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Service Evaluation of Scotland's National Take-Home Naloxone Programme

Crime and Justice



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**SERVICE EVALUATION OF
SCOTLAND'S NATIONAL TAKE-HOME NALOXONE
PROGRAMME**

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GLOSSARY

ADP	Alcohol and Drug Partnership
CAT	Community Addictions Team
CPN	Community Psychiatric Nurse
DRD	Drug-Related Death
EACS	Enhanced Addiction Casework Service
IEP	Injecting Equipment Provision
ISD	Information Services Division of NHS National Services Scotland
NEX	Needle Exchange
NNAG	National Naloxone Advisory Group
NRES	National Research Ethics Service
ORT	Opiate Replacement Therapy
PGD	Patient Group Direction
ScoNN	Scottish Naloxone Network
SDF	Scottish Drugs Forum
SPS	Scottish Prison Service
THN	Take-Home Naloxone
TTT	Training the Trainers

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EXECUTIVE SUMMARY

Introduction

The aim of this service evaluation was to examine how the Take-Home Naloxone (THN) programme is being implemented across Scotland in order to ensure that it is as effective as possible in preventing fatal opioid overdoses.

The research was undertaken between August 2013 and March 2014. The methods used included:

- a rapid literature review;
- initial scoping interviews with key stakeholders;
- online survey and interviews with the local naloxone coordinators in order to map how the programme is being implemented in each area;
- online survey with service providers which resulted in 186 responses;
- in-depth work in four case-study areas to interview service providers, service users and their families/carers resulting in 115 interviews in total; and
- analysis and synthesis of all elements of the research.

Context

The report sets out the context for the development of a national THN programme. It highlights the fact that Scotland has higher rates of drug-related deaths than other parts of the UK and that between 2002-2012 there was an upward trend in the number of drug-related deaths (DRDs) registered in Scotland.

The national THN programme was rolled out across Scotland following successful local pilots in three Health Board areas (NHS Greater Glasgow and Clyde; NHS Lanarkshire and the Inverness area of NHS Highland). It allows for the distribution of naloxone (which is a Prescription Only Medicine) to those at risk of opioid overdose including prisoners on liberation. All those who receive a supply of naloxone must first have received specialist training in its use.

Findings

Programme Processes and Structures

As the national naloxone programme in Scotland is centrally coordinated and directed there are clear coordination and support structures in place at national level. The National Naloxone Advisory Group (NNAG), which comprises a range of expert members, monitors the progress and delivery of the programme, at both a national and local level, on a regular basis.

The Scottish Government's role in this programme supports:

- a national Naloxone Coordinator and a National Training and Support Officer based at the Scottish Drugs Forum (SDF);
- the development of national information and training materials including a website (www.naloxone.org.uk);
- reimbursement to NHS Boards for the THN kits issued in their area;
- an in-depth monitoring and evaluation programme, including measuring progress against a baseline measure, is delivered by the Information Services Division (ISD) of NHS National Services Scotland. ISD has produced two annual monitoring reports to date (2011-12 and 2012-13) and it provides quarterly reports to the National Naloxone Advisory Group so that its members can assess progress¹;
- specific support for the roll out of the programme in prisons.

At local Health Board level there is some similarity but also variety in the way the programme is managed and delivered, as would be expected given the need to adapt the programme to local circumstances. Most, but not all, of the 13 Health Boards which participate in the programme manage their participation through a partnership; and while nearly all Alcohol and Drug Partnerships (ADPs) are involved, the nature of their involvement varies. Nine Health Boards have a Steering Group to manage the programme locally (four do not). Six Health Board areas use community pharmacies to supply naloxone (seven do not). Peer trainers/educators are used in nine Health Boards and in some places are leading delivery: for example, in one prison all training on naloxone is undertaken by peer trainers. Since November 2011 and the transfer of prisoner healthcare to the NHS, local Health Boards have had responsibility for the delivery of the programme in Scottish prisons.

There are regular training the trainers (TTT) courses across all Health Boards provided mostly by SDF and sometimes by local trainers. Across all sectors a total of 989 staff have been trained to date.

Training about naloxone and how to administer it for people at risk of opioid overdose is provided by staff from both statutory and voluntary sectors. Taking part in the training is voluntary in both community and prison settings. The supply of naloxone is regulated by a Patient Group Direction (PGD) and is mainly supplied by nurses or pharmacists where they are participating in the programme. Training and supply in the community can take place in a range of settings including drug treatment agencies, community pharmacies and outreach, such as hostels and mobile buses. In prisons the kit is supplied following training by placing it in the person's property prior to liberation.

¹ From Spring 2014 these reports will also be provided to ADPs and NHS Health Boards

Effectiveness of processes and structures

This report provides evidence on the effectiveness of the processes and structures. Key points from this include the following.

Training the Trainers

This is regarded as generally effective in giving people the knowledge, skills and confidence they require to train service users in how to administer naloxone. However it is clear from the numbers of those who then go on to provide training that some people, maybe through general lack of presentation or training skills, are still not confident to deliver training themselves after the TTT. In particular there may be some need for refresher training for those who have not used the skills acquired after training.

Recruitment

The most valuable method of recruitment is by word of mouth, either by peers or professionals. There were reports of difficulty in attracting prisoners due to the voluntary nature of the training and competing interests/activities. Those prisoners who decline training about naloxone tend to do so because they do not wish to be seen as still belonging to the life of people who use drugs.

Training people who use drugs

1:1 is increasingly viewed as a more effective method of training in the community setting but in prison, group training is still the main method. Peer trainers are regarded as an effective way to reach people who use drugs but the demands on those who are peer trainers/educators are quite high and this can contribute, along with normal progression to other activities, to a high drop off rate.

Supplying naloxone

Supplying naloxone is most effective when it is done within close proximity to the location and time of training. Being unable to access supplies through the community pharmacy network in some areas has been identified as a problem. A few service users are providing a service to peers by publicising (in one example through social media) the fact that they hold a supply of naloxone should anyone require it. The kit itself is generally seen as effective in terms of ease of use by service users.

Family members

Family members who had received training found it useful but due to the fact that naloxone is a Prescription Only Medicine (POM) they are unable to access a supply of naloxone unless patient consent is in place. Consent forms have been developed to attempt to partially address the problem of supplies to family members.

Partnership working

Partnership working at national and local levels is generally seen as being effective.

Impact

The impact of the programme is being monitored by the NNAG through progress against the baseline measures: number and % of opiate related deaths and number and % that occur in 4 and 12 weeks of release from prison.

The NNAG reviews quantitative data gathered by ISD on a regular basis. At present this current research estimates that the programme is reaching around 8% of the population with problem drug use based on the number of kits supplied (5,830).

The programme has made service users more aware of life-saving techniques and the causes of overdose. It has increased their sense of empowerment and improved self-esteem. It is hard to quantify “potential lives saved” as no-one can tell if an overdose would have been fatal but for service users this is seen as a clear impact of the programme: that it “saves lives”.

For families and carers the main impact is peace of mind in relation to knowing they could reverse the effects of an overdose.

For service providers there is a sense of empowerment and the benefit of being able to offer something positive.

Conclusions, lessons learned and implications for policy and practice

The report provides a final chapter outlining conclusions, lessons learned and highlighting implications for future implementation and/or policy. It commends the progress made to date but recognises the need for further reach of naloxone kits to those at risk of opioid overdose. The key implications highlighted include:

- at strategic local level it appears that having a steering group to guide the programme is helpful;
- greater consistency of ADP involvement across Scotland;
- greater involvement of GPs in the programme;
- extending the staff training programme to a greater number of practitioners who are likely to come into contact with people at risk of opioid overdose, in order to enable them to provide naloxone training;
- increasing the 1:1 brief interventions approach to help reach more of the target group;
- explore further how outreach can be undertaken effectively, particularly in rural areas, to reach those who do not use addictions services;
- explore further the issues relating to peer training raised in the research and provide guidance as to best practice;

- greater and more consistent involvement of community pharmacies across Scotland: consideration given to naloxone training and supply in future negotiations with community pharmacies;
- consideration of how to increase the training and take-up of supply for those leaving prison;
- explore further the training police receive with regard to naloxone;
- consideration of the potential to gather systematic and widespread data about the incidence and outcomes of the use of naloxone kits.

The programme and its national coordination have been viewed very positively by those interviewed in this research and it is hoped that the issues identified above will help to increase the reach of naloxone to those most at risk of opioid overdose.

1 INTRODUCTION

- 1.1 In June 2013, the Scottish Government commissioned Blake Stevenson Ltd to undertake a Service Evaluation of Scotland's National Take-Home Naloxone (THN) programme. This evaluation complements other research that is ongoing or recently completed and focuses on the processes that have been put in place to implement the programme as well as on qualitative research with service users and practitioners.
- 1.2 The Scottish Government established the THN programme in 2010 following successful pilots in NHS Greater Glasgow and Clyde, NHS Lanarkshire and the Inverness area of NHS Highland. Naloxone is an opioid antagonist which can temporarily reverse the effects of an opioid overdose, providing more time for emergency services to arrive and treatment to be given to those who have experienced an overdose. The programme distributes naloxone using a Patient Group Direction (PGD) through supplying 'take-home' kits to those thought to be at risk of opioid overdose. Kits are supplied in community health settings as well as in prisons when prisoners are liberated.
- 1.3 The programme is Scottish Government-funded, centrally coordinated by a National Naloxone Advisory Group comprising experts from statutory and third sectors, and delivered by a National Coordinator (based at the Scottish Drugs Forum). Other key programme elements include: a national practitioner network, a national training and support officer, a national monitoring and evaluation programme delivered by NHS ISD Scotland, a peer educator initiative,² national training and information resources, and specific support to Health Boards to deliver the programme in prisons.

Research aims and objectives

- 1.4 The aim of the research was to examine how the THN programme is being implemented across Scotland, in order to ensure that it is as effective as possible in achieving a reduction of opioid-related deaths.
- 1.5 The research objectives were to:
 - examine the processes and structures put in place to implement the programme locally (to include a clear description of the different models that have been established);
 - assess the effectiveness of identified processes and structures for the different stakeholders involved (i. service staff, ii. programme beneficiaries including those at risk of opioid overdose and their family members/carers/friends);
 - provide an early indication of programme impact including consideration of the outcomes for those who have engaged with the programme, and whether the

² Launched in 2012 to support the development of local network of peer volunteers to help widen the reach of the naloxone training.

programme is reaching those who do not typically engage with drug treatment services; and

- establish the key lessons learned and the implications for policy and the future development and implementation of the programme.

1.6 The evaluation process was overseen by a Research Advisory Group which has met three times.

Methodology

1.7 We designed the methodology for the evaluation in three stages:

- Stage 1: mapping local models and reviewing existing data.
- Stage 2: in-depth qualitative work.
- Stage 3: analysis and report writing.

1.8 We provide a brief description of the methods used in each of the stages below.

Stage 1: Mapping local models and reviewing existing data

Scoping interviews

1.9 We undertook scoping interviews with eight key stakeholders in the THN programme at the start of the work in order to provide important contextual and background information for the research team.

Literature review

1.10 We completed a rapid literature review in August 2013. The purpose of the review was to provide background and contextual information for the research, and to guide the development of the research framework for the stage 2 fieldwork.

Mapping of local services

1.11 In order to gain an in-depth understanding of how the national THN programme is operating at Health Board level, we conducted an online survey with local naloxone coordinators in all 13 Health Boards participating in the national programme and received responses from all³. This was followed by a telephone interview with the coordinators (with one exception where the survey was not returned until much later) where further explanation around the survey return was gathered. We also interviewed key Scottish Prison

³ Western Isles Health Board is not participating in the THN programme

Service (SPS) staff and NHS staff working in prisons in order to build up a picture of the THN programme in Scottish prisons.

Online survey of service providers

1.12 We used an online survey with service providers and other key stakeholders so that as many providers as possible could give their views to the evaluation team. The survey of service providers was conducted across the 13 participating Health Boards. Local naloxone coordinators, the Scottish Government's Drugs Policy Unit, SPS, and the Scottish Naloxone Network (ScoNN) helped to publicise the survey to potential respondents.

1.13 We received 186 responses in total, with:

- responses from all Health Board areas;
- most respondents based in community settings (87%), 13% based in prison;
- 40% involved in naloxone training and supply; 31% involved in training only; 9% in supply only; and 8% identified themselves as the local naloxone lead;
- representation from a range of professional groups including nurses, CPNs or addictions nurses (38%) and voluntary sector workers (18%);
- most employed by the NHS (61%) or voluntary sector agencies (26%).

1.14 Appendix 5 contains the full analysis of the online survey.

Stage 2: in-depth qualitative fieldwork

1.15 In order to allow for more in-depth examination with service users and providers, as well as service users and their families, the main qualitative fieldwork focused on four Health Board case study areas. The four areas were selected after discussion at the Research Advisory Group based on the following: geography; size of Health Board area; the nature of the local programme; the number of prisons in each area; how easy it would be to gain access to the relevant staff; and whether the areas have peer networks in operation. The aim was to select areas that would ensure a good spread of interviewees from across different models. The four areas selected are described below:

Case Study A: a large urban Health Board with complex delivery of the programme through several Alcohol and Drug Partnerships, community addiction teams, pharmacies, third sector agencies and a peer trainer programme.

Case Study B: an area with small towns and rural areas with some pharmacy involvement.

Case Study C: a mixed urban/small town area with delivery of the programme mainly through community pharmacies in addition to nursing staff.

Case Study D: a smaller rural Health Board area where delivery is through the Community Addiction Team and third sector agencies.

- 1.16 We included prisons in three of the four case study areas (one area did not have a prison).
- 1.17 We conducted the following number of interviews (a full breakdown by case study area is provided in Appendix 1):
- 52 service providers were interviewed (including nurses, voluntary sector staff and managers, pharmacists, enhanced addictions casework staff in prisons, SPS managers, social workers, residential hostel staff in local authority run hostels and non-clinical community addictions team staff).
 - 37 service users
 - 11 service decliners
 - 15 family members
 - 7 peer trainers
- 1.18 As part of the above service user figures we interviewed thirteen former prisoners in the community and of the thirteen, twelve (three women and nine men) had all been naloxone trained. All had taken a kit on liberation. We also conducted interviews with staff in three prisons: we spoke to four nurses, two Enhanced Addictions Casework Service staff, and four managers.
- 1.19 In addition to the above we conducted an interview with the Chief Executive Officer of Scottish Families Affected by Alcohol and Drugs specifically to explore the issues relating to families.
- 1.20 The interviews with service providers lasted around an hour and those with service users, service decliners, family members and peer educators lasted between 10-60 minutes.
- 1.21 The interviews took place in the service provider's workplace, including pharmacies, drug treatment centres and Community Addiction Teams' premises. A few interviews with service users who live in more remote areas were undertaken by telephone with their prior agreement.
- 1.22 Appendix 4 contains the interview schedule for these interviews.

Stage 3: analysis and report writing

- 1.23 We undertook analysis of all the elements of research undertaken, checking for cross-cutting themes, similarities and dissimilarities and noting examples of interesting practice.

- 1.24 We produced a draft report which was commented on by all members of the Research Advisory Group and made amendments to produce the final report.

Limitations of the methodology

- 1.25 This was a service evaluation which examined in depth the processes and structures put in place to implement the programme, and assessed effectiveness in delivering the programme as well as assessing the impact of the service on key stakeholders. It explored the qualitative views of a sample of those who have experienced the programme and those who are engaged in providing it. It did not gather quantitative evidence on programme usage of kits as this is supplied by ISD. The evaluation did not require the consideration of any financial or value for money issues.
- 1.26 The recruitment of service users for qualitative interviews was facilitated by local statutory and voluntary addictions agencies. While we provided guidance on an ideal sample, we had limited control over the recruitment or selection of interviewees. It is possible that in some cases, there was a slight unintended bias towards those who were positive about the programme either where they had volunteered themselves or where staff had selected them because they knew what the views of the person were likely to be. However, the use of an external research team reduces the potential for response bias as participants are potentially less likely to say what they think the interviewer wants to hear than if the interviews had been conducted by staff members.
- 1.27 The selection of four areas in which to explore issues in more depth allowed for a higher number of interviewees than had been originally anticipated, through the assistance of the local statutory and voluntary addictions agencies described above. However the differences between the four areas in terms of programme delivery and the perceptions of staff and service users were not as distinct as might have been anticipated and there were more similarities in views and experiences than is sometimes the case with case studies. This means there is limited data from the case studies to suggest how local contextual issues might impact on programme delivery or experience. The differences that were identified have been highlighted in the report.
- 1.28 In some of the online survey questions for service providers it became clear with hindsight that some of the questions were more applicable to some service providers than others: some questions assumed a level of knowledge, for example about national policy and structures, that was not necessarily held and in these instances quite high numbers of respondents were unable to comment.

Ethical considerations

- 1.29 We set out in our original proposal for the work our sense that this research would not require a full NRES application or presentation at a formal NRES ethics board as it was likely it would come under the ethics assessment category of 'Service Evaluation or Service Audit' and because we had designed a methodology that would not require us to have direct access to

patient identifiable information in the form of medical or case notes. The South of Scotland NHS Research Ethics Service confirmed in July 2013 that formal ethical approval was not required for the evaluation, but that we should write to each Health Board informing them of our work, which we did. We received confirmation in September 2013 that Caldicott approval was not required for the evaluation. The SPS Research Access and Ethics Committee also provided ethical approval. However, as a matter of good practice, we obtained written consent for all face to face interviews with service users and family members / carers.

