

Reducing Drug Deaths Innovation SBRI Challenge- Supplementary Information for Applicants

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Challenge Context

1. Objective

In support of the UK's Drugs Strategy, From Harm to Hope, and Scottish Government's National Mission on Drugs, the UK Office for Life Sciences (OLS) and the Scottish Health Industry Partnership (SHIP), part of the Scottish Government Chief Scientist Office (CSO), are funding an innovation challenge to develop disruptive innovative solutions that focus on detection of, response to, and intervention in potentially fatal drug overdose episodes.

Funding is being provided to support innovators to accelerate the development and deployment of disruptive solutions to prevent drug related deaths and harm from overdose events. The challenge is being run in close consultation with the Welsh Government and Northern Ireland Executive to increase the potential for uptake and use of the innovations in all UK healthcare systems.

2. Drug Related Deaths in the UK

Drug-related deaths (DRD) have been on an upward trend for the past decade. In England and Wales, the rates of drug misuse deaths have been steadily increasing since 2012 to the highest number since records began in 1993¹. Similar trends are also present in Scotland, where drug misuse deaths have increase by 4.5 times since 2000² and Northern Ireland, where deaths have almost tripled since 2010³. The reasons behind this are complex and differ by drug type however the overall trend is driven primarily by deaths involving opioids and by an increase in deaths involving other substances like cocaine and benzodiazepines, and by polydrug use.

Scotland had the highest age-standardised rate of drug misuse deaths at 25.0 per 100,000 population², Northern Ireland had the second highest rate at 9.4³, followed by Wales at 7.2 and England at 5.2¹. Statistics from National Records of Scotland (2021) show that Scotland has the most severe DRD problem in Europe, with the number of deaths increasing year on year from 2013 to 2020².

Table 1. Drug misuse deaths registered in the UK, 2021

Drug (misuse) Related Deaths	England¹	Wales¹	Scotland²	Northern Ireland³
Total - 2021	2846	210	1330	175
Rate per deaths per 100,000 population	5.2	7.2	25.0	9.4
Involving Opiates & Opioids	2066	149	1119	126

Sources: Office for National Statistics; National Records of Scotland; Northern Ireland Statistics and Research Agency

3. UK Government and Devolved Administration Strategy Context

Addiction Mission and UK Drugs Strategy

Addiction to illegal drugs costs the UK nearly £20 billion per year and causes huge societal damage and loss of life. As part of the 81.1% rise in the number of drug-related-deaths since 2012 there has been a doubling of those related to heroin⁴.

[The UK's Drugs Strategy, From Harm to Hope](#), published in December 2021, sets out the Government's high-level ambition to combat the harm caused by illegal drug use and create an environment that treats addiction as a chronic healthcare condition. One of the key objectives of this strategy is to prevent 1000 drug deaths in England by 2025. This aligns with work within and across the 4 nations of the UK, to improve systems of support and reduce drug related deaths as described further below.

The Addiction Healthcare Mission forms a part of this strategy and the goal to deliver a world-class treatment and recovery system for drug addiction. Backed with £30m funding, OLS, as part of the [UK Government's Life Sciences Vision](#) (LSV), are delivering this mission that is empowered to deliver real benefits for service users and wider society. As with the other seven healthcare missions the addiction mission is aiming to bring together the best industrial and academic science, along with the wider sector, to significantly accelerate the development of new medicines and technologies.

The mission is aiming to enhance the UK-wide research environment and incentivise the development of innovative and effective new treatments, technologies, and



approaches to support recovery, and reduce the harm and deaths these addictions can cause.

In the first 3-year period of this mission, one of the proposals being taken forward is to fund innovation competitions to accelerate development and roll out of new and effective solutions, in particular digital health and MedTech interventions, which help to treat drug addiction or prevent drug misuse related harm and deaths.

The Office for Life Sciences (OLS)

OLS is a joint unit of the Department of Health and Social Care (DHSC) and the Department for Business, Energy, and Industrial Strategy (BEIS). OLS's role is to support the growth of a flourishing Life Science sector in the UK, and through this deliver against core DHSC and BEIS priority outcomes.

