive sentiment	173 (86%)
Neutral sentiment	23 (11%)
Negative sentiment	5 (2%)

\*Values exceed 100% as respondents could select multiple options

Free text responses were also analysed, as respondents were asked to write about their own feelings on the campaign, and how they felt the campaign would be received by the general public. The majority of responses were positive and many described how the respondent believed the campaign could reduce stigma and increase awareness of naloxone.

*“I felt proud - proud that Scotland was ready to have a public conversation about it and proud that Scottish people want to change things. It was bold and perhaps not done previously for fear of public opinion. I hope that this has demonstrated that there is a want and a need for these difficult conversations.” (Person who works in the drugs sector)*

More neutral or mixed responses were much less common but included those who welcomed the campaign but felt it didn't do enough to tackle the root causes of drug deaths.

*“The campaign seemed to be generally worthwhile, providing useful information without being overly stigmatising. However, the campaign reminded me of previous awareness raising campaigns, none of which have solved the fundamental underlying issues which keep the Scottish drug death crisis in motion.” (Person who works in the drugs sector)*

When asked how they felt the campaign would make the general public feel about the issue, there was a sense that entrenched public stigma would be difficult to resolve, although this

was accompanied by some hope that the campaign could begin to change attitudes. Some indicated that the campaign would be more effective in educating people about how to get naloxone than it would be about changing social attitudes.

*“It all depends on the person. I’ve made people aware of the ad and the response is mixed with a lot of indifference and people saying that we made our bed which is me being polite and paraphrasing for them” (Person who uses drugs)*

However, there were some comments indicating the campaign had led to some progress in reducing wider social stigma.

*“I got the impression, from family member who is older, not usually up for chatting about drugs and people who use drugs, that they had noticed the campaign on TV and were genuinely interested to learn more.” (Person who uses drugs, works in the drug sector, and has friends/family who use drugs)*

## 4.2.4 Engagement with naloxone education

### 4.2.4.1 Stop the deaths website

From 30<sup>th</sup> August 2021 – 14<sup>th</sup> January 2022, the campaign website received 40,714 visits from 34,321 unique visitors. Relating to website visits, 30% came through internet search engines (mainly Google), and 32% were direct visits, indicating the campaign had informed the person about the direct URL. Just over a fifth (23%) came from links on social media, with Facebook accounting for most of these. Given that the impressions generated from the Facebook campaign was far lower than the broadcast/billboard impressions, it seems to have been particularly effective in driving website traffic. There were 8,107 clicks of the ‘eLearning button’ and 3,141 clicks of the ‘get naloxone’ button (Table 5.9).

**Table 5.9. Stop the Deaths website analytics.**

Measure	Count
Total visits	41,714
Visits from a search engine	15,906 (30%)
Visits directly to URL	13,120 (32%)
Visits from social media	9,287 (23%)
Visits referred through other websites	2,192 (5%)
Unique visitors	34,321
Page views	47,735
Bounce rate (leave after viewing one page)	88%



Measure	Count
'eLearning' button clicks	8,107
'Get naloxone' button clicks	3,141

#### 4.2.4.2 Naloxone eLearning statistics

Before the campaign, the eLearning had been live for approximately three years, accumulating 5,942 registrations and 4,610 completions (a 78% completion rate). From 30<sup>th</sup> August 2021 – 16<sup>th</sup> January 2022, there were an additional 4,318 registrations and 2,776 completions (a completion rate of 67%). As a cumulative total, the campaign increased total registrations to 10,260 (a 73% increase) and total completions to 7,486 (a 62% increase) (Table 5.10).

**Table 5.10. Naloxone training eLearning statistics**

	Registered	Completed	Completion rate
<b>Pre-campaign (28<sup>th</sup> August 2018 – 29<sup>th</sup> August 2021))</b>	5,942	4,610	78%
<b>During Campaign (30<sup>th</sup> August 2021 – 16<sup>th</sup> January 2022)</b>	4,318 (73% increase*)	2,876 (62% increase*)	67%
<b>Total after campaign</b>	10,260	7,486	73%

\*Relative to pre-campaign

### 4.3 Summary of key findings

#### *The HTSAL campaign had a wide impact and reach*

The TV, radio, billboard, and transport campaign generated an estimated 53,171,977 non-unique impressions, suggesting a highly wide-reaching campaign. The unique reach (relating to the number of people who saw the campaign) highlighted that the main STV campaign reached 2.6 million people, the Sky Adsmart campaign reached 1.5 million, and the main radio campaign reached over 250,000 people. Furthermore, the social media campaign reached over 180,000 people on Facebook. Overall, these figures suggest that the HTSAL campaign was seen by a high proportion of the Scottish population, which will be explored further in Chapter 5.

### *Engagement with the campaign was positive*

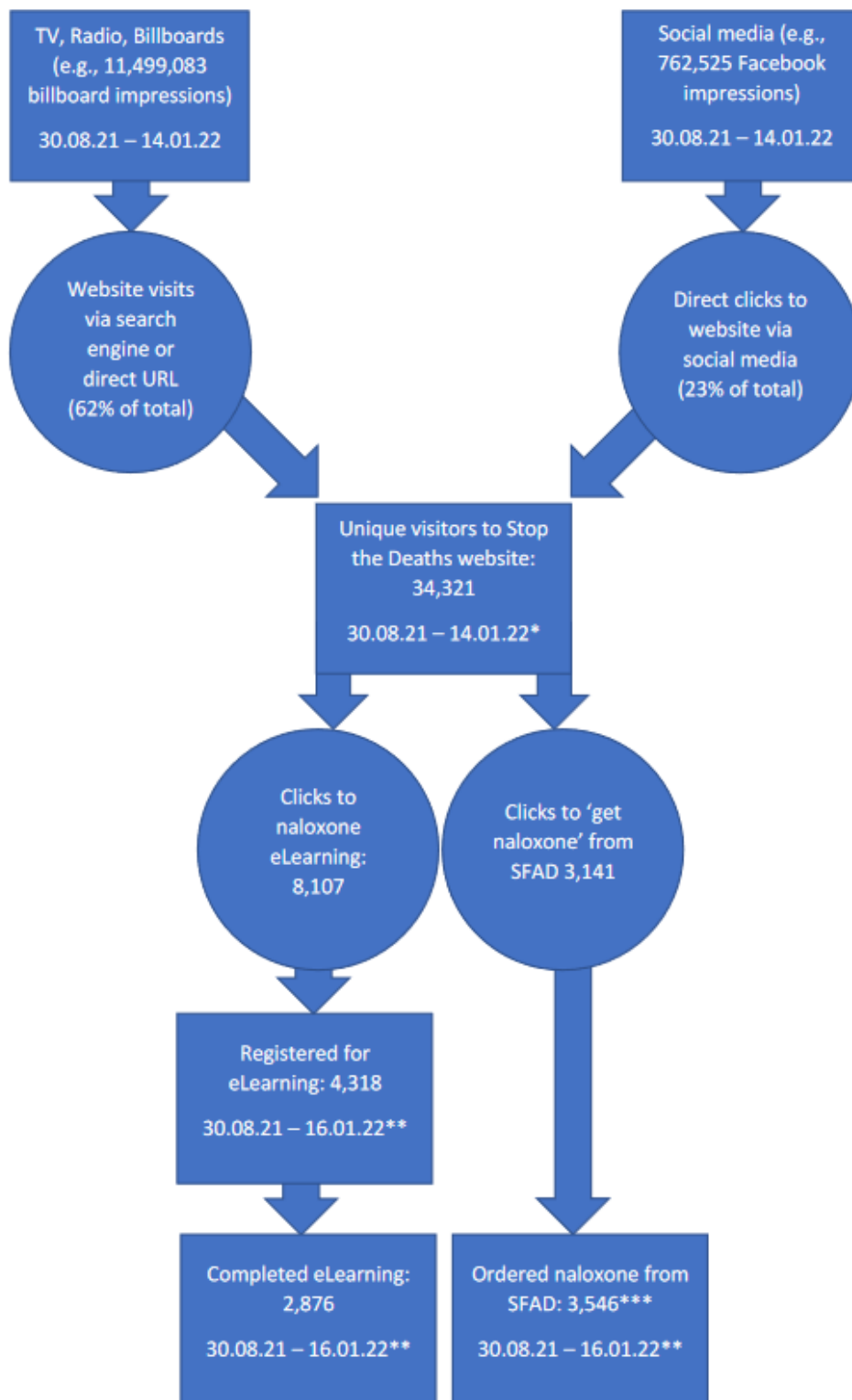
The campaign was well represented in print and digital media, with 96% of articles reporting positively on the campaign. The campaign itself was the focus of most articles (61%) and the campaign messaging was well represented (79%). There was substantial engagement with the Facebook campaign, in terms of likes, clicks, shares, and comments. However, not all engagement on Facebook was positive. Sentiment analysis of comments on the Facebook posts indicated the most common comments related to political responsibility for drug-related deaths in Scotland, and there was some stigmatising and derogatory language. However, comment engagement was low in comparison to video views and link clicks, indicating a more active positive engagement with the materials by people who did not comment on posts. Furthermore, information generated from the survey of people who work in drug and alcohol services, people who use drugs and friends/family members highlighted that 86% had a positive view of the campaign.

### *There is a progression from exposure to campaign materials and further information seeking/action*

Exposure to campaign materials created substantial traffic to the stop the deaths campaign website, which received 34,321 unique visitors. Although the reach from Facebook reach (183,279 people) was relatively small in comparison to the TV, radio and billboard campaigns, the proportion of Facebook users who clicked a link to the Stop the Deaths website demonstrates a clear pathway from viewing the advert to further information seeking action.

There was a clear progression from viewing campaign materials to visiting the campaign website, to taking further actions such as naloxone eLearning or ordering a THN kit from SFAD. Significantly, the campaign achieved almost as many registrations for the naloxone eLearning as had been achieved the previous three years since the eLearning was first launched. This demonstrated a clear and measurable impact of the campaign on health behaviour, which evidence from systematic reviews indicates not all campaigns successfully achieve (Stead et al., 2019) (Figure 4.1).

**Figure 4.1. Flow chart illustrating exposure to HTSAL campaign materials and specific campaign related actions.**



\*Website analytics recorded to the exact campaign end date, 14<sup>th</sup> Jan 2022.

\*\*eLearning/SFAD data reported weekly and recorded to the end of the final week, 16<sup>th</sup> Jan 2022

\*\*\*Number of people who ordered naloxone is higher than the number who clicked 'get naloxone', people may have accessed SFAD website via other routes.

## **5 Awareness and actions after exposure to the ‘How to save a life’ campaign among the Scottish general public**

In this chapter, we examine awareness, exposure, and recall of HTSAL campaign activities using an online survey in a sample that was representative of the Scottish general public. We also assessed what people did in response to seeing the campaign. As outlined in Section 1.5, as well as promoting specific actions, mass media campaigns may also have secondary effects, by influencing discussions and improving public understanding and interest in public health issues (Noar et al., 2010; Stead et al., 2019). This can lead to advocacy for further action or strengthen commitments to policy. We therefore also assessed public support for several drug and harm reduction policies, including THN programmes.

### **5.1 Methods**

We used a cross-sectional anonymous online survey delivered after the HTSAL campaign ended. This included an online experiment where we randomly presented participants with different campaign materials (video, poster, etc.) to investigate whether these were associated with differences in knowledge about overdose, and whether participants would be more likely to intervene if they witnessed an overdose.

We recruited adult (aged 18+) members of the Scottish public (n = 1551) from a commercial online survey research panel provider (Qualtrics, Provo, UT, USA) between 16th February and 9th March 2022. Our sample was recruited to be representative of the Scottish population with respect to age and gender. The research was approved by Liverpool John Moores University Research Ethics Committee.

The survey included questions about the HTSAL campaign and included our experimental materials (Appendix D1). Participants firstly completed demographic questions including age, gender, education, ethnicity, employment status and political voting preferences. Their awareness of the HTSAL campaign was also assessed, through both spontaneous recall (i.e. without any reminders about the campaign) and prompted recall (i.e. with reminders using campaign materials). To assess spontaneous campaign recall, participants were presented with the main HTSAL logo but we did not include the campaign name, and they were asked to provide a free text response about the focus of the campaign. Subsequently, they were

presented with a number of options to assess prompted recall (e.g. *How to stop COVID-19 deaths; How to stop deaths from knife attacks; How to stop deaths from drug overdose*).

Extracts from eight key campaign materials or activities were then presented (<https://trello.com/b/6gKqGE74/how-to-save-a-life-toolkit>). This included the TV and radio messages; screenshots of the social media hashtag (#stopthedeaths) and Stop the Deaths website; examples of outdoor media including billboards and electronic posters; a picture of a taxi branded with campaign materials (Appendix A); and an example of a national news report prompted by the campaign. Participants were asked if they had personally seen/read/heard the materials or had heard about it from another source. These materials were presented prior to the experimental component of the survey and were edited to ensure that they did not include campaign information to reduce bias. Finally, participants were asked what action they took in response to exposure to the campaign (have a conversation about drug-related deaths, order THN, etc.) (Appendix D1).

The experimental part of the survey involved randomisation of one of eight combinations of HTSAL campaign material (see below) derived from four key campaign components. These four materials covered the main messages, included both visual and audio prompts, and led to eight different combinations (see below).

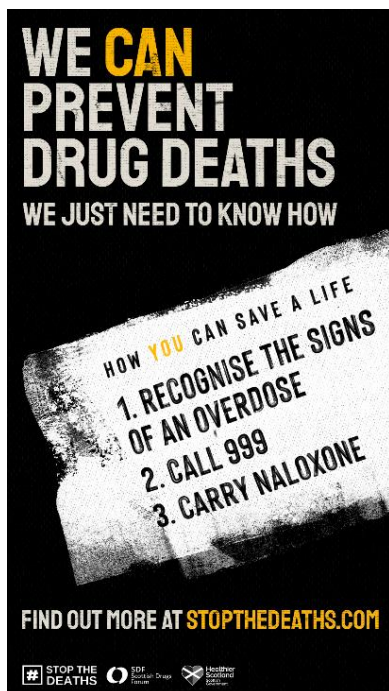
The campaign materials presented were:

**HTSAL description** - presenting a text description of the campaign:

*The How to Save a Life campaign raised awareness of a medicine called naloxone and encouraged people to carry it. Naloxone is a licensed medicine that reverses the effects of overdose of opioid drugs like heroin, similar to how an Epipen might reverse an allergic reaction. Naloxone is the generic name of the drug, which is sometimes provided under the brand names Prenoxad and Nyxoid in the UK, or Narcan in the US. 'Take home' naloxone kits are distributed via various community settings including pharmacies and drug treatment services, and enable members of the public to intervene in the event of an overdose.*

**Campaign prompt** – a reproduction of a campaign poster presenting three key campaign messages (Figure 5.1).

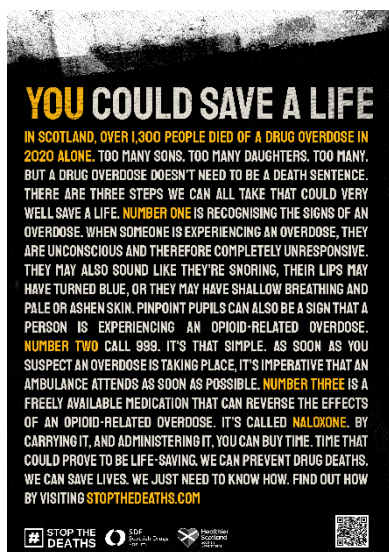
Figure 5.1 How to Save a Life campaign prompt.



**Video** – a 40 second video that had been broadcast on TV, and was also available online, and the audio used for radio slots (online at (<https://youtu.be/aTWZ-kpxL-g>)).

**Poster** - a campaign poster presenting further written information on the three key campaign messages listed in *campaign prompt* and was an abridged version of the *video* narration (Figure 5.2).

Figure 5.2 How to Save a Life detailed poster



The eight different combinations of campaign materials that could be presented to respondents are listed below:

- HTSAL description (this was the control/comparison used in our analyses, hereafter described as the *control* condition)
- Campaign prompt (*campaign*)
- Video (*video*)
- Poster (*poster*)
- *Video + poster*
- *Campaign + poster*
- *Campaign + video*
- *Campaign + video + poster*

We examined the effects of exposure to materials on three outcomes that were relevant to the campaign. We used previously validated scales to assess 1) knowledge of the signs of overdose; 2) knowledge of what to do in response to overdose; and 3) how ready people would be to intervene if witnessing an overdose (Williams et al., 2013). Other questions explored whether the campaign might have had effects on other types of attitudes and beliefs not targeted by the campaign (beliefs about naloxone, support for harm reduction policies generally, etc.).

### **5.1.1 Statistical analysis**

We first provided a descriptive analysis of recognition of campaign materials findings. We then examined the effects of exposure to the combinations of materials on the knowledge and readiness outcomes described above<sup>9</sup>. We then explored how participant characteristics (e.g. attitudes, beliefs, demographics) predicted these scores. A series of exploratory hierarchical regression analyses were undertaken to identify predictors of outcomes of interest. In addition to the overdose related outcomes, other outcomes were i) support for harm reduction policies; and ii) beliefs about naloxone. To account for under-responding in some age and gender groups (e.g. younger males), and to enable us to scale up findings from our study participants to the Scottish population it was designed to represent, we calculated survey weights and adjusted our data/results accordingly. Where we report on topics such as campaign

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<sup>9</sup> Analyses were undertaken using Kruskal-Wallis H tests with Bonferroni correction for multiple comparisons. Randomisation was judged to be successful, and so no covariates were included in the model.

awareness, we report these weighted findings. P-values were set at 0.05 and we used SPSS v28 and STATA v17 for analyses.

## 5.2 Results

### 5.2.1 Sample demographics

The total sample included 1,551 people. The sample was representative of the Scottish population on the basis on age and gender (Table 5.1).

**Table 5.1 Panel survey sample characteristics: un-weighted, weighted (on age group and gender), and comparisons to national Scottish figures\*, n=1,551**

\*National comparisons taken from mid-from mid-2020 population estimates (National Records of Scotland, 2021), Scotland's Labour market 2020/2021 estimate (Scottish Government, 2021), the 2011 census (latest available), and the 2019 Scottish popular vote.

Co-variates	Unweighted	Weighted	National Scottish comparison
<b>Female (%)</b>	52.6	52.0	52.0
<b>Age group (%)</b>			
18-24	10.6	10.0	10.3
25-34	19.5	17.0	16.9
35-44	17.5	15.0	15.3
45-54	19.8	17.0	16.7
55+	32.6	41.0	40.7
<b>Mean age (years ± SD)</b>	46.1 ± 16.5	-	-
<b>White ethnicity (%)</b>	95.9	96.2	96.0
<b>Having a university degree (%)</b>	43.3	42.8	26.1
<b>Economically active (%)</b>	72.0	64.8	76.4
<b>Voting preference (%)</b>			
<i>Left wing</i>	65.2	64.7	71.0
<i>Centre</i>	5.9	5.9	9.5
<i>Right wing</i>	13.9	15.1	25.7



## 5.2.2 Awareness of the HTSAL campaign and follow up action after exposure

Overall, 30.5% of participants reported awareness of the campaign without being prompted. After prompting with examples, 44.7% recalled seeing, hearing or reading about the campaign. A further 16.5% had not seen the campaign directly, but were aware of the campaign from others. When presented with a list of potential campaign themes, 59.4% correctly identified HTSAL targeted prevention of drug-related deaths. The most frequently seen component was the TV advert, whilst around a third had heard the radio slot (Table 5.2).

**Table 5.2 Exposure and awareness of campaign materials, n=1,551**

Weighted estimates presented.