Structure of the report

1.30 The remainder of the report is set out as follows:

- chapter 2 briefly describes the context for the service evaluation;
- chapter 3 sets out the main processes and structures in place to implement the programme locally;
- chapter 4 provides evidence on the effectiveness of the processes and structures;
- chapter 5 describes the impact of the programme;
- chapter 6 provides a synthesis of the findings with some observations for further discussion.

2 CONTEXT

- 2.1 This chapter sets out the context for the THN programme including the prevalence and nature of DRDs in Scotland, the programme's evolution and the key structures to support it. It highlights key questions from the literature review that informed the design of the research and which will be addressed in later chapters.

Prevalence and nature of drug-related deaths in Scotland

- 2.2 Rates of DRDs in Scotland are higher than other UK regions⁴, with the majority involving opioids, either on their own or in combination with other drugs. In 2012, 581 DRDs were registered in Scotland. This was the second highest number ever recorded and 199 (52 per cent) more than in 2002. The number of DRDs has been on an upward trend over the past decade.
- 2.3 Scotland's current national drugs strategy⁵ (2008) focuses on recovery from problem drug use but also stresses the specific need for action to prevent DRDs. The strategy highlights that there are opportunities for preventative action to reduce DRD incidence through activities such as increased general health care and a range of education and awareness raising measures. Giving people the confidence to know when to intervene, what to look for and do in the case of an overdose is highlighted as a possible way of preventing DRDs, as is the training and the provision of relevant information to staff and service users, family and friends.
- 2.4 A national DRDs database was established in 2009 to increase knowledge and understanding of the circumstances around DRDs in Scotland. Findings from it have confirmed earlier research⁶ that those most vulnerable to DRDs are male, live in deprived areas, and are aged 25-44. Furthermore, it has established that the majority of DRDs are 'accidental', involve opioids, are witnessed (highlighting potential for intervention) and two thirds involve someone in contact with a drug treatment service prior to their death. According to the recently published report 'National Drug Related Death Database (Scotland) Report: Analysis of Deaths occurring in 2012'⁷, around half of the cohort (47%) had been in prison at some point in their lives prior to death. Over one in ten (12%) had spent time in prison in the six months prior to death, a decrease compared to 2011 (18%).

Background to the Take-Home Naloxone programme

- 2.5 The use of naloxone as a peer administered intervention in opioid overdose was first advocated during the early 1990s. A recommendation to the Scottish

⁴ See UK Focal Point on Drugs Annual Report 2012 for comparative information

⁵ The Road to Recovery: A New Approach to Tackling Scotland's Drug Problem, Scottish Government, 2008

⁶ National Investigation into Drug-Related Deaths in Scotland, Zador et al, Scottish Executive, 2005

⁷ National Drug Related Death Database (Scotland) Report: Analysis of Deaths occurring in 2012, ISD 2014

Advisory Committee on Drug Misuse in 2005 that those in a position to administer naloxone should be trained to do so, was followed by an amendment to the Medicines Act 2005 making it legal for any-one to administer naloxone to save a life.

- 2.6 Pilot naloxone programmes were subsequently launched in Lanarkshire and Greater Glasgow and Clyde Health Boards in 2007, and in Inverness in 2009. The pilots were able to show that it was feasible for those at risk of opioid overdose to be trained and supplied with naloxone, that they were able to use it in emergency situations, and that they were able to manage it responsibly.
- 2.7 The Scottish Government launched the Scottish National THN programme in November 2010, in response to a recommendation of the National Forum on Drug-Related Deaths⁸, and it was rolled out from 2011 onwards.⁹ The programme allows for distribution of naloxone to those at risk of opioid overdose including prisoners on liberation. All those who receive a supply of naloxone must first have received specialist training in its use.
- 2.8 In 2011, the Chief Medical Officer issued a letter alerting doctors to the programme and highlighting the increased risk of overdose in the first few weeks post-hospital discharge. The Lord Advocate's local guidelines issued in 2011 enabled the supply of naloxone to all staff working for services which have regular contact with people at risk of opioid overdose, such as hostel workers for emergency use only (as naloxone is a prescription-only medicine).

Themes from the literature review

- 2.9 We have drawn out the following key questions from the literature review (contained in Appendix 2) to inform this service evaluation and these were used to help design the research tools and will be addressed in the following chapters.
 - What are the experiences of THN implementation in Scotland at a local level including how training is delivered, participants recruited and the differences in implementation between community and prison settings (see Chapter 3).
 - What is the extent of partnership working in Scotland and how does it assist the programme? Which agencies are involved, and how are they involved in different areas? In particular, how, if at all, are General Practitioners, ambulance and police services involved? (see Chapter 3)
 - Are concerns about inappropriate use of naloxone prevalent? (see Chapter 4)

⁸ National Forum on Drug Related Deaths in Scotland Annual Report 2008-09

⁹ For further background on the programme in Scotland see Consideration of naloxone, the UK Advisory Council on the Misuse of Drugs, 2012

- How do Scottish participants feel about the programme including the kit itself, carrying the kit, the training received, and the impact it has had on them (see Chapters 4 and 5).

Summary of main points

- 2.10 This chapter has highlighted the high incidence of DRDs in Scotland which led to the decision to implement the THN programme following successful pilots. The programme distributes naloxone using a PGD to allow nurses and pharmacists to supply THN to named patients at risk of opioid overdose including prisoners on liberation. All those who receive a supply of naloxone must first have received specialist training in its use.

3 PROGRAMME PROCESSES AND STRUCTURES

3.1 This chapter provides a description of the main processes and structures of the THN programme in Scotland based on the information provided by local naloxone coordinators, SPS staff and NHS staff working in prisons, and from publicly available statistics from ISD.

Coordination and support nationally for the programme

3.2 The THN programme is coordinated, guided and monitored at national level by the expert members of the National Naloxone Advisory Group which has representation from a range of organisations.¹⁰

3.3 The Scottish Government's role in this programme supports:

- a National Naloxone Coordinator and a National Training and Support Officer based at the Scottish Drugs Forum (SDF);
- the development of national information and training materials including a website (www.naloxone.org.uk);
- reimbursement to NHS Boards for the THN kits issued in their area;
- an in-depth monitoring and evaluation programme, including measuring progress against a baseline measure, is delivered by the Information Services Division (ISD) of NHS National Services Scotland. ISD has produced two annual monitoring reports to date (2011-12 and 2012-13) and it provides quarterly reports to the National Naloxone Advisory Group so that its members can assess progress;
- specific support for the roll out of the programme in prisons.

3.4 In addition a specific monitoring indicator has been established for the programme: a decrease in the number of opioid-related deaths and opioid related deaths within 4 and 12 weeks of release from prison.

3.5 Increasing the reach and coverage of THN has been a Ministerial priority for Scotland's Alcohol and Drug Partnerships (ADPs) in 2013-14 and will continue for 2014-15.

3.6 In 2013/14, expert advice received from Scotland's National Naloxone Advisory Group suggested that between 1 April 2013 and 31 March 2014:

¹⁰ NHS Addiction Services, Cambridge University, NHS Health Scotland, ISD Scotland, Scottish Drugs Forum, Pharmacy, Scottish Prison Service, Police Scotland, Scottish Ambulance Service, Emergency Medicine, Healthcare Improvement Scotland, Scottish Government and Scottish Families Affected by Alcohol and Drugs

- a minimum of 15% of people with problem opioid use should be supplied with THN.
 - all clients receiving prescribed opioid substitute treatment should be offered a THN kit.
 - all those discharged from hospital with problem opioid use should receive a THN kit.
- 3.7 The Scottish Naloxone Network (ScoNN) is a forum for local naloxone coordinators to share good practice, receive updates on current policy developments, and 'troubleshoot' relevant issues. All 13 of the Health Boards involved have membership on the ScoNN Group, with 12 regularly attending. It meets in parallel with the NNAG (usually a fortnight before) and was originally chaired by NHS Health Scotland and more recently by SDF.
- 3.8 Staff at SDF provide a two-day Training for Trainers programme (which many Boards have participated in, see below) and a four-day National Naloxone Peer Education Programme, for people who use (or formerly used) drugs and wish to become peer educators/trainers.
- 3.9 Appendix 3 sets out the quantitative information gathered from the research process. It provides key statistics relating to DRDs and the number of naloxone kits issued, alongside key elements of each local naloxone programme. Table 3.1 on page 12, provides a summary of this information covering key statistics relating to DRDs, number of naloxone kits issued, alongside key elements of each Health Board THN programme.

Table 3.1: THN programme - summary service mapping (Snapshot of figures Aug 2013 unless otherwise stated)¹¹

	Health Board													Total
	Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	Tayside	
No. of people with PDU aged 15 - 65 in 2009/10 ¹²	5,100	580	1,300	3,300	2,200	4,900	20,800	2,100	5,900	8,200	0	130	5,000	59,510
No. of DRDs in 2012 ¹³	43	7	6	38	31	31	193	22	61	90	1	2	55	581
No. of THN kits issued in the community Apr 2011 - Mar 2013 ¹⁴	734	219	89	381	225	200	1,498	687	448	951	0	18	380	5,830
No. of THN kits issued In the community (2011/12 and 2012/13) per 1,000 estimated people with PDU aged 15 - 64 ¹⁵	143.9	377.6	68.5	115.5	102.3	40.8	72	327.1	75.9	116	0	138.5	76	N/A
No. of THN kits issued to prisoners on liberation Apr 2011 – Mar 2013 ¹⁶	54	N/A	99	N/A	449	48	299	132	17	199	N/A	N/A	164	1,461
Programme start date	2011	2011	2010	2011	2011	2011	2007	2009	2007	2011	2013	2011	2011	N/A
Local steering group	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	N/A
Local trainers forum	Yes	No	No	No	Yes	No	No	Yes	Yes	No	Yes	No	Yes	N/A
Peer trainers	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	N/A

¹¹ One health board (Tayside) the figures relate to February 2014.

¹² ISD

¹³ ISD

¹⁴ ISD

¹⁵ ISD

¹⁶ ISD

Table 3.1 (continued): THN programme - summary service mapping (Snapshot of figures Aug 2013 unless otherwise stated)

		Health Board												Total	
		Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland		Tayside
Participation in ScoNN		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	N/A
No. of staff trained	Voluntary sector	27	8	20	17	20	43	54	14	1	18		4	6	232
	Statutory sector	37	12	20	50	39	5	158	24	62	58	1	2	68	536
	Pharmacy staff			1	13	1	10	80		2					107
	Peers ¹⁷	5			10	4	4	28	9	10	15			4	89
	Others	9	3		25	5	6	33	5	11	1	2	2	12	114

¹⁷ The figures supplied by Highland and Grampian were from the survey; the figures for all other areas have been subsequently revised by the national naloxone staff to reflect actual numbers who have undertaken the 4-day national naloxone Peer Education programme. Those in Highland and Grampian may not have undertaken this programme but may have undertaken the 2-day TTT programme.

Summary of community based THN programme

Delivery model

- 3.10 The national THN programme is operational within all Scottish territorial NHS Boards except Western Isles which has chosen not to participate. All Boards except one utilise a partnership model for the delivery of the programme, involving both the statutory and voluntary sectors. Six Boards make use of community pharmacies for training and/or supply. A PGD permits nurses or pharmacists to supply naloxone to people at risk of overdose.
- 3.11 Each Board has at least one named local naloxone coordinator to support the THN programme locally.
- 3.12 The primary naloxone delivery route in Scotland's national programme is through intramuscular administration. (In Highland intranasal naloxone is being piloted locally by the NHS Board in response to local assessments of naloxone 'saturation' and the need to find a non-needle based approach within the NHS Board area.)
- 3.13 In addition to the nationally produced materials, six Health Boards have also produced their own materials. Locally produced materials ranged from Health Board specific issues (such as intranasal administration in Highland), to materials that had been developed locally but which have since been rolled out nationally (such as the 1:1 training checklist, and local guidance for non-statutory services developed in Greater Glasgow & Clyde).

Management and accountability at a local level

- 3.14 Nine Health Boards have a naloxone steering group (or equivalent), while four have no comparable structure. Local naloxone coordinators report that strategic leadership is important for adding credibility and strategic weight to the programme.
- 3.15 All local THN programmes work with their local ADPs (29 out of 30 are engaged). However according to the local naloxone coordinators, the nature of the relationship between local programmes and their respective ADPs is variable. Some ADPs take an active leadership role, while others tend to defer to the role of the Health Board.
- 3.16 The THN programme is locally monitored either by the steering group or by the local naloxone coordinator.

Staff training

- 3.17 There are regular programmes of TTT for staff in most Health Boards (usually twice a year) provided by either SDF staff and/or local trainers. The training course generally lasts between one and two days, sometimes with required pre-reading before the course. Since the start of the programme, there has been a shift towards shorter courses and towards the use of local trainers.

- 3.18 According to the online survey of responses from local naloxone coordinators, a total of 536 addiction/treatment staff have been trained in the statutory sector, 232 in the voluntary sector, and 107 community pharmacists and pharmacy support staff since the national programme began. Information provided by national naloxone programme support staff indicates that 89 peer trainers/educators have been trained (but may not all be operational as some may have moved on from training). A range of other professions have received training, for example GPs, homeless provision staff, and criminal justice staff. Low numbers of police and ambulance service personnel have been trained as part of the THN programme (although they may have received training through their own training programmes).

Training and supplying people with problem drug use

- 3.19 Training and supply of people who use drugs is undertaken in all 13 participating Health Board areas. Training is offered by staff from both voluntary and statutory sectors, with supplies being made under the PGD primarily by nursing staff. In the six areas where community pharmacies are participating in the programme, supplies are also made here.
- 3.20 A total of 5,830 THN kits (which includes those given to people at risk, service workers and family/friends) were distributed in the community during years 2011-12 and 2012-13. This represents just under 10% of the total estimated number of problem drug users in Scotland (59,510). However it should be noted that these were not all first-time supplies but include re-supplies as well. There were 910 repeat supplies out of this total figure (and a further number where it was unknown if they were a first or repeat supply).¹⁸ This means that the actual 'reach' to people with problem drug use within the community is lower, around 8%. (If the number of kits distributed to prisoners at liberation is included the total number of kits given out is 7,291, taking the percentage of those at risk of overdose reached to just under 11%.)¹⁹
- 3.21 Local naloxone coordinators reported a noticeable shift from an initial group model of training service users to a 1:1 model, often referred to as a brief intervention, with a consequent reduction in the time taken for this (often 10 - 30 minutes). This compares with the duration of the group sessions which could last up to two hours.
- 3.22 Local coordinators also reported that the training and supply of naloxone to people who use drugs was increasingly being integrated into regular service provision such as support and advice, needle exchange and opiate replacement therapy.

Summary of prison based THN programme

- 3.23 SPS was approached by the Scottish Government in 2010 to scope the implementation of the naloxone programme in prisons to those at risk of

¹⁸ National Naloxone Programme in Scotland-naloxone kits issued 2012-13. ISD, 2013

¹⁹ ISD will report new figures for kit uptake in October 2014.

opioid overdose following liberation. The programme was introduced incrementally from February 2011. The training of prisoners began in April 2011 and by June 2011 all prisons were participating in the programme.

- 3.24 A Governors and Managers Notice was issued to all prisons in 2010 prior to implementation of the programme. Governors and Managers notices providing further information and guidance for staff were issued during June and August 2011. A Guidance Manual for Staff (2010, revised 2011) was also issued to all prisons. Information notices on the naloxone programme continue to be issued to prison staff when additional information or updates are required to be provided.

Delivery model

- 3.25 Prisoners are offered naloxone training on a voluntary basis as close to their date of liberation as possible. Following completion of the training a naloxone supply is placed in the prisoner's property for collection on liberation.

Management and accountability

- 3.26 Until November 2011, the delivery of the THN programme in prisons was the responsibility of SPS. From November 2011 responsibility for the delivery and governance of the naloxone programme in prisons transferred to local Health Boards in line with the overall transfer of prisoner healthcare from SPS to the NHS.

Staff training

- 3.27 Prior to November 2011, 100 staff (both clinical and Enhanced Addiction Caseworkers) were trained in all establishments.