Scottish Government National Mission

Scotland is experiencing an ongoing public health crisis of DRD. Statistics from National Records of Scotland (2022) show 1,330 drug deaths reported in 2021². This is a decrease from 2020 (1,339) but Scotland still has the most severe DRD problem in Europe, with the number of deaths increasing each year until 2020, the decrease in 2021 is the first since 2013.

In January 2021, the Scottish Government announced a [National Mission on Drugs](#). The aim of the National Mission is to reduce drug deaths and improve the lives of those impacted by drugs in a programme of work supported by the Drug Deaths Taskforce and National Mission on Drugs plan. The demand signalling work of the CSO Innovation Team based upon the Care and Wellbeing Programme, identified tackling drugs related deaths as a key priority area for innovation in NHS Scotland.

Innovation in this area supports the National Mission approach to address immediate harm and prevent overdose from becoming fatal, and its plan to "develop new technologies to help support people at risk of drugs harm"⁵. Innovation will help realise Recommendation 17 of '[Changing Lives](#)', the final report from the Drug Deaths Taskforce, to "embrace digital innovation, finding ways to improve how people access health, care and support at the point of need".

The Scottish Health and Industry Partnership (SHIP) and Reducing Drug Deaths Innovation Consortium

SHIP is a Programme for Government commitment jointly delivered by the CSO in the Department for Health and Social Care, and the Department of Economy. The programme objective is to optimise and support Scotland's engagement with the life sciences industry to deliver positive health and care outcomes, support the remobilisation of NHS Scotland, and boost the growth of the life sciences sector across Scotland.

The SHIP Reducing Drug Deaths Innovation Consortium Leadership Group, established by the CSO, brings together industry, academia, and the NHS to galvanise innovation activity. The Consortium has worked since March 2022 to identify and prioritise national gaps or areas of need that could benefit from innovative solutions to reduce the numbers of drug deaths, incentivise NHS Scotland Test Bed activity around these solutions and connect them with investment opportunities. The Consortium supports the National Mission to reduce harm and promote recovery and highlights tackling the drug deaths emergency as a key priority area for innovation in Scotland.

The Consortium's long-term vision for innovations developed in response to this challenge are to:

- Increase timely detection and response of potentially fatal overdose episodes,
- Increase timely ambulance or emergency response calls when near fatal overdose events occur,
- Increase early and timely intervention and support from agencies,
- Increase A&E admissions when near fatal overdose events occur,
- Increase referral to appropriate treatment of substance misuse,
- Reduce fatal and non-fatal overdose episodes.

Wales - Substance Misuse Delivery Plan 2019-2022

The [Welsh Government's Substance Misuse Delivery Plan 2019-22](#), published in October 2019, is rooted in a harm reduction approach which recognises addiction as a health and care issue as opposed to one that is solely related to criminal justice.

The plan builds on the previous 10-year Substance Misuse Strategy 'Working Together to Reduce Harm' and the overall aim is to ensure that people in Wales are

aware of the dangers and the impact of substance misuse and to know where they can seek information, help, and support. Consideration is currently being given on a future plan, and how that could be developed.

Northern Ireland

Northern Ireland's Substance Use Strategy, [Preventing Harm, Empowering Recovery – A Strategic Framework to Tackle the Harm from Substance Use \(2021-31\)](#) was launched in September 2021 and contains a range of actions aimed specifically at reducing the harm caused by substance use, including specific actions aimed at tackling drug related deaths.

The strategy has also made the number of drug and alcohol related deaths, as well as the inequality gaps associated with these deaths, key indicators relating to the success of the achievement of the strategy's outcomes.

4. Reducing Drug Deaths Open Innovation Challenge

As illustrated through the statistics above, increasing drug related deaths is a problem which is regrettably common across all parts of the UK. Accordingly, the UK and Scottish Governments are together launching a Small Business Research Initiative (SBRI) Open Innovation challenge, published via Innovate UK.

OLS, with Addiction Healthcare Mission funding from DHSC as part of the UK Government Drug Strategy, and SHIP, with money from the Scottish Government Innovation Catalyst Fund, are launching this, jointly led, innovation challenge. The central objective is to reduce drug related deaths and harm across the whole of the UK and help people who use drugs and their support networks to work together to save lives.

