

CYFARFOD BWRDD PRIFYSGOL IECHYD
STRATEGIC DEVELOPMENT AND OPERATIONAL DELIVERY COMMITTEE

DYDDIAD Y CYFARFOD: DATE OF MEETING:	29 August 2024
TEITL YR ADRODDIAD: TITLE OF REPORT:	Return on Investment: Drugs and Alcohol
CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:	Dr Ardiana Gjini, Executive Director of Public Health
SWYDDOG ADRODD: REPORTING OFFICER:	Craig Jones, Prevention and Population Health Improvement Strategy Manager

Pwrpas yr Adroddiad (dewiswch fel yn addas)

Purpose of the Report (select as appropriate)

Er Gwybodaeth/For Information

ADRODDIAD SCAA

SBAR REPORT

Sefyllfa / Situation

Drug and Alcohol (Substance) Misuse contributes considerably to the overall burden of disease and social need in the UK, such as communicable diseases, mental health issues, physical health, accidental harms, and the associated service pressures. Substance misuse is a complex issue that touches young people, families, communities and societies, affecting a wide range of health and social outcomes for individuals and communities.

Drug and Alcohol misuse interventions and treatment lead to improved public health outcomes, benefitting the wider determinants of health, health improvement, health protection and preventing premature mortality. Many interventions of this type have been thoroughly evaluated both in terms of their effectiveness and in terms of their return on investment; and programmes for both drugs and alcohol have shown considerable return on investment both in the immediacy and in the longer term.

Cefndir / Background

Alcohol misuse is a major preventable public health concern. Over 5% of the global burden of disease and injury is estimated to be attributable to alcohol misuse. Those at risk of harm from alcohol misuse come from across the spectrum of society. They include chronic heavy drinkers, adults at home drinking at hazardous or harmful levels, and children and young adults who suffer from the consequences of parental alcohol misuse. Each year alcohol misuse is estimated to contribute to 3.3 million deaths worldwide; on a global level, alcohol represents the fifth leading risk factor for morbidity and mortality (World Health Organization, 2019).

Nearly half of all men and over a third of women in Wales are drinking above the recommended guidelines, with considerable proportions drinking at levels likely to be harmful or hazardous to health (Welsh Government 2019). Hywel Dda University Health Board (HDdUHB) (17.5%) has a slightly higher percentage than the All-Wales figure (17.2%) in terms of those claiming to drink above the guidelines. In Wales, 15% of all hospital admissions are due to alcohol intoxication and most recent data on hospital admissions for HDdUHB across 2021/22 show that over 14,000 bed days were taken up by patients where alcohol was a primary or

contributory factor in their admittance, at a cost to the Health Board of over £6.1m per year in inpatient treatment alone.

Despite media and public focus on issues such as Heroin and Cocaine, alcohol assessments make up over 60% of those undertaken by Hywel Dda drug and alcohol services. This figure has remained consistent year on year and increased slightly during 2023-24. There is currently particular concern around the number of women of menopause age seeking support (or more worrying, not seeking support) and this has prompted some targeted work in this area.

The UK has a higher prevalence of illicit drug misuse than any other country in Europe and there is growing concern about the illegal diversion of prescription drugs. This is important because the problem of the misuse of prescription drugs carries many serious health risks, often because they are not controlled or supervised by medical professionals. Street drugs are often mixed with many other substances, which can be more harmful than the drugs themselves.

The main illicit drugs seen at specialist service assessments are Cannabis, Heroin, Cocaine and Benzodiazepines, both illicit designer tablets but also diverted prescription medication. Most of the drug related deaths and non-fatal overdoses observed in HDdUHB are resultant of poly-drug use and not simply due to the use of one single drug. In HDdUHB, victims of drug related deaths tend to be male, aged over 45, known to services but not engaged, known to police but not currently under investigation, and with housing and employment issues alongside long-term health conditions. In recent years, there has been an increase in the number of women aged over 45 who have suffered a drug related death.

However, Hywel Dda is one of the few areas of the UK that has seen a consistent decline in illicit drug related deaths since the pandemic. There have also been a number of deaths due to over the counter or prescription medication overdoses

Asesiad / Assessment

The British Government estimated that approximately three million people across both England and Wales take illegal drugs at a cost to society of approximately £30b per year. Above the financial implication, the National Audit Office (2023) states that the drug trade generates significant levels of violence and is believed to be responsible for half of all murders in England and Wales.