Training and supplying people with problem drug use

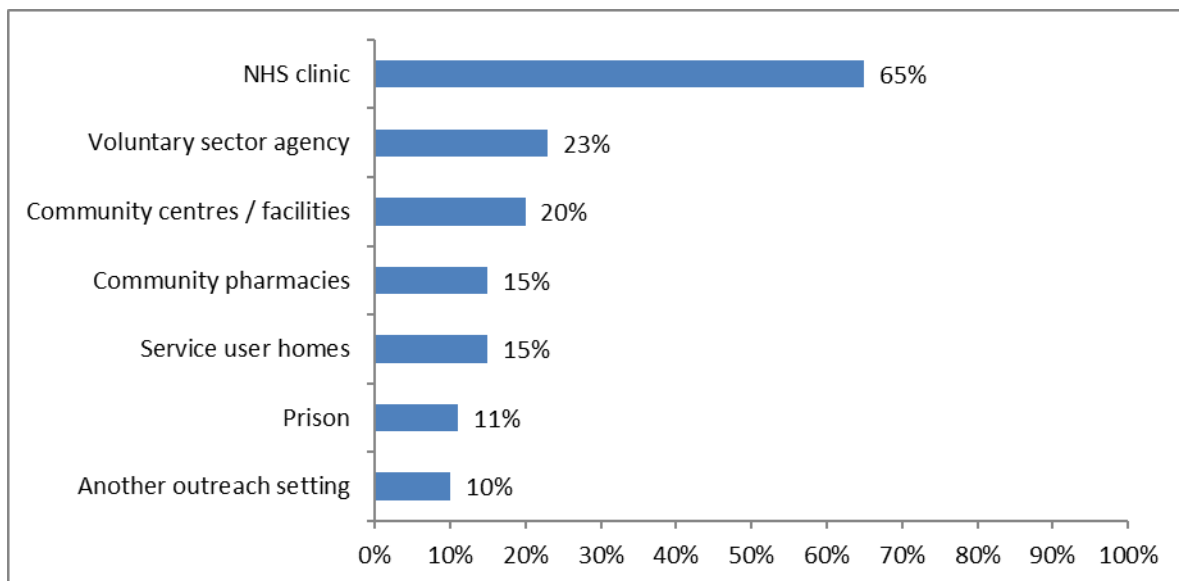
- 3.28 Training is undertaken on a voluntary basis following assessment. This takes place on either a group or a 1:1 basis.
- 3.29 A total of 1,461 THN kits have been distributed to prisoners on release from prison during years 2011-12 and 2012-13.²⁰
- 3.30 It has not been possible to ascertain national figures for prisoners on opiate replacement therapy programmes in Scottish prisons (and hence an estimate of the effective 'reach' of the naloxone programme in prisons). We understand, however, from SPS that Healthcare Improvement Scotland is currently undertaking a consultation with Health Boards (during March 2014) to ascertain the number of Scottish prisoners being prescribed opiate replacement therapy across all Health Boards.

²⁰ National Naloxone Programme in Scotland-naloxone kits issued 2012-13. ISD, 2013

Information across both community and prison settings

3.31 We asked respondents in the online survey to tick all locations in which they had supplied naloxone. Table 3.2 below shows that 65% of those who responded supplied naloxone in NHS clinics, 23% at voluntary sector agencies, 20% at community centres/facilities, 15% at pharmacies, 15% at people's homes, 11% in prison, and 10% at another outreach location.

Table 3.2: Setting in which naloxone is supplied



3.32 There are four core models of training and supply of naloxone to people with problem drug use based on the four key places where training and supply may take place: drug treatment centres; prison; outreach services; pharmacies. Table 3.3 below outlines these.

3.33 The use of peer trainers is increasingly being used across Health Boards for the training of service users. SDF provides national support and coordination for this. To date, 76 peer trainers have been trained by the four-day training programme for peer educators delivered by the national naloxone team across six Health Boards (from figures provided by the national naloxone team) and two further Health Boards in the survey report having peer trainers who have been trained through the TTT. Two prisons have peer trainers in place: one prison has a peer education network with 11 peer educators trained and another has one peer trainer. Peer trainers have trained 293 people, and facilitated access to naloxone supplies for 204 people across eight Health Boards. In one prison all the naloxone training is delivered by peer trainer.

Table 3.3: models of THN programme delivery

		Drug treatment agency	Prison	Outreach	Pharmacy
Training	Where	<ul style="list-style-type: none"> • Statutory services (eg NHS clinics, Community Addictions Teams, Injecting Equipment Providers, residential centres) • Voluntary sector agencies (eg drug projects, community rehab) 	<ul style="list-style-type: none"> • Prisons 	<ul style="list-style-type: none"> • Partner organisations (eg hostels) • Mobile buses • Homes of people with drug problems 	<ul style="list-style-type: none"> • Community pharmacies
	By whom	<ul style="list-style-type: none"> • Nursing staff • Non-clinical staff • Peer trainers 	<ul style="list-style-type: none"> • Nursing staff (based in prison) • Enhanced Addiction Casework Service (EACS) staff • Peer trainers 	<ul style="list-style-type: none"> • Nursing staff • Non-clinical staff • Peer trainers 	<ul style="list-style-type: none"> • Community pharmacists • Community pharmacist support staff • Peer trainers
	Method	<ul style="list-style-type: none"> • Group sessions (< 2 hours) • 1:1 sessions / brief intervention (10 - 30 minutes) 	<ul style="list-style-type: none"> • Voluntary sessions (both group and 1:1) as part of drug treatment programmes 	<ul style="list-style-type: none"> • Flexible, in response to circumstances / brief intervention 	<ul style="list-style-type: none"> • 1:1 sessions / brief intervention (10 - 15 minutes)
Supply	Where	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above
	By whom	<ul style="list-style-type: none"> • Nursing staff 	<ul style="list-style-type: none"> • Nursing staff 	<ul style="list-style-type: none"> • Nursing staff 	<ul style="list-style-type: none"> • Pharmacists
	Method	<ul style="list-style-type: none"> • Either following training, or at agreed later point 	<ul style="list-style-type: none"> • Supply issued to prisoner on liberation 	<ul style="list-style-type: none"> • Either following training, or at agreed later point 	<ul style="list-style-type: none"> • Following training • Some supply only, if evidence of training elsewhere provided

Summary of main points

- 3.34 The programme has put in place structures and systems to allow staff from both the statutory and voluntary sectors who work with people at risk of overdose, as well as peer trainers in some Health Board areas, to be trained in how to provide knowledge and skills about naloxone, and how to administer it, to people with problem drug use. The supply of naloxone is mainly administered by nurses or pharmacists (where the latter are participating in the programme). In prisons the kit is supplied by placing it in the person's property prior to liberation (if they agree to this after training).
- 3.35 5,830 kits were distributed in the community setting (including to people at risk, service workers and family/friends) between 2011 and 2013, and this is approximately 8% of the total population of people with problem drug use. It highlights that while a start has been made, there is still much to be done to increase the reach to all those who might benefit. Likewise the number of kits distributed in prisons (1,461) appears low and ways to increase the take-up of naloxone training and kits for former prisoners at risk need to be explored.

4 THE EFFECTIVENESS OF PROCESSES AND STRUCTURES

- 4.1 In this chapter, we examine the effectiveness of the identified processes and structures in place to implement the programme from the different perspectives of service providers, programme beneficiaries and their family members/carers/friends.
- 4.2 The evidence for this chapter is drawn from across the research elements including the online survey with service providers, the views of naloxone coordinators, the in-depth interviews with service providers, programme beneficiaries and their families/carers in the four case study areas. A full analysis of the online survey results can be found in Appendix 5.

Training the trainers (TTT)

- 4.3 The TTT courses were generally delivered by either SDF staff or by local trainers. The latter tended to be used where the programme had been established for a longer period, for example in the Case Study A area where the course duration is one day instead of the customary two days. In another Case Study area (B) some staff training has also been delivered by Health Promotion staff for staff in services with people at risk so that they are able to administer naloxone in an emergency.
- 4.4 In the online survey most of the 186 respondents (71%) had taken part in a TTT course, with nearly all (96%) describing it as highly or fairly effective in equipping them to provide naloxone training, and nearly three quarters (70%) felt it was either fairly or highly effective in equipping them to supply naloxone.
- 4.5 This positive view of the TTT was borne out in interviews with service providers in the case study areas where the courses were widely seen as effective and covered the required aspects of the naloxone programme. A few people commented that the training did not always take account of participants' prior learning. For example, nurses could reasonably be expected to be acquainted with basic life support techniques. There was the suggestion that the course might therefore be shorter for some professionals. Staff in prisons who had received the training (again from SDF) felt that it was useful and covered all the main topics.
- 4.6 A few people mentioned that if they did not have the opportunity to make use of the training skills on a regular basis, they risked losing them. For some, who were not used to providing training, there was a lack of confidence about training in general.
- "I feel confident if I had to use any of the skills from it. My other colleague who was trained but hasn't provided any training yet is anxious because she doesn't like needles; we will do it together. I'll do the needle part. If you don't start providing training straight away then you lose what you've learnt." (Group worker)
- 4.7 Those who were involved in supply were satisfied that the course covered the requirements of the PGD. One pharmacist wanted practical strategies for

how to train people with problem drug use during brief interventions in the pharmacy.

Recruitment

4.8 In the online survey, the most effective recruitment mechanisms, identified as either fairly or highly effective, were word of mouth from peers (87%), direct targeting by professionals (87%), and word of mouth from professionals (86%). 71% felt that the THN programme is successful in engaging those most vulnerable to problem drug use.

4.9 Service users across the four case study areas reported that recruitment to the programme was mainly through contact with a range of professional staff from both statutory and voluntary sectors, including nurses, Community Addictions Team (CAT) staff, and voluntary sector drugs workers.

4.10 Thirteen interviewees had been in prison and had come into contact with the programme through treatment programmes - either ongoing or pre-release.

"Something called Phoenix at the prison. See, before you get out of prison, you have to do a release kind of thing and you go see Phoenix. It is voluntary but most people go. You see videos about getting out of prison and that. They mentioned naloxone, and that's how I got to know it." (Male, 30-40)

4.11 In prisons because the programme was voluntary, it was not always easy to recruit participants. Often prisoners would sign up for sessions but fail to turn up for them, choosing alternative activities such as gym sessions or paid work.

"They are easily distracted and quite short sighted" (Manager)

4.12 It was reported to the research team (both by a former prisoner and by a member of staff) that one prison had used a financial incentive (£1) to encourage prisoners to attend.²¹

4.13 Factors that assist with effective recruitment to the programme in prisons included:

- information (posters, leaflets) being widely available in the halls, the Links Centre, the library;

"They pick up posters and leaflets, and ask 'what's naloxone?'. We tell them the group runs every Thursday." (Nurse)

- the 'positive' nature of the programme;

²¹ Note: This practice would have been a local decision

"The fact of learning CPR takes it away from a solely drug based programme. People have said it's useful in any setting." (EACS worker)

- staff clearly explaining the benefits of the programme to prisoners;
- encouragement from 'peers' to take part.

Service decliners

4.14 Eleven interviewees had been offered training but had declined. The reasons for this varied, but a common theme was that they had 'moved on' from drug using circles and therefore did not want to associate with, or be associated with these kind of environments. In these circumstances, it was generally seen as a good programme for other people who still use drugs.

"I haven't taken drugs in 10 years, it isn't for me, I'm not part of that scene anymore, I keep out of it and just get my prescription." (Female, 30-40)

If clients saw themselves as 'already on road to recovery', this could be seen as a reason not to take training and supply.

"I don't run in those circles anymore', 'it won't happen to me, so I don't see a reason to do it' - that's the most common thing." (Group worker)

Training people who use drugs about naloxone

4.15 Over two-thirds (69%) of online respondents said they had trained service users in naloxone. A quarter (26%) of these have trained between one and ten service users, but 16% have trained between 51 and 100 service users and 12% have trained more than 100. If we extrapolate these figures to the overall number who have been trained (989), it gives an estimated figure of 585 who have trained service users of whom an estimated 152 have trained between one and ten people and 70 have trained over a hundred people.

4.16 Service providers in the survey consider 1:1 training as more effective for service users than group training. 68% described 1:1 training as highly effective, compared with 49% for group training. However, staff in prisons have a slight preference for group training and staff interviewed in prisons spoke about only using 1:1 training when the numbers turning up for training were too low.

4.17 There is a difference between the proportion of service providers who have trained service users in naloxone (69%) and those who have supplied naloxone to them (49%). This is potentially because there are many non-clinical staff in both the voluntary and statutory sectors who are not permitted to supply naloxone under the PGD.

4.18 Several interviewees across the four case study areas echoed the responses in the online survey in describing how their training of service users had evolved, with many moving from a group training model to a 1:1 training

model. This allowed a more opportunistic approach to be adopted, where the training became less of a formal 'training' session and more of a brief intervention.

"Initially there was poor uptake, because you were asking chaotic and vulnerable people to come at a set time to sit for one and a half hours. Then we had a 'moment of sense'. We realised that the DVD was 'bells and whistle' but the important things to cover were: asking the client about their overdose experience; challenging the myths; how to recognise an overdose; dialing 999 and the reasons for this; emphasising that N was short acting and how to use it. It needed 15 - 20 minutes." (Nurse)

4.19 Rooting the training in the lived experience of the client was seen as a way of making the training relevant, for example asking the client sensitively if they had any personal experience of overdose or fatality.

4.20 Being able to offer naloxone training and supply was viewed as an essentially positive action. As well as providing the means to potentially save lives, there was value in the inclusion of practical skills such as basic CPR. This positivity was reinforced by the use of certificates. One worker recounted a home visit where the service user had mounted his certificate in a photo frame. Another interviewee echoed this.

"Most of the ones I've done lately want a supply. Some go and get it and come straight back to show you, it's good to say to them come back and show me I just want to see if the kit has changed or anything like that. Sometimes they are proud of showing you it, that they've gone and got it. There's a sense of achievement that they've done something. They get a certificate at the end, it's quite a nice certificate that they get and they want to keep it nice, they don't have a lot of achievements some of these people." (Support worker)

4.21 Several interviewees recommended the use of small incentives such as the availability of tea and coffee at the training session - especially group sessions.

4.22 Rather self evidently, training and supply was made more effective if there were the right number and type of staff available. One nurse in an addiction team felt that she was working in isolation and lacked the support of colleagues. She and some others highlighted the value of a naloxone 'champion' in the workplace.

4.23 Some pharmacies offered refresher training to service users and this was described as complementary to previous training, especially when it took the form of a brief intervention.

"Clients often say 'I've done that in jail', but we say we can do a refresher and give you the naloxone. It'll only take ten minutes." (Pharmacist)

Peer trainers²²

4.24 Three of the four case study areas use peer trainers and the views of those we interviewed across the areas were very similar. They all worked on a voluntary basis to train people in naloxone use. One group estimated that as a whole the peer trainers must have delivered around 1,000 hours of training (the national naloxone coordinator confirmed this figure as around 900 hours). They worked in partnership with professionals in CAT teams, pharmacies, and needle exchanges as well as in a range of outreach settings such as hostels. For some it was a kind of payback.

"Trying to put a wee bit back in the community. I was a drug user for years and all I did was take out of the community." (Male, 40-50)

4.25 As ex-users, they saw their contribution to the programme as being a credible conduit of information and awareness for people who use drugs who might not otherwise engage with services.

"When I was out there using - anyone in authority, you didn't talk to them." (Male, 40-50)

4.26 The trust they were able to engender was vital.

"With us being peers, we know where to touch. We get that trust." (Male, 40-50)

"When people are offered naloxone by CAT teams, nurses whatever, they're in the mindset of 'If I admit that I need this, I'm still in that company, it could jeopardise the prescription.' What we're doing is only a step to get people's confidence, to start engaging with services." (Male, 40-50)

4.27 They saw their role, in part, as dispelling myths about naloxone, not least its legal status.

"Drug users think it [naloxone] is good and should have happened years ago, but they say 'If I walk about with that the police will pull me'." (Female, 30-40)

4.28 They described a number of barriers that prevented people who use drugs from accessing naloxone. One of the key barriers was a perception that it reinforces the stereotype of that person having a problem with drug use. This could be overcome by explaining that the purpose of naloxone was for the benefit of other people.

"It takes the heat off them. You can see the barrier come down when you tell them it's not for them." (Male, 40-50)

²² A peer trainer is someone who in the past has had problem drug use and who is now trained to deliver naloxone training to those at risk of opioid overdose.

- 4.29 One peer educator addressed the issue of the potential misuse of the naloxone kit for illegal drug use, and stated that this was now unlikely as injecting equipment was routinely available from needle exchanges.
- 4.30 They all agreed that being a peer educator was demanding and that, despite the benefits (such as increased confidence, contributing to their own recovery process), there was a 'natural wastage'. In one group which had initially recruited ten peer educators, there had been only three active members for a period of seven months.

Naloxone training: service users' views

- 4.31 Naloxone training had been received in both community and prison settings, with several people having experienced both. There appeared to be no perceived obstacles to this.
- 4.32 Training was voluntary in both contexts, but there were a few reports (from both a staff member and a former prisoner) of incentives being used in one prison.
- 4.33 Most interviewees recalled the key elements of the training: overdose awareness, the recovery position, basic life support techniques, calling the emergency services, naloxone administration (which indicates that it had been effective).
- 4.34 The length of the training in the community varied according to the setting, with reports ranging from 15 minutes to two hours. In particular, those who had been trained at a pharmacy tended to describe a briefer session, often undertaken in conjunction with the use of needle exchange facilities or picking up methadone.
- 4.35 Some had used the community based training as an informal 'refresher', having undergone initial training in a prison context.

"I forgot all about the palpitation pumps and how many it was, so the refreshers helped. The CPR - all of that helped. Finding out exactly how much to give." (Male, 40-50)

- 4.36 Both group training and 1:1 training sessions were reported, with each having pros and cons. Group training usually lasted longer and was sometimes seen as more enjoyable, although several mentioned the embarrassment factor of having to demonstrate CPR in front of their peers.

"You feel a bit silly when you get to use the wee dolly." (Female, 30-40)

- 4.37 When asked if the training could be improved, there were few suggestions, with most people feeling that it covered the necessary areas. Again, people emphasised the value of the 'refresher' training.

- 4.38 There was one interesting comment from a service user, who suggested that the training situation provided an ideal setting for both provider and user to learn something.

"The pharmacist could learn off me! He's never been in a house where there's an overdose." (Male, 30-40)

Supplying naloxone

- 4.39 Staff interviewed in the four case study areas identified a number of facilitators that supported the effective delivery of supply of naloxone to people who use drugs. Proximity of time and place between training and supply was a key factor highlighted by several people. Where this was the case, most people would take a kit. On the other hand, where the client needed to go to a separate venue to pick up a supply, this often meant that the supply was not in fact obtained.