Challenge Overview

Challenge Description

To support development and testing of innovative solutions that focus on detection of, response to, or intervention in potentially fatal overdose occurrences using innovative digital, technologies and therapeutic solutions.

The priority areas below are not exhaustive:

- Discrete digital technology solutions with intuitive and simple patient and responder centric design,
- Simple alert or responder pathways that create effective responses to potentially fatal overdose events,
- Enhance the ability to self-monitor by people who use drugs,
- Improved equity of access, detection, and response in this vulnerable population through connected and safe digitalised platforms,
- Enhance simple live intelligent data gathering processes, surveillance, and remote monitoring,
- Enhance innovative intervention therapeutics as antidotes to overdose episodes.

Potential innovative mechanisms and technologies could include:

- Wearable devices or patches
- Remote monitoring
- GPS receivers
- Smartphone apps
- Decentralised application environments
- AI and machine learning
- Virtual reality and augmented reality
- Gamification
- Data analytics
- Therapeutics.

This open innovation challenge provides an opportunity for companies to develop disruptive innovative solutions that focus on detecting, responding and/or intervening to early acute risk of non-fatal and fatal overdose.

Interested parties involved at all stages of the development process are invited to consider this proposal.

Project details

Funding Type: Pre-Commercial Procurement

Project: Two [Small Business Research Initiative](#) (SBRI) competitions will be funded by OLS and SHIP under the UK Addiction Healthcare Mission, UK LSV, and Scottish Government National Mission to reduce drug related deaths and harms. OLS and SHIP are investing up to £5,000,000 including VAT across two competitions. The competitions are seeking to develop disruptive innovative solutions that focus on



detecting, responding, and intervening to early acute risk of non-fatal and fatal overdose.

Competition 1 – feasibility studies

- For projects which have not reached prototype development. This is phase 1 of a potential 2 phase competition. The decision to proceed with phase 2 will depend on the outcomes from phase 1 and assessment of a separate application into a subsequent phase 2 competition.
- Projects can range in size up to total costs of £100,000 inclusive of VAT. This must include all project costs and costs associated with any subcontractors.
- Projects should start within 3 months of award and phase 1 should be completed within 4 months.
- Successful applicants from phase 1 will be invited to apply to take part in phase 2.

Competition 2 – demonstration projects

- For technology already at an advanced stage of development, near ready to be deployed in a real-world environment. This is a single-phase competition.
- Projects can range in size up to total costs of £500,000 inclusive of VAT. This must include all project costs and costs associated with any subcontractors.
- Projects should start within 3 months of award and should be completed within 12 months.

There is a preference for projects at an advanced stage of development, near ready to be deployed in a real-world situation. Projects will be expected to undertake the necessary evaluations demonstrating the prototypes in real world situations. For projects already at an advanced prototype stage, evidence of certification of the appropriate EN or ISO standard or plans to achieve this must be provided.

Projects showing high potential but at an earlier stage of development may also be considered.

It is your responsibility to ensure you are submitting your application to the correct competition for your project. You will not be able to transfer your application and it will not be sent for assessment if it is out of scope.

Organisations are advised to only lead on one application per technology identifying a suitable test bed research partner.

Eligibility

Projects must:

- be any type of organisation of any size, registered in the UK, European Union (EU) or the European Economic Area (EEA) that can demonstrate a credible and practical route to market,
- Work in conjunction with a test bed research partner to develop the solution,
- Work alone or with others from business, research organisations, research, and technology organisations or the third sector as subcontractors,
- Acquire evidence which will support future product approval and use of innovations across the UK health systems (Wales, Northern Ireland, Scotland and England),
- Provide details of certification and compliance with relevant standards, accreditation and regulatory approval for well-developed prototypes.

We encourage proposals that bring together sector specialists and include a co-design and co-production element with the expertise of people with lived experience, people who use drugs and their families.

Contracts will be awarded to a single legal entity only. However, if there is justification for subcontracting components of the work, then projects can engage specialists or advisers. This work will still be the responsibility of the main contractor.

SHIP and OLS reserves the right not to award any contracts. SHIP and OLS give no guarantee or warranty as to the nature, or number of projects funded.