Campaign material	Exposure % (95% CI)	Awareness % (95% CI)	No exposure or awareness % (95% CI)
<b>Overall campaign</b>	44.7 (42.2-47.3)	16.5 (14.7-18.4)	38.8 (36.4-41.3)
<b>TV ad</b>	38.2 (35.7-40.7)	10.5 (9.0-12.1)	65.0 (62.5-67.4)
<b>Social media</b>	22.6 (20.6-24.8)	12.3 (10.8-14.1)	65.0 (62.6-67.4)
<b>Stop the Deaths Website</b>	5.5 (4.4-6.7)	32.3 (30.0-34.7)	76.4 (74.2-78.4)
<b>Radio</b>	32.3 (30.0-34.7)	8.1 (6.8-9.6)	59.6 (57.1-62.0)
<b>Outdoor media</b>	24.5 (22.4-26.7)	9.1 (7.7-10.5)	66.5 (64.0-68.8)
<b>Branded Taxi</b>	6.1 (5.1-7.4)	6.9 (5.7-8.3)	87.0 (85.2-88.5)
<b>News reports about HTSAL</b>	19.8 (17.9-21.9)	10.4 (9.0-12.0)	69.8 (67.4-72.0)

In relation to follow up action after seeing the campaign (Table 5.3); 28% reported at least one activity. Around 40% had not heard about HTSAL, and 33% had heard of the HTSAL but did nothing in follow up. Among those who took action, the most frequent response was to have a conversation about drug-related deaths in Scotland (13.7%), or about naloxone (7.1%). Relating to social media engagement, less than 5% posted, liked, or shared material on topics related to the campaign. Less than 1% signed up for training or ordered naloxone. However, this was slightly higher among those who were aware of the campaign and reported taking follow up action (3% signed up for naloxone training; 2% ordered naloxone). We found that people who had ever witnessed an overdose (16.8% reported that they had) were significantly more likely to have undertaken any of the listed actions, except for posting material on social media about how to prevent overdoses, ordering supplies of naloxone, or undertaking further independent research (Table 5.3).

**Table 5.3 Campaign engagement and actions after engagement with campaign materials, N=1,551**

Weighted estimates presented <sup>1</sup> Rao-Scott adjusted Chi square test. Significant values in **bold**, df = 1,1550

Engagement/action activity	Percentage reporting, % (95% CI)	Ever witnessed an overdose?		Statistically significant difference between groups? <sup>1</sup>
		Yes, % (95% CI) (n = 261. 16.8; 15.1-18.8)	No, % (95% CI) (n = 1290. 83.2; 81.2-84.9)	
No prior awareness of campaign	38.1 (35.7-40.6)	27.0 (22.0-32.7)	40.1 (37.7-43.2)	<b>F = 16.48; p &lt; .001</b>
Heard about HTSAL but did nothing	33.8 (31.4-36.3)	27.6 (22.5-33.4)	35.1 (32.4-37.8)	<b>F = 5.28; p &lt; .001</b>
Explored the Stop the Deaths Website	3.9 (3.0-4.9)	8.0 (5.3-11.9)	3.0 (2.2-4.1)	<b>F = 14.76; p &lt; .001</b>
Had a conversation about HTSAL	8.2 (6.9-9.6)	12.3 (8.9-16.8)	7.3 (6.0-8.9)	<b>F = 7.30; p = .007</b>
Had a conversation about drug-related deaths in Scotland	13.7 (12.1-15.6)	22.7 (18.0-28.2)	11.9 (10.2-13.8)	<b>F = 21.01; p &lt; .001</b>
Had a conversation about how to prevent overdoses	6.6 (5.4-7.9)	16.2 (12.2-21.3)	4.6 (3.6-5.9)	<b>F = 46.55; p &lt; .001</b>
Liked or shared material on social media about the How to Save a Life campaign	3.8 (3.0-4.8)	9.6 (6.7-13.6)	2.6 (1.9-3.6)	<b>F = 30.79; p &lt; .001</b>
Liked or shared material on social media about drug deaths in Scotland	4.1 (3.2-5.2)	8.4 (5.7-12.4)	3.2 (2.4-4.4)	<b>F = 15.44; p &lt; .001</b>
Liked or shared material on social media about how to prevent overdoses	3.4 (2.6-4.4)	8.8 (5.9-12.9)	2.3 (1.6-3.3)	<b>F = 28.56; p &lt; .001</b>
Posted material or commented on social media about the How to Save a Life campaign	0.9 (0.5-1.5)	2.2 (1.1-4.7)	0.6 (0.3-1.2)	<b>F = 7.31; p = .007</b>
Posted material or commented on social media about drug deaths in Scotland	1.1 (0.7-1.7)	3.3 (1.7-6.2)	0.6 (0.3-1.2)	<b>F = 14.74; p &lt; .001</b>
Posted material or commented on social media about how to prevent overdoses	0.8 (0.4-1.3)	1.3 (0.5-3.5)	0.7 (0.3-1.3)	F = 1.46; p = .227

Engagement/action activity	Percentage reporting, % (95% CI)	Ever witnessed an overdose?		Statistically significant difference between groups? <sup>1</sup>
		Yes, % (95% CI) (n = 261. 16.8; 15.1-18.8)	No, % (95% CI) (n = 1290. 83.2; 81.2-84.9)	
Had a conversation about the medicine naloxone (the medicine that rapidly reverses an overdose)	7.1 (5.9-8.5)	15.2 (11.3-20.1)	5.5 (4.3-6.9)	<b>F = 30.20; p &lt;.001</b>
Signed up for the free e-learning naloxone training course	0.9 (0.5-1.5)	3.3 (1.7-6.3)	0.4 (0.2-0.9)	<b>F = 22.14; p &lt;.001</b>
Ordered naloxone through the Scottish Families Affected by Alcohol and Drugs website or through a local drugs service	0.6 (0.3-1.1)	0.6 (0.4-3.5)	0.5 (0.2-1.0)	F = 1.65; p = .199
Did my own further independent research about drugs, drug deaths, and/or overdoses	3.6 (2.8-4.7)	4.3 (2.4-7.4)	3.5 (2.6-4.6)	F = .41; p =.521

Relating to naloxone knowledge, carriage and training, 37% correctly identified what naloxone was used for, around 2% of participants currently carried naloxone and 7.7% reported that they had ever received naloxone training (Table 5.4). These figures are presented by gender and age group in Appendix D2.

**Table 5.4 Knowledge, carriage, and having ever received training to administer naloxone, N = 1551.**

Weighted estimates presented.

Naloxone questions	Total, % (95% CI)
Do you know what the drug naloxone is used for?	36.8 (34.4-39.3)
Do you carry naloxone?	1.8 (1.3-2.6)
Have you ever received training on how to use naloxone?	7.7 (6.5-9.2)

### 5.2.3 Public attitudes towards treatment, harm reduction, and naloxone

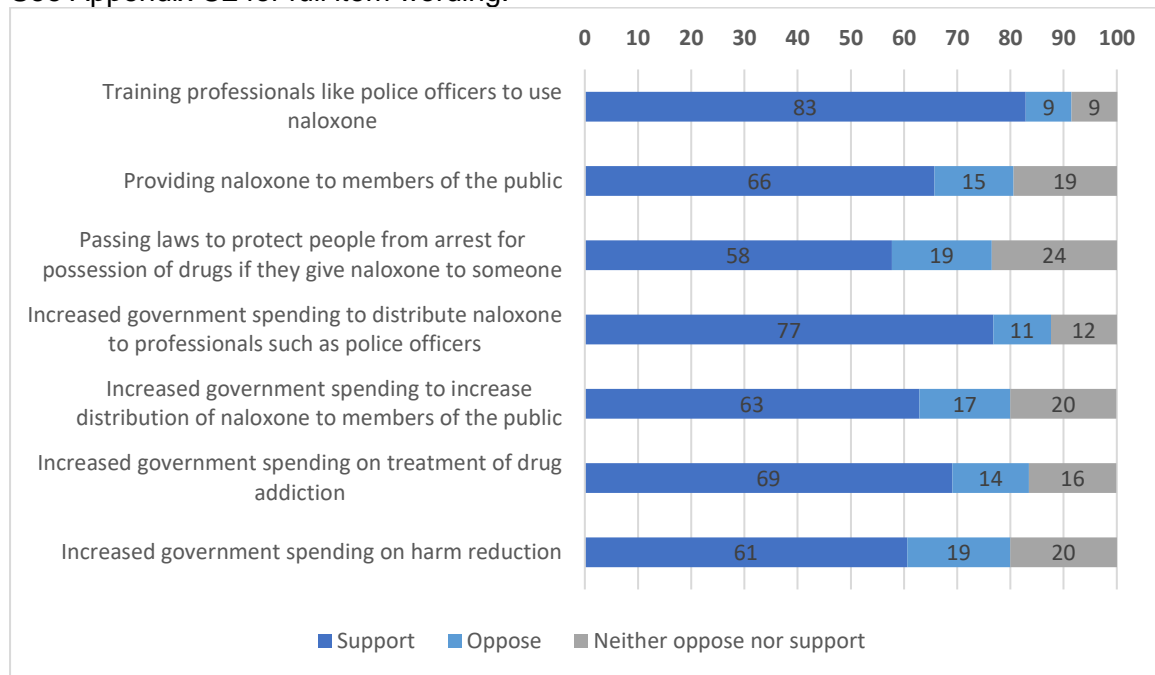
Public support for a number of relevant drug policy topics is summarised in Figures 5.3 and 5.4, and presented by gender and age group in Appendix D3 and Appendix D4.

A clear majority supported the distribution of naloxone to professional groups such as police officers (83%) and to members of the public (66%), including families of friends of people who use drugs. Respondents agreed that government should use public funds to pay for these activities (77% and 63% respectively), and they supported increased spending on treatment services (69%) and harm reduction (61%) more generally. A majority (58%) also believed that people who were in personal possession of drugs but who came to the attention of police after administering naloxone to someone else should not face prosecution (sometimes called a ‘good Samaritan’ approach) (Figure 5.3).

In relation to beliefs about naloxone, whilst there was a lack of consensus about whether naloxone should only be given by medical professionals (37% agreed compared with 35% who disagreed, and 29% who didn’t know), a majority agreed that distribution of naloxone to professionals (83%) and the public (70%) would help save lives. However, respondents also believed that this could lead to more opioid use (45% compared with 31% who disagreed, and 24% who didn’t know) and that it might not be an effective strategy in the long-term as people would continue to overdose in the future (44% compared with 30% who disagreed, and 27% who didn’t know). Despite this, respondents believed that public naloxone distribution was a good use of public funds (54%) and would lead to a reduction in costs for the NHS through reduced A & E visits and hospital admissions (60% agreed) (Figure 5.4).

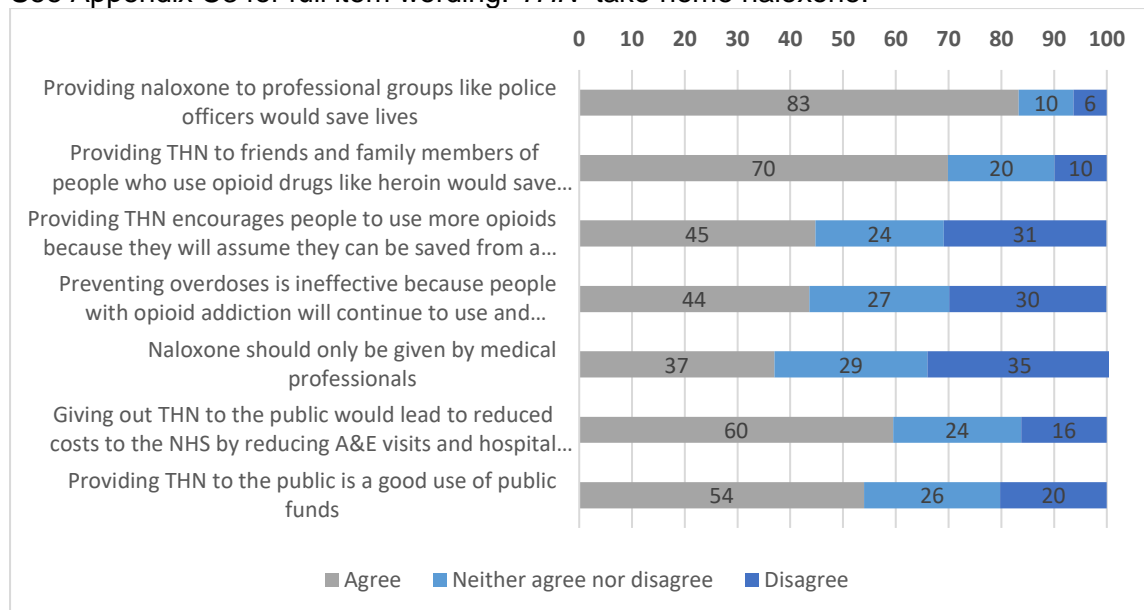
**Figure 5.3 Public support for naloxone, treatment, and harm reduction, N=1,551.**

See Appendix C2 for full item wording.



**Figure 5.4 Public beliefs about naloxone, N=1,551**

See Appendix C3 for full item wording. THN=take-home naloxone.



### 5.2.4 Experimental component: assessing the effect of campaign materials on overdose knowledge, awareness and readiness to intervene if witnessing an overdose

We then examined the effects of campaign materials on knowledge. Overall, there was a statistically significant effect of condition on overdose knowledge ( $H_7 = 101.87$ ;  $p < .001$ ). This

means that levels of knowledge differed depending on what materials participants had seen. Examining where these differences lay, knowledge was higher in all groups compared to those that just received the text description of HTSAL (our *control* group;  $p < .001$ ). Comparing knowledge between other groups, we found that showing people the resource with just the three key campaign messages (the *campaign* prompt) was associated with lower knowledge scores. Showing participants the TV advert (*video*) on its own was associated with higher scores than those who also saw the detailed text *poster*, or the *video* and *poster* together. Finally, showing people the *campaign* prompts and the *poster* together was associated with lower scores than *poster* alone or the *video* and *poster*.

In contrast, there were no differences in knowledge what people should do in response to overdose ( $H_7 = 7.547$ ;  $p = .374$ ) or on their readiness to intervene if they witnessed an overdose ( $H_7 = 8.558$ ;  $p = .286$ ).

We examined whether the characteristics of people who responded to the survey predicted scores on these outcomes. Full analytical tables are available on request. With respect to *overdose knowledge*, receiving any of the campaign materials apart from the text description of HTSAL, being older, and having a university degree, and having lower stigmatising attitudes towards PWUD predicted higher scores.

Although we found no difference between groups in relation to *overdose actions*, when considering participant characteristics, higher scores were predicted by older age, being female, having lower stigmatising attitudes, and lower levels of familiarity with PWUD.

Higher scores for *readiness to intervene* in an overdose were predicted by receiving the *video* or *video + poster* components, older age, female sex, lower stigmatising attitudes towards PWUD, higher level of familiarity with PWUD and having ever witnessed an overdose before.

Higher levels of *support for harm reduction policies* were predicted by older age, and lower stigmatising attitudes and greater level of familiarity towards PWUD whilst having right wing political preference predicted lower support.

Finally, more supportive *beliefs about naloxone* were predicted by seeing the *video* or *video + poster*, being older, and having a University degree, and having lower stigmatising attitudes and greater level of familiarity towards PWUD

## 5.3 Summary of key findings

In this chapter, we presented findings from a representative survey of the adult Scottish population.

### *There was a high level of awareness of the HTSAL campaign among the public*

Among a sample representative of the Scottish general public, we found that there was good exposure to and awareness of the HTSAL campaign. Around 30% of participants were aware of the campaign without being prompted, which rose to 60% after prompting. Public awareness of mass media campaigns is affected by factors such as campaign budget, longevity and intensity of activity, who is targeted, competing media messages, and pre-existing public interest in the topic, which can make comparisons between different types of campaign difficult (Wakefield et al., 2010). Although there are no other naloxone or drug policy campaigns we can draw direct comparisons to, awareness of the HTSAL campaign compares favourably to other mass media campaigns. Evaluation of the UK Government's FRANK drugs education mass media campaign estimated that 74% of the intended target audience was reached (HM Government, 2015). Prompted adult general population recognition of mass media campaigns raising awareness of the links between alcohol and cancer was around 67% in Australia and 50% in Denmark, and these proportions increased after subsequent waves of campaign activity (Christensen et al., 2019; Dixon et al., 2015). A review of international campaigns to promote physical activity found that awareness levels ranged from 17% to 95% (Leavy et al., 2011).

### *A high level of awareness did not translate into a high level of action after exposure to campaign materials*

Despite a high level of awareness of the HTSAL campaign, 72% of respondents reported taking no action. Of the actions that were reported, the most frequent was having a conversation about drug-related deaths in Scotland (14%), followed by discussion of the campaign itself (8%), overdose prevention (7%), or naloxone (7%). Less than one percent of the total sample signed up for training and ordered naloxone. However, this was slightly higher among people who were aware of the campaign and reported follow up action (3% signed up for naloxone training; 2% ordered naloxone).

Campaign awareness and actions after exposure to campaigns should be considered in the context that exposure to mass media campaigns is passive (Wakefield et al., 2010). People without a prior interest in a topic do not tend seek out information. Furthermore, people will

respond to a campaign depending on whether they perceive the topic to be important and personally relevant to them. Despite drug-related deaths being at historically high levels in Scotland, and with high levels of media attention, respondents may not have personal familiarity with the issue, therefore leading to lower motivation to take follow-up action (Corrigan et al., 2001; Kennedy-Hendricks et al., 2017; Rüsç et al., 2012; Sattler et al., 2017). The majority of survey participants had never witnessed an overdose (over 80%); however, those who had witnessed an overdose were more likely to take follow up action. This may explain why there is a high level of awareness of the HTSAL campaign, but low rates of action following exposure.

#### *The campaign improved knowledge about the signs and symptoms of an overdose*

Our findings suggested that a single exposure to any of the campaign materials included in the experiment was associated with increased knowledge of overdose compared to just receiving a description of HTSAL campaign. The campaign video (delivered on social media and television) had a larger effect on knowledge, compared to written material. However, providing written information alongside the video, or multiple forms of written information did not seem to be associated with better knowledge.

#### *We found no effects of the campaign on knowledge of how to respond to an overdose or readiness to intervene if witnessing an overdose*

Whilst knowledge about overdose was higher, there were no differences between groups with respect to knowing what to do when faced with an overdose, or if they would be prepared to intervene. Across all resources included in the study, messages including recommendations for responses were limited to calling the emergency services (“Call 999”) and carrying naloxone. From a practical perspective, the first of these would be a well-known and common response to any medical emergency, whilst the second would require audiences to register for training and order naloxone (for those who do not already have access). Average scores across groups were high (a mean score of 9 out of a possible 11), and so upon reflection, this scale may not have been sensitive enough to distinguish between campaign effects and general first aid knowledge.

#### *We found a high level of support for different harm reduction policies, including spending on harm reduction (including naloxone) and drug treatment more generally*

As described in Section 5.2.3., there was majority support for a range of policy actions, including spending on distributing naloxone to professionals and the public, drug treatment



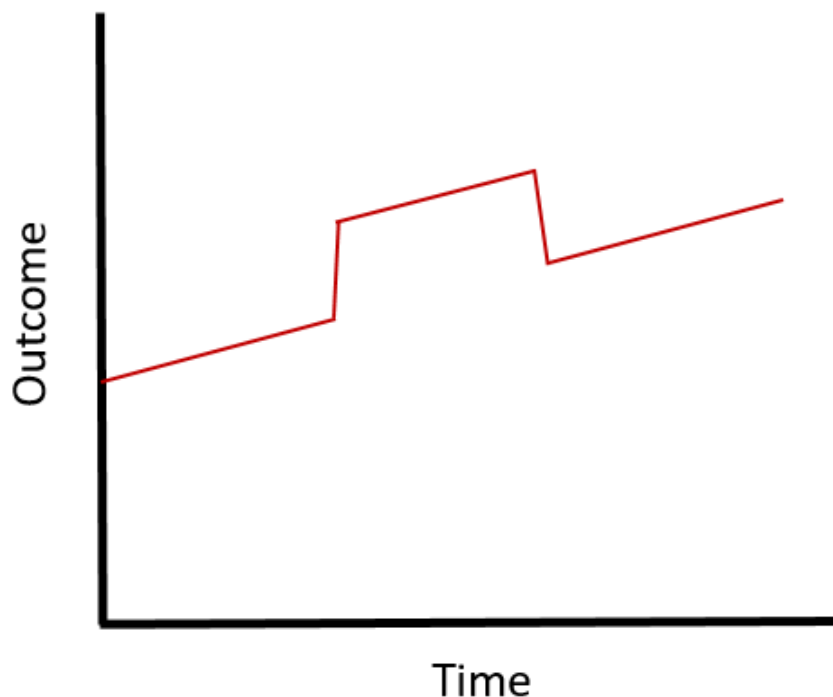
and harm reduction more generally. Respondents also thought that these approaches would save lives and reduce costs to the NHS. Furthermore, a majority (58%) also supported the introduction of so-called 'good Samaritan' approaches whereby police do not undertake some types of further criminal investigation when attending an overdose incident (Moallem and Hayashi, 2021). However, we also found evidence of misconceptions about naloxone, in particular relating to the statement that providing naloxone would encourage people to use more opioids because they would assume that an overdose could be reversed (45% agreed with this statement; 27% disagreed).