- 4.40 Sometimes the intervention was described as being at the 'wrong' time, for example when service users simply wanted to pick up injecting equipment.

"At the needle exchange, people are desperate just to use. People here are at crisis point." (Nurse)

- 4.41 There were comments in some Health Boards about the lack of dispensing pharmacies for naloxone, and the lack of supply in these areas was seen as an obstacle to service users being able to access supplies.

- 4.42 Naloxone supplies to prisoners who had received training were made on liberation. The naloxone kit was placed in the 'valuable property', usually by nursing staff, and issued by reception staff to prisoners on leaving the prison. This was seen as generally working well, and although some initial difficulties were described with the process, these are now either resolved or in the process of being resolved.

Naloxone supply: service users' views

- 4.43 The majority of interviewees who were trained by statutory services reported receiving the THN kit on the same day, and mostly at the same place and time as the training. This was seen as a logical step.

"Yes, at that time there was a doctor came in to sign it off there and then, so we got it straight after training. So we didnae need to go to the chemist and pick it up." (Female, 20-30)

- 4.44 Those trained by voluntary sector agencies however reported that they often had to go to a pharmacy for the supply of the kit which was separate to where they had been trained.

- 4.45 Others reported that they had taken the kit on release from prison. This was as part of the prisoner's 'property' collected on release. One former prisoner

mentioned that his reason for taking the kit was not for his own use, but for potential use in an emergency that involved others.

"I wanted to take it even though I was drug free. I still see IV drug users in company. It could be a life saver." (Female, 30-40)

- 4.46 In some more rural areas there were issues relating to access to supplies of the kit particularly where not all areas had community pharmacies who supply naloxone. Both service users and staff in one rural area recognised that this lack of access to supply of kits could be an issue.

Carrying the kit

- 4.47 Views varied as to whether the kit was something to carry routinely or not. Some made a point of carrying it on them.

"Always. I carry it everywhere, no matter what. It's always on me, no matter what. You could be walking past a close, a tunnel, a toilet and some [person] could be lying there." (Male, 20-30)

- 4.48 Others preferred to keep it at home.

"I just keep it in the house, in a drawer in the house... I'm feart i'll get stopped by the police and they'll take it off me. It's happened to a couple of my pals." (Male, 40-50)

- 4.49 Potential repercussions if stopped by the police were mentioned by several interviewees. There were a number of accounts of problems with police interventions, including one where four service users who had just completed a naloxone training course, and were having a cigarette outside the training venue, were searched by the police. Several interviewees reported that there was a risk that carrying the kit simply reinforced an already negative stereotype of the "drug user".

"I don't carry it because of the police. If the police pull you, and you've got a syringe (even if it's naloxone), they'll keep you for longer and stripsearch you. It's humiliating. If your face is known, you're targeted." (Male, 30-40)

- 4.50 Some reported a pragmatic approach to carrying the kit, making a decision in relation to planned drug taking activities.

"If I'm going to a jagging den, I ask if there's naloxone in the house. If there's not, I bring it with me." (Male, 30-40)

- 4.51 A few interviewees saw themselves as an informal community resource. One man had advertised on social media the fact that he had naloxone. One woman was active in letting others know locally that she had a kit available in the event of an overdose.

"Because I live in the middle of the town centre, and there's a lot of people round about me still doing it. I've told every one of them of them - anyone overdoses, just run and get me, because I can get to them quicker than an ambulance can." (Female, 30-40)

Using the kit

4.52 Most service users felt that the kit came in an acceptable form, and was alright to have as part of their possessions. There were no specific improvements that received majority support. Some found it easy to open, while others found it tricky. Some liked the bright yellow packaging as you could clearly identify it, while others found it too visible and preferred the clear packaging. There was general agreement that it was more practical for women to keep it unobtrusively in a handbag, while for men, this was more difficult.

4.53 Significantly, there were very few reports of the kit being misused, and the majority of interviewees expressed the view that having access to the kit did not encourage drug use. Unlike the concern expressed in the research for the Welsh demonstrator programme cited in the literature review²³ there was no reporting of the fear that multiple doses might result in major withdrawal.

4.54 All service users who had received training and THN kit were asked if they had had occasion to use the kit. 15 out of 37 service users had used the kit - three on more than one occasion. Most accounts were about usage in a flat or house. The following account is typical.

"I just saved a boy about two weeks ago with naloxone. It was scary. I wasn't there when he ODd, but I walked into the house and the lassie was gouching and her boyfriend was lying on the floor - blue - and she didn't even know he'd ODd. So if I hadn't turned up when I turned up, he wouldn't be here..... I put him in the recovery position and gave him naloxone and he started breathing. But then he went back into the OD, so I had to wait a couple of minutes and give him another, and then I had to give him another one, and that's when he came out of it. By the time the ambulance came, he was fine. The ambulance guy said 'he was lucky you were here'." (Male, 20-30)

4.55 A few were in public spaces.

"There was an OD outside the toilet in [xxxxx] Street. The person didn't know what to do. He had been going to use heroin. I checked the airways, he wasn't breathing. I used [a dose] and someone called the ambulance. The person came round. There was no hassle from the police." (Male, 20-30)

²³ Appendix 2, Paragraph 27

- 4.56 Despite this account describing a lack of police harassment, the reality of 'intrusive' enquiries from the police was a common theme amongst service users across all four areas. One person gave a sad but realistic description of what often happens when someone overdoses in a residential property, and the tenant tries to remove the evidence.

"From all the stories I've heard of people overdosing and that, there seems to be a lot of people trying to hide bodies. It's horrible. They locked them in a cupboard or put them outside, just threw them out."
(Male, 20-30)

- 4.57 This gives rise to a reluctance to call the emergency services because of the likelihood of automatic police involvement.

"Cos if you're in and someone takes an overdose in the house and you're the only one that's there, the police charge you because you could have given them that hit. So that's how some people don't call the police, or else they'll call an ambulance and do a bunk from the house." (Male, 40-50)

- 4.58 A few interviewees thought that the attitudes of the police needed to change as they can be a barrier to people seeking help. This point was also illustrated by a pharmacist who emphasised when training service users that they should be careful about how they describe the emergency situation (to avoid the police being called).

"Phone an ambulance and say it's an unconscious person. Don't mention naloxone or overdose." (Pharmacist)

- 4.59 On the other hand using naloxone was seen as a practical way to avoid police enquiries in these kinds of situations, as well as being a life saving drug.

"It gives you the power back to save someone's life. If someone dies in the house, it's hard to explain away. It's saved millions of questions from the police." (Male, 30-40)

Training and supplying families and carers

- 4.60 Nearly a third (29%) of service providers in the online survey have trained family members/carers in naloxone. 56% of these said they have trained between one and five family members/carers. This took place in NHS clinics (46%), voluntary sector agencies (38%) and in families' homes (27%).

- 4.61 68% thought that families feel reassured knowing they could help prevent a fatal overdose.

- 4.62 The vast majority of service provider interviewees in the four case study areas acknowledged the difficulty of engaging family members and friends. This was exacerbated by the fact that people who use drugs often had broken inter-personal relationships and chaotic lives, and might be reluctant to engage with their own families. Some residential staff also pointed out that client confidentiality sometimes mitigated against family involvement.

"It's difficult to tie down a typical family member. Some are horrified and want nothing to do with it. Others are there for their partner or child." (Group worker)

- 4.63 There was common agreement amongst professionals about the need for legislative change to naloxone to enable family members to be supplied with naloxone without the person who uses drugs' consent. In Glasgow, this had been highlighted in a campaign called 'Lisa's petition' established by a third sector organisation. A pharmacist from another area echoed this sentiment.

"I've had parents in tears in the shop asking 'what can I do?'. It's a drug that anyone can administer in a life-saving situation, but it's not available to anyone. They can put defibrillators in shopping malls and adrenaline into schools, but not naloxone!" (Pharmacist)

- 4.64 Staff working in prisons who were interviewed generally had very little contact with families, although this was more frequent in one prison. In one prison, there were plans to deliver drug awareness sessions (including naloxone) at the Family Hub Centre which all visitors go through prior to a prison visit. In another prison, healthcare staff encouraged prisoners to ask their families to access the training in the community, but had no direct contact with them.

Families' experience of training

- 4.65 The main reason for taking part in the training, expressed by all eight family members we interviewed, was a concern for their child, and to acquire some peace of mind in the event of a possible overdose.

"It's a prevention method. If he [her son] has an overdose that is something I can give him while I'm waiting on the ambulance coming."
(Female, 40-50)

- 4.66 The training had helped them to learn about CPR, the signs of overdose, and how to use naloxone. One mother had learnt new information about overdose.

"Just that with [son] using maybe two or three different substances, there is more chance of him having an overdose, rather than just one substance. If he does happen to change supplier, it could happen at any time, just a bit more information for myself." (Female, 40-50)

- 4.67 Two of them said that naloxone was easier to use than they had expected. Three of them said that the CPR dimension was a refresher for them as they already had the basic knowledge.
- 4.68 There were no suggested improvements to the training, but one person said a wallet sized card containing the essential information about naloxone administration would be useful.

Families' experience of supply

- 4.69 Three of the interviewees did not have a kit because their sons had refused to go to the chemist with them and give permission for them to pick up a kit. Two had just been trained and were happy with the kit, and two others had been supplied with a kit a number of years previously.
- 4.70 The three mothers interviewed in one area were very involved in 'Lisa's petition', a campaign to change the POM status of naloxone to make it available to family members without requiring the consent of the person who uses drugs. Those who had received kits said they were confident to use them. No changes to the design of the kit were proposed. None of those interviewed had used their kit.

Support materials

- 4.71 Service providers who responded to the online survey had mixed views about the effectiveness of naloxone support materials. 72% described materials for professionals as fairly or highly effective. 61% described the national naloxone website (www.naloxone.org.uk) as fairly or highly effective. The figures for materials produced for families and carers (50%) and peers and friends (48%) were lower. However, notable proportions of respondents felt unable to comment on these materials.

Partnership working

- 4.72 Service providers in the online survey were generally positive about partnership working in their area. Across all respondents in the online survey 79% felt that partnership working in their Health Board area is fairly or highly effective.
- 4.73 A lesser proportion, 50%, felt that partnership working at national level is fairly or highly effective, but most of the remainder (44%) felt unable to comment so this lower figure may reflect a general lack of awareness of what is happening at national level.

- 4.74 The case study evidence provided many concrete examples of practical cross-sectoral working. In Case Study B, there was close communication between a third sector agency and the local branch of a pharmacy, with for example frequent telephone discussions about mutual clients. In Case Study A, NHS nurses provided an 'in-reach' service to clients at a third sector residential facility.
- 4.75 A few interviewees pointed out that partnership working required shared strategic aims and in some situations this was not always thought to be the case.
- 4.76 In prisons the key partnership within the THN programme was between SPS and the NHS, following the transfer of responsibility for healthcare in prisons from SPS to the NHS in November 2011.
- 4.77 In two prisons, staff reported that this partnership was working effectively. One manager said that under the previous arrangements, SPS had a contract with a third sector contractor for the delivery of the Enhanced Addiction Casework Service (EACS), which was described as 'restrictive', with a lot of time spent on 'micro managing anomalies in the contract'. Since the transfer, this had become less restrictive, more needs based, and prisoner focused. Under present arrangements they had less direct control over the numbers trained, but this was not seen as a problem. Frontline staff reported strong joint working between nursing and EACS staff.
- 4.78 In one prison, there had been problems with the NHS not being able to release staff to run naloxone sessions due to resource constraints.

Strategic and policy support

- 4.79 Views on the effectiveness of strategic and policy support for the THN programme were quite mixed, with a significant proportion of community respondents (40%) in the online survey unable to comment on the national level strategic and policy support. These are set out in Table 4.1 page 33.
- 4.80 Respondents felt that the most effective support came at Health Board and ADP level (which may be because these are the levels they felt more able to comment on). Service providers in prisons who responded were more positive than community respondents for most of the areas of strategic and policy support questioned (although the sample size from these respondents was fairly small at n=24).

Table 4.1: Perceptions of strategic and policy support²⁴

	Community respondents (n = 144)		Prison respondents (n = 24)		Total (n = 168)	
	Highly or fairly effective	Don't know	Highly or fairly effective	Don't know	Highly or fairly effective	Don't know
Strategic and policy support within the Scottish Government	53% (n=145)	40%	63%	33%	54% (n=169)	39%
Strategic and policy support within your NHS Health Board	68%	25%	75%	17%	69%	24%
Strategic and policy support within your ADP	71%	19%	71%	21%	71%	19%
Strategic and policy support within Scottish Prisons	29%	66%	79%	13%	36%	58%
Strategic and policy support within SDF	54%	40%	67%	29%	57%	39%

Management and accountability

4.81 The four case study areas illustrated some of the differences in the local management and accountability that the survey with naloxone coordinators had highlighted. Three of the four areas have a steering group but Case study C does not. In this last area it was recognised by those interviewed that it might have been helpful to have one but its management and accountability is undertaken by the naloxone coordinator who reports to the ADPs. The composition of the steering group in the other three areas is varied with one (Case study A) being predominantly NHS focused plus representation from prisons and peer trainers; another (Case study B) having a varied range of partners involved including a GP (the only steering group of the three to have GP involvement), the third sector, police and ambulance service. The third (Case study D) has some partners represented but is not as comprehensive as Case study B.

²⁴ There were two other categories 'slightly effective' and 'not at all effective' but these are not reported here as the numbers were low.

Summary of main points

- 4.82 The training of staff and peer trainers was seen as effective in terms of giving people the knowledge, skills and confidence they require to offer naloxone training. Some nurses felt that the course could have been tailored more to take account of their prior knowledge. There may be some need for refresher training for those who have not used the skills acquired after training.
- 4.83 In terms of supplying the kits it is clear that this works best when there is proximity of time and place between training and supply. Improving the consistency of supplies available through community pharmacies, particularly in rural areas, could increase access to naloxone. Some service users see themselves as being able help others in their community by publicising the fact they hold a supply of naloxone. There is interest expressed in seeing more people being allowed to hold supplies of naloxone including family members.

5 IMPACT OF THE PROGRAMME

- 5.1 In this chapter, we provide an early indication of the programme's impact including consideration of the outcomes for those who have engaged with the programme and whether the programme is reaching those who do not typically engage with drug treatment services.
- 5.2 The evidence for this chapter is drawn from all elements of the research in particular the interviews with programme beneficiaries undertaken in the four case study areas.

Impact of the programme at national level

- 5.3 The impact of the programme in terms of quantitative measurements is being monitored on a quarterly basis through the work of ISD which reports to the National Naloxone Advisory Group and there is a baseline measurement in place so that the overall impact can be measured.
- 5.4 The single most important quantitative indicator of the impact of the THN programme is the fact that there have been 365 successful uses recorded²⁵ of a naloxone kit to reverse an overdose since the programme started in 2011. This does not take account of the many unreported instances of use, but a greater number can be implied from the research carried out as part of this evaluation. For example, a very rough estimate of successful reversals of overdose reported in the online survey shows in excess of 500 and this is probably an underestimate²⁶.

Impact on service users

- 5.5 The majority of the 186 service provider respondents to the online survey reported that the THN programme had a positive impact on service users as demonstrated in table 5.1 below. The statement most agreed with is that the THN programme has made people who use drugs more aware of life saving techniques (92% agreement). There is also high (90%) agreement with the statement that the programme has made them more aware of the causes of overdose. In addition, 86% considered that the programme has potentially saved lives. There is a lower percentage, 73% agreeing/strongly agreeing, about whether the programme has empowered people who use drugs to take greater control of their health although this still represents a high level of agreement. These findings reflect the findings from the studies in the literature review where naloxone training was seen to result in increases in knowledge about preventing, recognising and responding to overdose.

²⁵ ISD

²⁶ This is likely to be an underestimate. Nineteen respondents said they were aware of 'more than ten' potential lives being saved. For the purposes of this calculation, we have estimated that each of these 19 respondents are aware of 11 potential lives being saved, but 'more than ten' could relate to any number greater than ten.

Table 5.1: Impact on service users

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
The THN programme has empowered people who use drugs to take greater control of their health (n=169)	17%	56%	8%	2%	17%
The THN programme has made people who use drugs more aware of the causes of drug overdose (n=169)	37%	53%	3%	2%	5%
The THN programme has made people who use drugs more aware of life saving techniques such as resuscitation (n=169)	42%	50%	2%	1%	5%
The THN programme has saved lives (n=169) ²⁷	48%	38%	1%	1%	12%

5.6 86% said they were personally aware of potential lives saved as a result of naloxone administration. There was a clear perception among the majority of service providers interviewed in the four case study areas that lives had potentially been saved through the THN programme, but equally striking was the lack of hard evidence or systematic data for this. The view was generally based on anecdotal evidence. Only a small number of staff interviewed in community settings had specific evidence of the successful use of naloxone.

5.7 NHS staff working in prisons reported that prisoners often felt proud at having undertaken the training, but they were unable to provide many examples of positive uses of naloxone (two women who had been in prison reported that they had reversed the effects of overdose of a friend and a partner). Where they were able to, it was often as a result of prisoners sharing their experiences when readmitted to custody.

"We don't see the impact, it's all hearsay... I guess the numbers [of opioid-related deaths] will tell." (Nurse)

Service users' views

5.8 There was generally a positive view expressed about the programme and what it was trying to achieve. Usually, interviewees couched this simply in terms of their perception that 'it saves lives'. Several said how it could have saved a loved one or friend, had it been available previously.