This challenge will not fund any procurement, commercial, business development or supply chain activity with any Russian entity as lead or subcontractor. This includes any goods or services originating from a Russian source.

Dates

- **Competition opens:** Tuesday 31 January 2023
- **Online briefing event:** Friday 10 February 11:00am - 1:00pm

- **Deadline for initial contact with test bed research partners:** Friday 24 March 2023
- **Competition closes:** Friday 21 April 2023 11:00am

Test Bed Research Partner Requirements

As part of your application, you will be expected to identify and engage with a suitable research and innovation partner to serve as the ‘test bed’. You must identify a test bed research partner to work with that can provide the relevant expertise to support your project and provide evidence of this in your application. A suitable test bed research partner should be able to:

- Work with you to develop your proposed solution
- Provide relevant clinical and nonclinical advice to support your project
- Provide support for testing your proposed solution in a patient setting, for example, accessing a suitable patient population available to take part in your planned research.

Suitable test bed research partners could include the NHS Scotland Regional Test Beds, or equivalents located in England, Wales or Northern Ireland, for example:

- Health Innovation South East Scotland
- West of Scotland Innovation Hub
- North of Scotland Innovation Test Bed
- National Institute for Health and Care Research (NIHR infrastructure)
- Academic Health Science Networks (AHSNs)
- Life Sciences Hub Wales
- Health and Care Research Wales
- Drug and Alcohol Research Network (DARN)

You can also propose any other suitable UK based alternative.

Organisations are asked to confirm if they would be willing to work with other research partners.

We advise applicants contact test bed research partners **at least 4 weeks before** for the competition closes. Initial contacts to test bed research partners should be made by 24 March 2023.

Additional funds are available to test bed research partners to fund project management support, data access, clinical advice, and Digital and Information Governance input, if this cannot be provided by existing test bed research partner infrastructure for all projects. Test bed research partners can access up to £10,000 per Phase 1 project and £25,000 per Phase 2 project.

There is further information available on some of the test bed research partners available at: [SBRI Innovation Competition Resources](#).

NHS Scotland Regional Test Beds

Innovation within Scotland is supported by three Regional Innovation Test Beds - North of Scotland, West of Scotland and Health Innovation Southeast Scotland. These innovation test beds are uniquely placed within NHS Scotland to support your project, providing access to relevant systems, and supporting testing in a healthcare environment.

Applicants can engage with the NHS Scotland Regional Test Beds to identify one to work with that can provide the relevant expertise to support your project, and evidence this in your application. To do this, the test beds will need to know what and how you are going to answer the challenge brief, including what support and access you will need. This information will enable the test bed to provide information on expected timelines in accessing the support which will need to be included in the project plan section of your application. It will also enable the test bed to confirm they are able to support your project with the relevant required expertise.

How to contact the NHS Scotland Test Beds:

- North of Scotland: gram.nosinnovationtestbed@nhs.scot
- West of Scotland: innovation@ggc.scot.nhs.uk
Website: www.woshealthinnovation.scot/
- Health Innovation Southeast Scotland: innovations@nhslothian.scot.nhs.uk
Website: <https://hises.edinburghbioquarter.com/>

National Institute for Health and Care Research (NIHR)

The NIHR infrastructure provides research expertise, specialist facilities, a research delivery workforce and support services which all help to support and deliver the research it funds, and research funded by others.

<https://www.nihr.ac.uk/explore-nihr/support/research-infrastructure.htm>

[Investing in infrastructure | NIHR](#)

Academic Health Science Networks (AHSNs)

There are 15 AHSNs across England, supporting innovators, industry, and the NHS to develop and spread innovation, at pace and scale thereby improving health and supporting economic growth. Each AHSN works with innovators from ideation, development, regulatory approval through to evaluation in a real-world setting, driving adoption and supporting the transformation of pathways to benefit patient outcomes.