## 6 Impact of the ‘How to save a life’ mass media campaign on take-home naloxone supplies

This section will assess the impact of the HTSAL campaign on the provision of THN. Through campaign materials and the stop the deaths website, those who wanted to access THN were directed to the Scottish Families Affected by Alcohol and Drugs (SFAD) website: <https://www.sfad.org.uk/support-services/take-home-naloxone>, where they could order a THN kit to be posted to their home. We set out a number of hypotheses prior to analysis:

- Naloxone supplies will be slightly increasing or stable prior to the start of campaign due to focus the on the supply of THN as part of the response to DRD in Scotland and extra measures introduced to enhance supplies during the pandemic.
- To observe a temporary level change in the supply of THN for the duration of the HTSAL campaign, that will return to slightly increasing/stable after the campaign has finished. This was informed by what is known about the impact of mass media campaigns; that their effect on outcomes is short term (Abroms and Maibach, 2008; Allara et al., 2015) (Figure 6.1).

**Figure 6.1 Hypothesised impact of the HTSAL campaign on THN supplies (outcome) over time in Scotland: temporary level change**



## 6.1 Methods

To assess the effect of the HTSAL mass media campaign on THN supplies in Scotland, we used an interrupted time series design. Interrupted time series analysis is a statistical method that allows you to quantify trends in an outcome of interest (i.e. THN supplies) over a period of time and to quantify the effect of an intervention (i.e. the HTSAL campaign) on that outcome (Wagner et al., 2002). The study time period was from August 2020 – December 2021 and only considered the main campaign due to data availability (i.e. booster campaign was excluded). We modelled two key dates: the start of the campaign (week beginning (w/b) 30<sup>th</sup> of August 2021) and the end of the campaign (w/b 25<sup>th</sup> of October 2021). Some campaign materials were available outside of these dates (such as displays in public transport, archives on social media), but these were considered the key dates relating to the official start and end of the campaign (Section 1.4; Appendix B). Ethical approval was not required as the analysis involved aggregate anonymised data.

### 6.1.1 Data sources

The primary data source was the national Prescribing Information System (PIS) dataset held by Public Health Scotland (PHS). PIS contains a record of medications distributed in community pharmacies and drugs prescriptions dispensed in the community in Scotland (Alvarez-Madrado et al., 2016). Data were obtained from PIS, relating to the national distribution of THN kits (including intra-nasal and injectable THN kits). A secondary data source was also available, the number of THN kits distributed by SFAD. The SFAD data is a subset of the PIS data, and THN supplied via SFAD is included in the ‘community’ distribution route (Table 6.1).

**Table 6.1. Data sources and key outcomes to assess the impact of the ‘How to save a life’ mass media campaign on the supply of take-home naloxone.**

Data source	Description	Key outcomes
Prescribing Information System (PIS)	PIS data includes all information relating to dispensed medicines and reimbursement payments to community pharmacies in Scotland. Aggregated weekly August 2020 – December 2021	<ul style="list-style-type: none"> <li>• Total number of THN kits</li> <li>• Total number of THN kits, by:               <ul style="list-style-type: none"> <li>○ Gender</li> <li>○ Age group</li> <li>○ Distribution route (i.e. community vs. prison)</li> <li>○ Health board</li> </ul> </li> </ul>
Scottish Families Affected by Alcohol and Drugs (SFAD)	Subset of the PIS data (community distribution)	<ul style="list-style-type: none"> <li>• Total number of THN kits</li> <li>• Total number of THN kits, by:</li> </ul>

Data source	Description	Key outcomes
	Weekly supplies of naloxone distributed by SFAD August 2020 – December 2021	<ul style="list-style-type: none"> <li>○ THN recipient (i.e. PWUD, professional, family/friend, member of the public)</li> <li>○ First, repeat or spare supply</li> <li>○ Alcohol and Drug Partnership</li> <li>○ Source</li> </ul>

During September 2021, there was a supply issue relating to the number of intranasal THN kits available via SFAD. People who had requested an intranasal kit during this period were supplied with an injectable THN kit and added to a waitlist. The supply issue was resolved in October 2022, and people who were on the waitlist were supplied with an intranasal THN kit. Thus, people who requested a kit were supplied with two kits rather than one. The duplicate waitlist kits were removed from the SFAD data during w/b 11th of October (n=66) and 18th of October (n=538). Within the PIS data, it was possible to remove the duplicate THN kits supplied to those on the waitlist from the overall number of THN kits and the community distributed THN kits. However, they cannot be removed from any of the other breakdowns within the PIS data (gender, age group and health board).

### 6.1.2 Outcome measures

The primary outcome measure was counts of the number of THN kits. Key exposure variables were campaign period<sup>10</sup> and distribution route. Distribution route was available broken down by community (including SFAD supplies), community (excluding SFAD supplies) and prison. Firstly, the number of THN kits and the mean number of THN distributed per week by distribution route and campaign period was first calculated. The supply of THN by other demographic variables and campaign period was also calculated (Appendix E1).

### 6.1.3 Statistical analysis

Using the national PIS dataset, segmented negative binomial regression was utilised to assess the change in the distribution of THN, associated with the HTSAL campaign. The segmented regression model generated five estimates:

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<sup>10</sup> Pre-campaign period: week beginning (w/b) 3rd Aug 20 – w/b 23rd Aug 21  
Main campaign period: w/b 30th Aug 21 – w/b 18th Oct 21  
Post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

- **Pre-campaign trend:** the trend in the number of THN kits distributed pre-campaign (counterfactual value – the trend in the number of THN kits as if the campaign never happened)
- **Change in level when the campaign started:** the change or ‘increase’ in the number of THN kits when the campaign was launched
- **Campaign trend:** trend in the number of THN kits for the duration of the campaign
- **Change in level when the campaign finished:** the change or ‘decrease’ in the number of THN kits when the campaign finished
- **Post-campaign trend:** trend in the number of THN kits in the post-campaign period

Results are presented as rate ratios (RR) with 95% confidence intervals (CI) and associated p-values. Analyses were conducted on Stata 13 and R 3.6.1.

## 6.2 Results

### 6.2.1 Description of take-home naloxone kits supplied by campaign period

The total number of THN kits distributed in Scotland during the study period was 27,064. The majority were distributed through the community route (92%, n=24,024) and in NHS Greater Glasgow and Clyde (32%, n=8,776), followed by NHS Lothian (15%, n=4,116) and NHS Tayside (12%, n=3,389) (Appendix E1). The number of kits supplied by SFAD was 3,823 (14% of total). The majority of kits supplied by SFAD were supplied to members of the public (51%, n=1,940), followed by professionals working in the drugs field (28%, n=1,074). The vast majority of kits were issued as a first supply (83%, n=3,168). In terms of source, the majority reported that they had heard about SFAD through third sector sources (either SFAD or SDF) and the Stop the Deaths website (28%, n=912) followed by TV, radio and newspapers (24%, n=786) (Appendix E3).

In terms of THN kits supplied by campaign period, overall in Scotland, 64% (n=17,120) were distributed in the pre-campaign period, 20% (n=5,556) during the campaign and 15% (n=4,338) during the post-campaign period (Table 6.2, Figure 6.2). The mean number of THN kits distributed per week (relative to the pre-campaign period), increased by 126% during the campaign and 57% post-campaign. The mean number of THN kits distributed per week via the community (including SFAD supplies) increased by 133% during the campaign and 52% post-campaign. A smaller increase in the mean number of THN kits supplied per week was observed via community distributed kits (not including SFAD) (26% increase during the

campaign, 14% post-campaign) and via prison (12% increase during the campaign, 69% increase post-campaign) (Table 6.2, Figure 6.2).

**Table 6.2. Total number of take-home naloxone (THN) kits and the mean number prescribed per week by campaign period and distribution route, August 2020 - December 2021**

Campaign period	Total number of THN kits <sup>a</sup>			Community distributed (including SFAD) THN kits <sup>a</sup>			Community distributed (excluding SFAD) THN kits			Prison distributed THN kits		
	Total number of THN kits (col%)	Mean number of THN supplied per week	% difference <sup>b</sup>	Total number of THN kits (col%)	Mean number of THN supplied per week	% difference <sup>b</sup>	Total number of THN kits (col%)	Mean number of THN supplied per week	% difference <sup>b</sup>	Total number of THN kits (col%)	Mean number of THN supplied per week	% difference <sup>b</sup>
<b>Pre-campaign</b>	17,170 (63.4%)	307	-	15,222 (63.4%)	272	-	14,632 (72.4%)	261		1,468 (70.0%)	26	-
<b>Main campaign</b>	5,556 (20.5%)	694	126%	5,081 (21.1%)	635	133%	2,748 (13.6%)	353	26%	231 (11.0%)	29	12%
<b>Post-campaign</b>	4,338 (16%)	482	57%	3,721 (15.5%)	413	52%	2,821 (14.0%)	305	14%	397 (18.9%)	44	69%
<b>Total number of THN kits</b>	27,064	-	-	24,024			20,201	-	-	2,096	-	

Data source: Prescribing Information System; THN=take-home naloxone; SFAD=Scottish Families Affected by Alcohol and Drugs

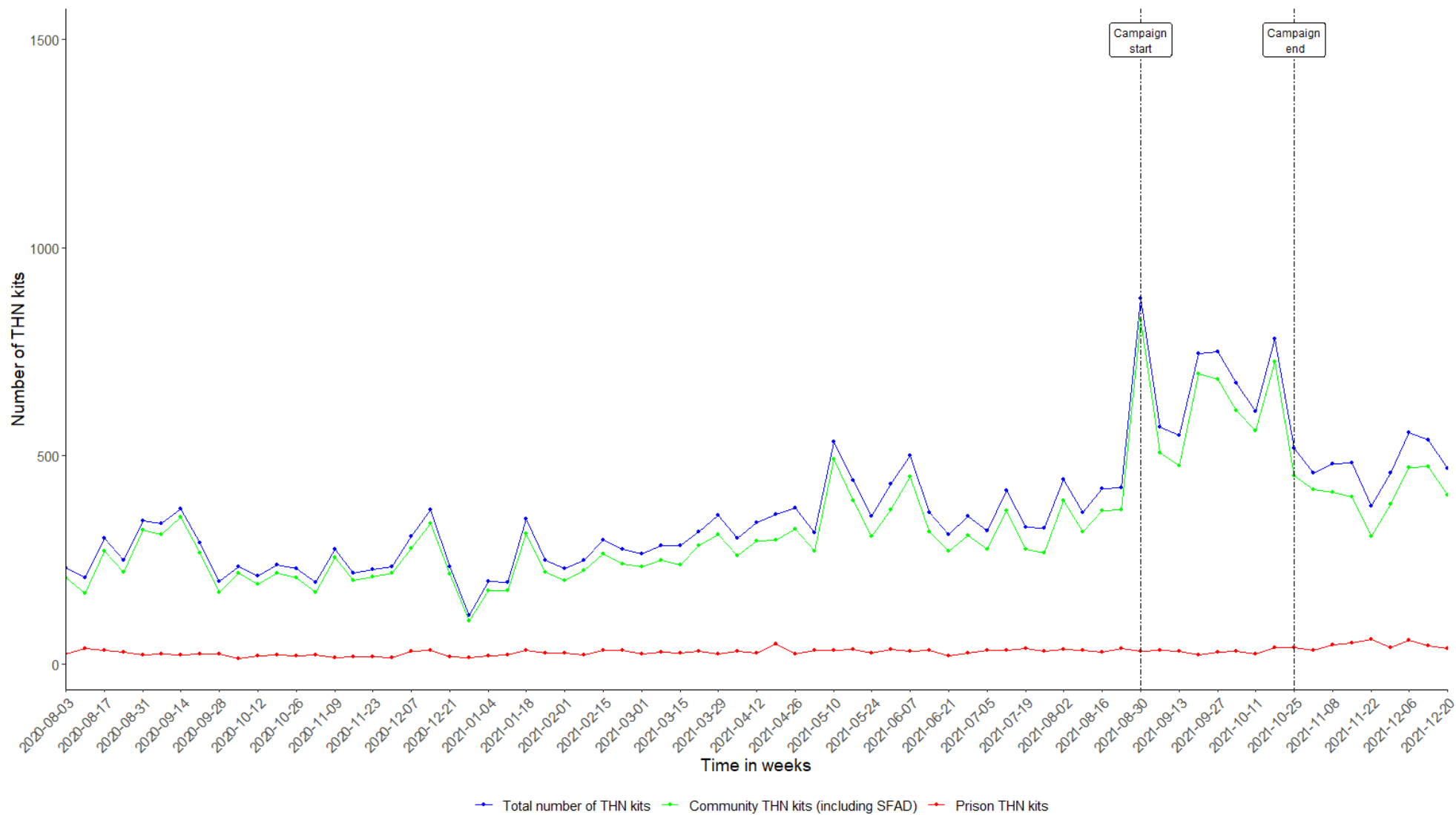
Pre-campaign: w/b 3rd Aug 20 – w/b 23rd Aug 21; main campaign: w/b 30th Aug 21 – w/b 18th Oct 21; post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

<sup>a</sup>Duplicate THN kits supplied to people on the waitlist removed from week beginning (w/b) 11th of October (n=66) and 18th of October (n=538) have been removed

<sup>b</sup>Relative to the pre-campaign period

**Figure 6.2. The supply of take-home naloxone (THN) by distribution route in Scotland, August 2020 – December 2021**

Campaign start: w/b 30<sup>th</sup> Aug 22; campaign end: w/b 25<sup>th</sup> Oct 21





## **6.2.2 Impact of the campaign on take-home naloxone supplies: segmented regression analysis**

In segmented regression analyses, relating to the overall number of THN kits supplied, the pre-campaign trend in the number of THN kits supplied was increasing by an average of 1% each week (RR=1.01, 95% CI 1.01 to 1.01,  $p<0.001$ ). Once the campaign started, a significant change in level was observed, and the number of kits increased by 75% (RR=1.75, 95% CI 1.29 to 2.40,  $p<0.001$ ). The trend during the campaign was stable but a significant change in level was observed when the campaign ended, and the number of THN kits supplied decreased by 32% (RR=0.68, 95% CI 0.46 to 0.98,  $p=0.042$ ). The trend the post-campaign period was stable (Table 6.3, Figure 6.3). Different trends were observed relating to community distribution (excluding SFAD supplies) and prison distribution of THN. Relating to community distribution (excluding SFAD supplies), pre-campaign the number of THN kits was increasing by 1% each week (RR=1.01, 95% CI 1.00 to 1.01,  $p<0.001$ ). However, the change in level when the campaign started, trend during the campaign, change in level when the campaign ended and the post-campaign trend were stable. The same trend was observed relating to prison THN supplies (Table 6.3).

**Table 6.3. Impact of the mass media campaign on take-home naloxone (THN) supplies in Scotland: segmented regression analyses modelling the changes in THN supplies when the campaign was introduced and when the campaign finished, August 2020 - December 2021**

	Segmented negative binomial regression									
	Pre-campaign trend <sup>a</sup>		Change in level when campaign started <sup>b</sup>		Trend during campaign period <sup>c</sup>		Change in level when campaign ended <sup>d</sup>		Post-campaign trend <sup>e</sup>	
	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value
<b>Total number of THN kits supplied</b>	1.01 (1.01 to 1.01)	<0.001	1.75 (1.29 to 2.40)	<0.001	0.99 (0.94 to 1.06)	0.959	0.68 (0.46 to 0.98)	0.042	1.01 (0.96 to 1.06)	0.812
<b>Distribution route</b>										
<b>Community (including SFAD)</b>	1.01 (1.01 to 1.01)	<0.001	1.85 (1.34 to 2.59)	<0.001	0.99 (0.94 to 1.06)	0.959	0.64 (0.44 to 0.95)	0.029	1.00 (0.95 to 1.05)	0.906
<b>Community (excluding SFAD)</b>	1.01 (1.00 to 1.01)	<0.001	1.33 (0.97 to 1.85)	0.101	0.96 (0.89 to 1.02)	0.177	0.82 (0.55 to 1.22)	0.333	1.04 (0.98 to 1.10)	0.126
<b>Prison</b>	1.01 (1.00 to 1.01)	<0.001	0.85 (0.60 to 1.22)	0.393	1.01 (0.94 to 1.08)	0.753	1.37 (0.92 to 2.03)	0.121	1.01 (0.96 to 1.07)	0.560

THN=take-home naloxone; SFAD=Scottish Families Affected by Alcohol and Drugs

<sup>a</sup>Pre-campaign: w/b 3rd Aug 20 – w/b 23rd Aug 21

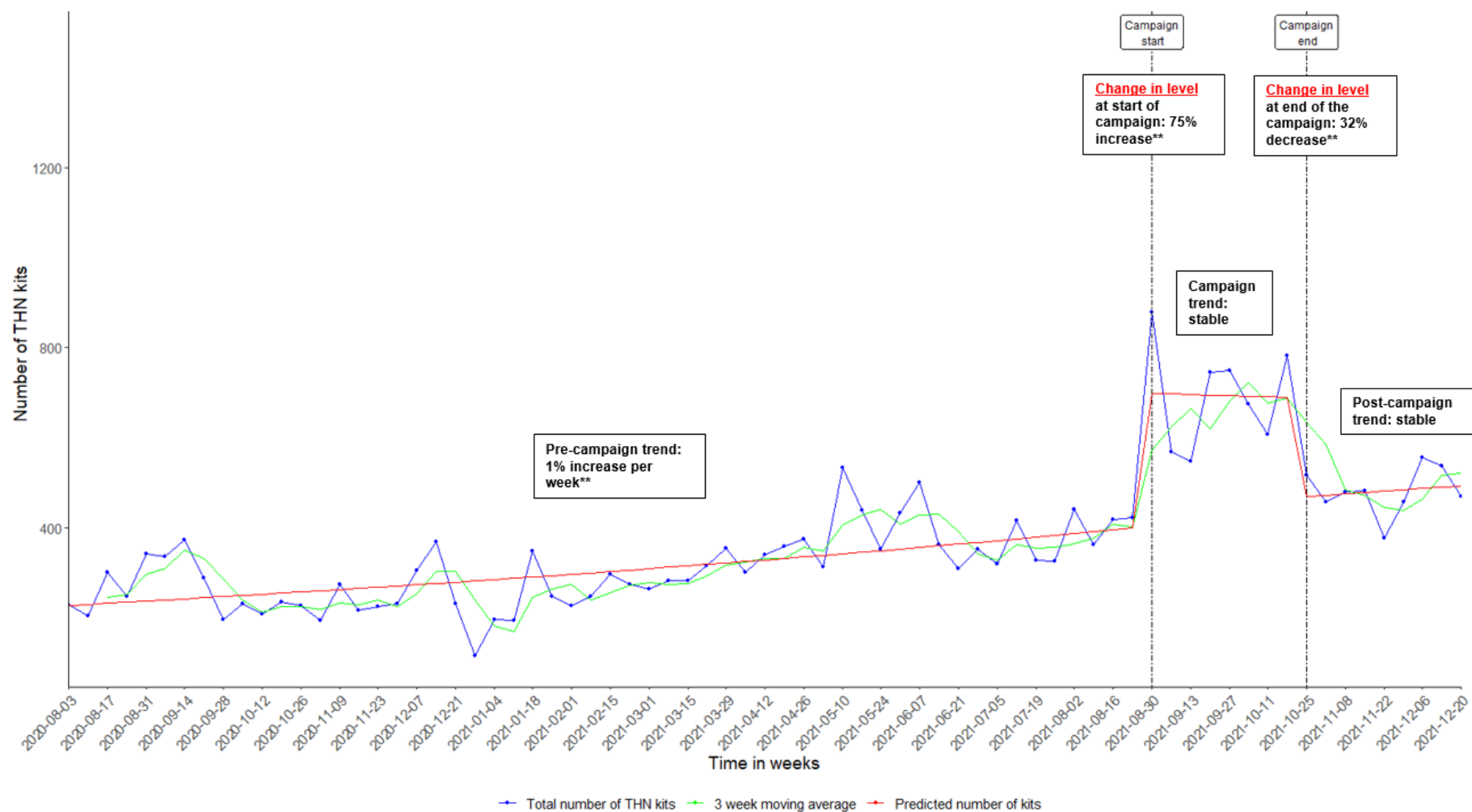
<sup>b</sup>Campaign started: w/b 30<sup>th</sup> Aug 22

<sup>c</sup>Main campaign period: w/b 30th Aug 21 – w/b 18th Oct 21;

<sup>d</sup>Campaign ended: w/b 25<sup>th</sup> Oct 2

<sup>e</sup>Post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

**Figure 6.3. Impact of the mass media campaign on take-home naloxone (THN) supplies in Scotland: segmented regression analyses modelling the changes in THN supplies when the campaign started and when the campaign ended, August 2020 - December 2021**



Campaign started: w/b 30<sup>th</sup> Aug 22; campaign ended: w/b 25<sup>th</sup> Oct 21: \* $<0.05$ ; \*\* $<0.001$

## 6.3 Summary of key findings

This chapter focussed on how the HTSAL impacted the supply of THN in Scotland.