²⁷ The wording of the survey was "has saved lives" but this has been changed to "potentially saved lives" in the report text as it is not possible to know if the overdose would have proved fatal.

"I thought it was a really good idea. Before it came in I actually lost a friend to an overdose. If I had naloxone at the time, he might be alive today." (Male, 40-50)

- 5.9 The interviewees described the programme as giving hope and peace of mind.

"It's good, it's gonnae save someone's life. I think it is necessary, it gives people a wee bit of hope." (Female, 40-50)

- 5.10 Interviewees reported that their confidence to know what to do in an overdose situation had improved.

"Aye, it does [increase your confidence] aye. They showed with the dummy and how to do the compressions, and the facemask over their face." (Male, 30-40)

- 5.11 Without exception, all service users who had been trained would recommend being trained and having a naloxone kit.

Impact on families / carers

- 5.12 The impact of naloxone on family members was the reassurance it could provide:

"Gives them a safety net and peace of mind that they'll be able to help if they find their loved one after an overdose. Some parents have experience of finding their son or daughter after an overdose but being powerless to do anything other than phoning 999." (Senior practitioner -drugs worker)

- 5.13 Service users and family members who were interviewed felt that parents should not need the permission of the person with problem drug use to ensure a naloxone kit is supplied for them (as is currently the case as it is a POM).

- 5.14 Some service users thought it important to raise awareness further about the programme, including the training, among parents of people who use drugs, especially those who did not attend family support groups. This could be through media campaigns.

- 5.15 There was the suggestion that all family members would benefit from training.

"I think everyone that knows a user should be trained to use it." (Female, 40-50)

Impact on service providers

- 5.16 The overwhelming majority of staff involved in the THN programme were enthusiastic about it, reporting both positive outcomes for service users and a sense of empowerment for themselves. This underscored the positive nature of the programme. Staff reported that they welcomed the opportunity to be able to offer concrete practical help to a highly vulnerable target group of

clients. Although a few expressed concern that their work on the THN programme was 'extra' to their normal work, the overwhelming majority were content to be involved.

5.17 A nurse working in residential rehab commented:

"It's empowering for us. It means we can save lives. We don't need to wait for the ambulance." (Nurse)

5.18 Similar views were expressed by a group worker.

"The whole [name of place] is as bad as anywhere in the world. Drug workers at the sharp end all know people who have died. To be part of a programme to tackle the problem is great." (Group worker)

5.19 A few service providers commented on the positive impact this had in terms of their relationship with service users and the fact that they could show the service users that their lives were valued.

5.20 The need for greater support and leadership was mentioned by a few service providers in community settings. In one area there was a sense of lack of leadership due to staff changeover and in another the sense of being isolated was expressed by one person who felt she was the only one working on the programme with no team support.

5.21 NHS staff working in prisons were positive about the THN programme, and reported that the naloxone training constituted an additional harm reduction 'tool' that could help prisoners survive in the outside world.

"It's driven home what we're all about, what we're trying to do: reduce drug deaths and get people safe and into treatment" (Nurse)

Impact on those less likely to engage with drug treatment services/reaching those most at risk

5.22 It is harder to determine the impact of the THN programme on those who are outwith the orbit of current drug treatment services, or on the periphery of them. The DRD database report suggests that around two-thirds of those who died had been in contact with a service and one-third had not. It is the one-third that now presents the greatest challenge.

5.23 The research undertaken as part of this evaluation shows some promising methods for reaching this target group. These include the use of peer trainers (including in prisons), the extension of the programme through community pharmacies, the further development of prison based programmes, and the use of outreach methods such as work with hostels and homeless accommodation.

5.24 However, many of those interviewed acknowledged that their attempts at outreach had not always been successful and that there was more to do to extend the reach to those furthest away from services.

5.25 Those living in homeless hostels were frequently described as highly vulnerable and in need of naloxone training. Two residential workers identified that because of the shortage of homeless accommodation in the city, more B&Bs were currently being used - without access to the support of trained staff.

5.26 There was a commonly held view by several interviewees from across the four case study areas that 'normalising' naloxone as part of routine drug treatment programmes would be an effective way of reaching more vulnerable people with problem drug use.

"There's a massive dispensing service across the city. I don't understand why it's not obligatory to give naloxone when dispensing Methadone." (Voluntary sector worker)

"It needs to be normalised, with everyone on a Methadone script having naloxone supply. Because people take drugs in groups, you only need one person in the group to be naloxone trained."
(Pharmacist)

5.27 Peer trainers who were interviewed suggested that other groups who could potentially use naloxone positively, and would therefore be worth considering for training, included: hostel staff, first aiders at music festivals, night club doormen, bus drivers, taxi drivers, bin men, Big Issue vendors, and those working with rough sleepers.

5.28 Peer trainers' street knowledge combined with their contact with senior staff through having done presentations at ADPs led them to suggest that some awareness raising with the police was necessary. This could help with removing a major obstacle to people with problem drug use accessing naloxone - perceived police harassment.

"The top coppers know about it. It's getting it down to the guy that's gonna lift you." (Male, 30-40)

5.29 Other suggestions made by service providers for reaching the most at risk in the community included increasing the use of peer trainers/educators.

"This a great initiative. They speak their language and people listen. It also helps their own recovery" (Senior addiction worker)

5.30 Staff interviewed working in prisons acknowledged that not everyone at risk from overdose was engaging with the THN programme, not least because it was a voluntary programme. There were two main suggestions for reaching the most at risk. Making naloxone training a compulsory part of pre-release programme for those on substitute medication (although this would have resource implications); using peer trainers to deliver the programme to prisoners, thus providing a measure of credibility (as happens in some prisons).

- 5.31 We asked service users we interviewed to convey how they thought those who use drugs but are not engaged with services felt about naloxone and its use. They reported that other people who use drugs seemed to have a more limited understanding of the programme. It was not always widely known about, and one couple estimated that only three in ten people with problem drug use had a naloxone kit.

"A lot of people don't know anything about it. The first thing they say is 'do you not go into a rattle when you take it?'" (Male, 30-40)

- 5.32 There was a view expressed by some that people would see it, not as life saver, but as a hindrance to 'successful' use of opioid drugs. There were a small number of accounts of people being brought round from an overdose by use of naloxone, and the person who had administered it being abused by the person who had overdosed as they had been 'cheated out of a hit'.

Priorities for future development of programme

- 5.33 For those service providers interviewed in community settings, further training and supplying of service users was seen as a priority by most.

"Flood the market with naloxone. Everyone who has a script or who uses services should have it." (Pharmacist)

- 5.34 A significant number wanted all frontline staff in drug services to be trained and ideally able to supply naloxone at the same time as the training takes place.

- 5.35 Training and supplying families and carers was a priority for over a third of interviewees.

"Every home with a drug user should have a naloxone kit" (Nurse)

- 5.36 There was a suggestion by some people that there should be an increase of supplies through pharmacies, and that this should be normalised.

"Pharmacies are in an ideal position. Everyone uses a community pharmacy at some point." (Pharmacist)

- 5.37 There was recognition of the importance of trying to reach those who do not use addictions services and to continue, or in some areas renew, efforts to undertake outreach for example through soup kitchens and homeless hostels. Naloxone training and supply needs to be taken out to where people who use drugs but who do not use addictions services are likely to be found.

- 5.38 For NHS staff working in prisons the main priority was ensuring there is maximum uptake of the programme in prison. There was a difference of view about whether it should be mandatory for all those on opiate replacement therapy, with some in favour, while others disagreed.

Summary of main points

5.39 While it is hard to quantify “potential lives saved” this is very clearly seen by service users as the main benefit of the programme. There is very little hard evidence about the successful use of naloxone although ISD keeps statistics on the number of kits issued, whether it is a first or repeat supply and details of the age and gender of those who receive the kits. There are a number of identified “softer” outcomes for service users including an increased sense of empowerment and greater self-esteem from the knowledge that they can be of service to others.

In terms of the impact on those who are less likely to use services it is recognised that they may still not be being reached. Suggestions to increase this included “normalising” naloxone as part of drug treatment services, making more use of peer trainers and ensuring that police on the ground have greater awareness of naloxone. Other ways to reach people included training a far wider section of community-based service providers.

6 CONCLUSIONS, LESSONS LEARNED AND POLICY IMPLICATIONS

- 6.1 This chapter draws together the findings from the research and highlights lessons that can be learned and where appropriate implications for policy and/or future implementation. These implications are shown in bold throughout the text.

Structures

- 6.2 The NNAG and the national staff posts based at SDF play an important role in national leadership of the programme. This has been supported by the more practical delivery focused work of ScoNN.
- 6.3 As might be expected each area has developed the programme at local level to suit local circumstances. This has resulted in a varied approach both to governance and to operational delivery. **At strategic level it appears that having a steering group to guide the programme is helpful.** In addition having a named naloxone lead at local level provides the leadership and energy to keep the implementation of the programme moving forward: in one area where there had been a turnover of staff in this role and there was currently no designated lead, the absence of this role was thought to be affecting the implementation of the programme: it had lost momentum.
- 6.4 The composition of the steering group varies as well, with some involving a wider group of partners than others. The ADPs, where they are involved, can play a useful leadership role across partners, but this is not as yet consistently applied across Scotland. **It would be helpful to see a more consistent approach of ADP involvement across Scotland to increase effectiveness of partner involvement and implementation.**
- 6.5 This research found little evidence of GP involvement in the programme either at strategic or operational level. **Some areas commented on the need to do more to involve GPs in the programme and this merits further attention.**

Systems and operational delivery

- 6.6 The THN programme in Scotland has been operational since 2010 and in its first three years has made good progress in terms of establishing systems for training staff to provide training and supply naloxone to people who use drugs. While this service evaluation confirms that systems and processes have been established and are generally perceived to be working well, evidence on the current reach of the programme suggests there is clearly more to do to ensure that as many people as possible who are at risk of opioid overdose have access to a naloxone kit and that those close to them are able to respond to an overdose situation.

Staff training

- 6.7 This research has shown that nearly 990 staff in statutory and voluntary sector organisations have been trained but it is not possible to estimate whether this is an effective “reach” or not as there are no available figures for the total number of staff who work in addictions services in Scotland. Clearly the higher the number of people trained the better in order to spread knowledge and skills in training on naloxone as widely as possible. However a clear message from the evaluation is that **the reach of the staff training programme needs to be extended to equip a greater number of practitioners who are likely to come into contact with people who use drugs with the skills to provide naloxone training, and issue supplies where appropriate.** This could include increasing the number of addictions services staff who are trained (who have been the main focus of training delivered so far) but might also include more training for those who work with people at risk of opioid overdose in a variety of settings such as homeless hostels, housing bodies, social work departments and criminal justice settings.

Reaching people who use opioids

- 6.8 In terms of reaching people who use opioids it is estimated that around 8% of people who use drugs have been reached in terms of the numbers of naloxone kits distributed. This figure combined with some of the qualitative research suggests that there is much more to be done. One of the approaches that appears to be developing is that of “normalisation” where addiction services as a matter of course introduce and train service users about naloxone, as part of their initial assessment or first interview. Increasingly this “training” is being undertaken almost by way of a brief intervention rather than over the course of a couple of hours which appears to have been the more common approach at the start of the programme. This approach has evolved to meet the needs of the target group and to ensure that as many people who are at risk as possible are trained. It results in more 1:1 training and less group training (except in prisons where group training is still the norm). This appears to be a development from evidence found in the literature review where group training was cited as the norm although the Welsh demonstrator programme research²⁸ suggested that shortening the training might be one way to increase recruitment. **Increasing this 1:1 brief intervention approach may assist in helping to reach more of the target group.**
- 6.9 One of the issues that is striking, however, is that in the main it is those who already use services who are being reached and that the programme is not yet accessible for harder to reach groups. Only in one area (case study A) does outreach appear to be working reasonably well: in the other three areas examined it was clear that although some attempts had been made at outreach it was still either in its infancy or had been put to one side as it was

²⁸ Bennet, T., & Holloway., K. (2011) Evaluation of the Take-Home Naloxone Demonstration Project,

not really working. **There is scope to explore further how outreach can be undertaken effectively to reach those who do not use addictions services**; this may include expanding access to Training the Trainers beyond specific addictions services. Some of those interviewed in this research have suggested the idea of automatic or mandatory naloxone training and supply as part of service delivery in both community and prison settings but this would require further discussion as it would reduce the current voluntary nature of the programme. There is some evidence from the literature review of compulsory training for those on agency prescribing programmes in the Welsh demonstrator programme research.²⁹

Peer trainers

- 6.10 The use of peer trainers in nine of the Health Boards raises issues about how best to deploy peer trainers and whether it would be useful for all Health Boards and prisons to have them. In some areas peer trainers undertake their work alongside a professional service provider; in others it appears they undertake training either in pairs or even in some instances on their own. Work by peer trainers is undertaken on a voluntary basis and there are signs that inevitably there is drop off from those willing to undertake the work either because they leave to go on to other activities such as further education or a job, or because the pressure of the demands made on them becomes too high. It would be useful to have further debate about whether there should be peer trainers in each Health Board and prison; whether there should be any recompense for their work; whether they should be asked to do it for a time limited period; and whether it is appropriate for services to leave training to peer trainers on their own or not, and if so, what kind of mechanisms should be in place to support and review peer educators in their role. There is an argument that services may avoid their own responsibilities in relation to training about naloxone if they can leave it to peer trainers on their own to undertake it. On the other hand this research demonstrates the benefits that peer trainers bring particularly in being able to connect with the target audience. **There is a need to explore further the issues relating to peer trainers raised in this research and provide guidance as to best practice.**

The supply of naloxone

- 6.11 **It is clear from this research that ideally the supply of naloxone should be as close as possible (in time and location) to the provision of training to minimise the risk of those who are trained failing to obtain a naloxone kit.** This raises issues about where supply is able to be offered and by whom. At present the supply of naloxone is restricted, as a POM, to trained medical and pharmaceutical staff and to people who use drugs who have been trained in its use. Other services such as hostels for the homeless may keep a supply of naloxone for use in emergency but are not able to carry it with them. The desire to see the PGD expanded so that more people can supply naloxone has been expressed many times in this research. In addition the

²⁹ Bennet, T., & Holloway., K. (2011) Evaluation of the Take-Home Naloxone Demonstration Project

relatives of those at risk would like to be able to access a supply of naloxone without necessarily having to gain the consent of their relative to get it (which is currently the case). Some of those who work with those at risk would like the option of carrying naloxone with them for use if needed. This is a complex issue which may be difficult to resolve as the legal framework for prescribed medicines is not a devolved issue.

6.12 However, separate from potential changes to the PGD one of the key findings from this research is that **there should be greater and more consistent involvement of community pharmacies across Scotland** so that there is equal access to the supply of naloxone kits through pharmacies. At present six Health Board areas have community pharmacies involved in the supply of naloxone and those in more rural areas in particular would like to see access to naloxone through pharmacies increased. It would be helpful to see **consideration of naloxone training and supply in future contract negotiations with community pharmacies.**

6.13 There is a different set of issues in prisons where the supply of naloxone appears to be low. Although training is offered to prisoners considered to be at risk, the programme is voluntary and this research has found that there appear to be some issues with take-up of training with other activities taking place at the same time as naloxone training sometimes being viewed as preferable. In contrast the research undertaken for the Welsh demonstrator project cited in the literature review³⁰ identified few problems with recruitment in the prison service as all prisoners were told about the programme as part of induction. The supply of the kit is through the prisoner's "valuable property" which is collected on liberation and it appears that some prisoners refuse to have the kit partly because they do not want to be perceived as still having issues with drugs. This latter finding reflects a similar finding from the research undertaken by the National Treatment Agency³¹ discussed in the literature review. **There is a need for further thinking about how to increase the take-up of naloxone training and supply for those leaving prison** given the high level of risk of overdose that research has highlighted for former prisoners.

The use of the kit

6.14 Once the kit is supplied it is clearly important that people have it easily to hand when it is needed. The kit also has to be checked to ensure it is up to date (and some services have this as part of a regular checklist question with those they work with at general appointments). Some service users talked about keeping it available even although they themselves had given up drugs in order to ensure it was readily available. Others were not able to see that having a supply might not be a reflection on their own drug-using habits but might allow them to help someone else: this is an important point for those who are encouraging people who use drugs to take a naloxone kit which has

³⁰ See Appendix 2, paragraph 21

³¹ See Appendix 2, paragraph 21

been referred to in the research. Service users generally thought the kit itself was very usable and this reflects findings in the literature review.³²

- 6.15 There were a number of concerns raised in the research about the role of the police. Some service users have reported not wanting to carry the kit for fear of being searched by the police who they perceive do not always understand what it is. In addition to this, the other fear was that if there was an overdose and an ambulance was called, if the person making the call stated that it was an overdose the police would be alerted and they would then face questioning. This has led in some instances to people not wanting to call the ambulance or to them leaving once the call has been made and even to professional staff advising people who might be making the call to say the person is unconscious and not to use the word “overdose” in order to avoid the police being called. **This points to the need to explore further what training the police receive and how the fears of those who might be using naloxone to reverse an overdose can be allayed.**
- 6.16 One of the questions raised by the literature review undertaken at the start of this research was whether the naloxone kits are being mis-used. There was very little evidence in this research to suggest that this was the case. There were a few examples of people saying that some former prisoners did not keep their kit on liberation but threw them away but very few other examples.
- 6.17 Overall the data kept about the actual use of the kit appears to be limited. Some services collect information about use, but this tends to be on an *ad hoc* basis, and it is unclear if and how this information is reviewed or used. Some services may not be in a position to undertake follow up data gathering with those whom they have trained or to whom they have issued a supply. However, **it would be useful to explore the potential of establishing more systematic and widespread gathering of data about the incidence and outcome of the use of kits to expand the evidence base on programme effectiveness.**

Impact of the programme

- 6.18 As outlined in the literature review it is difficult to be precise about the numbers of lives saved partly because there are no completed sizeable cohort studies that examine comparative survival rates for use/non-use of naloxone and it is impossible to know what proportion of events where naloxone was administered would have proved fatal.³³ However interviews with service users in this research have shown that those who take the kit see its potential to save lives as being of very high importance. From this stems a clear sense of self-worth for some of those interviewed during this research: that they have been able to contribute something to others. One or two people had clearly taken this to heart and established themselves as the “person to go to for naloxone” in their area. This is almost a sense of “peer kit supplier” as well as peer trainer which has evolved organically through the enthusiasm of some

³² Appendix 2, Paragraph 24

³³ Appendix 2, Paragraph 25

service users. It might be useful, in terms of reaching those who are less easy to reach, to examine whether to make more use of this kind of “peer kit supplier” as at least in a very local area those who take drugs will know who the person is who has the supply of naloxone.