<https://www.ahsnnetwork.com/about-us/your-local-ahsn/>

Life Sciences Hub Wales

Life Sciences Hub Wales is an arm's length body of Welsh Government. They exist to catalyse innovation and collaboration between industry, health, social care, and academia - making a positive difference to people, families, and businesses across the nation. <https://lshubwales.com/welcome-life-sciences-hub-wales>

Health and Care Research Wales Support and Delivery Service

Health and Care Research Wales is a networked organisation, supported by Welsh Government, which brings together a wide range of partners across the NHS in Wales, local authorities, universities, research institutions, third sector and others. They work in close partnership with other government agencies and research funders (both in Wales and across the UK); industry partners; patients; service users; public and other stakeholders.

<http://healthandcareresearchwales.org/researchers/support-and-guidance-researchers>

Health and Care Research Wales Centres – Clinical Trials Unit

The Health and Care Research Wales Clinical Trials Unit has a wide pool of expertise, which is able to navigate the complexities of each stage of the research pathway, from putting together effective funding proposals to conducting well-designed studies that

feature in peer-reviewed publications. This enables them to partner both with first-time and seasoned researchers from the NHS and industry, as well as academia.

<https://healthandcareresearchwales.org/about-research-community/centre-trials-research>

Drug and Alcohol Research Network (Northern Ireland) (DARN)
DARN provides a hub for researchers, policymakers and practitioners engaged in research on drugs and alcohol. The network acts as an inter-disciplinary forum where findings from areas as diverse as social work, public health, education, economics, sociology, psychology, law and pharmacy can be shared. The aim is to develop a national and global informed research base on drugs and alcohol issues.

<https://www.qub.ac.uk/research-centres/darn/>

Challenge Application

For further information regarding eligibility, requirements and how to apply for either of these competitions, please use the following links:

[**Competition 1 - SBRI: Overdose detection, response and intervention - feasibility - Innovation Funding Service**](#)

[**Competition 2 - SBRI: Overdose detection, response and intervention demonstration - Innovation Funding Service**](#)

Launch Event Details

A virtual webinar briefing event to support the challenge launch was held at:

11:00 – 13:00 Friday 10 February 2023.

The event provided further details and wider context for the competitions as well as a Q&A opportunity.

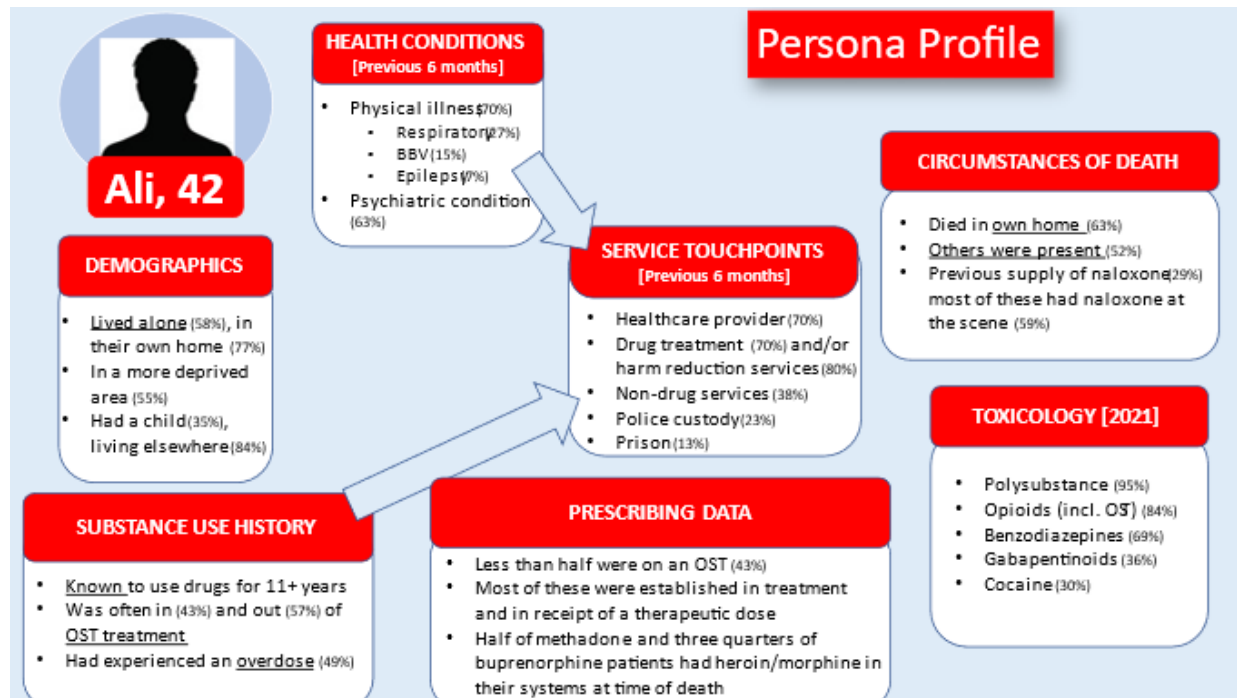
A recording of the event, presentations and further information on the competition are available at: [SBRI Innovation Competition Event](#).