### *The HTSAL campaign temporarily increased the supply of THN nationally in Scotland*

We found that the HTSAL mass media campaign had a short term but large impact on the supply of THN in Scotland. Prior to the start of the campaign, the national supply of THN was increasing by an average of 1% each week. When the campaign was launched, the number of kits increased by 75%. While the campaign was running, the trend in the supply of THN was stable. Once the campaign finished the supply of THN kits reduced by 32%, and the post-campaign in the supply of THN kits per week was stable. However, although the model showed a stable trend, the mean number of kits distributed per week increased in the post-campaign period (relative to the pre-campaign period), overall and for all distribution routes assessed.

The main distribution of THN related to the campaign was through SFAD. SFAD supplies are included within the national community THN distribution route. We were able to assess the community distribution of THN including, and excluding, the THN supplies distributed through SFAD. We observed the same trends in supplies distributed through the community route that included SFAD supplies. However, a different trend was observed when assessing the distribution of community THN excluding SFAD supplies. We did not observe any change in trends when the campaign started, for the duration of the campaign and when the campaign finished. In addition, the same trends were not observed in relation to THN kits supplied through the prison distribution route. This suggests that the increase in the overall supply of THN nationally in Scotland for the study period was driven by the HTSAL campaign and distribution via SFAD.

## 7 Discussion and conclusions

The HTSAL campaign was a large-scale nationwide marketing campaign on drug-related deaths. The main objectives of the HTSAL campaign were to:

- Increase awareness of drug-related deaths, the signs and symptoms of an overdose and how to respond to an overdose
- Increase the supply of THN

Secondary objectives of the campaign were to:

- Increase awareness and generate discussion of drug-related deaths as an important public health issue

We conducted an extensive evaluation of the HTSAL campaign. The evaluation triangulated data from multiple sources, including media sources, bespoke data generated from a panel survey representative of the Scottish population, and routine administrative data relating to the national distribution of THN. The research components of this evaluation were developed independently of funders and they did not specify the research questions and design, analyses of data, interpretations and conclusions generated from this study.

### 7.1 Has the campaign been a success?

Academic literature suggests that mass media campaigns can be effective at increasing knowledge and awareness of public health issues, but their effectiveness in driving behaviour change is limited or inconclusive (Section 1.5). Therefore, the success and impact of the HTSAL campaign should be considered in this context, and in relation to the primary objectives of the campaign.

#### 7.1.1 Primary objective one: Increase awareness of the signs and symptoms of an overdose, and how to respond to an overdose

The HTSAL campaign had a wide impact and reach. The TV/radio, billboard, and transport campaign generated an estimated 53,000,000 non-unique impressions (i.e. the number of times the campaign was seen or heard). The unique reach (relating to the number of people who saw the campaign) highlighted that the main STV campaign reached 2.6 million people,

the Sky Adsmart campaign reached 1.8 million, and main radio campaign reached over 250,000. These figures are consistent with comparable mass media campaigns, which tend to generate tens or hundreds of millions of impressions in similar timeframes. For example, a campaign to reduce sugar consumption in Los Angeles generated 158 million billboard impressions and 82 million TV impressions (Barragan et al., 2014). Another campaign to reduce consumption of sugar sweetened beverages gained 19 million video impressions in three months, using broadcast, cable, and online TV (Farley et al., 2017). In comparison, HTSAL gained over 32 million video impressions. It was uncommon for other evaluations to report unique reach, making comparison difficult, but the unique reach of HTSAL was clearly a significant proportion of the Scottish population. It should be noted that the information generated on impressions and reach was generated from the media advertising companies, and therefore could be subject to bias. In addition, the social media campaign reached over 180,000 people on Facebook. Engagement with the campaign on social media was successful, the video promoted on social media generated over 14,000 link clicks to the stop the death website. The Facebook click through rate of 1.9% compares favourably to other social media campaigns (Hui et al., 2015).

As demonstrated in Chapter 5, there was a high level of public awareness of the campaign (30% unprompted, 60% when prompted). Although there are no equivalent drug-related mass media campaigns that we can compare the HTSAL campaign too, this level of recognition is favourable compared to other public health campaigns that have been delivered in Scotland and internationally (Christensen et al., 2019; HM Government, 2015; Leavy et al., 2011).

Exposure to campaign materials increased knowledge about the signs and symptoms of an overdose. However, we found no effects on knowledge of how to respond to an overdose or readiness to intervene from the general public survey; we think this is partly due to limitations with the questions and scale used (as basic first aid knowledge within the sample was already high) to assess this rather than an absence of campaign effect. However, research has also highlighted that willingness to intervene is not uncommon. Not all people will intervene when they witness an overdose for a variety of reasons, including: situational factors (e.g. potential for law enforcement attendance, negative attitudes towards overdose victims; lack of confidence and incomplete skills; and bystander effects ('someone else will do it')) (Fisher et al., 2012; Grella et al., 2021; Miller et al., 2022; Rome et al., 2008). Future campaign iterations may therefore benefit from inclusion of motivational messages that aim to improve confidence in responses to overdose, and target individual self-efficacy (i.e. belief in capacity to execute recommended actions).

### **7.1.2 Primary objective two: Increase the supply of take-home naloxone**

We used an interrupted time series design to assess the effect of the HTSAL on the national supply of THN in Scotland. We found that the HTSAL campaign achieved the objective of increasing the national supply of THN. Reflecting experiences from other mass media campaigns (Abroms and Maibach, 2008; Allara et al., 2015), the effect of the campaign on THN supplies were short lived and lasted for the duration of the campaign. Therefore, other interventions and community distribution methods (e.g. ensuring low threshold access through wide range of services) should be implemented to sustain and boost the supply of THN outside of the campaign period. Although our statistical analyses showed that the trend in the supply of THN was stable in the post campaign period, we also found that the mean number of kits distributed per week increased in the post-campaign period (relative to the pre-campaign period).

The success of the HTSAL campaign in increasing the supply of THN may also reflect the distribution model implemented by SFAD, where people could order a THN kit directly to their home. Distribution of other harm reduction services using this method, including naloxone, has been used to increase the supply of THN successfully in order to mitigate the impacts of the COVID-19 pandemic (Barnett et al., 2021; Trayner et al., 2022), highlighting the benefits of ensuring low threshold and convenient access to THN.

Within our national survey sample, we found that less than 2% had ordered naloxone and 3% had undertaken naloxone training after seeing the campaign. We found that both ordering naloxone and undertaking training was more likely among those who witnessed an overdose. THN distribution data from SFAD highlighted that 2,260 THN kits were distributed during the campaign by SFAD, which puts the low proportions found within the survey into context. However, the vast majority of THN kits distributed by SFAD during the campaign were issued as a first supply (89%) and to members of the general public (60%). Furthermore, we know from SDF eLearning statistics that over 3000 new people completed training likely as a result of exposure to campaign materials. Therefore, HTSAL has equipped a new cohort of first responders who had not previously accessed naloxone or undergone training in Scotland to respond to an overdose.

It is also fundamental to increase THN supply and training among those who are most likely to witness an overdose (including peers, professionals, family and friends). We assessed the overall distribution of naloxone, however, other indicators are also important including

ownership, carriage and confidence to administer naloxone (Burton et al., 2021; Dayton et al., 2019; Giglio et al., 2015). A recent meta-analysis found that ownership of THN was moderate (>50%) and carriage of rates of THN were generally low (20-28%) among people who use drugs (Burton et al., 2021). A study from the USA found that insufficient overdose response training was associated with a reduced likelihood to intervene (Dayton et al., 2019).

### **7.1.3 Secondary objective one: Increase awareness of drug-related deaths an important public health issue**

The campaign was received positively overall. This was evident from multiple data sources, including the national survey of the Scottish public, and the sub-survey of people who work in addictions services, and family and friends, and people who use drugs themselves. Furthermore, within digital and print media, 98% of articles had a positive view of the campaign. The HTSAL campaign generated cross-party support, which is important as lack of cross-party political support for certain interventions (for example drug consumption rooms) is a barrier in preventing the most effective responses to drug-related deaths (Atkinson et al., 2019).

Although action after exposure to campaign materials was low, which is typical of mass media campaigns (Stead et al., 2019), the most common response was to have a conversation about drug-related deaths. Conversations and discussions are important, as when aligned with campaign objectives they can help to disseminate messages to those that weren't reached by the original campaign, and help improve public understanding, advocacy and interest within social networks (Abrams and Maibach, 2008; Noar et al., 2010; Wakefield et al., 2010). However, the sentiment analysis of Facebook comments, highlighted that not all engagement was positive. A small proportion of comments contained stigmatising and derogatory language towards people who use drugs. Furthermore, the majority of comments (27%) were debating the political responsibility for the drug-related death crisis. However, it is important to highlight that comment engagement (730 comments) was low in comparison to video views (160,688 views) and link clicks (14,208), indicating a more active positive engagement with the materials by people who did not comment on posts.

We also found a high level of support for harm reduction policies generally, including the distribution of naloxone and drug treatment services. Furthermore, we also found support 'good Samaritan' approaches, whereby individuals who have administered naloxone are protected from drug offenses (e.g. drug possession, probation violations, outstanding warrants



for minor offenses) when emergency services attend someone experiencing an overdose (Moallef and Hayashi, 2021). These are important findings, suggesting that public attitudes towards drug treatment programmes and the decriminalisation of drugs could be shifting (Matheson et al., 2014).

Although we found support for harm reduction policies and naloxone generally, we also found some evidence relating to misconceptions of naloxone. Principally that naloxone could increase opioid use among people who use drugs because they would assume that in the event of an overdose that it could be reversed. This view has been reported among the public, health professionals, policy makers and law enforcement in international studies (Agle et al., 2022; Rudski, 2016). However, there is no evidence of this in the scientific literature (Tse et al., 2022).

## **7.2 Recommendations for future campaigns**

### **7.2.1 Campaign design and types of campaign materials**

TV, radio and social media, particularly the video, were the most effective at delivering campaign messages. Campaign materials delivered on TV and radio had the highest reach. The social media campaign on Facebook, particularly the video, was very effective at facilitating action after exposure (visiting the stop the deaths website, etc.). Furthermore, the video delivered on Facebook and TV was found to have a larger effect on improving knowledge, when compared to written material alone. Future campaigns or booster campaigns should prioritise these channels of communication (TV, radio, social media).

### **7.2.2 Segmentation of campaign message**

The segmentation of campaign messages for different groups could also be beneficial. This has been utilised effectively in other campaigns to target specific population groups (Noar et al., 2010; Stead et al., 2019). We found high levels of awareness of the campaign and knowledge on how to respond to an overdose among the general public, but low levels of willingness to intervene. Future campaigns could include different messages for the public in general, and more specific and targeted messages for individuals who are most likely to witness an overdose.

### **7.2.2.1 The general public**

Messages for the public could focus on reducing stigma and increasing support for harm reduction policies and interventions. We know from other research, that mass media campaigns have been associated with the reduction in prejudice towards people with mental health issues (Clement et al., 2013). Research has shown that communicating the effectiveness of interventions and policy is associated with increased support (Reynolds et al., 2020). Campaigns could include messages about the effectiveness of pharmacological drug treatment and naloxone. Previous research has also shown that the type of message also effects support for harm reduction policies, with the inclusion of both a factual (i.e. the intervention is effective) and a sympathetic narrative (e.g. a story of a loved one who is affected by substance use) associated with increased support (Bachhuber et al., 2015; Razaghizad et al., 2021; Sumnall et al., 2020). We found evidence of misconceptions about naloxone, and therefore future campaigns could focus on both increasing the awareness of the effectiveness of harm reduction services, and addressing some other misconceptions about interventions, people who use drugs and drug use generally.

### **7.2.2.2 People who use drugs, and people who are likely to witness an overdose**

Specific campaign messages, for people who use drugs, and people who are likely to witness an overdose (professionals, friends and family, etc.), could include information on how to access naloxone, naloxone training and the importance of naloxone carriage/ownership. These types of messages have been associated with a greater confidence to respond to an overdose among people who use drugs (Dayton et al., 2019; Razaghizad et al., 2021). It is also fundamental that peers and members of the community are included in the design and delivery of future campaigns, to ensure the most targeted and effective harm reduction messages (Jozaghi, 2021).

### **7.2.3 Annual or booster campaigns**

Momentum could be built by promoting an annual mass media campaign to continue to raise awareness of drug-related deaths and reduce stigma towards people who use drugs in Scotland. Research has shown that awareness of campaign messages increases after multiple exposures to materials (Christensen et al., 2019), but this should be accompanied by practical actions that help target audiences put recommendations into action (e.g. free and easy access to naloxone training).

## **7.3 Conclusions**

The HTSAL mass media campaign was the widest ranging mass media campaign on drugs ever conducted in Scotland and the first to focus on drug-related deaths internationally. The campaign has successfully raised awareness of drug-related deaths as a public health issue, improved knowledge of the signs and symptoms of an overdose and increased the national supply of the THN.

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## References

- Abroms, L.C., Maibach, E.W., 2008. The Effectiveness of Mass Communication to Change Public Behavior. *Annu. Rev. Public Health* 29, 219–234. <https://doi.org/10.1146/ANNUREV.PUBLHEALTH.29.020907.090824>
- Agley, J., Xiao, Y., Eldridge, L., Meyerson, B., Golzarri-Arroyo, L., 2022. Beliefs and misperceptions about naloxone and overdose among U.S. laypersons: a cross-sectional study. *BMC Public Health* 22. <https://doi.org/10.1186/S12889-022-13298-3>
- Allara, E., Ferri, M., Bo, A., Gasparrini, A., Faggiano, F., 2015. Are mass-media campaigns effective in preventing drug use? A Cochrane systematic review and meta-analysis. *BMJ Open* 5, e007449. <https://doi.org/10.1136/BMJOPEN-2014-007449/-/DC1>
- Alvarez-Madrado, S., McTaggart, S., Nangle, C., Nicholson, E., Bennie, M., 2016. Data Resource Profile: The Scottish National Prescribing Information System (PIS). *Int. J. Epidemiol.* 45, 714-715f. <https://doi.org/10.1093/IJE/DYW060>
- Andrews, J.Y., Kinner, S.A., 2012. Understanding drug-related mortality in released prisoners: a review of national coronial records.
- Anker, A.E., Feeley, T.H., McCracken, B., Lagoe, C.A., 2016. Measuring the Effectiveness of Mass-Mediated Health Campaigns Through Meta-Analysis. *J. Health Commun.* 21, 439–456. <https://doi.org/10.1080/10810730.2015.1095820>
- Atkinson, A.M., McAuley, A., Trayner, K.M.A., Sumnall, H.R., 2019. ‘We are still obsessed by this idea of abstinence’: A critical analysis of UK news media representations of proposals to introduce drug consumption rooms in Glasgow, UK. *Int. J. Drug Policy* 68, 62–74. <https://doi.org/10.1016/J.DRUGPO.2019.03.010>
- Bachhuber, M.A., McGinty, E.E., Kennedy-Hendricks, A., Niederdeppe, J., Barry, C.L., 2015. Messaging to Increase Public Support for Naloxone Distribution Policies in the United States: Results from a Randomized Survey Experiment. *PLoS One* 10, e0130050. <https://doi.org/10.1371/JOURNAL.PONE.0130050>
- Barnett, B.S., Wakeman, S.E., Davis, C.S., Favaro, J., Rich, J.D., 2021. Expanding Mail-Based Distribution of Drug-Related Harm Reduction Supplies Amid COVID-19 and Beyond. *Am. J. Public Health* 111, 1013–1017. <https://doi.org/10.2105/AJPH.2021.306228>

- Barragan, N.C., Noller, A.J., Robles, B., Gase, L.N., Leighs, M.S., Bogert, S., Simon, P.A., Kuo, T., 2014. The “sugar pack” health marketing campaign in Los Angeles County, 2011-2012. *Health Promot. Pract.* 15, 208–216. <https://doi.org/10.1177/1524839913507280>
- Bird, S.M., McAuley, A., 2019. Scotland’s National Naloxone Programme. *Lancet (London, England)* 393, 316–318. [https://doi.org/10.1016/S0140-6736\(18\)33065-4](https://doi.org/10.1016/S0140-6736(18)33065-4)
- Bird, S.M., McAuley, A., Perry, S., Hunter, C., 2016. Effectiveness of Scotland’s National Naloxone Programme for reducing opioid-related deaths: a before (2006–10) versus after (2011–13) comparison. *Addiction* 111, 883–891. <https://doi.org/10.1111/ADD.13265>
- Burstein, P., 2003. The Impact of Public Opinion on Public Policy: A Review and an Agenda. *Polit. Res. Q.* 56, 29–40.
- Burton, G., McAuley, A., Schofield, J., Yeung, A., Matheson, C., Parkes, T., 2021. A systematic review and meta-analysis of the prevalence of take-home naloxone (THN) ownership and carriage. *Int. J. Drug Policy* 96, 103298. <https://doi.org/10.1016/J.DRUGPO.2021.103298>
- Christensen, A.S.P., Meyer, M.K.H., Dalum, P., Krarup, A.F., 2019. Can a mass media campaign raise awareness of alcohol as a risk factor for cancer and public support for alcohol related policies? *Prev. Med. (Baltim.)* 126, 105722. <https://doi.org/10.1016/J.YPMED.2019.05.010>
- Clark, A.K., Wilder, C.M., Winstanley, E.L., 2014. A systematic review of community opioid overdose prevention and naloxone distribution programs. *J. Addict. Med.* 8, 153–163. <https://doi.org/10.1097/ADM.0000000000000034>
- Clement, S., Lassman, F., Barley, E., Evans-Lacko, S., Williams, P., Yamaguchi, S., Slade, M., Rüsçh, N., Thornicroft, G., 2013. Mass media interventions for reducing mental health-related stigma. *Cochrane Database Syst. Rev.* 2013. <https://doi.org/10.1002/14651858.CD009453.pub2>
- Coffin, P.O., Sullivan, S.D., 2013. Cost-effectiveness of distributing naloxone to heroin users for lay overdose reversal. *Ann. Intern. Med.* 158, 1–9. [https://doi.org/10.7326/0003-4819-158-1-201301010-00003/SUPPL\\_FILE/M12-1737\\_SUPPLEMENT-V1.PDF](https://doi.org/10.7326/0003-4819-158-1-201301010-00003/SUPPL_FILE/M12-1737_SUPPLEMENT-V1.PDF)
- Colledge, S., Peacock, A., Leung, J., Larney, S., Grebely, J., Hickman, M., Cunningham, E., Trickey, A., Stone, J., Vickerman, P., Degenhardt, L., 2019. The prevalence of non-fatal