- 6.19 There has been an impact for staff involved with the programme as well not just in terms of additional workload but also a sense of empowerment through having something practically positive to offer those they work with.
- 6.20 The impact for families and friends is the peace of mind that comes from having a supply of naloxone should they require it.
- 6.21 The staff and service users involved in this research have spoken highly of the naloxone programme and service users in particular value its potential to save lives. Many we spoke to simply wanted to see more kits, more widely available, being carried by more people. The paragraphs above have set out implications from the research which might further facilitate an increase in the supply and use of naloxone.

APPENDICES

1. Fieldwork interviewees
2. Naloxone training and use – a review of evidence
3. Service mapping - full table
4. Interview topic schedules
5. Online survey

Appendix 1:

Fieldwork interviewees

During the case study fieldwork, we interviewed the following people.

Service Users

Interviewee	Case Study A			Case Study B			Case Study C			Case Study D			Totals		
	All	M	F	All	M	F	All	M	F	All	M	F	All	M	F
Service users	15	9	6	10	9	1	8	5	3	4	2	2	37	25	12
Service decliners	4	2	2	1	1	0	4	3	1	2	1	1	11	7	4
Family and friends	10	5	5	2	1	1	3	2	1	0	0	0	15	8	7
Totals	29	16	13	13	11	2	15	10	5	6	3	3	63	40	23

Service providers

Interviewee		Case Study A			Case Study B			Case Study C			Case Study D			Totals		
		All	M	F	All	M	F	All	M	F	All	M	F	All	M	F
Community	Nurses	7		7	5		5	2		2	5		5	19		19
	Voluntary sector staff	3		3	3		3	3	1	2	1		1	10	1	9
	Voluntary sector managers	2	1	1				1	1					3	2	1
	Statutory sector staff	4	2	2	1		1	2		2				7	2	5
	Pharmacists	1		1	1	1		1	1					3	2	1
Prison	Nurses	1		1	1		1	2	1	1				4	1	3
	Enhanced Addictions Casework Service staff	1	1		1		1							2	1	1
	SPS managers	1	1		1		1	2	1	1				4	2	2
Totals		20	5	15	13	1	12	13	5	8	6		6	52	11	41

Appendix 2: Rapid Literature Review

Naloxone training and use – a review of evidence

Purpose and scope

1. The purpose of this brief evidence review was to set the context for Blake Stevenson's service evaluation of Scotland's National Take-Home Naloxone (THN) programme, and to guide the development of the research framework for the stage 2 fieldwork.
2. A recent review by McAuley et al (2012) sets out a detailed description of the establishment of the Scottish National THN programme, detailing key research, advocacy and policy contributions that facilitated its development. The evaluation of the THN Demonstration Project in Wales (Bennett & Holloway, 2011) outlines the key learning, outcomes and process issues from the pilot project as well as offering a review of 10 evaluations of naloxone distribution programmes (six in US, two in England and two in Scotland – Lanarkshire & Glasgow). Given that these studies have recently been undertaken and that each involve a review of key evidence sources in relation to naloxone training and distribution programmes, this evidence review does not duplicate this activity, but summarises some of the key points of interest and examples cited within these publications, as well as drawing on other grey literature on the Scottish National THN Programme.

Setting the Scottish Programme in context

Prevalence and nature of drug-related deaths in Scotland

3. Drug-related death is a major public health problem across the globe, with rates in Scotland currently higher than any other UK region and amongst the highest in Europe (McAuley et al, 2012). In 2012, 581 drug-related deaths were registered in Scotland. This was three (0.5 per cent) fewer than in 2011. This was the second highest number ever recorded, and 199 (52 per cent) more than in 2002.
4. Scotland's current national drugs strategy³⁴ (2008) focuses on recovery from problem drug use but also stresses the specific need for action to prevent DRDs. The strategy highlights that it is possible to identify people more likely to die from their drug-use, which presents an opportunity for preventative action to reduce DRD incidence through activities such as increased general health care, the provision of routine liver function tests, and a range of education and awareness raising measures. Giving people the confidence to know when to intervene, and what to look for and do in the case of an overdose is highlighted as a possible way of preventing DRDs, as is the

³⁴ The Road to Recovery: A New Approach to Tackling Scotland's Drug Problem (Scottish Government, 2008)

training and the provision of relevant information to staff and service users, family and friends.

5. A national DRD database was established in 2009 to increase knowledge and understanding in respect of DRDs. Findings from it have confirmed earlier research (Zador et al; 2005) that those most vulnerable to DRDs are male, live in deprived areas, and are aged 25-44. Furthermore, it has established that the majority of DRDs are 'accidental', involve opioids, are witnessed (highlighting potential for intervention) and two thirds involving someone in contact with a drug treatment service prior to their death. According to the recently published report 'National Drug Related Death Database (Scotland) Report: Analysis of Deaths occurring in 2012'³⁵, around half of the cohort (47%) had been in prison at some point in their lives prior to death. Over one in ten (12%) had spent time in prison in the six months prior to death, a decrease compared to 2011 (18%).

Development of a Scottish National Naloxone Programme

6. Following successful pilots in NHS Greater Glasgow and Clyde, NHS Lanarkshire (2007) and in the Inverness area of NHS Highland (2009), in November 2010 Scotland established a National THN programme aimed at reversing the upward trend in DRDs.
7. Naloxone hydrochloride is an opioid antagonist which reverses the effects of respiratory depression caused by opioid overdose. It has no obvious potential for abuse and a strong safety profile. It is highly effective, but short acting and therefore multiple doses may be required to fully reverse the effect of opioid overdose. It is only effective in tacking opioid overdose and has no effect on other drugs that have potential for overdose. However in a polydrug overdose situation it removes the opioid element and reduces the potential for fatal overdose, providing additional time for emergency services to address the other toxicities. (Lenton & Hargreaves, 2000).
8. In the UK, naloxone is licensed for intravenous, intramuscular and subcutaneous administration. Scotland's national THN programme currently supplies those at-risk of opioid overdose with naloxone for intra muscular (IM) injection in line with the majority of similar programmes across the globe explored through this review. IM is the favoured route for peer administration because of the ease of site identification for injection and the relatively slow onset compared to intravenous injection (McAuley et al 2012).
9. In 2005, a change in the legal status of naloxone permitted any member of the public to administer it legally in an emergency situation. This facilitated the implementation of naloxone distribution and training programmes in a way that had not been possible previously and paved the way for the first pilots in Scotland out of which the national programme has developed.

³⁵National Drug Related Death Database (Scotland) Report: Analysis of Deaths occurring in 2012, ISD 2014

10. The Scottish National Programme allows for the distribution of naloxone to those at risk of opioid overdose including prisoners on liberation (following receipt of specialist training on its use). Use of a PGD supports this as it allows the supply of a prescription only medicine (POM), in this case naloxone, to be provided without the need for a prescription written by a doctor. Training is also available to family, friends, carers, and others likely to be in the vicinity of a person at risk if an overdose occurs (e.g. healthcare addictions staff). Kits are supplied in community health and care settings as well as in prisons at the point of release. Supplies of Prescription Only Medicines are restricted and can only be made to named patients. Although naloxone is a POM, the Lord Advocate issued Guidelines (Scottish Government, 2011b) in 2011 which enables services in contact with people with problem drug use who are at risk of opioid overdose (e.g. those working in homeless hostels, needle exchanges etc) to receive supplies and to hold stocks of naloxone within their service for use in an emergency (not for onward distribution). The Lord Advocate's guidance provides immunity from prosecution for staff making a supply of a POM to services as this is outside the normal legal requirements of a POM supply.
11. The Programme is Scottish Government-funded, managed by a National Coordinator (based at the Scottish Drugs Forum) and overseen by a National Naloxone Advisory Group comprising experts from statutory and third sectors. Other key programme elements include: a national monitoring and evaluation programme based at NHS ISD Scotland, a naloxone Peer Educator initiative³⁶, national training and information resources and guidelines, and specific support to Health Boards to deliver the programme in prisons. There are currently local programmes supported and coordinated by 29 of Scotland's 30 Alcohol and Drug Partnerships (ADPs); 13³⁷ of the 14 territorial Health Boards are participating, and as of June 2011, so are all 16 Scottish prisons³⁸.

Reflection on the nature of published evidence on the effectiveness of naloxone distribution programmes

12. The evaluation report from the Welsh Demonstration project (Bennett & Holloway, 2011) reflects on the fact that the number, as well as the quality of studies on the effectiveness of THN and similar distribution programmes is limited³⁹. Many of the studies are characterised by the absence of control groups, small sample sizes and low follow up rates.

³⁶ Launched in 2012 to support the development of local networks of peer volunteers to help widen the reach of the naloxone training.

³⁷ NHS Western Isles is not currently a participant in the programme.

³⁸ As of March 2014 there are 15 prisons in Scotland – HMP Peterhead closed December 2013, HMP Aberdeen closed January 2014, and HMP & YOI Grampian opened in March 2014.

³⁹ Subsequent to this evidence review being conducted, two new studies from the US have strengthened the evidence base (Walley et al / Coffin et al, both 2013).

13. Information Services Division (ISD) is currently gathering detailed monitoring data from across Scotland using a national dataset (agreed with the National Naloxone Advisory Group (NNAG)) on THN in Scotland). The data is published annually and will add to the evidence base around effectiveness of the Scottish THN programme. The ISD dataset evidences the reach of the programme (across prisons and community settings) in terms of:
- Number of kits issued (in community/prisons)
 - Participation across NHS Boards/Prisons
 - Whom kits are supplied to (age, gender, person at risk)
 - First supply/repeat supply
 - Kits supplied to 'persons at risk' – gender and age of recipient
14. ISD are also measuring the impact of increased naloxone availability on the number of (opioid) Drug-Related Deaths (DRDs) in Scotland, including the number and percentage of these occurring within four weeks of prison release. A baseline has been established using calendar years 2007-2010 and performance against this baseline will be measured for calendar years 2011-2015.
15. A Medical Research Council funded **NALoxone InVEstigation Randomised Controlled Trial (N-ALIVE)**⁴⁰ (in England only) began in late 2011 and is likely to address some of the methodological limitations associated with the THN literature highlighted above. The project is a large prison-based randomized controlled trial, designed to test the effectiveness of giving naloxone-on-release to prisoners with history of heroin use to prevent fatal opioid overdoses. The project has two stages: the pilot randomized trial (involving 5,600 participants) and the subsequent main randomised trial. A total of 56,000 participants are planned to be recruited in total during the study. Treatment groups in the trial will be provided with overdose prevention training and naloxone, and the control groups will be offered the training alone.
16. The principal questions⁴¹ the study is seeking to address are:
- Pilot trial:*
- What happens to the Naloxone and the participants, in terms of heroin use and overdoses (witnessed or experienced) within 4 and 12 weeks after release?
 - Do 75% of prisoners assigned to Naloxone carry it with them in the first 4 weeks after release?
 - Do prisons and prisoners participate in the numbers expected and required for the main trial?
 - Do the N-ALIVE procedures work well logistically in the National Offender Management Service, or will they need to be changed for the main trial?

⁴⁰ http://www.ctu.mrc.ac.uk/research_areas/study_details.aspx?s=80#9

⁴¹ <http://www.kcl.ac.uk/iop/depts/addictions/research/drugs/N-ALIVE.aspx>

- If changes are necessary, what needs to be done?

Main trial

- Does giving Naloxone on release to prisoners with a history of heroin injection reduce heroin overdose deaths by 28% in the first 12 weeks after release?

Summary of outcome findings relating to naloxone training and use

17. To date, evidence from the studies reviewed demonstrates positive and encouraging outcome findings with regard to naloxone distribution programmes, although there are some methodological weaknesses (highlighted above) and none of the findings yet come from Randomised Control Tests. The main outcomes findings in relation to THN (based on Bennett & Holloway's summary (2011, p11)) are explored below under the following headings:
 - a. Impact on knowledge, skills and behaviour following training
 - b. Number of naloxone kits administered
 - c. Number of naloxone Kits used
 - d. The number of lives saved
 - e. Other harm-reduction outcomes and unintended outcomes

Impact on knowledge, skills and behaviour following training

18. Across the studies reviewed, naloxone training tends to take the format of group sessions where participants learn skills to prevent, recognise and respond to opioid overdose, including calling for emergency services, performing CPR and resuscitation techniques, as well as administering naloxone. Sometimes two facilitators deliver the training – this has been found to be helpful for managing behaviour and larger numbers of participants. Training is a pre-requisite for receiving a kit, and target audiences include people with problem drug use alongside a buddy/carer/friend/family member.
19. Naloxone training has shown to result in changes in knowledge and behaviour of participants including increases in knowledge about preventing, recognising and responding to an overdose, as well as increased knowledge about how to use naloxone and increased willingness/confidence to do so. Naloxone training can also lead to greater harm-reduction knowledge and practices. The Welsh evaluation identifies a positive correlation between the measured strength of programme input and the strength of the programme outcomes in respect of skills, knowledge and confidence. (Bennett & Holloway, 2011). Examples from the evidence review of the impact of training on knowledge, skills and behaviour evidence include:
 - trained participants being more able to recognise opioid overdose incidents accurately compared to non-trained participants;

- trained participants reporting improved knowledge and confidence in managing overdose situations using naloxone
- trained participants being able to manage their own naloxone supply responsibly
- myths about how to treat overdoses dispelled
- increases in confidence and self-esteem among trained participants
- trained participants reporting increased skills in use of life-saving techniques including CPR, putting someone into a recovery position, resuscitation
- trained participants reporting having the tools and confidence to save lives

The number of kits supplied

20. As a key aim of naloxone distribution programmes, the number of kits supplied is measured by many of the studies reviewed as an indicator of programme reach. McAuley et al (2012) suggests 'reach' of two Scottish pilots was better estimated in terms of the numbers of people with problem drug use supplied.
21. The evidence suggests a number of challenges around recruitment of clients to naloxone training and distribution programmes which can impact on the number of kits supplied. For example, the Welsh demonstrator project evaluation identifies few problems with recruitment in the prison service as all prisoners were told about programme as part of induction. However, they experienced greater problems recruiting clients in community settings with agencies having to be very proactive to ensure good throughput of clients (Bennett & Holloway, 2011). Although the National Treatment Agency for Substance Misuse (NTA) naloxone Carer pilot (2011) found the opposite, in that many prisoners were refusing the kit on liberation.
22. Recruitment methods used include signing people up at initial assessment, advertising in needle exchanges, spreading the word through outreach workers, recruiting directly through large agencies, and making naloxone training compulsory for any person on the agency prescribing programme. The following suggestions were to improve recruitment: peer-led training, improving advertising, paying incentives to attend training, expanding the number of training outlets, and shortening the training.
23. Views from a small number of service users participating in the Welsh evaluation suggest recruitment could be an issue for the following reasons:
 - Fear among people with problem drug use that naloxone needs to be injected intravenously;
 - Cost – incentives were suggested as a way to improve recruitment (one participant suggested they felt even £5 could make a difference); and
 - Lack of knowledge about the programme.

The number of kits used

24. 'Number of kits used' is used as an indicator of effectiveness of naloxone distribution programmes in many of the studies reviewed. In most cases administration of naloxone is reported as trouble free, without adverse effects, and in nearly all cases the casualty survives. The evidence (Bennett & Holloway, 2011) also offers informative findings on the circumstances of naloxone use, for example:
- all overdose occurred in the company of someone else and in most cases naloxone was administered by a friend or relative
 - other life-saving actions were taken alongside administration of naloxone
 - in most cases the recovery position is used and an ambulance called
 - service users seem comfortable with the prospect of injecting naloxone

The number of lives saved

25. It is difficult to determine conclusively the impact of THN programmes on DRDs for a number of reasons, including the fact there are currently no sizeable cohort studies that look at comparative survival rates for use/non-use of naloxone; and it is unknown what proportion of overdose events where naloxone was administered were potentially fatal or potentially recoverable without intervention.
26. Overall the literature suggests that overdose casualties nearly always survive if administered naloxone, concluding that naloxone therefore saves lives. The Welsh evaluation points out that *“research is less clear about whether alternative actions taken at this first stage could be equally life-saving”* (Bennett & Holloway, 2011) but concludes that evidence to date supports the continuation of developing and implementing methods for wider dissemination of naloxone.