In Wales there are 60,000 admissions to hospital every year, because of alcohol. Alcohol costs the NHS £159m annually. 45% of men and 34% of women report drinking above the recommended guidelines. Alcohol is the cause of circa 1500 deaths each year, on top of a cost of more than £1 b of harm to society. Alcohol related deaths are higher in the most deprived areas of Wales. Growing up in families where alcohol or substance misuse is a problem can have negative impacts which persist long into adulthood. 14% of adults have been exposed to alcohol misuse during childhood. Reducing adverse childhood experiences can reduce levels of harmful drinking by 35% (Public Health Wales (PHW), 2024).

Drug and alcohol treatment results in savings in several areas, such as Crime, quality-adjusted life year (QALY) improvements and Health and Social Care. According to Public Health England (PHE) (2019), alcohol treatment reflects a return on investment of £3 for every £1 invested. This outcome rises to £26 over 10 years. Drug treatment reflects a return on investment of £4 for every £1 invested, increasing to £21 over 10 years. It is further suggested that the overall benefits of a wholistic approach to treatment can result in a societal benefit of £2.4b.

Research by Public Health England (2019) found that considerable return on investment (ROI) can be achieved by providing alcohol interventions. For example, identification and brief advice has been estimated to save £27 per patient per year; alcohol care teams in hospital can deliver returns on investment of £3.85 for every £1 invested; and assertive outreach teams that work with high impact users of Emergency services have achieved up to 62% cost savings.

Research carried out over a number of years by PHE (2019) has shown that specialist interventions for young people are effective and contribute to improvements in health and wellbeing as well as a range of other benefits. As such these interventions represent value for money. In addition to a saving to health services of £4.3m per year, there was a further £100m benefit to the criminal justice system annually. Importantly, early identification and intervention results in less young people going on to use drugs and alcohol in adulthood. It is estimated that for every £1 unvested, there is a potential future saving of between £5 and £8.

Figure 1: Potential ROI across Hywel Dda and the three counties for brief advice and reducing hospital admissions for those who drink above the guidelines:

Area	Population	Population Drinking Over the Guidelines	Brief Advice Savings on Adults Drinking Above the Guidelines Per Year	Hospital Savings on £1 Investment Per Adult Drinking Above the Guidelines Per Year
Hywel Dda	385,094	66,621 (17.3%)	£1,798,767	£256,490
Carmarthen	189,117	28,178 (14.9%)	£760,806	£108,485
Ceredigion	71,610	11,457 (16%)	£309,339	£44,109
Pembrokeshire	124,367	26,365 (21.2%)	£711,855	£101,505

The capacity to engage in more brief interventions across Hywel Dda (perhaps through the Health Coach programme) has the potential to save close to £2m. It can also be surmised that as little an investment as £4 per person drinking above the guidelines could save £1m per year in alcohol related hospital visits.

During the financial year 2023-24, Hywel Dda Specialist Services Assessments completed 1005 assessments where alcohol was the primary substance with a further 235 for Cannabis, 169 for Heroin, 116 for Cocaine and 31 for Benzodiazepines. Figure 2 below shows the potential ROI across these substances with £10, £25, £100 and £250 per patient over one year and ten years.

Figure 2

Sub-stance	Count	1yr/ £10	1yr/ £25	1yr/£100	1yr/£250	10yr/£10	10yr/£25	10yr/ £100	10yr/ £250
Alcohol	1005	£30,150	£75,375	£301,500	£753,750	£261,300	£653,250	£2,512,500	£6,532,500
Cannabis	235	£9,400	£23,500	£94,000	£235,000	£49,350	£123,375	£493,500	£1,233,750
Heroin	169	£6,760	£16,900	£67,600	£169,000	£35,490	£88,725	£354,900	£887,250
Cocaine	116	£4,640	£11,600	£46,400	£116,000	£24,360	£60,900	£243,600	£609,000
Benzos	31	£1,240	£3,100	£12,400	£31,000	£6,510	£16,275	£65,100	£162,750

Summary

- Alcohol treatment reflects a return on investment of £3 for every £1 invested
- This outcome rises to £26 over 10 years
- Drug treatment reflects a return on investment of £4 for every £1 invested
- This increases to £21 over 10 years
- It is further suggested that the overall benefits of a wholistic approach to treatment can result in a UK societal benefit of £2.4b
- Specific programmes across HDdUHB are evidence based and provide a return on investment
- These include the provision of Buprenorphine, Naloxone and needle exchange services
- Interventions such as brief interventions delivered by health coaches and the Blue Light Project also provide long term savings to the overall system including to criminal justice partners

CONCLUSION

Drug and alcohol treatment and services save lives. When undertaken effectively, they can also provide a societal return on investment that impacts upon health, criminality and communities.