- overdose among people who inject drugs: A multi-stage systematic review and meta-analysis. *Int. J. Drug Policy*. <https://doi.org/10.1016/j.drugpo.2019.07.030>
- Corrigan, P.W., Backs Edwards, A., Green, A., Thwart, S.L., Perm, D.L., 2001. Prejudice, Social Distance, and Familiarity with Mental Illness. *Schizophr. Bull.* 27.
- Cousins, G., Teljeur, C., Motterlini, N., Mccowan, C., Dimitrov, B.D., Fahey, T., 2011. Risk of drug-related mortality during periods of transition in methadone maintenance treatment: A cohort study. *J. Subst. Abuse Treat.* 41, 252–260. <https://doi.org/10.1016/J.JSAT.2011.05.001>
- Dayton, L., Gicquelais, R.E., Tobin, K., Davey-Rothwell, M., Falade-Nwulia, O., Kong, X., Fingerhood, M., Jones, A.A., Latkin, C., 2019. More than just availability: Who has access and who administers take-home naloxone in Baltimore, MD. *PLoS One* 14, e0224686. <https://doi.org/10.1371/JOURNAL.PONE.0224686>
- Dixon, H.G., Pratt, I.S., Scully, M.L., Miller, J.R., Patterson, C., Hood, R., Slevin, T.J., 2015. Using a mass media campaign to raise women’s awareness of the link between alcohol and cancer: cross-sectional pre-intervention and post-intervention evaluation surveys. *BMJ Open* 5, e006511. <https://doi.org/10.1136/BMJOPEN-2014-006511>
- Dunleavy, K., Munro, A., Roy, K., Hutchinson, S., Palmateer, N., Knox, T., Goldberg, D., Taylor, A., 2017. Association between harm reduction intervention uptake and skin and soft tissue infections among people who inject drugs. *Drug Alcohol Depend.* 174, 91–97. <https://doi.org/10.1016/J.DRUGALCDEP.2017.01.020>
- Eastwood, N., Lines, R., 2021. Anti-Methadone Rhetoric Exacerbates Public Health Crisis In The UK [WWW Document]. *Release Drugs*. URL <https://www.talkingdrugs.org/methadone-buvidal-media> (accessed 7.6.22).
- Farley, T.A., Halper, H.S., Carlin, A.M., Emmerson, K.M., Foster, K.N., Fertig, A.R., 2017. Mass Media Campaign to Reduce Consumption of Sugar-Sweetened Beverages in a Rural Area of the United States. *Am. J. Public Health* 107, 989. <https://doi.org/10.2105/AJPH.2017.303750>
- Friser, M., Baldacchino, A., Crome, I., Bloor, R., 2012. Preventing opioid overdoses in Europe: A critical assessment of known risk factors and preventative measures, European Monitoring Centre for Drugs and Drug Addiction.
- Giglio, R.E., Li, G., DiMaggio, C.J., 2015. Effectiveness of bystander naloxone administration

and overdose education programs: a meta-analysis. *Inj. Epidemiol.* 2, 1–9. <https://doi.org/10.1186/S40621-015-0041-8/FIGURES/3>

Green, T.C., Heimer, R., Grau, L.E., 2008. Distinguishing signs of opioid overdose and indication for naloxone: an evaluation of six overdose training and naloxone distribution programs in the United States. *Addiction* 103, 979–989. <https://doi.org/10.1111/J.1360-0443.2008.02182.X>

Grella, C.E., Ostlie, E., Scott, C.K., Dennis, M.L., Carnevale, J., Watson, D.P., 2021. A scoping review of factors that influence opioid overdose prevention for justice-involved populations. *Subst. Abus. Treat. Prev. Policy* 16, 1–39. <https://doi.org/10.1186/S13011-021-00346-1/FIGURES/2>

Grilli, R., Ramsay, C., Minozzi, S., 2002. Mass media interventions: effects on health services utilisation. *Cochrane Database Syst. Rev.* <https://doi.org/10.1002/14651858.cd000389>

HM Government, 2015. *Drug Strategy 2010: “A Balanced Approach”*.

Hui, A., Wong, P.W.-C., Fu, K.-W., 2015. Evaluation of an Online Campaign for Promoting Help-Seeking Attitudes for Depression Using a Facebook Advertisement: An Online Randomized Controlled Experiment. *JMIR Ment. Heal.* 2, e5. <https://doi.org/10.2196/MENTAL.3649>

Irvine, M.A., Kuo, M., Buxton, J.A., Balshaw, R., Otterstatter, M., Macdougall, L., Milloy, M., Bharmal, A., Henry, B., Tyndall, M., Coombs, D., Gilbert, M., 2019. Modelling the combined impact of interventions in averting deaths during a synthetic-opioid overdose epidemic. *Addiction* 114, 1602–1613. <https://doi.org/10.1111/add.14664>

Jozaghi, E., 2021. *The Synthetic Opioid Epidemic: A Study Protocol to Determine Whether People Who Use Drugs Can Influence or Shape Public Opinion via Mass Media* VANDU Vancouver Area Network of Drug Users Vancouver Methodology. <https://doi.org/10.21203/rs.3.rs-542380/v1>

Kennedy-Hendricks, A., Barry, C.L., Gollust, S.E., Ensminger, M.E., Chisolm, M.S., McGinty, E.E., 2017. Social Stigma Toward Persons With Prescription Opioid Use Disorder: Associations With Public Support for Punitive and Public Health-Oriented Policies. *Psychiatr. Serv.* 68, 462–469. <https://doi.org/10.1176/APPI.PS.201600056>

Koltai, J., McKee, M., Stuckler, D., 2021. Association between disability-related budget reductions and increasing drug-related mortality across local authorities in Great Britain.



Soc. Sci. Med. 284, 114225. <https://doi.org/10.1016/J.SOCSCIMED.2021.114225>

Leavy, J.E., Bull, F.C., Rosenberg, M., Bauman, A., 2011. Physical activity mass media campaigns and their evaluation: a systematic review of the literature 2003–2010. *Health Educ. Res.* 26, 1060–1085. <https://doi.org/10.1093/HER/CYR069>

MacArthur, G.J., van Velzen, E., Palmateer, N., Kimber, J., Pharris, A., Hope, V., Taylor, A., Roy, K., Aspinall, E., Goldberg, D., Rhodes, T., Hedrich, D., Salminen, M., Hickman, M., Hutchinson, S.J., 2014. Interventions to prevent HIV and hepatitis C in people who inject drugs: A review of reviews to assess evidence of effectiveness. *Int. J. Drug Policy.* <https://doi.org/10.1016/j.drugpo.2013.07.001>

Marshall, B.D.L., Milloy, M.-J., Wood, E., Montaner, J.S.G., Kerr, T., 2011. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet* 377, 1429–1437. <https://doi.org/10.1016/S0140>

Matheson, C., Jaffray, M., Ryan, M., Bond, C.M., Fraser, K., Kirk, M., Liddell, D., 2014. Public opinion of drug treatment policy: Exploring the public's attitudes, knowledge, experience and willingness to pay for drug treatment strategies. *Int. J. Drug Policy* 25, 407–415. <https://doi.org/10.1016/J.DRUGPO.2013.11.001>

McAuley, A., Aucott, L., Matheson, C., 2015. Exploring the life-saving potential of naloxone: A systematic review and descriptive meta-analysis of take home naloxone (THN) programmes for opioid users. *Int. J. Drug Policy* 26, 1183–1188. <https://doi.org/10.1016/J.DRUGPO.2015.09.011>

McDonald, R., Strang, J., 2016. Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria. <https://doi.org/10.1111/add.13326>

Merrall, E.L.C., Bird, S.M., Hutchinson, S.J., 2013. A record-linkage study of drug-related death and suicide after hospital discharge among drug-treatment clients in Scotland, 1996–2006. *Addiction* 108, 377–384. <https://doi.org/10.1111/J.1360-0443.2012.04066.X>

Merrall, E.L.C., Kariminia, A., Binswanger, I.A., Hobbs, M.S., Farrell, M., Marsden, J., Hutchinson, S.J., Bird, S.M., 2010. Meta-analysis of drug-related deaths soon after release from prison. *Addiction* 105, 1545–1554. <https://doi.org/10.1111/j.1360-0443.2010.02990.x>

Miller, N.M., Waterhouse-Bradley, B., Campbell, C., Shorter, G.W., 2022. How do naloxone-

based interventions work to reduce overdose deaths: a realist review. *Harm Reduct. J.* 19, 1–13. <https://doi.org/10.1186/S12954-022-00599-4/TABLES/1>

Moallef, S., Hayashi, K., 2021. The effectiveness of drug-related Good Samaritan laws: A review of the literature. *Int. J. Drug Policy* 90. <https://doi.org/10.1016/J.DRUGPO.2020.102773>

National Records of Scotland, 2022. Drug-related deaths in Scotland in 2021.

Noar, S.M., Harrington, N.G., Helme, D.W., 2010. The Contributions of Health Communication Research to Campaign Practice. <http://dx.doi.org/10.1080/10410236.2010.496832> 25, 593–594. <https://doi.org/10.1080/10410236.2010.496832>

Official Office for National Statistics, 2022. Deaths Related to Drug Poisoning in England and Wales: 2021 registrations. London, UK.

Pardo, B., Caulkins, J.P., Kilmer, B., 2018. Assessing the Evidence on Supervised Drug Consumption Sites. Santa Monica.

Platt, L., Minozzi, S., Reed, J., Vickerman, P., Hagan, H., French, C., Jordan, A., Degenhardt, L., Hope, V., Hutchinson, S., Maher, L., Palmateer, N., Taylor, A., Bruneau, J., Hickman, M., 2018. Needle and syringe programmes and opioid substitution therapy for preventing HCV transmission among people who inject drugs: findings from a Cochrane Review and meta-analysis. *Addiction* 113, 545–563. <https://doi.org/10.1111/add.14012>

Randolph, W., Viswanath, K., 2004. Lessons Learned from Public Health Mass Media Campaigns: Marketing Health in a Crowded Media World\*. <http://dx.doi.org/10.1146/annurev.publhealth.25.101802.123046> 25, 419–437. <https://doi.org/10.1146/ANNUREV.PUBLHEALTH.25.101802.123046>

Razaghizad, A., Windle, S.B., Filion, K.B., Gore, G., Kudrina, I., Paraskevopoulos, E., Kimmelman, J., Martel, M.O., Eisenberg, M.J., 2021. The Effect of Overdose Education and Naloxone Distribution: An Umbrella Review of Systematic Reviews. *Am. J. Public Health* 111, e1–e12. <https://doi.org/10.2105/AJPH.2021.306306>

Reynolds, J.P., Stautz, K., Pilling, M., van der Linden, S., Marteau, T.M., 2020. Communicating the effectiveness and ineffectiveness of government policies and their impact on public support: a systematic review with meta-analysis. *R. Soc. Open Sci.* 7. <https://doi.org/10.1098/RSOS.190522>

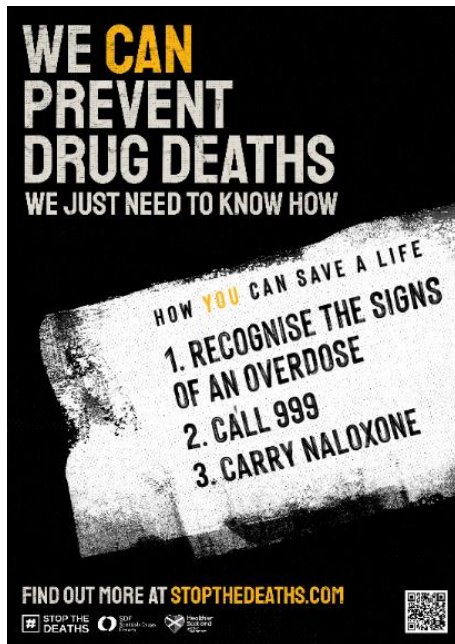
- Ritter, A., 2021. Drug Policy. <https://doi.org/10.4324/9781003224501>
- Rome, A., Shaw, A., Boyle, K., 2008. Reducing Drug Users' Risk of Overdose. Edinburgh, UK.
- Rönkä, S., Karjalainen, K., Martikainen, P., Mäkelä, P., 2017. Social determinants of drug-related mortality in a general population. *Drug Alcohol Depend.* 181, 37–43. <https://doi.org/10.1016/J.DRUGALCDEP.2017.09.005>
- Rudski, J., 2016. Public Perspectives on Expanding Naloxone Access to Reverse Opioid Overdoses. <https://doi.org/10.1080/10826084.2016.1197267> 51, 1771–1780. <https://doi.org/10.1080/10826084.2016.1197267>
- Rüsch, N., Evans-Lacko, S., Thornicroft, G., 2012. What is a mental illness? Public views and their effects on attitudes and disclosure. *Aust. N. Z. J. Psychiatry* 46, 641–650. <https://doi.org/10.1177/0004867412438873>
- Sattler, S., Escande, A., Racine, E., Göritz, A.S., 2017. Public Stigma Toward People With Drug Addiction: A Factorial Survey. <http://dx.doi.org/10.15288/jsad.2017.78.415> 78, 415–425. <https://doi.org/10.15288/JSAD.2017.78.415>
- Silverman, J., 2010. Addicted to distortion: The media and UK drugs policy. *Safer Communities* 9, 26–31. <https://doi.org/10.5042/SC.2010.0582/FULL/PDF>
- Sordo, L., Barrio, G., Bravo, M.J., Indave, I., Degenhardt, L., Wiessing, L., Ferri, M., Pastor-Barriuso, R., 2017. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ* 357, 1550. <https://doi.org/10.1136/bmj.j1550>
- Stead, M., Angus, K., Langley, T., Katikireddi, S.V., Hinds, K., Hilton, S., Lewis, S., Thomas, J., Campbell, M., Young, B., Bauld, L., 2019. Mass media to communicate public health messages in six health topic areas: a systematic review and other reviews of the evidence. *Public Heal. Res.* 7, 1–206. <https://doi.org/10.3310/phr07080>
- Sumnall, H.R., Atkinson, A.M., Trayner, K.M.A., Gage, S.H., McAuley, A., 2020. Effects of messaging on public support for drug consumption rooms in Scotland, UK. *Int. J. Drug Policy* 83, 102855. <https://doi.org/10.1016/j.drugpo.2020.102855>
- The Daily Record, 2020. I'll die on a methadone prescription: user of 25 years opens up about addiction - Daily Record.
- The Daily Record, 2015. Methadone programme in Scotland is “out of control”, expert warns.

- Trayner, K.M.A., McAuley, A., Palmateer, N.E., Yeung, A., Goldberg, D.J., Glancy, M., Hunter, C., Ritchie, T., Craik, J., Raeburn, F., McTaggart, S., Barnsdale, L., Campbell, J., Shepherd, S.J., Bradley-Stewart, A., Gunson, R.N., Templeton, K., Hutchinson, S.J., 2022. Examining the impact of the first wave of COVID-19 and associated control measures on interventions to prevent blood-borne viruses among people who inject drugs in Scotland: an interrupted time series study. *Drug Alcohol Depend.* 232, 109263. <https://doi.org/10.1016/J.DRUGALCDEP.2021.109263>
- Tse, W.C., Djordjevic, F., Borja, V., Picco, L., Lam, T., Olsen, A., Larney, S., Dietze, P., Nielsen, S., 2022. Does naloxone provision lead to increased substance use? A systematic review to assess if there is evidence of a “moral hazard” associated with naloxone supply. *Int. J. Drug Policy* 100. <https://doi.org/10.1016/J.DRUGPO.2021.103513>
- Wagner, A.K., Soumerai, S.B., Zhang, F., Ross-Degnan, D., 2002. Segmented regression analysis of interrupted time series studies in medication use research. *J. Clin. Pharm. Ther.* 27, 299–309.
- Wakefield, Melanie A, Loken, B., Hornik, R.C., Wakefield, M A, 2010. Use of mass media campaigns to change health behaviour. *Lancet* 376, 1261–1271. [https://doi.org/10.1016/S0140-6736\(10\)60809-4](https://doi.org/10.1016/S0140-6736(10)60809-4)
- Walley, A.Y., Xuan, Z., Hackman, H.H., Quinn, E., Doe-Simkins, M., Sorensen-Alawad, A., Ruiz, S., Ozonoff, A., 2013. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. *BMJ* 346. <https://doi.org/10.1136/BMJ.F174>
- Werb, D., Mills, E.J., DeBeck, K., Kerr, T., Montaner, J.S.G., Wood, E., 2011. The effectiveness of anti-illicit-drug public-service announcements: a systematic review and meta-analysis. *J Epidemiol Community Heal.* 65, 834–840. <https://doi.org/10.1136/JECH.2010.125195>
- White, S.R., Bird, S.M., Merrall, E.L.C., Hutchinson, S.J., 2015. Drugs-Related Death Soon after Hospital-Discharge among Drug Treatment Clients in Scotland: Record Linkage, Validation, and Investigation of Risk-Factors. *PLoS One* 10, e0141073. <https://doi.org/10.1371/JOURNAL.PONE.0141073>
- Williams, A. V., Strang, J., Marsden, J., 2013. Development of Opioid Overdose Knowledge (OOKS) and Attitudes (OOAS) Scales for take-home naloxone training evaluation. *Drug*

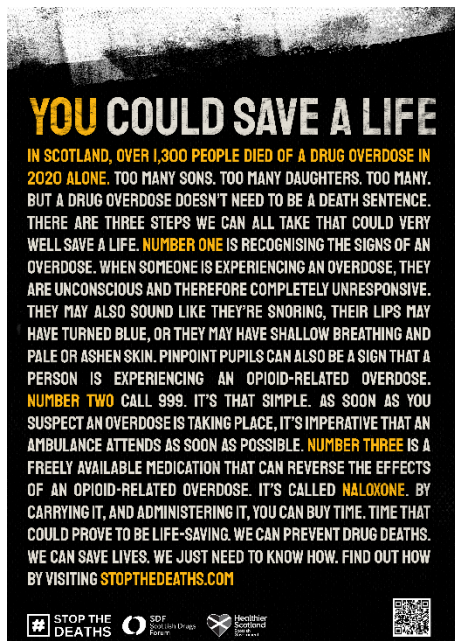
Alcohol Depend. 132, 383–386. <https://doi.org/10.1016/J.DRUGALCDEP.2013.02.007>

# Appendix A. 'How to save a life' mass media campaign materials

Poster 1




Poster 2










Poster 3

**WOULD YOU RECOGNISE THE SIGNS OF AN OVERDOSE?**

**# STOP THE DEATHS**  
**IF A PERSON IS UNRESPONSIVE AND HAS ANY OTHER SIGNS CALL 999**






<b>IMPORTANT</b>  WE CAN PREVENT DRUG DEATHS. WE JUST NEED TO KNOW HOW.	<b>SNORING</b> 	<b>SHALLOW BREATHING</b> 
	<b>PALE SKIN</b> 	<b>BLUE LIPS</b> 




**CARRY NALOXONE**
NALOXONE REVERSES THE EFFECTS OF OPIOIDS. IT CAN HELP SAVE LIVES.

**SDF**  
 Scottish Drugs Forum

Social media

**WE CAN PREVENT DRUG DEATHS**  
 WE JUST NEED TO KNOW HOW

FIND OUT MORE AT [STOPTHEDEATHS.COM](http://STOPTHEDEATHS.COM)

**WOULD YOU RECOGNISE THE SIGNS OF AN OVERDOSE?**

**# STOP THE DEATHS**



**# STOP THE DEATHS**

**UNRESPONSIVE**

Taxi





## Appendix B. Key dates relating to the HTSAL campaign.

Week beginning	Campaign dates	Radio	TV	Public transport	Outdoor/public displays	Social media
30/08/2021	Week of campaign launch					
06/09/2021						
13/09/2021						
20/09/2021						
27/09/2021						
04/10/2021						
11/10/2021						
18/10/2021						
25/10/2021						
01/11/2021						
08/11/2021						
15/11/2021						
22/11/2021						
29/11/2021						
06/12/2021						
13/12/2021	December booster campaign					
20/12/2021						
27/12/2021						
03/01/2022						
10/01/2022						

# **Appendix C. Supplementary material relating to the media analysis evaluation strand.**

## **Appendix C1. Survey of people who work in drug and alcohol services, people who use drugs, and family and friends affected by drug use**

### **Study information and consent**

This study asks you about awareness of a public health campaign that ran in Scotland in 2021. We are interested in views about the campaign from friends or family members of people who use drugs and/or people who work in drug services.