Contact

If you have any questions about the challenge scope or requirements, please email Fife.innovation@nhs.scot or SHIP@gov.scot.

Persona Profile

What follows is an aggregated persona, consistent with the risk profile set out in the National Records of Scotland 2022⁶, and Public Health Scotland 2022⁷, of those suffering drug-related deaths in Scotland. Service touchpoints are evident throughout, while opportunities for digital intervention are left open to designers. Learning from the Digital Lifelines' Overdose Detection and Responder Alert Technologies (ODART) project points to technology that alerts supporters of people who use drugs and responders to overdose, and includes wearable technology, self-activated smartphone applications and platforms that connect naloxone-carrying volunteers in cases of opioid overdose.



Health and social circumstances

Having been using substances for over 15 years, and with co-occurring mental and physical ill health, homelessness, and criminal justice involvement, 42-year-old Ali is

well known to Edinburgh services. His situation has been discussed on multiple occasions at weekly inter-agency meetings, triggered by his recent ill health and an overdose. Ali suffers from infective endocarditis resulting from injecting drug use and is also in the process of booking a lung function test due to laboured breathing. He uses 'street' benzodiazepines and illicit gabapentinoids daily and injects snowballs (a mixture of heroin and crack) every two weeks on pay day. Ali has been on methadone for approximately 15 years and is currently stable on a therapeutic dose, though has dropped off his prescription twice in the past year and had to be re-titrated. Since Covid, his meetings with his community psychiatric nurse (CPN) have significantly reduced. He remains on daily dispensed methadone and so attends the pharmacy 6 days per week. Following his recent health issues and overdose, Ali is keen to minimise the harms arising from his substance use and has observed multiple overdose deaths among his peer group - 'more than he cares to count'. He now injects half as often and is more careful when doing so, further opting to smoke rather than inject when already under the influence – though admittedly could use reminders. Furthermore, he has expressed a willingness to take part in any harm reduction pilot projects using digital technology that have been mentioned by the needle exchange.

Current social and interventional supports

Ali has been in his own tenancy for roughly a year but would prefer to move back into a high needs hostel and often prefers to sleep rough in the city centre with friends. He has a good relationship with a local third sector run needle exchange, who also provide harm reduction advice and practical support. They also trained him to use naloxone and regularly enquire as to his supply. Ali is working with a service providing visiting housing support, though they struggle to connect with him as he keeps losing phones and is rarely at his flat. He gets on well with his worker though and sometimes drops into the office or uses the phone at the needle exchange to check in with her. He is also in touch with his sister who he speaks to or sees every week. Ali was supported by his worker to access a tablet and dongle to help him stay in touch with services and family, though he does not often use it. Ali feels he could benefit from some more training as he would like to access various health, entertainment, and video-conferencing apps. He and his worker identified that access to streaming apps would make staying at his flat full-time more appealing.

Circumstances of death

On December 3rd, awakening after a substance-heavy night, Ali started his day by collecting and consuming his medication as normal, before taking the remainder of yesterday's street benzodiazepines (etizolam, approximately 20 tablets). Workers at the homelessness drop-in service noted that Ali was heavily intoxicated, checking on him several times between 11 am and 1 pm, though finding it easy to rouse him. Later that day, Ali and several acquaintances made their way to his flat where they used heroin (both smoking and injecting) and more benzodiazepines. Ali excused himself at around 11 pm and went to bed, while his guests remained awake for several hours, noting throughout that Ali was snoring loudly. Around 8 am a guest was unable to waken Ali, who was not breathing and was cold to the touch. Ali died in the early hours of December 4th. A later report indicated that Ali had been in possession of multiple naloxone kits at the time of his death.