Argymhelliad / Recommendation

The Committee is requested to **NOTE** the Return on Investment: Drugs and Alcohol report.

Amcanion: (rhaid cwblhau)

Objectives: (must be completed)

Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	Not applicable
Parthau Ansawdd: Domains of Quality Quality and Engagement Act (sharepoint.com)	5. Equitable 2. Timely 3. Effective 4. Efficient
Galluogwyr Ansawdd: Enablers of Quality: Quality and Engagement Act (sharepoint.com)	3. Data to knowledge 1. Leadership 2. Culture and valuing people 6. All Apply
Amcanion Strategol y BIP: UHB Strategic Objectives:	1. Putting people at the heart of everything we do 2. Working together to be the best we can be 6. Sustainable use of resources 3. Striving to deliver and develop excellent services
Amcanion Cynllunio Planning Objectives	10 Population health

Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022	4. Improve Population Health through prevention and early intervention, supporting people to live happy and healthy lives
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Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	See: Appendix 1
Rhestr Termau: Glossary of Terms:	Not applicable
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Cyfarfod Bwrdd Iechyd Prifysgol: Parties / Committees consulted prior to University Health Board:	Not applicable

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	Not applicable
Ansawdd / Gofal Claf: Quality / Patient Care:	Not applicable
Gweithlu: Workforce:	Not applicable
Risg: Risk:	Not applicable
Cyfreithiol: Legal:	Not applicable
Enw Da: Reputational:	Not applicable
Gyfrinachedd: Privacy:	Not applicable
Cydraddoldeb: Equality:	Not applicable

RATIONALE

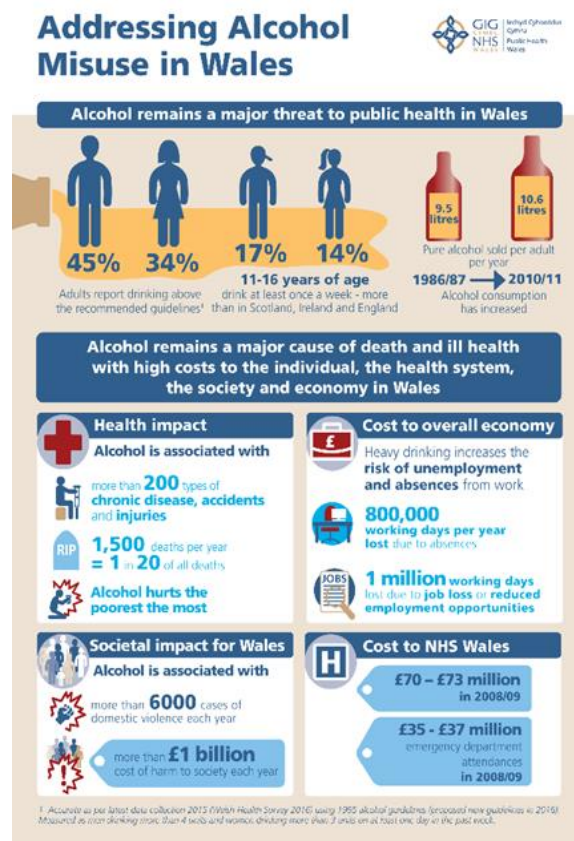
Drug and Alcohol (Substance) Misuse contributes considerably to the overall burden of disease and social need in the UK, such as communicable diseases, mental health issues, physical health, accidental harms and the associated service pressures. Substance misuse is a complex issue that touches young people, families, communities and societies, affecting a wide range of health and social outcomes for individuals and communities.

Dependency on and engagement with drugs and / or alcohol affects all aspects of an individual and community: relationships, meaningful activities and employment, family life, educational attainment, housing opportunities, criminal and anti-social behaviour.

Alcohol misuse is a major preventable public health concern. Over 5% of the global burden of disease and injury is estimated to be attributable to alcohol misuse. Those at risk of harm from alcohol misuse come from across the spectrum of society. They include chronic heavy drinkers, adults at home drinking at hazardous or harmful levels, and children and young adults who suffer from the consequences of parental alcohol misuse. Each year alcohol misuse is estimated to contribute to 3.3 million deaths worldwide; on a global level, alcohol represents the fifth leading risk factor for morbidity and mortality (World Health Organization, 2019).