We will ask you about your awareness of the campaign and some questions about the campaign topic.

#### **Q.1 – Do you agree to take part in the study?**

- I agree to take part in the study / I do not agree to take part in the study

#### **Q.2 – Which part of the UK are you in?**

- Scotland, England, Wales, Northern Ireland

If it is not 'Scotland', respondent is screened out of the rest of the survey.

#### **Q.3– Are you aged over 18? Please note that only people aged over 18 can complete this survey.**

- Yes / No

#### **Q.4 – Which Health Board area in Scotland do you live in?**

- Ayrshire and Arran / Borders / Dumfries and Galloway / Fife / Forth Valley / Grampian / Greater Glasgow and Clyde / Highland / Lanarkshire / Lothian / Orkney / Shetland / Tayside / Western Isles

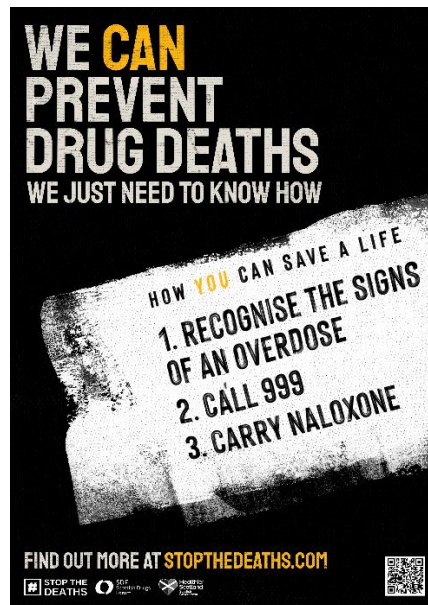
#### **Q.5 – Are you a person who uses drugs, a friend or family member of a person who uses drugs, or do you work in a service in contact with people who use drugs?**

- Person who uses drugs
- Friend of a person who uses drugs
- Family member of a person who uses drugs
- Work in a service in contact with people who use drugs

- None of the above

If 'No', respondent is screened out of the rest of the survey.

**Q.6 – Are you aware of the How To Save A Life campaign that ran from August 2021 to Jan 2022 in Scotland? The campaign was multi-media and was featured on the radio, television, social media and campaign materials were displayed in public places (transport, hospitality, etc.) The main campaign poster looked like this:**



- Yes, I am aware of the campaign
- No, I am not aware of the campaign

If 'No', respondent is screened out for the rest of the survey.

**Q.7 – What was your exposure to the campaign? (Select all that apply)**

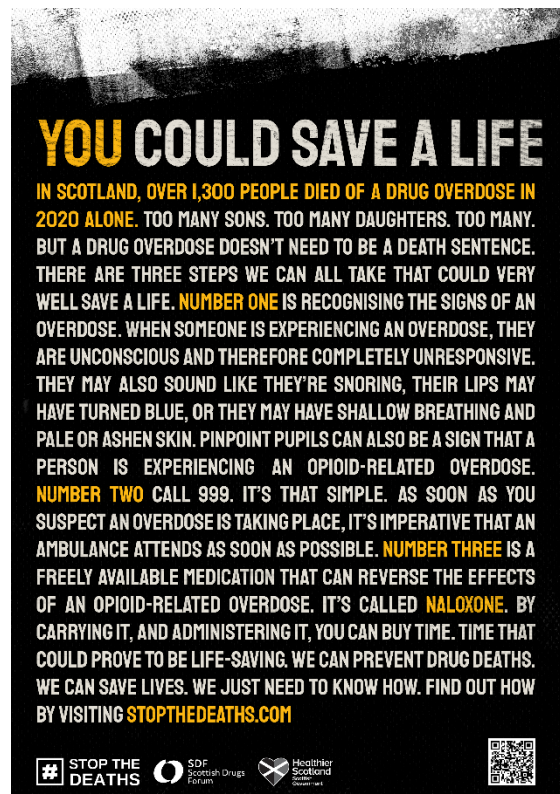
- Saw it on social media (Facebook/Instagram/Twitter) with the hashtag #stopthedeaths
- Saw the campaign website (Stopthedeaths.com)
- Heard the radio adverts voiced by the Scottish actor and Line of Duty star Martin Compston.
- Saw the TV adverts voiced by the Scottish actor and Line of Duty star Martin Compston.
- Saw the outdoor billboards and posters in bus shelters, shopping centres, supermarkets, public transport etc.
- Saw it in a news piece (e.g., newspapers, TV, radio, and websites who reported on the campaign)
- Saw it on the side of a taxi
- Heard about it from somebody else

- Other

**Q.8 – A key part of the campaign was TV/Radio adverts voiced by Line of Duty star Martin Compston. The main aim was to raise public awareness of how to recognise and intervene when someone has a drug overdose. Please watch this video of the TV advert.**

[Embed How To Save A Life advert [How to Save A Life - YouTube](#)]

Please also read the information in this graphic:



**Overall, do you have positive or negative view of the campaign.**

- Positive
- Negative
- Neutral

**Q.9 - In your own words, what are your feelings about the campaign? (Prompt: how did it make you feel? What emotions did it bring up? How did it affect you personally?)**

[Free text box]

**Q.10 – How do you think the campaign would make the general public feel about people who use drugs? (Prompt: would it make people care more about the risk of overdose and other harms faced by people who use drugs)**

[Free text box]

# Appendix D. Supplementary material relating to the general public evaluation strand

## Appendix D1. General public evaluation strand study questionnaire.

### 1. Eligibility checks

1.1 What is your age?

1.2 In which country do you currently reside?

1.3 Which part of the UK do you currently live?

- England
- Northern Ireland
- Scotland
- Wales

### 2. Demographics

2.1 What is your gender?

- Female
- Male
- Non-binary
- Other (please specify) \_\_\_\_\_

2.2 What is the highest level of education/training you have completed or the highest degree you have received so far?

- Standards/GCSE/NVQ equivalent
- Highers/A-Levels/BTEC/NVQ equivalent
- University Bachelors/NVQ equivalent
- Master's degree/NVQ equivalent
- Doctoral/Professional degree/NVQ equivalent
- None

2.3 How would you describe your ethnicity?

- Prefer not to answer
- White or White British
- Asian or Asian British
- Black or Black British
- Mixed or Multiple
- Other \_\_\_\_\_

2.4 What is the first part of your postcode (e.g. G2)? Please note, this is just so we can tell what your closest town or city is - we can't tell where you live from this information.

\_\_\_\_\_

2.5 Which statement best describes your current employment status?

- Prefer not to answer
- Studying (full time)
- Working (part time)
- Working (full time)
- Working (self-employed)
- Not working (looking for work)
- Not working (retired)
- Not working (other)

2.6 If there was a general election tomorrow - who would you vote for?

- Prefer not to answer
- Wouldn't vote/spoil vote
- Conservative
- Green
- Labour
- Liberal Democrat
- SNP
- Other (please specify) \_\_\_\_\_

-----

2.7 Could you tell us to what extent you...?

	Everyday/Almost everyday	Two or three times a week to about once a week	Two or three times a month or less often	Never	No access to this	Don't know
Watch TV on a TV set	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch TV via the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listen to the radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read printed newspapers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use online social networks (e.g. Twitter, Facebook, YouTube)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch news or current affair programmes on TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read or watch news or current affairs on the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



### 3. Campaign awareness - spontaneous

This survey asks you about awareness of a public health campaign that ran in Scotland between August 2021 and January 2022. We will ask you whether you saw it, and then ask you some questions about the campaign topic.

The campaign was called ***How to Save a Life*** and the main campaign logo was:



3.1 In a few words, do you know what this campaign was about? Please type in the box below. If you don't know, that's fine, we'll explain more later on.

---

3.2 Please select from the choices below about what you think the campaign was about

- How to stop alcohol deaths
- How to stop cancer deaths
- How to stop COVID deaths
- How to stop deaths from drug overdoses
- How to stop deaths from knife attacks
- How to stop deaths on the roads
- Other \_\_\_\_\_

3.3 Did you guess this answer, or did you really know? Please answer honestly, we're not trying to catch you out.

- I knew
- I guessed

#### 4. Campaign awareness - prompted

In 2020, 1,339 people in Scotland died from a drug overdose. This was the seventh year in a row where there has been a record number of drug overdose deaths. **How to Save a Life** was a national campaign running across Scotland, and was designed to raise public awareness of the signs of drug overdose, and what members of the public should do if they witness someone overdosing. The main campaign ran from the end of August 2021 to the end of November 2021, with some additional activities in December 2021 and January 2022.

4.1 Can you remember this campaign? We'll ask you about specific campaign materials in later questions

- Yes, I remember seeing, hearing, or reading something about the campaign myself
- Although I didn't see, hear, or read about it myself, someone told me about it, or I heard about it in passing
- No, this is the first time I have heard about the campaign

The campaign ran on a number of platforms. Can you remember seeing any of them? On the next few pages you'll be shown some examples of the materials used and then ask you will be asked about them.

4.2 A TV advert voiced by the Scottish actor and Line of Duty star Martin Compston (please press play on the videoclip)



Did you see this?

- Yes
- No, but I heard about it
- No

5. A social media campaign (Facebook, Instagram, Twitter) with the hashtag #StopTheDeaths



6. Did you see this?

- Yes
- No, but I heard about it
- No

#### 4.4 A campaign website

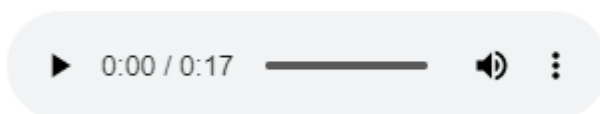
<https://www.stopthedeaths.com/>



Did you visit this website?

- Yes
- No, but I heard about it
- No

#### 4.5 A radio advert voiced by the Scottish actor and Line of Duty star Martin Compston (press play)



Did you hear this advert when the campaign ran?

- Yes
- No, but I heard about it
- No

6 Outdoor billboards and posters in places like bus shelters, bars, shopping centres, public toilets, supermarkets; and on trains, buses, and the Glasgow subway.

We've deliberately covered up the main text.



Did you see any of these?

- Yes
- No, but I heard about it
- No

4.7 A taxi, covered with campaign materials.

We've deliberately covered up some of the text.



Did you see this taxi?

- Yes
- No, but I heard about it
- No

4.8 Finally, news pieces (including newspapers, radio, TV, and websites) like this one reporting on the campaign

R News • Drugs

## Bus stop ads and TV slots will give life-saving overdose advice across Scotland

Scottish Government adverts set to tell public what to do in the face of an overdose

SHARE    By **Mark McGivern** Chief Reporter  
04:30, 31 AUG 2021 | UPDATED: 04:32, 31 AUG 2021

NEWS



 Special constable Stewart Barclay with naloxone

Did you see or hear anything like this?

- Yes
- No, but I heard about it
- No

## 7. Campaign engagement

5.1 Did you engage with any aspect of the campaign, please click all that apply

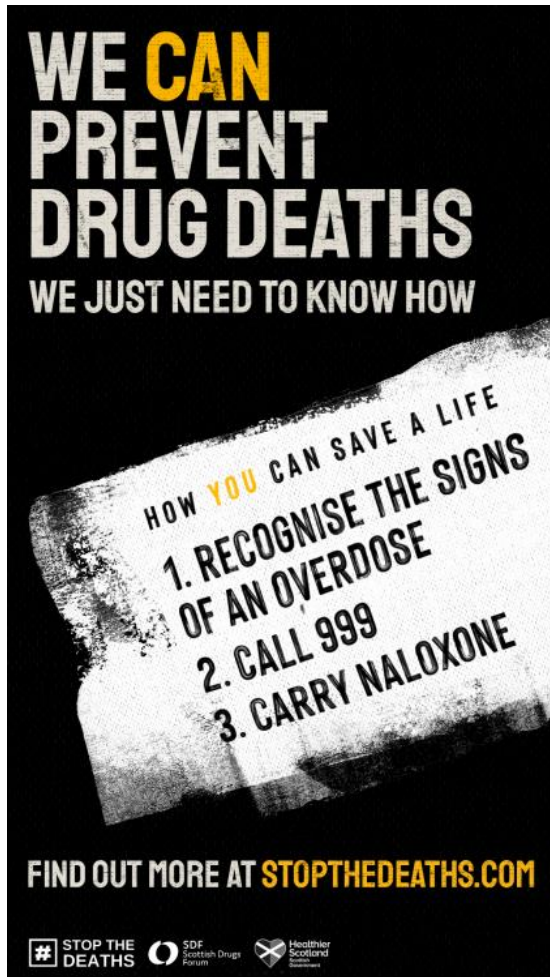
- No, I didn't see or hear about the campaign until starting this survey
- I saw or heard about the campaign but didn't do anything else
- Visited the Stop the Deaths website
- Had a conversation about the How to Save a Life campaign
- Had a conversation about drug deaths in Scotland
- Had a conversation about how to prevent overdoses
- Liked or shared material on social media about the How to Save a Life campaign
- Liked or shared material on social media about drug deaths in Scotland
- Liked or shared material on social media about how to prevent overdoses
- Posted material or commented on social media about the How to Save a Life campaign
- Posted material or commented on social media about drug deaths in Scotland
- Posted material or commented on social media about how to prevent overdoses
- Had a conversation about the medicine naloxone (the medicine that rapidly reverses an overdose)
- Signed up for the free e-learning naloxone training course
- Ordered naloxone through the Scottish Families Affected by Alcohol and Drugs website or through a local drugs service
- Did my own further independent research about drugs, drug deaths, and/or overdoses
- Other (please write in box) \_\_\_\_\_



8. **Experimental component** - participants were randomised to receive one of the campaign component combinations below

### 6.1 Campaign

Please read the information contained in the graphic below

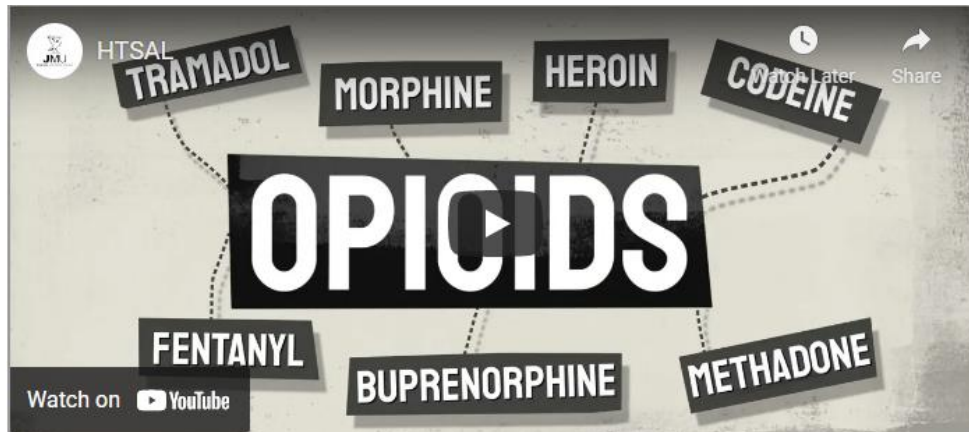


Please confirm that you read the information

- Yes

## 6.2 Video

Please watch the following video. It lasts for 40 seconds (please press play on the videoclip)



Please confirm that you watched the video

- Yes

## 6.3 Poster

Please read the information contained in the graphic below

**YOU COULD SAVE A LIFE**

IN SCOTLAND, OVER 1,300 PEOPLE DIED OF A DRUG OVERDOSE IN 2020 ALONE. TOO MANY SONS. TOO MANY DAUGHTERS. TOO MANY. BUT A DRUG OVERDOSE DOESN'T NEED TO BE A DEATH SENTENCE. THERE ARE THREE STEPS WE CAN ALL TAKE THAT COULD VERY WELL SAVE A LIFE. **NUMBER ONE** IS RECOGNISING THE SIGNS OF AN OVERDOSE. WHEN SOMEONE IS EXPERIENCING AN OVERDOSE, THEY ARE UNCONSCIOUS AND THEREFORE COMPLETELY UNRESPONSIVE. THEY MAY ALSO SOUND LIKE THEY'RE SNORING, THEIR LIPS MAY HAVE TURNED BLUE, OR THEY MAY HAVE SHALLOW BREATHING AND PALE OR ASHEN SKIN. PINPOINT PUPILS CAN ALSO BE A SIGN THAT A PERSON IS EXPERIENCING AN OPIOID-RELATED OVERDOSE. **NUMBER TWO** CALL 999. IT'S THAT SIMPLE. AS SOON AS YOU SUSPECT AN OVERDOSE IS TAKING PLACE, IT'S IMPERATIVE THAT AN AMBULANCE ATTENDS AS SOON AS POSSIBLE. **NUMBER THREE** IS A FREELY AVAILABLE MEDICATION THAT CAN REVERSE THE EFFECTS OF AN OPIOID-RELATED OVERDOSE. IT'S CALLED **NALOXONE**. BY CARRYING IT, AND ADMINISTERING IT, YOU CAN BUY TIME. TIME THAT COULD PROVE TO BE LIFE-SAVING. WE CAN PREVENT DRUG DEATHS. WE CAN SAVE LIVES. WE JUST NEED TO KNOW HOW. FIND OUT HOW BY VISITING [STOPTHEDEATHS.COM](https://www.stoptheDeaths.com)

Please confirm that you read the information

- Yes

9.4 Video + poster (material combinations)

9.5 Campaign + poster

9.6 Video + campaign

9.7 Campaign + video + poster

9.8 HTSAL Information – control condition

The **How to Save a Life** campaign raised awareness of a medicine called naloxone, and encouraged people to carry it. Naloxone is a licensed medicine that reverses the effects of overdose of opioid drugs like heroin, similar to how an Epipen might reverse an allergic reaction. Naloxone is the generic name of the drug, which is sometimes provided under the brand names Prenoxad and Nyxoid in the UK, or Narcan in the US. 'Take home' naloxone kits are distributed via various community settings including pharmacies and drug treatment services, and enable members of the public to intervene in the event of an overdose.