Other harm-reduction outcomes/unintended outcomes

27. The evidence review highlights a number of less commonly cited and unintended outcomes resulting from naloxone training and distribution programmes. Including:
- ***Impact on access to services:*** The Welsh evaluation (Bennett & Holloway, 2011) identified the potential harm reduction benefits that might occur by bringing problem people with problem drug use into contact with treatment agencies. The evaluation showed that almost one-third (29%) of users recruited for training who responded to a survey were not currently in contact with any treatment agency – it is possible that at least some of these maintained contact with the agency.
 - ***Impact on access to hepatitis/HIV testing:*** THN data collection in Wales involved collection of data about whether problem people with problem drug use had ever had a hepatitis B or C, or HIV test and whether they would like one. Just under 20% said they had never had a Hep B/C test,

and over half (52%) said they would like one; just over 20% had never had a HIV test and just under half (48%) said they would like one.

- **Participants re-evaluate own heroin use:** For example, one respondent in the Welsh evaluation said the training had encouraged them to be more responsible in their own heroin use.
- **Potential adverse effects of administering naloxone:** While the evidence to date suggest that naloxone has a high safety profile, concern was raised by some participants in the Welsh evaluation study that multiple doses may result in major withdrawal. Other concerns raised in the evidence reviewed by McAuley et al (2012) were speculations that the perceived safety net may encourage increased drug use and potentially increase the risk of overdose (Ashworth and Kidd, 2001), and concerns over whether ambulances may still be called if naloxone appears to have successfully resuscitated victims (Sporer, 2003).

Summary of process issues raised by the evidence review

28. In addition to highlighting the identified outcomes of naloxone programmes, the evidence review raised a number of issues in relation to the process of delivering a THN programme that informed the design of the research tools used in the stage two case study research. These include:

Issues to explore with stakeholders

- What are the experiences of THN implementation in Scotland at a local level, and how do the national protocol, training resources and guidelines support local delivery of the programme?
- What is the extent of partnership working in Scotland and how does it assist the programme? Which agencies are involved, and how are they involved in different areas? In particular, how, if at all, are General Practitioners, ambulance and police services involved?
- What is the Scottish experience of recruiting programme participants from both community and prison settings? What approaches are being taken, what is most effective, and what are the challenges?
- How is training delivered and what works well/less well about this? How effective is the cascading model of training (training for trainers)?
- How do the experiences of THN implementation compare across community settings and prison?
- How is momentum for THN programme maintained locally and nationally?
- Are THN trainees still using other harm-reduction/life-saving methods?

- What are the possible impacts of naloxone ending up in the hands of those who haven't been trained?
- What are perceptions in Scotland in relation to the current method for administration (i.e. by injection)?
- Are concerns about inappropriate use of naloxone prevalent?
- How do local stakeholders feel about the level of resource available in Scotland to support local THN programmes?

Issues to explore with service users

- How do Scottish participants feel about the kit (including shape, size and appearance)?
- Are those supplied with kits carrying them regularly? Where are kits stored? Is there any reluctance to carry kits? Why/why not?
- How do participants feel about the content, length, time, location, delivery of training and size of session group?

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Appendix 3:

Service mapping - full table

	Health Board													Total
	Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	Tayside	
No. of people with PDU aged 15 - 65 in 2009/10 ⁴²	5,100	580	1,300	3,300	2,200	4,900	20,800	2,100	5,900	8,200	0	130	5,000	59,510
No. of DRDs in 2012 ⁴³	43	7	6	38	31	31	193	22	61	90	1	2	55	581
No. of THN kits issued in the community Apr 2011 - Mar 2013 ⁴⁴	734	219	89	381	225	200	1,498	687	448	951	0	18	380	5,830
No. of THN kits issued In the community (2011/12 and 2012/13) per 1,000 estimated people with PDU aged 15 - 64 ⁴⁵	143.9	377.6	68.5	115.5	102.3	40.8	72	327.1	75.9	116	0	138.5	76	N/A
No. of THN kits issued to prisoners on liberation Apr 2011 – Mar 2013 ⁴⁶	54	N/A	99	N/A	449	48	299	132	17	199	N/A	N/A	164	1,461
Programme start date	2011	2011	2010	2011	2011	2011	2007	2009	2007	2011	2013	2011	2011	N/A

⁴² ISD,

⁴³ ISD

⁴⁴ ISD

⁴⁵ ISD

⁴⁶ ISD

	Health Board													Total
	Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	Tayside	
ADPs	North Ayrshire South Ayrshire East Ayrshire	Borders	Dumfries & Galloway	Fife	FV strategic coordination team Clackmannanshire Falkirk Stirling	Aberdeen city Aberdeenshire Moray	City of Glasgow East Dunbartonshire East Renfrewshire Inverclyde Renfrewshire West Dunbartonshire	Highland Argyll & Bute	Lanarkshire	City of Edinburgh Mid & East Lothian West Lothian	Orkney	Shetland	Angus Dundee City Perth & Kinross	N/A
Prisons	Kilmarnock	N/A	Dumfries	N/A	Cornton Vale Glenochil Polmont	Grampian	Barlinnie Greenock Low Moss Shotts	Inverness	N/A	Addiewell Edinburgh	N/A	N/A	Castle Huntly Perth	N/A
Local steering group		Yes	Yes	Yes	Yes		Yes		Yes		Yes	Yes		N/A
Local trainers forum	Yes				Yes			Yes	Yes		Yes	Yes	Yes	N/A
Peer trainers	Yes			Yes	Yes		Yes	Yes	Yes	Yes			Yes	N/A
Participation in ScoNN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	N/A

		Health Board													Total
		Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	Tayside	
No. of staff trained	Voluntary sector addiction / treatment staff	27	8	20	17	20	43	54	14	1	18		4	6	232
	Statutory sector addiction / treatment staff	37	12	20	50	39	5	158	24	62	58	1	2	68	536
	Mental health nurses					3				2					5
	Community pharmacists			1	13	1	10	35		2					62
	Community pharmacy support staff							45							45
	GPs										1	1	1		3
	Hospital doctors							1						2	3
	Homeless staff	9				1		2	1					6	19
	Needle exchange staff		3						3	6		1			13
	Peers ⁴⁷	5			10	4	4	28	9	10	15			4	89
	Police				4										4
	Social workers				1										1
	NHS health & homeless outreach team													4	4
	Criminal justice				18					2					20
Prison staff							11							11	

⁴⁷ These figures were updated by National Naloxone team

		Health Board												Total
		Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	
	Medical officers						16							16
	Ambulance service				2	1								3
	Resus officers						3							3
	Lead officers						2							2
	Other groups						1	3	1	1			1	7
Local materials produced	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No		
Monitoring arrangements	Naloxone Lead	Naloxone lead, Steering group, ADP	Naloxone coordinator	Steering Group, OD prevention group, ADP	Drug-related critical incident group, Clinical governance group	Naloxone coordinator	Naloxone coordinator	Naloxone coordinator	Harm reduction team leader	Naloxone coordinator	ADP and specialist drug service	Lead nurse	ADPs	

Appendix 4: Interview topic guides

Service Provider Interview Topic Guide

Explain:

- the purpose of the research – to identify
 1. how the THN programme is working
 2. effective practice
 3. how participants experience the programme
 4. key outcomes
- that this is one of four case study areas where in-depth interviews are being undertaken with service providers, service users, family / carers and friends, non-participants
- that participants have anonymity
- that participants' responses will not be shared with anyone other than the research team
- that what participants say will be used to inform a report to the Scottish Government to inform the development of the Naloxone programme but that they will not be identifiable in the report in any way.

Name						
Health Board area						
ADP area						
Job Title						
Employer	NHS	Local authority	Voluntary sector	Pharmacy	SPS	Other
Setting	Community			Prison		
Role in local programme	Received training					
	Delivered training to service users & carers					
	Delivered TTT					
	Supplied Naloxone					
	Managed programme					

Section1: Train the Trainers Training: delivery & content

1. Who provided the TTT you received, and when was it delivered?
2. How effective did you feel the TTT was at supporting you to provide training on Naloxone and/or at supporting you to supply Naloxone?
3. In your view, did the training *content* cover all the information you need to feel confident about providing Naloxone training and/or storing and supplying Naloxone? Y/N?
 - **If no**, what additional content do you feel you would have benefited from and what, if any, concerns/queries do you have relating to providing Naloxone training and/or storing and supplying Naloxone?

4. (For those involved in supply only) Did the training cover all the information you need to use the PGD? Y/N
 - **If no**, what additional content do you feel you would have benefited from and what, if any, concerns/queries do you have relating to use of the PGD?
5. What, if anything, do you think could have been done differently about the way the training was *delivered* to increase its effectiveness for you?

Section 2: Recruitment

6. Which factors support recruiting people at risk of opioid overdose to:
 - a) receive Naloxone training; and then go on to
 - b) receive a supply of Naloxone?

Prompt for challenges reaching those most vulnerable, and those who don't engage with drug treatment services. Also prompt for barriers to recruitment, for example attitudes of people at risk, attitudes of others (including family, carers, colleagues), fear of police, loss of tenancy, fear of being identified as a person with problem drug use, size and nature of kit, location/nature of programme delivery.

7. Which factors hinder recruiting people at risk of opioid overdose?
8. In your view, how could recruitment of those most at risk of opioid overdose be improved in your Health Board/ADP area?
9. Which factors support recruiting carers, family members and friends of people at risk of opioid overdose to receive Naloxone training? In your opinion, what would improve recruitment?
10. Which factors hinder recruiting carers, family members and friends of people at risk of opioid overdose?

Section 3: Naloxone training and supply

11. What, if any, are your organisation's/local programme's standard procedures for:
 - referring people for Naloxone training and/or supply?
 - patient monitoring and follow up (including finding out if a THN kit has been used)?
 - provision and monitoring of repeat supplies?
12. Overall, what do you feel is working well about your local THN programme? What is working less well?
13. What, if any, challenges have you experienced when providing Naloxone training and/or supplying Naloxone to people at risk of opioid overdose? How are these challenges addressed locally?

14. (Other than recruitment) What, if any, challenges have you experienced when training carers, friends and family members of people at risk of opioid overdose? How are these challenges addressed locally?

Section 4: Impact

15. Can you give examples of how your local THN programme impacts on:
- a) people at risk of opioid overdose?
 - b) families, friends & carers of people at risk of opioid overdose?
 - c) you and your colleagues?

eg contact with services, awareness of O/D signs, ability to deal with O/D

Section 5: Partnership working

16. Which professionals and agencies are involved in your local THN programme?

Depending on where respondents is based, prompt for links with police, prison (if community setting), ambulance services, drug agencies, other areas, as well as involvement of GPs and hospital doctors if not specifically mentioned.

Do they think others should be involved?

17. How does this partnership working support local programme delivery?

18. Are there any factors that encourage or discourage particular professional groups or partner agencies from engaging with the programme?

Prompt for perceptions of the programme by partners and how this influences involvement.

Section 6: Successes, facilitators & sustainability

19. What do you see as the key strengths / successes to date of the local THN programme in your area? How have you measured this success? (e.g., audit, evaluation, feedback?)

20. What has facilitated this success?

21. What do you see as the key weaknesses to date of the local THN programme in your area? How have you identified these?

22. What support have you received locally and how have you found this?

Prompt for support from Local Coordinator and other forms of local support

23. What support have you received nationally and how has this helped you in your role (eg national Naloxone website)?
24. What, if any, further support would you benefit from?
25. What do you see as the future of your local THN programme?

Thank you for your time.

Interview guide for people at risk of opioid overdose who have participated in the THN programme (training and/or supply)

Interview pre-amble for researchers

1.) Explain:

- the purpose of the research
- that participants have anonymity
- that participant's responses will not be shared with anyone other than the research team
- that what participants' say will be used to inform a report to the Scottish Government to inform the development of the Naloxone programme but that they will not be identifiable in the report in any way
- that participants can end the interview at any time
- that participants can have a friend present, if they wish
- that there is a £10 voucher to thank them for their involvement

2.) Invite questions from participants

3.) Gain signed consent to proceed with the interview

Participant details

We should know from the intermediary organisation which sampling criteria the service user fulfils e.g., training only, training & supply, declined participation in training.

Gather the following information – reassure the participant this is for our purposes only to ensure we are interviewing a cross-section of people with various relevant experiences and that this information will not be shared with anyone outside of the research team.

- What age are you?
- Note gender
- Note location
- What drug support services do you use (if any), eg needle exchange?

Interview questions

1. How did you hear about the THN programme?

Prompt for through organisation (which one?)/ marketing materials (which & from where)/ family or friend (do they know how they heard about it?)

If through an organisation, family or friend, ask: how was the Naloxone programme described/explained to you? How did you feel about someone suggesting you engage with the programme?

If through marketing materials (poster, leaflet, website, social media, radio ads for international overdose awareness day) ask: what did you understand the programme to be about from the materials?

2. What did you think about the THN programme when you first heard about it?
3. After hearing about the THN programme, what made you want to attend the training?
4. What did you learn from the training?

Prompts: confidence to recognise signs of an opioid overdose, confidence to deal with an overdose situation and/or to use Naloxone in an overdose situation? If no, what other information would have been useful for you to receive?

5. Could anything about the training have been improved?
6. Did you receive a THN kit after the training? Y/N

(If no), was this

- because you were given a certificate / authorisation to collect one later from a healthcare professional at an alternative site
- because you didn't want to take a naloxone kit

Can you tell me why you didn't want to take a naloxone kit?

Prompts:

- *Did anything put you off?*
- *Have you thought about asking for a supply since?*
- *Can you see yourself wanting a kit at any point in the future?*
- *What would encourage you to take a kit?*
- *Would you know how to get a kit if you did decide you wanted one?*

(If yes):

What do you think of the kit?

Is there anything you would change about it?

Do you usually carry your kit? Why/why not?

- *If not, where do you usually keep your kit?*

Have you used your kit?

- *If yes, can you tell me briefly what happened and what you did? (prompt for if they called an ambulance; how the call was handled; how the ambulance staff handled the situation; if the ambulance was not called, why not)*
- *How did you feel about using the kit?*
- *How would you feel about using the kit again in future if you were in a similar situation again?*
- *Have you obtained a replacement kit?*

7. Overall, what do you think about the THN programme?
8. What do you think about Naloxone?
9. Do you know anyone else who has used Naloxone?
10. What do other people you know think about the THN programme?
11. What do you think would encourage more people to:
 - a) Complete Naloxone training?
 - b) To carry a THN kit?
12. Would you recommend undertaking Naloxone training and /or getting a THN kit to anyone you know?
If no: why not?
If yes: why? And who would you recommend it to?
13. Do you have any more comments on the programme?

Thank you for your time.

Interview guide for people at risk of opioid overdose and carers/family members who have declined participation in the THN programme

Interview pre-amble for researchers

1.) Explain:

- the purpose of the research
- that participants have anonymity
- that participant's responses will not be shared with anyone other than the research team
- that what participants' say will be used to inform a report to the Scottish Government to inform the development of the Naloxone programme but that they will not be identifiable in the report in any way
- that participants can end the interview at any time
- that participants can have a friend present, if they wish
- that there is a £10 voucher to thank them for their involvement

2.) Invite questions from participants

3.) Gain signed consent to proceed with the interview

Participant details

We should know from the intermediary organisation which sampling criteria the service user fulfils e.g., training only, training & supply, declined participation in training.

Gather the following information – reassure the participant this is for our purposes only to ensure we are interviewing a cross-section of people with various relevant experiences and that this information will not be shared with anyone outside of the research team.

For people at risk of opioid overdose:

- What age are you?
- Note gender
- Note location
- What drug support services do you use (if any), eg needle exchange?

For carers & family members

- What age are you?
- Note gender?
- Do you know anyone at risk of opioid overdose?

Interview questions

1. *(assumption is that they are aware of the THN programme as this would be a pre-selection criteria)* How did you hear about the THN programme?

Prompt for through organisation (which one?)/ marketing materials (which & from where)/ family or friend (do they know how they heard about it?)

If through an organisation, family or friend, ask: how was the Naloxone programme described/explained to you? How did you feel about someone suggesting you engage with the programme?

If through marketing materials (poster, leaflet) ask: what did you understand the programme to be about from the materials?

2. What do you think about the idea of:
 - a) Naloxone?
 - b) the THN programme?
3. What do other people you know think about the THN programme?
4. Has anyone offered you training on Naloxone? Y/N

(The answer should be yes, as this is part of the selection criteria, however we may end up with a few individuals who say no so Qs added in case of this)

If no:

- Would you be interested in attending training? Why/Why not?
- *(For PDUs only)* Would you be interested in having a THN kit? Why/why not?

If yes:

- Can I ask why you didn't attend the training?
- Is there anything that would have encouraged you to attend the training?
- *(For PDUs only)* Would you ever consider having a THN kit? Why/why not?
- How likely are you to get involved in the programme in future?

5. Do you know anyone who has attended training? If yes, what did they think of it?
6. Do you know anyone who has/carries a THN kit? How they feel about having the kit?
7. Would you recommend the programme to anyone you know? Who to and why?
8. Do you have any more comments on the programme?

Thank you for your time.

Interview guide for families/carers/friends of people at risk of opioid overdose who have participated in the THN programme (training and/or supply)

Interview pre-amble for researchers

1.) Explain:

- the purpose of the research
- that participants have anonymity
- that participant's responses will not be shared with anyone other than the research team
- that what participants' say will be used to inform a report to the Scottish Government to inform the development of the Naloxone programme but that they will not be identifiable in the report in any way
- that participants can end the interview at any time
- that participants can have a friend present, if they wish
- that there is a £10 voucher to thank them for their involvement

2.) Invite questions from participants

3.) Gain signed consent to proceed with the interview

Participant details

We should know from the intermediary organisation which sampling criteria the service user fulfils e.g., training only, training & supply, declined participation in training.