Nearly half of all men and over a third of women in Wales are drinking above the recommended guidelines with considerable proportions drinking at levels likely to be harmful or hazardous to health (Welsh Government 2019).

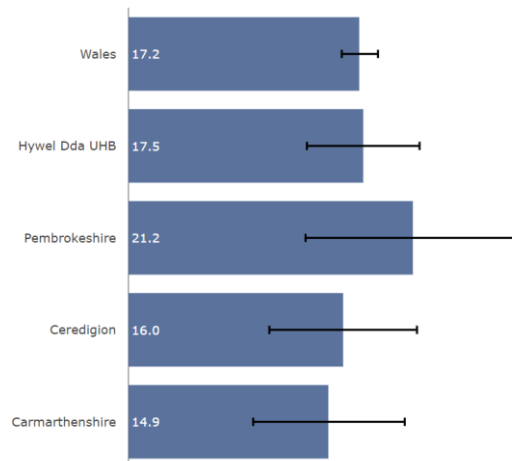
Figure 1. Addressing Alcohol Misuse in Wales (Public Health Wales, 2019)



There is increasing recognition of the significant health harm that alcohol can cause. In Wales, 15 per cent of all hospital admissions are due to alcohol intoxication and most recent data on hospital admissions for Hywel Dda University Health Board (HDUHB) across 2021/22 show that over 14,000 bed days were taken up by patients where alcohol was a primary or contributory factor in their admittance at a cost to the Health Board of over £6.1 million per year in inpatient treatment alone.

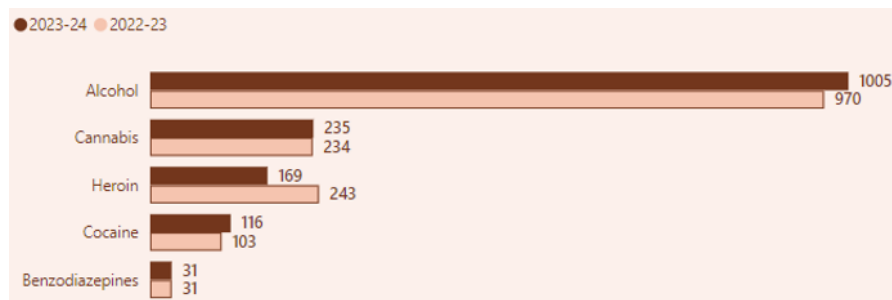
Figure 2 indicates that HDUHB (17.5%) has a slightly higher percentage than the all-Wales figure (17.2%) in terms of those claiming to drink above the guidelines. However, Pembrokeshire is notably higher at 21.2%. It is important to note that this data comes from self-reported information and may not be wholly accurate especially as there is evidence to suggest that the public do not fully understand the measurement of units of alcohol.

Figure 2. Adults drinking above guidelines, age-standardised percentage, persons aged 16+, Wales, HB, LA 2022-23 (PHW, 2024)



Despite media and public focus focussing on issues such as Heroin and Cocaine, alcohol assessments make up over 60% of those undertaken by Hywel Dda drug and alcohol services. This figure has remained consistent year on year and increased slightly during 2023-24. There is currently particular concern around the number of women of menopause age seeking support (or more worrying, not seeking support) and this has prompted some targeted work in this area.

Figure 3. Hywel Dda specialist services assessments completed by primary substance 2022-2024