Supporting Information shared by Scottish Enterprise

Drug Deaths in the UK

In 2021, England and Wales recorded 4,859 deaths related to drug poisoning which is the highest record since 1993. The number of drug related deaths in Northern Ireland in 2021 was 213, with 2020 peaking at 218 deaths.

In Scotland, there were 1,330 deaths to drug misuse in 2021. People aged 35-44 are most likely to die from drug misuse and men were 2.4 times more likely to have drug misuse death. Within Scotland, Greater Glasgow and Clyde (33.7 per 100,00 population) had the highest drug misuse death rate followed by Ayrshire & Arran (28.1) and Tayside (27.1).

SBRI Competition-The Challenge

The open innovation challenge call specifically provides an opportunity for working with test bed research partners across the UK to develop innovative digital technologies and therapeutic solutions that focus on detection, response to or intervention in potentially fatal overdoses occurrences.

Market size of Digital Health (from the public domain)

According to Statista, [the Global market revenue in digital health is projected to reach US\\$170.20bn in 2023](#). Revenue is expected to have an annual growth rate of 10.78%. In the UK, the revenue in digital health market is projected to reach US\$4.07bn. Revenue is expected to show an annual growth rate of 9.02%.

Statista, [Medical Wearable Devices Market revenue worldwide in 2021 and 2026 by region](#) (in billion US dollars)

Statista, AI in Healthcare -[statistics & facts](#)

Centers for Disease Control & Prevention: [Drug Rate Maps & Graphs US](#); [Drug Overdose Deaths in the US Top 100,000 Annually](#)

European Monitoring Centre for Drugs and Drug Addiction, [Drug related Deaths and mortality in Europe](#), May 2021.

Route to Market

NHS Scotland-There are opportunities for companies to work with NHS Scotland, and to take advantage of tender opportunities. You can find out how to [browse tender notices](#) and review [guidance for suppliers](#), so you understand the market and the requirements.

Contracts are listed on the [Public Contracts Scotland \(PCS\) portal](#). If you have an innovative idea you can send this to NHS Scotland's [Health Innovation Assessment Portal](#). They can offer guidance and support with your health and technology innovations.

NHS England: [National Commercial and Procurement Hub](#); [Contracts Finder](#); [Find a high value contracts in the public sector](#); [Digital Marketplace](#)

UK Government Guidance: [Partnering with NHS to sell goods and services](#); [NHS Supply Chain](#)

You must obtain regulatory approvals to sell your medical devices in the UK. Regulatory bodies such as [Medicines and Healthcare Products Regulatory Agency \(MHRA\)](#) ensures your products meet the necessary standards.

UK Government: [Export Medical devices](#)

USA: US FDA- [Importing Medical Devices into the USA](#)

Buyers within the US Healthcare market include:

- **Hospitals & Healthcare systems:** They are large buyers of medical devices in the US. They purchase a wide range of medical devices. For example: Kaiser Permanente, Cleveland Clinic, DIGNITY health, Mayo Clinic, Intermountain Healthcare and Providence Health & services.
- **Government Agencies:** Department of Veteran Affairs and Department of Defence
- **Home Healthcare providers:** For example: Kindred Healthcare, Amedisys Inc, Maxim Healthcare Services
- **Private Clinics and Physicians.**

EU: [European Medicines Agency](#)

European Parliament: [EU Imports & Exports of medical equipment](#)

MedTech Europe: [European Medical Technology in Figures](#)- Includes Digital Health

Deloitte: [Digital Transformation shaping the future of European Healthcare](#), Sept 2020 -Key information on EU countries

[CBI Europe](#): 10 Top tips for finding buyers in the European Market for medical devices and laboratory equipment.

Health Policies UK

UK Government, [From harm to Hope: A 10 year drugs plan to cut crime and save lives](#), April 2022

Scottish Government, [National Drugs Mission Plan: 2022-26](#), August 2022

Northern Ireland Government. [Preventing Harm, Empowering Recovery -Substance Use Strategy](#), Sept 2021

Government of Wales, [Substance misuse Delivery Plan 2019-22](#).