Please confirm that you read all the information

- Yes

**End of experimental component**

9. Have you ever witnessed a drugs overdose?

	No	Yes, in the last 12 months	Yes, in my lifetime
Have you ever witnessed a drugs overdose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Overdose knowledge and responses (2 x primary outcomes)

8.1 Please indicate if you think the following are signs of an opioid (e.g. heroin) drug overdose?

	True	False
Having blood-shot eyes	<input type="radio"/>	<input type="radio"/>
Slow or shallow breathing	<input type="radio"/>	<input type="radio"/>
Lips, hands or feet turning blue	<input type="radio"/>	<input type="radio"/>
Loss of consciousness	<input type="radio"/>	<input type="radio"/>
Unresponsive	<input type="radio"/>	<input type="radio"/>
Fitting	<input type="radio"/>	<input type="radio"/>
Deep snoring	<input type="radio"/>	<input type="radio"/>
Very small pupils	<input type="radio"/>	<input type="radio"/>
Agitated behaviour	<input type="radio"/>	<input type="radio"/>
Rapid heartbeat	<input type="radio"/>	<input type="radio"/>
Pale Skin	<input type="radio"/>	<input type="radio"/>

8.2 Which of the following should be done when responding to a heroin (opioid) overdose?

	True	False
Call an ambulance	<input type="radio"/>	<input type="radio"/>
Stay with the person until an ambulance arrives	<input type="radio"/>	<input type="radio"/>
Inject the person with salt solution or milk	<input type="radio"/>	<input type="radio"/>
Give mouth to mouth resuscitation	<input type="radio"/>	<input type="radio"/>
Give stimulants (e.g. black coffee)	<input type="radio"/>	<input type="radio"/>
Place the person in the recovery position (on their side with mouth clear)	<input type="radio"/>	<input type="radio"/>
Give naloxone (opioid overdose antidote)	<input type="radio"/>	<input type="radio"/>
Put the person in a bath of cold water	<input type="radio"/>	<input type="radio"/>
Check for breathing	<input type="radio"/>	<input type="radio"/>
Check for blocked airways (nose and mouth)	<input type="radio"/>	<input type="radio"/>
Put the person in bed to sleep it off	<input type="radio"/>	<input type="radio"/>

9.1 Do you know what the medicine naloxone is used for?

	True	False
To reverse the effects of an opioid drug overdose (e.g. heroin, methadone)	<input type="radio"/>	<input type="radio"/>
To reverse the effects of an amphetamine (speed) overdose	<input type="radio"/>	<input type="radio"/>
To reverse the effects of a cocaine overdose	<input type="radio"/>	<input type="radio"/>
To reverse the effects of any drug overdose	<input type="radio"/>	<input type="radio"/>

**10. Support for naloxone and harm reduction**

10.1 The **How to Save a Life** campaign raised awareness of a medicine called naloxone, and encouraged people to carry it. Naloxone is a licensed medicine that reverses the effects of overdose of opioid drugs like heroin, similar to how an EpiPen might reverse an allergic reaction. Naloxone is the generic name of the drug, which is sometimes provided under the brand names Prenoxad and Nyxoid in the UK, or Narcan in the US. 'Take-home' naloxone kits are distributed via various community settings including pharmacies and drug treatment services, and enable members of the public to intervene in the event of an overdose.

For each of the statements below please indicate on a scale of 1 to 7 your level of support for the action, where 1 = strongly oppose, 4 = neither oppose nor support, and 7 = strongly support.

- Training professionals like police officers to use naloxone in cases where they arrive at the scene before an ambulance
- Providing naloxone to members of the public, including friends and family members of people who use opioid drugs like heroin
- Passing laws to protect people from arrest for possession of drugs if they give naloxone to someone who is experiencing an overdose (including themselves), and then the police or medical services get involved.
- Increased government spending on treatment of drug addiction
- Increased government spending to increase distribution of naloxone to members of the public, including people who use drugs, their families and friends, and other people who might witness an overdose
- Increased government spending to distribute naloxone to professionals such as police officers
- Increased government spending on activities that reduce the harms related to drug use, without requiring people to stop using drugs (e.g. needle and syringe exchange services)

## 11. Naloxone beliefs

For each of the statements below please indicate on a scale of 1 to 7 your level of agreement, where 1 = strongly disagree, 4 = neither agree nor disagree, and 7 = strongly agree

- Providing naloxone to professional groups like police officers would save lives
- Providing take-home naloxone to friends and family members of people who use opioid drugs like heroin would save lives
- Providing take-home naloxone will encourage people to use more opioid drugs like heroin because they will assume they can be saved from a life-threatening overdose
- Preventing overdoses is ineffective because people with opioid addiction will continue to use and eventually overdose again
- Naloxone is a medicine that should only be given by medical professionals
- Giving out take-home naloxone to members of the public, including friends and family members of people who use drugs would lead to reduced costs to the NHS by reducing A&E visits and hospital admissions
- Providing take-home naloxone to members of the public, including friends and family members of people who use opioid drugs are a good use of public funds

### 12.1 Do you carry naloxone?

- Yes
- No, but I have in the past
- No

### 12.2 Have you ever received training on how to use naloxone?

- Yes
- Yes, but more than 12 months ago
- No

### 13. Readiness to intervene in an opioid overdose

For each of the statements below please indicate on a scale of 1 to 5 your level of agreement, where 1 = completely disagree and 5= completely agree

- Everyone at risk of witnessing an overdose should be given a naloxone supply
- I couldn't just watch someone overdose, I would have to do something to help
- If someone overdoses, I would call an ambulance but I wouldn't be willing to do anything else
- Family and friends of people who use drugs should be prepared to deal with an overdose
- If I saw an overdose, I would panic and not be able to help
- If I witnessed an overdose, I would call an ambulance straight away
- I would stay with the person who has overdosed until help arrives
- If I saw an overdose, I would feel nervous, but I would still take the necessary actions
- I will do whatever is necessary to save someone's life in an overdose situation
- If someone overdoses, I want to be able to help them
- Ordinary members of the public should be prepared to deal with an overdose, even if they don't have a friend or family member who uses drugs

### 14. Attitudes towards people with drug dependence and people in recovery

Please indicate how much you agree with the following statements. Here we use the term 'drug dependence' to mean addiction or a substance use problem.

Strongly disagree      Somewhat disagree      Neither      agree      nor      disagree  
Somewhat agree      Strongly agree

- A lack of self-discipline and willpower is the main cause of drug dependence
- If drug dependent individuals really wanted to stop using, they would be able to
- Increased spending on helping people overcome drug dependence is a waste of money
- People with drug dependence don't deserve our sympathy
- Drug dependence is an illness
- People with a history of drug dependence are too often demonised in the media
- We have a responsibility to care for people with drug dependence
- There is a need to adopt a more tolerant attitude towards people with a history of drug dependence in our society
- People with a history of drug dependence are less of a danger than most people think
- I would not wish to have someone who has been dependent on drugs as a neighbour
- Those with a history of drug dependence are a burden on society
- People with a history of drug dependence should be excluded from taking public office
- It is foolish to enter into a relationship with someone with a history of drug dependence even if they seemed recovered
- Residents have nothing to fear from people obtaining drug treatment services in their neighbourhood
- People with a history of drug dependence could be trusted as babysitters
- People can never completely recover from drug dependence
- Taking medication such as methadone represents recovery from drug dependence
- Most people would not become drug dependent if they had good parents



- Parents should not let their children play with the children of someone with a history of drug dependence

15. In this section we will ask you some questions about your own use of alcohol and other drugs. Please remember that your answers are confidential and no one apart from the researchers will see your answers. We are unable to track your answers back to you. If you prefer not to answer this question, then just select any answer response next to the 'Prefer not to answer' item and then move onto the next question.

Have you used any of these drugs?

Never   In my lifetime   In the last 12 months

- Prefer not to answer (click any answer and skip to next question)
- Amphetamines (e.g. speed)
- Alcohol
- Benzodiazepines for non-medical uses (e.g. temazepam, diazepam (Valium), triazolam, lorazepam, alprazolam (Xanax), etizolam)
- Cannabis
- Cocaine powder
- Crack cocaine
- MDMA/Ecstasy
- Heroin or other opioids for non-medical uses
- Other prescription drugs for non-prescribed uses (e.g. sleeping tablets)
- Tobacco/cigarettes

### 13. Level of familiarity with substance use

Please read each of the following statements carefully. Please indicate if the statement represents your personal experience with persons with a substance use problem.

True    False

- I have watched a movie or television show in which a character depicted a person with a substance use problem.
- My job involves providing services/treatment for persons with a substance use problem.
- I have observed, in passing, a person I believe may have had a substance use problem.
- I have observed persons with a substance use problem on a frequent basis.
- I have a substance use problem.
- I have worked with a person who had a substance use problem at my place of employment.
- I have never observed a person that I was aware had a substance use problem.
- A friend has a substance use problem.
- I have a relative who has a substance use problem.
- I have watched a documentary on television about substance use problems.
- I live with a person who has a substance use problem.
- None of the above

**D2. Knowledge, carriage, and having ever received training to administer naloxone by gender and age group, N = 1551.**

Weighted estimates presented.

Naloxone questions	Total	Gender, % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
<b>Do you know what the drug naloxone is used for?</b>	36.8 (34.4-39.3)	36.0 (32.5-39.6)	37.6 (34.3-41.1)	21.9 (16.2-28.8)	29.2 (24.3-34.5)	28.3 (23.2-34.0)	38.2 (32.9-43.8)	46.3 (41.9-50.6)
<b>Do you carry naloxone?</b>	1.8 (1.3-2.6)	1.8 (1.1-3.0)	1.8 (1.1-3.0)	0.6 (0.1-3.9)	2.6 (1.3-5.2)	3.2 (1.7-6.1)	1.9 (0.9-4.3)	1.2 (0.5-2.7)
<b>Have you ever received training on how to use naloxone?</b>	7.7 (6.5-9.2)	8.3 (6.6-10.5)	7.2 (5.6-9.2)	5.4 (2.8-10.1)	10.9 (7.9-15.0)	14.5 (10.8-19.1)	6.3 (4.0-9.6)	5.1 (3.5-7.4)

### D3. Public support for naloxone, treatment, and harm reduction by gender and age, N=1,551

Weighted estimates presented.

<sup>1</sup> these questions were scored from 1 to 7, where 1 = strongly oppose, 4 = neither oppose nor support, 7 = strongly support. Answers were recoded into 'do not support' (1-3), 'neither oppose nor support' (4), and 'support' (5-7).

Drug policy and naloxone support questions	Total, % (95% CI)	Gender, , % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
<b><i>Do you support...?¹</i></b>								
<b>Training professionals like police officers to use naloxone in cases where they arrive at the scene before an ambulance</b>								
Oppose	8.6 (7.2-10.1)	9.4 (7.4-11.7)	13.5 (11.2-16.1)	9.2 (5.6-14.6)	6.7 (4.4-10.1)	9.7 (6.7-13.8)	6.7 (4.4-10.1)	9.5 (7.2-12.4)
Neither oppose nor support	8.6 (7.3-10.1)	10.0 (8.0-12.4)	17.5 (15.1-20.4)	9.6 (6.0-15.1)	8.1 (5.5-11.8)	8.1 (5.5-11.8)	10.3 (7.4-14.3)	7.8 (5.8-10.5)
Support	82.9 (80.9-84.7)	80.6 (77.6-83.4)	69.0 (65.7-72.1)	81.2 (74.5-86.5)	85.1 (80.7-88.7)	85.1 (80.7-88.7)	82.9 (78.3-86.7)	82.7 (79.1-85.7)
<b>Providing naloxone to members of the public, including friends and family members of people who use opioid drugs like heroin</b>								
Oppose	14.9 (13.2-16.8)	18.9 (16.2-21.9)	15.5 (13.1-18.3)	12.2 (8.0-18.2)	12.4 (9.2-16.6)	13.3 (9.7-17.9)	16.0 (12.3-20.5)	16.7 (13.7-20.2)
Neither oppose nor support	19.4 (17.5-21.5)	20.7 (17.8-23.8)	19.3 (16.6-22.2)	19.0 (13.8-25.7)	17.3 (13.5-22.0)	18.7 (14.5-23.9)	20.1 (16.0-25.0)	20.3 (17.0-24.0)
Support	65.7 (63.3-68.1)	60.5 (56.8-64.0)	65.2 (61.8-68.5)	68.8 (61.3-75.4)	70.3 (64.9-75.1)	68.0 (62.2-73.3)	63.8 (58.3-69.0)	63.0 (58.7-67.1)
<b>Passing laws to protect people from arrest for possession of drugs if they give naloxone to someone who is experiencing an overdose (including themselves), and then the police or medical services get involved.</b>								
Oppose	18.8 (16.9-20.9)	21.1 (18.2-24.3)	16.7 (14.2-19.4)	16.1 (11.3-22.5)	16.4 (12.7-21.1)	17.0 (13.0-22.0)	20.0 (15.9-24.8)	20.6 (17.3-24.3)
Neither oppose nor support	23.5 (21.5-25.8)	22.4 (19.5-25.6)	24.6 (21.7-27.7)	24.2 (18.3-31.3)	19.3 (15.2-24.1)	21.1 (16.6-26.4)	27.0 (22.3-32.3)	24.6 (21.1-28.6)

Drug policy and naloxone support questions	Total, % (95% CI)	Gender, , % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
Support	57.7 (55.1-60.2)	56.5 (52.8-60.1)	58.7 (55.3-62.1)	59.7 (52.0-66.9)	64.3 (58.7-69.5)	61.9 (56.0-67.5)	53.0 (47.7-58.5)	54.8 (50.4-59.1)
<b>Increased government spending to distribute naloxone to professionals such as police officers</b>								
Oppose	10.8 (9.3-12.5)	12.5 (10.3-15.2)	9.2 (7.3-11.4)	9.7 (6.0-15.3)	9.4 (6.6-13.2)	11.1 (7.9-15.5)	9.5 (6.7-13.3)	12.1 (9.5-15.2)
Neither oppose nor support	12.4 (10.8-14.2)	13.9 (11.5-16.6)	11.0 (9.1-13.4)	11.9 (7.8-17.8)	8.6 (5.9-12.3)	12.3 (8.9-16.8)	19.5 (15.5-24.3)	11.2 (8.7-14.3)
Support	76.8 (74.6-78.9)	73.6 (70.2-76.7)	79.8 (76.8-82.4)	78.3 (71.4-84.0)	82.0 (77.3-86.0)	76.6 (71.2-81.3)	71.0 (65.7-75.8)	76.7 (72.8-80.2)
<b>Increased government spending to increase distribution of naloxone to members of the public, including people who use drugs, their families and friends, and other people who might witness an overdose</b>								
Oppose	17.1 (15.3-19.1)	21.8 (14.7-20.0)	17.2 (14.7-20.0)	16.9 (11.9-23.4)	12.7 (9.4-16.9)	17.8 (13.7-22.9)	17.0 (13.2-21.6)	18.9 (15.7-22.5)
Neither oppose nor support	19.9 (18.0-22.0)	20.1 (17.2-23.2)	20.0 (17.4-22.9)	17.5 (12.4-24.1)	16.8 (13.0-21.5)	18.3 (14.1-23.3)	23.4 (19.0-28.4)	21.0 (17.6-24.8)
Support	62.9 (60.4-65.4)	58.1 (54.4-61.7)	62.8 (59.4-66.2)	65.6 (58.1-72.5)	70.5 (65.1-75.3)	63.9 (58.0-69.4)	59.7 (54.1-65.0)	60.2 (55.8-64.3)
<b>Increased government spending on treatment of drug addiction</b>								
Oppose	14.4 (12.7-16.3)	16.2 (13.7-19.1)	12.8 (10.6-15.3)	9.3 (5.7-14.8)	10.1 (7.2-14.0)	15.6 (11.8-20.5)	16.3 (12.6-20.8)	16.2 (13.3-19.7)
Neither oppose nor support	16.4 (14.6-18.4)	18.8 (16.1-21.9)	14.2 (11.9-16.9)	16.6 (11.7-23.0)	10.2 (7.3-14.2)	13.3 (9.8-17.9)	19.3 (15.3-24.1)	18.9 (15.8-22.6)
Support	69.1 (66.7-71.5)	65.0 (61.4-68.4)	73.0 (69.8-76.0)	74.2 (66.9-80.3)	79.7 (74.8-83.8)	71.0 (65.3-76.1)	64.4 (58.9-69.6)	64.8 (60.6-68.9)

Drug policy and naloxone support questions	Total, % (95% CI)	Gender, , % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
<b>Increased government spending on activities that reduce the harms related to drug use, without requiring people to stop using drugs (e.g. needle and syringe exchange services)</b>								
Oppose	19.4 (17.5-21.5)	21.8 (18.9-25.0)	17.2 (14.7-20.0)	13.6 (9.2-19.7)	16.5 (12.7-21.1)	18.9 (14.6-24.0)	20.8 (16.7-25.7)	21.6 (18.2-25.4)
Neither oppose nor support	20.0 (18.1-22.1)	20.1 (17.2-23.2)	20.0 (17.4-22.9)	19.3 (14.0-26.1)	16.6 (12.8-21.2)	18.8 (14.6-24.0)	20.9 (16.7-25.9)	21.7 (18.3-25.5)
Support	60.6 (58.1-63.0)	58.1 (54.4-61.7)	62.8 (59.4-66.2)	67.0 (59.5-73.8)	66.9 (61.4-72.0)	62.3 (56.4-67.9)	58.2 (52.6-63.6)	56.7 (52.3-61.0)

#### D4. Public beliefs about the use, provision and impact of naloxone, N=1,551

Weighted estimates presented.

<sup>1</sup> these questions were scored from 1 to 7, where 1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree. Answers were recoded into 'do not agree' (1-3), 'neither agree nor disagree' (4), and 'agree' (5-7).

Drug policy and naloxone support questions	Total, % (95% CI)	Gender, % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
<b>How much do you agree...?¹</b>								
<b>Providing naloxone to professional groups like police officers would save lives</b>								
Disagree	6.3 (5.2-7.7)	6.7 (5.1-8.8)	5.9 (4.5-7.8)	9.2 (5.6-14.6)	5.8 (3.7-9.1)	7.4 (4.8-11.1)	4.1 (2.4-6.9)	6.4 (4.5-8.9)
Neither agree nor disagree	10.4 (8.9-12.0)	12.3 (10.0-14.9)	8.6 (6.9-10.8)	8.4 (5.0-13.7)	5.9 (3.4-9.2)	8.2 (5.4-12.1)	15.9 (12.2-20.5)	11.2 (8.7-14.3)
Agree	83.3 (81.3-85.1)	81.0 (78.0-83.7)	85.4 (82.8-87.8)	82.4 (75.9-87.5)	88.3 (84.1-91.4)	84.5 (79.7-88.3)	80.0 (75.2-84.1)	82.4 (78.8-85.5)
<b>Providing take-home naloxone to the public, and friends and family members of people who use opioid drugs like heroin would save lives</b>								
Disagree	9.9 (8.5-11.6)	12.0 (21.9-66.1)	8.0 (6.3-10.2)	9.0 (5.5-14.5)	7.1 (4.7-10.6)	6.6 (4.2-10.3)	10.9 (7.9-14.8)	12.1 (9.5-15.2)
Neither agree nor disagree	20.2 (18.2-22.3)	21.9 (19.0-25.1)	18.6 (16.1-21.5)	16.8 (11.8-23.3)	14.0 (10.6-18.4)	20.0 (15.7-25.3)	24.7 (20.2-29.8)	21.8 (18.4-25.6)
Agree	69.9 (67.5-72.2)	66.1 (62.6-69.5)	73.3 (70.1-76.3)	74.2 (66.9-80.3)	78.8 (73.9-83.0)	73.3 (67.7-78.3)	64.5 (58.9-69.6)	66.1 (61.8-70.1)
<b>Providing take-home naloxone will encourage people to use more opioid drugs like heroin because they will assume they can be saved from a life-threatening overdose</b>								
Disagree	30.8 (28.5-33.2)	29.0 (25.7-32.5)	32.6 (29.4-35.9)	23.7 (17.8-30.8)	35.4 (30.2-41.0)	30.3 (25.1-36.0)	26.9 (22.2-32.1)	32.5 (28.6-36.8)
Neither agree nor disagree	24.3	23.1	23.1	24.8	13.4	26.9	32.6	26.2