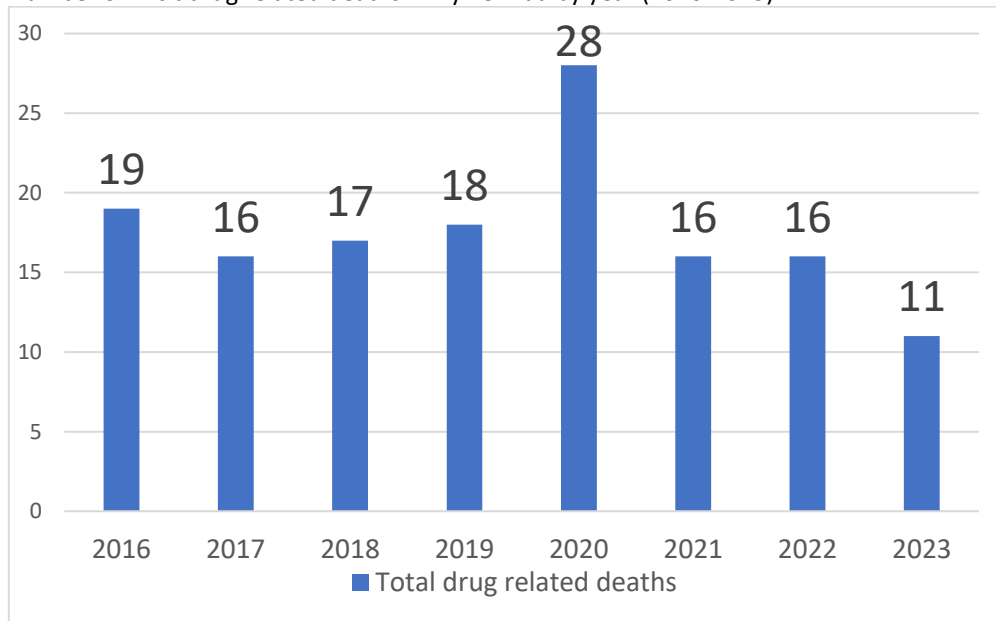
The UK has a higher prevalence of illicit drug misuse than any other country in Europe and there is growing concern about the illegal diversion of prescription drugs. This is important because the problem of the misuse of prescription-drugs carries many serious health risks, often because they are not controlled or supervised by medical professionals. Street drugs are often mixed with many other substances, which can be more harmful than the drugs themselves. As well as having immediate health risks, some drugs can cause physical or psychological dependency, with the result that larger amounts are needed to get the same effect often leading to long-term damage to the body. Heavy or long-term use of some illegal drugs may cause the user to overdose, which may cause permanent damage to the body and can be fatal.

Figure 3 shows that the main illicit drugs seen at specialist service assessments are Cannabis, Heroin, Cocaine and Benzodiazepines, both illicit designer tablets but also diverted prescription medication. Most of the drug related deaths and non-fatal overdoses observed in Hywel Dda are resultant of poly-drug use and not simply due to the use of one single drug. In Hywel Dda, victims of drug related deaths tend to be male, ages over 45, known to services but not engaged, known to police but not currently under investigation, and with housing and

employment issues alongside long-term health conditions. In recent years, there has been an increase in the number of women aged over 45 who have suffered a drug related death.

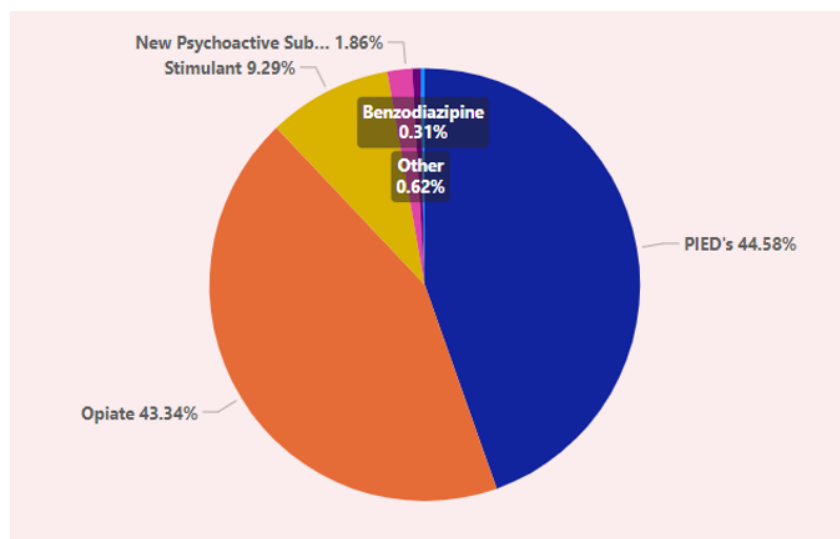
However, Hywel Dda is one of the few areas of the UK that has seen a consistent decline in illicit drug related deaths since the pandemic (figure 4). However, there have also been a number of deaths due to over the counter or prescription medication overdoses

Figure 4. Number of illicit drug related deaths in Hywel Dda by year (2016-2023)



The reduction in deaths has been achieved by ensuring a robust partnership approach to early intervention, prevention and harm reduction including the widespread distribution of Naloxone. However, not all harm reduction measures are as efficient as they should be and it is noted that needle exchange provision across Wales has dropped considerably since the pandemic. The data that is available for Hywel Dda does highlight a notable shift in the drug of choice for those accessing needle exchange as during the period covering 1st April 2023-31st December 2023, IPEDS became the new primary substance for such transactions. Usually, opiate transactions are at least 10% higher than IPEDS.