Resources (from the public domain)

- Lombardi Rose, Ritkraj Arya et al, 2023. [Overdose Detection Technologies to Reduce Solitary Overdose Deaths: A Literature review](#). Int J Environ res Public Health. National Library of Medicine.
- Campbell, A., Millen, S., Jordan, U., Guo, L., Taylor Beswick, A., & Diamond, A. (2022). [Reducing opioid related deaths for individuals who are at risk of death from overdose on release from prison and within the homeless hostels for drug users; an issue further complicated by the impacts of COVID-19](#). Queens University, Belfast
- Oteo Alberto, Hadi Daneshvar, Alexander Baldacchino, Catriona Matheson (2023). [Overdose alert and Response Technologies: State-of the-art Review](#). Originally published in the Journal of Medical Internet Research.
- Teymourian Hazhir, Marc Parrilla et al, 2020. [Wearable Electrochemical Sensors for the Monitoring and Screening of Drugs](#). University of California San Diego, AXES Research Group, Bioscience Engineering Department, Groenenborgerlaan.
- Perri Melissa, Adria Guta et al, 2021. [Developing a Digital Health for people who use Drugs: Lessons from Covid-19](#). Digital Health Jan-Dec, National Library of Medicine.



- Daneshvar Hadi, Hannah Carver et al, 2022. [Digital Inclusion to Prevent Drug Related Deaths: Literature Review](#). Interim report to Digital Lifelines Scotland. Drugs Research Network Scotland.
- [Overdose detection Mapping Application Programme](#) -ODMAP is a system designed to provide vital information to relevant stakeholders in real time in Washington/Baltimore.
- United National office on Drugs and Crime, [World Drug Report](#), 2022
- Publications office of the European Union.
- Statista, [Drug deaths in Europe](#), Sept 2020. By Niall McCarthy
- European parliament Research Service, [What if we could fight Drug Addiction with Digital Technology](#), April 2019
- European Monitoring Centre for Drugs and Drug Addiction. [m-Health applications for responding to drug use and associated harms](#), 2018.
- Deloitte, [Strategies for stemming the Opioid Epidemic](#), 2021.
- HIMSS, [Taking on the Opioid Epidemic](#): the role of Interoperability and Technology. By Sam Lambson & Ashleigh George.
- McKinsey & company: [Moving Digital Health forward: Lessons on Business building](#), Jan 2021. By Stephanie Henze, Amy Hung, Tobias Silberzahn and Dandi Zhu
- [Deaths related to drug poisoning in England and Wales - Office for National Statistics \(ons.gov.uk\)](#)
- [Drug Related and Drug-Misuse deaths in Northern Ireland 2021 \(nisra.gov.uk\)](#)
- [Drug-related deaths in Scotland in 2021, Report \(nrscotland.gov.uk\)](#)

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References

-
- ¹Deaths related to drug poisoning in England and Wales: 2021 registrations
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2021registrations>
- ² Drug-Related Deaths in Scotland in 2021 <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2021>
- ³ Drug-related and drug-misuse deaths in Northern Ireland, 2011-2021
<https://www.nisra.gov.uk/news/drug-related-and-drug-misuse-deaths-northern-ireland-2011-2021>
- ⁴ Dame Carol Black's Review of drugs: phase one report, 2020, Home office.
<https://www.gov.uk/government/publications/review-of-drugs-phase-one-report>
- ⁵ National Mission on Drug Deaths: Plan 2022-2026, Scottish Government [National Mission on Drug Deaths: Plan 2022-2026 \(www.gov.scot\)](https://www.gov.scot/publications/national-mission-on-drug-deaths-plan-2022-2026/pages/1-2.aspx)
- ⁶ National Records of Scotland. Drug-related Deaths in Scotland in 2020, 2021. Online resource. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2020>
- ⁷ Public Health Scotland, 2022. The National Drug-Related Deaths Database (Scotland) Report: Analysis of Deaths occurring in 2017 and 2018. Online resource. Available from: https://publichealthscotland.scot/media/16202/2022-07-26-ndrdd-report_revised_v1.pdf