Drug policy and naloxone support questions	Total, % (95% CI)	Gender, % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
	(22.2-26.6)	(20.3-26.2)	(20.3-26.2)	(18.8-31.9)	(10.0-17.7)	(22.2-32.1)	(27.6-38.1)	(22.5-30.2)
Agree	44.8 (42.3-47.3)	45.3 (41.7-49.0)	44.3 (40.9-47.8)	51.5 (43.9-59.1)	51.2 (45.5-56.8)	32.6 (27.6-38.1)	40.5 (35.1-46.1)	41.3 (37.1-45.7)
<b>Preventing overdoses is ineffective because people with opioid addiction will continue to use and eventually overdose again</b>								
Disagree	29.8 (27.6-32.2)	26.0 (22.9-29.3)	33.4 (30.2-36.7)	30.4 (23.9-37.9)	38.0 (32.7-43.6)	32.1 (26.8-37.9)	26.8 (22.1-32.1)	26.7 (23.0-30.7)
Neither agree nor disagree	26.5 (24.3-28.8)	25.7 (22.6-29.0)	27.3 (24.3-30.6)	27.9 (21.5-35.2)	19.1 (15.1-23.9)	25.3 (20.5-30.8)	29.1 (24.3-34.5)	28.7 (24.9-32.8)
Agree	43.6 (41.1-46.2)	48.3 (44.7-52.0)	39.3 (36.0-42.8)	41.7 (34.4-49.4)	42.9 (37.4-48.5)	42.6 (36.8-49.7)	44.1 (38.6-49.7)	44.6 (40.3-49.0)
<b>Naloxone is a medicine that should only be given by medical professionals</b>								
Disagree	34.5 (32.1-36.9)	34.2 (30.7-37.8)	34.8 (31.5-38.1)	32.0 (25.3-39.5)	29.7 (24.8-35.1)	32.9 (27.6-38.8)	30.5 (25.6-35.9)	36.6 (32.5-40.9)
Neither agree nor disagree	28.8 (26.6-31.2)	28.3 (25.1-31.8)	29.3 (26.2-32.6)	26.3 (20.1-33.5)	29.7 (24.8-35.1)	27.7 (22.7-33.4)	29.4 (24.5-34.7)	29.3 (25.5-33.4)
Agree	36.7 (34.3-39.2)	37.5 (34.0-41.1)	35.9 (32.6-39.4)	41.8 (34.5-49.4)	34.2 (29.0-39.7)	39.4 (33.7-45.3)	40.1 (34.8-45.7)	34.1 (30.1-38.3)
<b>Giving out take-home naloxone to members of the public, including friends and family members of people who use drugs would lead to reduced costs to the NHS by reducing A&amp;E visits and hospital admissions</b>								
Disagree	16.2 (14.4-18.1)	18.6 (15.9-21.6)	14.0 (11.7-16.6)	14.3 (9.8-20.5)	17.7 (13.8-22.4)	13.2 (9.7-17.8)	16.4 (12.7-20.9)	17.0 (14.0-20.5)
Neither agree nor disagree	24.3 (22.2-26.5)	24.4 (21.3-27.3)	24.2 (21.3-27.3)	19.3 (13.9-26.0)	18.7 (14.7-23.5)	19.4 (15.1-24.6)	32.3 (27.3-37.7)	26.3 (22.6-30.3)
Agree	59.5 (57.0-62.0)	57.1 (53.4-60.7)	61.8 (58.4-65.2)	66.4 (58.8-73.2)	36.6 (58.1-68.9)	67.4 (61.6-72.7)	51.3 (45.7-56.9)	56.7 (52.3-61.0)



Drug policy and naloxone support questions	Total, % (95% CI)	Gender, % (95% CI)		Age Group, % (95% CI)				
		Male	Female	18-24	25-34	35-44	45-54	55+
<b>Providing take-home naloxone to members of the public, including friends and family members of people who use opioid drugs are a good use of public funds</b>								
Disagree	20.2 (18.2-22.3)	22.4 (19.5-25.6)	18.1 (15.6-21.0)	18.1 (12.9-24.7)	17.3 (13.4-21.9)	21.2 (16.7-26.5)	19.6 (15.6-24.4)	21.8 (18.4-25.6)
Neither agree nor disagree	25.8 (23.7-28.1)	23.4 (20.4-26.7)	28.1 (25.0-31.4)	21.2 (15.6-28.1)	22.5 (18.2-27.6)	22.3 (17.7-27.7)	29.7 (24.8-35.0)	28.1 (24.3-32.2)
Agree	54.0 (51.4-56.5)	54.2 (50.5-57.9)	53.8 (50.3-57.2)	60.7 (53.0-67.9)	60.2 (54.6-65.6)	56.5 (50.5-62.3)	50.7 (45.1-56.3)	50.2 (45.8-54.6)

## Appendix E. Supplementary material relating to the take-home naloxone evaluation strand.

### Appendix E1. Summary of the number of take-home naloxone (THN) kits distributed in Scotland by mass media campaign period, August 2020 - December 2021

	Total number of take-home naloxone (THN) kits supplied (col%)	Mass media campaign period		
		Pre-campaign (col%)	Main campaign (col%)	Post-main campaign (col%)
<b>Total number of THN kits<sup>a</sup></b>	27,064	17,170	5,556	4,338
<b>Disribution route<sup>b</sup></b>				
Community	24,024 (92.0%)	15,222 (91.2%)	5,081 (95.7%)	3,721 (90.4%)
Prison	2,096 (8.0%)	1,468 (8.8%)	231 (4.3%)	397 (9.6%)
<b>Gender<sup>c</sup></b>				
Female	4,166 (15.1%)	3,093 (18%)	508 (8.2%)	565 (13%)
Male	10,445 (37.8%)	7,758 (45.2%)	1,282 (20.8%)	1,405 (32.4%)
Unknown	13,057 (47.2%)	6,319 (36.8%)	4,370 (70.9%)	2,368 (54.6%)
<b>Age group<sup>c</sup></b>				
25 and under	870 (3.1%)	620 (3.6%)	133 (2.2%)	117 (2.7%)
25 - 34	3,922 (14.2%)	2,963 (17.3%)	472 (7.7%)	487 (11.2%)
35 - 44	6,258 (22.6%)	4,722 (27.5%)	674 (10.9%)	862 (19.9%)
45-54	2,989 (10.8%)	2,174 (12.7%)	387 (6.3%)	428 (9.9%)
55 and above	539 (1.9%)	349 (2%)	115 (1.9%)	75 (1.7%)
Unknown age	13,090 (47.3%)	6,342 (36.9%)	4,379 (71.1%)	2,369 (54.6%)
<b>Health board<sup>c</sup></b>				
Ayrshire and Arran	2,419 (8.7%)	1,578 (9.2%)	488 (7.9%)	353 (8.1%)
Borders	421 (1.5%)	229 (1.3%)	101 (1.6%)	91 (2.1%)
Dumfries and Galloway	473 (1.7%)	335 (2%)	88 (1.4%)	50 (1.2%)
Fife	990 (3.6%)	507 (3%)	293 (4.8%)	190 (4.4%)
Forth Valley	1,732 (6.3%)	1,089 (6.3%)	337 (5.5%)	306 (7.1%)
Grampian	2,496 (9%)	1,611 (9.4%)	463 (7.5%)	422 (9.7%)
Greater Glasgow and Clyde	8,776 (31.7%)	5,711 (33.3%)	1,843 (29.9%)	1,222 (28.2%)
Highland	678 (2.5%)	376 (2.2%)	182 (3%)	120 (2.8%)
Lanarkshire	1,958 (7.1%)	1,011 (5.9%)	658 (10.7%)	289 (6.7%)
Lothian	4,116 (14.9%)	2,490 (14.5%)	926 (15%)	700 (16.1%)
Orkney	21 (0.1%)	4 (0%)	3 (0%)	14 (0.3%)
Shetland	123 (0.4%)	77 (0.4%)	31 (0.5%)	15 (0.3%)
Tayside	3,389 (12.3%)	2,111 (12.3%)	730 (11.9%)	548 (12.6%)
Western Isles	70 (0.3%)	35 (0.2%)	17 (0.3%)	18 (0.4%)

Data source: Prescribing Information System

Pre-campaign: w/b 3rd Aug 20 – w/b 23rd Aug 21; main campaign: w/b 30th Aug 21 – w/b 18th Oct 21; post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

<sup>a</sup>Duplicate waitlisted THN kits from week beginning (w/b) 11th of October (n=66) and 18th of October (n=538) have been removed

<sup>b</sup>Does not add up as THN kits were supply route is unknown have been excluded

<sup>c</sup>Totals do not add up to n=27,064 as waitlisted THN kits from week beginning (w/b) 11th of October (n=66) and 18th of October (n=538) cannot be removed

**Appendix E2. Impact of the mass media campaign on take-home naloxone (THN) supplies in Scotland: segmented regression analyses modelling the changes in THN supplies when the campaign was introduced and when the campaign finished by demographic variables, August 2020 - December 2021**

	Segmented negative binomial regression									
	Pre-campaign trend <sup>a</sup>		Change in level when campaign started <sup>b</sup>		Trend during campaign period <sup>c</sup>		Change in level when campaign ended <sup>d</sup>		Post-campaign trend <sup>e</sup>	
	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value
<b>Gender<sup>a</sup></b>										
Female	1.01 (1.00 to 1.01)	<0.001	1.44 (1.01 to 2.08)	0.052	0.91 (0.85 to 0.98)	0.014	0.86 (0.54 to 1.36)	0.522	1.09 (1.03 to 1.15)	0.003
Male	1.01 (1.00 to 1.01)	<0.001	1.00 (0.77 to 1.32)	0.999	0.99 (0.94 to 1.05)	0.812	0.83 (0.59 to 1.15)	0.266	1.04 (0.99 to 1.08)	0.108
<b>Age group<sup>a,b</sup></b>										
25 and under	1.01 (1.00 to 1.01)	0.021	1.07 (0.58 to 1.98)	0.839	1.02 (0.91 to 1.15)	0.625	0.72 (0.34 to 1.51)	0.382	0.99 (0.90 to 1.10)	0.959
25 - 34	1.01 (1.00 to 1.01)	0.002	1.09 (0.79 to 1.49)	0.602	0.98 (0.92 to 1.03)	0.406	0.89 (0.61 to 1.30)	0.552	1.02 (0.97 to 1.07)	0.363
35 - 44	1.00 (1.00 to 1.01)	<0.001	0.97 (0.74 to 1.28)	0.815	0.98 (0.92 to 1.03)	0.405	0.87 (0.62 to 1.21)	0.397	1.06 (1.02 to 1.12)	0.002
45-54	1.01 (1.01 to 1.01)	<0.001	1.19 (0.84 to 1.70)	0.335	0.95 (0.89 to 1.02)	0.182	0.85 (0.55 to 1.33)	0.484	1.06 (1.00 to 1.13)	0.042
55 and above	1.01 (1.00 to 1.02)	0.004	2.52 (1.39 to 4.59)	0.003	0.91 (0.81 to 1.02)	0.124	0.65 (0.29 to 1.47)	0.316	1.04 (0.93 to 1.17)	0.437
<b>Health board<sup>a</sup></b>										
Ayrshire and Arran	1.00 (0.99 to 1.01)	0.139	1.43 (0.84 to 2.52)	0.233	1.06 (0.95 to 1.19)	0.268	0.55 (0.28 to 1.09)	0.088	0.99 (0.90 to 1.08)	0.864
Borders	1.01 (0.99 to 1.02)	0.081	2.09 (0.93 to 4.85)	0.090	1.03 (0.88 to 1.20)	0.701	0.57 (0.22 to 1.49)	0.277	1.04 (0.91 to 1.19)	0.515
Dumfries and Galloway	1.02 (1.01 to 1.03)	<0.001	0.85 (0.34 to 2.26)	0.749	1.06 (0.88 to 1.26)	0.534	0.58 (0.18 to 1.86)	0.352	0.93 (0.79 to 1.10)	0.433
Fife	1.02 (1.02 to 1.03)	<0.001	1.53 (0.99 to 2.35)	0.058	1.09 (1.01 to 1.18)	0.017	0.51 (0.31 to 0.84)	0.008	0.96 (0.89 to 1.03)	0.322
Forth Valley	1.01 (1.00 to 1.01)	<0.001	1.21 (0.83 to 1.75)	0.334	1.08 (1.01 to 1.16)	0.021	0.41 (0.27 to 0.63)	<0.001	1.08 (1.02 to 1.14)	0.010
Grampian	1.00 (0.99 to 1.01)	0.508	1.15 (0.61 to 2.28)	0.664	1.11 (0.98 to 1.25)	0.092	0.52 (0.24 to 1.10)	0.088	1.02 (0.92 to 1.13)	0.665
Greater Glasgow and Clyde	1.01 (1.00 to 1.01)	0.047	1.70 (1.05 to 2.85)	0.056	1.02 (0.93 to 1.14)	0.577	0.55 (0.29 to 1.04)	0.069	0.99 (0.91 to 1.08)	0.668
Highland	0.99 (0.99 to 1.01)	0.751	1.37 (0.71 to 2.63)	0.348	1.21 (1.08 to 1.35)	<0.001	0.54 (0.27 to 1.09)	0.091	0.89 (0.80 to 0.99)	0.038
Lanarkshire	1.01 (1.00 to 1.02)	0.001	2.28 (1.36 to 3.92)	0.003	1.09 (0.98 to 1.21)	0.081	0.28 (0.15 to 0.53)	<0.001	1.00 (0.91 to 1.10)	0.907
Lothian	1.03 (1.02 to 1.04)	<0.001	0.88 (0.53 to 1.50)	0.645	1.07 (0.97 to 1.18)	0.164	0.56 (0.31 to 1.03)	0.068	0.99 (0.91 to 1.07)	0.827

	Segmented negative binomial regression									
	Pre-campaign trend <sup>a</sup>		Change in level when campaign started <sup>b</sup>		Trend during campaign period <sup>c</sup>		Change in level when campaign ended <sup>d</sup>		Post-campaign trend <sup>e</sup>	
	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value	RR (95% CI)	P-value
Orkney	0.99 (0.93 to 1.06)	0.904	8.82 (0.25 to 272.0)	0.904	0.91 (0.51 to 1.59)	0.734	5.29 (0.31 to 182.0)	0.278	1.02 (0.76 to 1.36)	0.872
Shetland	1.02 (1.01 to 1.04)	0.007	4.08 (1.46 to 12.20)	0.021	0.77 (0.60 to 0.98)	0.039	0.79 (0.12 to 4.82)	0.807	1.10 (0.86 to 1.41)	0.415
Tayside	1.01 (1.00 to 1.02)	<0.001	1.74 (1.04 to 3.00)	0.045	1.02 (0.92 to 1.12)	0.753	0.48 (0.25 to 0.92)	0.027	1.05 (0.97 to 1.14)	0.237
Western Isles	1.02 (0.99 to 1.06)	0.120	5.05 (0.52 to 85.9)	0.182	0.77 (0.48 to 1.23)	0.284	18.3 (0.57 to 1053.0)	0.053	0.64 (0.41 to 0.98)	0.044

THN=take-home naloxone; THN kits from unknown categories have not been modelled

<sup>a</sup>Pre-campaign: w/b 3rd Aug 20 – w/b 23rd Aug 21

<sup>b</sup>Campaign started: w/b 30<sup>th</sup> Aug 22

<sup>c</sup>Main campaign period: w/b 30th Aug 21 – w/b 18th Oct 21;

<sup>d</sup>Campaign ended: w/b 25<sup>th</sup> Oct 21

<sup>e</sup>Post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

**Appendix E3. Total number of take-home naloxone (THN) kits distributed by Scottish Families Affected by Alcohol and Drugs (SFAD), August 2020 – December 2021.**

	Total number of THN kits supplied (col%)	Mass media campaign period		
		Pre-campaign (col%)	Main campaign (col%)	Post-main campaign (col%)
<b>Total</b>	3,823	590	2,260	973
<b>THN kits supplied to:</b>				
Person who uses drugs	145 (3.8%)	59 (10%)	51 (2.3%)	35 (3.6%)
Professional	1,074 (28.1%)	209 (35.4%)	519 (23%)	346 (35.6%)
Family or friend	664 (17.4%)	180 (30.5%)	339 (15%)	145 (14.9%)
Member of the public	1,940 (50.7%)	142 (24.1%)	1,351 (59.8%)	447 (45.9%)
<b>THN supplied as:</b>				
First supply	3,168 (82.9%)	418 (70.8%)	2,009 (88.9%)	741 (76.2%)
Repeat supply	291 (7.6%)	122 (20.7%)	94 (4.2%)	75 (7.7%)
Spare supply	364 (9.5%)	50 (8.5%)	157 (6.9%)	157 (16.1%)
<b>Alcohol and Drug Partnership</b>				
Aberdeen City	125 (3.3%)	22 (3.7%)	75 (3.3%)	28 (2.9%)
Aberdeenshire	123 (3.2%)	26 (4.4%)	67 (3%)	30 (3.1%)
Angus	74 (1.9%)	5 (0.8%)	45 (2%)	24 (2.5%)
Argyll & Bute	30 (0.8%)	2 (0.3%)	22 (1%)	6 (0.6%)
Borders	67 (1.8%)	10 (1.7%)	40 (1.8%)	17 (1.7%)
City of Edinburgh	294 (7.7%)	50 (8.5%)	154 (6.8%)	90 (9.2%)
Clackmannanshire	48 (1.3%)	9 (1.5%)	20 (0.9%)	19 (2%)
Dumfries and Galloway	58 (1.5%)	3 (0.5%)	38 (1.7%)	17 (1.7%)
Dundee City	132 (3.5%)	8 (1.4%)	77 (3.4%)	47 (4.8%)
East Ayrshire	101 (2.6%)	35 (5.9%)	54 (2.4%)	12 (1.2%)
East Dunbartonshire	56 (1.5%)	8 (1.4%)	32 (1.4%)	16 (1.6%)
East Renfrewshire	41 (1.1%)	5 (0.8%)	27 (1.2%)	9 (0.9%)
Falkirk	134 (3.5%)	20 (3.4%)	66 (2.9%)	48 (4.9%)
Fife	253 (6.6%)	20 (3.4%)	158 (7%)	75 (7.7%)
Glasgow City	660 (17.3%)	120 (20.3%)	379 (16.8%)	161 (16.5%)
Highland	108 (2.8%)	8 (1.4%)	57 (2.5%)	43 (4.4%)
Inverclyde	154 (4%)	23 (3.9%)	72 (3.2%)	59 (6.1%)
North Lanarkshire	258 (6.7%)	42 (7.1%)	168 (7.4%)	48 (4.9%)
South Lanarkshire	263 (6.9%)	35 (5.9%)	171 (7.6%)	57 (5.9%)
Mid and East Lothian	109 (2.9%)	15 (2.5%)	76 (3.4%)	18 (1.8%)
Moray	26 (0.7%)	1 (0.2%)	18 (0.8%)	7 (0.7%)
North Ayrshire	131 (3.4%)	34 (5.8%)	79 (3.5%)	18 (1.8%)
South Ayrshire	50 (1.3%)	3 (0.5%)	43 (1.9%)	4 (0.4%)
Orkney	11 (0.3%)	2 (0.3%)	2 (0.1%)	7 (0.7%)
Perth & Kinross	79 (2.1%)	11 (1.9%)	55 (2.4%)	13 (1.3%)
Renfrewshire	133 (3.5%)	19 (3.2%)	83 (3.7%)	31 (3.2%)

	Total number of THN kits supplied (col%)	Mass media campaign period		
		Pre-campaign (col%)	Main campaign (col%)	Post-main campaign (col%)
Shetland	13 (0.3%)	4 (0.7%)	7 (0.3%)	2 (0.2%)
Stirling	68 (1.8%)	6 (1%)	41 (1.8%)	21 (2.2%)
West Dunbartonshire	100 (2.6%)	30 (5.1%)	55 (2.4%)	15 (1.5%)
West Lothian	107 (2.8%)	7 (1.2%)	71 (3.1%)	29 (3%)
Western Isles	17 (0.4%)	7 (1.2%)	8 (0.4%)	2 (0.2%)
<b>Source</b>				
Social media/internet	348 (10.8%)	-	273 (12.1%)	75 (7.7%)
TV, radio, newspaper	786 (24.3%)	-	662 (29.3%)	124 (12.7%)
Third sector/SDF/stop the deaths website	912 (28.2%)	-	566 (25%)	346 (35.6%)
Public place/pulic transport	123 (3.8%)	-	87 (3.8%)	36 (3.7%)
Previous requester	258 (8%)	-	134 (5.9%)	124 (12.7%)
Friend/Colleague	252 (7.8%)	-	182 (8.1%)	70 (7.2%)
Health/public services	482 (14.9%)	-	321 (14.2%)	161 (16.5%)
Other	72 (2.2%)	-	35 (1.5%)	37 (3.8%)

Data source: Scottish Families affected by Alcohol and Drugs (SFAD)

Pre-campaign: w/b 3rd Aug 20 – w/b 23rd Aug 21; main campaign: w/b 30th Aug 21 – w/b 18th Oct 21; post-main campaign: w/b 25th Oct 21 – w/b 20th Dec 21

Waitlisted THN kits from week beginning (w/b) 11th of October (n=66) and 18th of October (n=538) have been removed