Gather the following information – reassure the participant this is for our purposes only to ensure we are interviewing a cross-section of people with various relevant experiences and that this information will not be shared with anyone outside of the research team.

- What age are you?
- Note gender
- Note location

Interview questions

1. How did you hear about the THN programme?

Prompt for through organisation (which one?)/ marketing materials (which & from where)/ family or friend (do they know how they heard about it?)

If through an organisation, family or friend, ask: how was the Naloxone programme described/explained to you? How did you feel about someone suggesting you engage with the programme?

If through marketing materials (poster, leaflet, website, social media, radio ads for international overdose awareness day) ask: what did you understand the programme to be about from the materials?

2. After hearing about the THN programme, what made you want to attend the training?

3. What did you learn from the training?

Prompts: confidence to recognise signs of an opioid overdose, confidence to deal with an overdose situation and/or to use Naloxone in an overdose situation? If no, what other information would have been useful for you to receive?

4. Could anything about the training have been improved?

5. How confident do you feel about using a Naloxone kit?

6. What do you think of the kit?

7. Is there anything you would change about it?

8. Do you know where [the person with problem drug use you know] keeps their kit?

9. Have you used a kit?

- If yes, can you tell me briefly what happened and what you did? (*prompt for if they called an ambulance; how the call was handled; how the ambulance staff handled the situation; if the ambulance was not called, why not*)
- How did you feel about using the kit?
- How would you feel about using the kit again in future if you were in a similar situation again?

10. Overall, what do you think about the THN programme?

11. What do you think about Naloxone?

12. What do other people you know think about the THN programme?

13. What do you think would encourage more families/carers/friends of people who use drugs to complete Naloxone training?

14. Would you recommend undertaking Naloxone training and/or getting a THN kit to any families/friends/carers of people who use drugs you know?

If no: why not?

If yes: why? And who would you recommend it to?

15. Do you have any more comments on the programme?

Thank you for your time.

Appendix 5: Online survey of service providers

Sample

1. We received 186 responses to our survey of service providers involved in the THN programme. A few key points about the respondents are below:
 - We received responses from all territorial Health Board areas. Most (25%) came from the Greater Glasgow & Clyde area.
 - Most respondents were based in community settings (87%) but 13% were based in prison.
 - 40% were involved in naloxone training and supply; 31% were involved in training only; 9% in supply only; and 8% identified themselves as the local naloxone lead.
 - Respondents represented a range of professional groups including nurses, CPNs or addictions nurses (38%) and voluntary sector workers (18%).
 - Most were employed by the NHS (61%) or voluntary sector agencies (26%).

Train the trainer (TTT) training

2. Most respondents (71%) have taken part in a TTT course.
3. Nearly all (96%) of those who had taken part in TTT training described it as highly or fairly effective in equipping them to provide naloxone training and nearly three quarters (70%) felt it was either fairly or highly effective in equipping them to supply naloxone. Comments from participants included:

"It helps you to understand how it works. It gives you the confidence to talk about it and helps you explain it to others."

"This was a well prepared and well delivered course with good course material. It did exactly what it said on the tin."

Service users

Recruitment

4. Most service providers (71%) felt that the THN programme is successful in engaging those most vulnerable to problem drug use.
5. Service providers reported that word of mouth from peers, direct targeting by professionals and word of mouth from professionals are the most effective means of recruiting service users to the THN programme. 87%, 87% and 86% of service providers described each of these methods respectively as fairly or highly effective. Social media (which was described by 23% as fairly or highly effective) and websites (28%) were seen as the least effective methods of recruitment.

Training

6. Over two-thirds (69%) of respondents said they had trained service users in naloxone.
7. Staff who have trained service users have not necessarily taken part in a TTT course. 13% of those who reported training service users have not taken part in a TTT course.
8. Of those respondents who have completed a TTT course, 81% have gone on to train service users.
9. A quarter (26%) of all those who have delivered training to service users have trained between one and ten service users, but 16% have trained between 51 and 100 service users and 12% have trained more than 100.
10. The most common venues for delivering training to service users are NHS clinics (50% of respondents identified this) and voluntary sector agencies (40%).
11. Training is delivered using a mixture of 1:1 and group approaches. 58% said they have delivered training using both 1:1 and group approaches, 31% said they have delivered training mainly on a 1:1 basis, and 10% mainly on a group basis.
12. Service providers view 1:1 training as more effective for service users than group training. 68% described 1:1 training as highly effective, compared with 49% for group training. Respondents explained that 1:1 training means that 'the client is able to ask questions they might not have asked in front of others' and 'it is ideal for delivery within the clinic setting during an appointment.'
13. However, Table 1 shows that prison workers have a slight preference for group training: 56% of these staff described group training as highly effective, compared with 50% for 1:1 training.

Table 1: Perceptions of 1:1 and group training for service users

	Total (n=115)	Community (n=99)	Prison (n=16)
% of service providers who described 1:1 training as highly effective	68%	71%	50%
% of service providers who described group training as highly effective	49%	47%	56%

Supply

Table 2: Training and supply of service users

	Total	Community	Prison
% of service providers who have trained service users	69% (n=167)	69% (n=144)	70% (n=23)
% of service providers who have supplied service users	49% (n=162)	50% (n=139)	43% (n=23)

14. Nearly half (49%) reported supplying naloxone to service users.
15. There is a discrepancy between the proportion of service providers who have trained service users in naloxone (69%) and those who have supplied naloxone to service users (49%), as illustrated in Table 2.
16. Service providers in every Health Board area reported supplying naloxone to service users. 82% of respondents in Lanarkshire said they had supplied naloxone, 81% in Lothian and 63% in Greater Glasgow & Clyde⁴⁸.
17. Nearly half (45%) of those respondents who had supplied naloxone to service users reported supplying naloxone to between one and 15 service users. 13% said they supplied between 51 and 100 and 16% said they had supplied more than 100 service users.
18. NHS clinics are the main setting where naloxone is supplied to service users. 65% of those who supplied naloxone said they used this setting. 23% said they supplied at voluntary sector agencies, 20% at community centres/facilities, 15% at pharmacies, 15% at service users' homes, 11% in prison and 10% at another outreach location.

Impact/attitudes

19. Service providers felt that the THN programme has had a positive impact on service users, as displayed in Table 3. Most notably, 92% of service providers agreed or strongly agreed that the programme has made service users more aware of life saving techniques such as resuscitation, 90% agreed or strongly agreed that it increased service users' awareness of the causes of drug overdose, 86% agreed or strongly agreed that it has saved lives, and 73% agreed or strongly agreed that it has empowered service users to take greater control of their health.

⁴⁸ 100% of respondents in Orkney said they had supplied service users but this represents only one respondent. In Shetland, 67% had supplied service users but this represents only two respondents.

Table 3: Impact on service users

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
The THN programme has not reduced the number of drug-related deaths (n=169)	4%	15%	40%	19%	22%
The THN programme has deterred people who use drugs from using other harm reduction measures (n=169)	1%	10%	44%	25%	21%
People who use drugs are reluctant to get involved with the THN programme (n=169)	6%	20%	49%	15%	10%
There is potential for greater involvement of people who use drugs in the THN programme (n=169)	31%	57%	4%	2%	6%
The THN programme has empowered people who use drugs to take greater control of their health (n=169)	17%	56%	8%	2%	17%
The THN programme has made people who use drugs more aware of the causes of drug overdose (n=169)	37%	53%	3%	2%	5%
The THN programme has made people who use drugs more aware of life saving techniques such as resuscitation (n=169)	42%	50%	2%	1%	5%
The THN programme has saved lives (n=169)	48%	38%	1%	1%	12%

20. Comments from respondents include:

"People will be more aware of the signs of overdose, they will have learned about dispelling the myths, they will feel confident about the intervention and feel more in control to do something to help."

"Gives drug users a greater understanding of the high risk times of overdose. Encouraged drug users to seek medical help when someone overdoses."

"They [service users] leave the training session more empowered and more confident of their ability to save a life."

21. Most service providers 88% felt there is potential for greater involvement of service users in the THN programme.

Families/carers

Training

22. Nearly a third (29%) of service providers have trained family members/carers in naloxone.
23. 56% of those who have trained families and carers said they have trained between one and five family members/carers.
24. Service providers reported that training of families and carers most commonly takes place in NHS clinics (46%), voluntary sector agencies (38%) and in families' homes (27%).
25. There appears to be a slight preference for 1:1 training: 65% of those who had delivered training to families and carers said that a 1:1 approach was highly effective, compared with 48% for group training.

Materials

26. Service providers were uncertain about the effectiveness of the 2013 naloxone materials for families and carers. 50% described these materials as fairly or highly effective but 39% did not have an opinion.

Supply

Table 4: Training and supply of families and carers

	Total (n=161)	Community (n=138)	Prison (n=23)
% of service providers who have trained families and carers	29% (n=164)	31% (n=141)	17% (n=23)
% of service providers who have supplied families and carers	17% (n=161)	17% (n=138)	13% (n=23)

27. Table 4 shows that there is a discrepancy between the proportion of service providers who have trained families/carers (29%) and those who have supplied families/carers (17%).
28. 56% of those who have supplied families and carers have supplied between one and five families/carers.
29. Two-thirds (67%) of those who have supplied families/carers have supplied them at an NHS clinic, 22% at voluntary sector agencies and 22% at families/carers' homes.

Impact/attitudes

30. Table 5 shows that service providers reported that the THN programme has had a positive impact on families and carers. For example, 68% feel that families and carers feel reassured knowing that they could help to prevent overdose. As a respondent commented, ‘the families are sometimes the ones faced with an overdose situation and can feel totally helpless, the training can give them some confidence in dealing with the situation.’

Table 5: Impact on families and carers

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
Families and carers are reluctant to get involved with the THN programme (n=169)	3%	12%	38%	14%	32%
There is potential for greater involvement of families and carers in the THN programme (n=169)	36%	47%	1%	1%	17%
Families and carers feel reassured knowing they could help prevent overdose (n=169)	21%	47%	2%	3%	27%
Families and carers feel more confident in using life saving techniques (n=169)	20%	43%	1%	2%	36%
The THN programme has placed a significant burden on families and carers (n=169)	1%	4%	37%	23%	36%

31. Over four-fifths (83%) of service providers felt that there is potential for greater involvement of families and carers in the THN programme.

Staff

Training

32. 28% of service providers have trained staff in naloxone. Most (56%) of those who have trained staff have trained between one and 15 members of staff.
33. Staff training tends to take place in NHS clinics (49%), voluntary sector agencies (33%) and community centres/facilities (27%).
34. Training for staff appears to be delivered mainly in groups – 61% of service providers said they deliver training to staff in this way.
35. Group training is seen as more effective for staff: 96% who have delivered training to staff said that group training was fairly or highly effective, compared with 67% for 1:1 sessions. A respondent commented that group training ‘allows for discussion and sharing of experiences.’

Materials

36. 72% of all respondents said that the 2013 naloxone materials for use by professionals are either fairly or highly effective.

Supply

Table 6: Training and supply of staff

	Total	Community
% of service providers who have trained staff	28% (n=163)	30% (n=140)
% of service providers who have supplied staff	16% (n=161)	17% (n=138)

37. Table 6 shows that 16% of service providers said they had supplied naloxone to staff. This is lower than the percentage (28%) who said they had trained staff in naloxone.
38. Most (68%) of those who have supplied staff reported supplying between one and 15 staff members.
39. Supply tends to take place in voluntary sector agencies (56% of those who had supplied staff said they had supplied at this setting) or NHS clinics (40%).

Friends/peers

Materials

40. Nearly half (48%) of service providers reported that the 2013 naloxone materials for friends and peers are fairly or highly effective. However, 43% felt unable to give an opinion about these materials.

Impact/attitudes

41. Table 7 shows that service providers felt that the THN programme has had a positive impact on friends and peers of service users. 68% agreed or strongly agreed that friends and peers feel more reassured knowing that they could help to prevent an overdose. A respondent remarked that naloxone gives 'comfort and hope to families and friends of people who use drugs.'

Table 7: Impact on friends and peers

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
Friends and peers are reluctant to get involved with the THN programme (n=169)	4%	12%	44%	10%	29%
There is potential for greater involvement of friends and peers in the THN programme (n=169)	28%	51%	1%	1%	20%
Friends and peers feel more reassured knowing they could help prevent an opiate overdose (n=169)	19%	49%	3%	1%	28%
Friends and peers feel more confident in using life saving techniques (n=169)	17%	49%	1%	1%	33%
The THN programme has placed a significant burden on friends and peers (n=169)	1%	7%	34%	21%	37%

42. Nearly eight in ten service providers (79%) felt that there is potential for greater involvement of friends and peers in the THN programme.

Partnership working

43. Table 8 shows that service providers were, in general, positive about partnership working in their area. 79% felt that partnership working in their Health Board area is fairly or highly effective.

Table 8: Perceptions of partnership working in Health Board areas

	Not at all effective	Slightly effective	Fairly effective	Highly effective	Don't know
Total (n=169)	1%	11%	41%	38%	9%
Ayrshire & Arran (n=8)	-	-	38%	25%	38%
Borders (n=6)	-	-	50%	33%	17%
Dumfries & Galloway (n=6)	-	17%	33%	50%	-
Fife (n=10)	-	20%	40%	40%	-
Forth Valley (n=27)	4%	7%	52%	37%	-
Grampian (n=21)	5%	10%	33%	38%	14%
Greater Glasgow & Clyde (n=39)	-	13%	31%	46%	10%
Highland (n=7)	-	14%	43%	14%	29%
Lanarkshire (n=11)	-	-	27%	64%	9%
Lothian (n=24)	-	13%	58%	29%	-
Orkney (n=1)	-	-	100%	-	-
Shetland (n=3)	-	33%	33%	33%	-
Tayside (n=6)	-	17%	50%	17%	17%

44. A lesser proportion, 50%, felt that partnership working at the national level is fairly or highly effective, but most of the remainder (44%) felt unable to comment on this.

Potential lives saved

45. 86% agreed or strongly agreed that the THN programme has potentially saved lives and 70% said they were personally aware of lives having potentially been saved as a result of naloxone administration. Comments from respondents include:

"Two patients in the same week [potentially] saved the life of a user."

"People are alive [as a result of naloxone] who would otherwise be dead."

"We have several examples of people who have survived due to quick administration of naloxone."

46. Prison-based staff were more likely (79%) to be aware of lives having been saved than community staff (69%), as shown in Table 9.

Table 9: Awareness of potential lives saved by naloxone administration

		Total (n=169)	Community (n=145)	Prison (n=24)
Are you personally aware of lives having been saved as a result of naloxone administration?	Yes	70%	69%	79%
	No	30%	31%	21%

47. Respondents reported being aware of at least 500 potential lives being saved as a result of naloxone administration (it is "potential" as not all overdoses would necessarily result in death and it is not possible to quantify therefore how many lives have been saved)⁴⁹.
48. Table 10 shows that respondents in each Health Board area were aware of potential lives having been saved, with the exception of Orkney, where there was only one respondent. Service providers in Greater Glasgow & Clyde reported being aware of 114 lives saved, 113 in Forth Valley, 73 in Lothian, 41 in Grampian and 40 in Lanarkshire.

⁴⁹ This is likely to be an under-estimate. Nineteen respondents said they were aware of 'more than ten' lives being saved. For the purposes of this calculation, we have estimated that each of these 19 respondents are aware of 11 lives being saved, but 'more than ten' could relate to any number greater than ten.

Table 10: Estimated Potential lives saved by Health Board area

Area	Estimated number of lives saved
Greater Glasgow & Clyde	114
Forth Valley	113
Lothian	73
Grampian	41
Lanarkshire	40
Fife	30
Borders	22
Tayside	20
Ayrshire & Arran	18
Dumfries & Galloway	12
Highland	12
Shetland	5

Strategy and policy support

49. Service providers' views of strategy and policy support for the THN programme were quite mixed but a significant proportion of respondents felt unable to comment, as shown in Table 11.

Table 11: Perceptions of strategic and policy support

	Highly or fairly effective	Don't know
Strategic and policy support within the Scottish Government (n=169)	54%	39%
Strategic and policy support within your NHS Health Board (n=168)	69%	24%
Strategic and policy support within your ADP (n=168)	71%	19%
Strategic and policy support within Scottish Prisons (n=168)	36%	58%
Strategic and policy support within SDF (n=168)	57%	39%

50. We should note that, although 36% of all respondents felt that support within Scottish Prisons is highly or fairly effective, this figure increases to 79% among prison-based respondents.

Support materials

51. Service providers had mixed views about the effectiveness of naloxone support materials. Table 12 shows that service providers were, in general, positive about the support materials produced for use by professionals. 72% described these as fairly or highly effective. 61% described the national naloxone website as fairly or highly effective and the figures for materials produced for families and carers (50%) and peers and friends (48%) were

lower. However, it is important to note that significant proportions of respondents felt unable to comment on these materials.

Table 12: Perceptions of support materials

	Highly or fairly effective	Don't know
Materials for use by professionals (n=168)	72%	17%
Materials for families and carers (n=168)	50%	39%
Materials for peers and friends (n=168)	48%	43%
The national naloxone website (n=145)	61%	28%

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