Figure 5. Needle exchange transactions by primary substance, Hywel Dda, April 1st 20-23- December 31st 2023

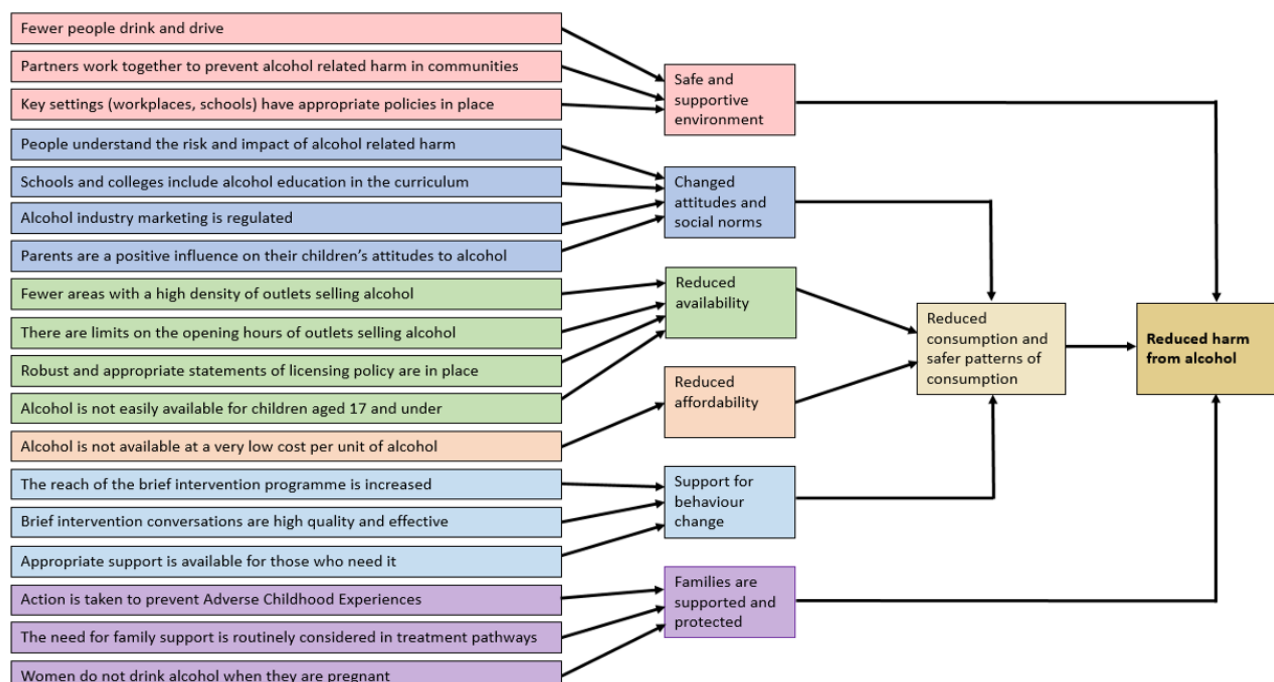


EVIDENCE BASE

Drug and Alcohol misuse interventions and treatment lead to improved public health outcomes, benefitting the wider determinants of health, health improvement, health protection and preventing premature mortality.

Public Health Wales (2022) revised the Alcohol Evidence Map based on actions relating to six key behaviour change pillars to reduce the harm caused by alcohol across society. Interventions around these pillars (Safe environments, Changing attitudes, Reduced availability, Reduced affordability, Support for behaviour change and Supported families) are focussed on either the community, school or family setting and are classified as Universal, Selective or Indicated interventions. The summary of the evidence is shown in Figure 6 below.

Figure 6. Theory of Change alcohol evidence map (PHW 2022)



Public Health Wales (2023) have also carried out a mapping exercise to demonstrate the evidence base that exists for the primary prevention of the misuse of drugs. The range of interventions vary from mass media campaigns to the education programmes in schools and outreach programmes with at-risk populations

Figure 7. Substance Misuse Primary Prevention Strategies Evidence Base. (PHW, 2023)

Interventions	Population Groups			
	Adolescents	Adults	General Population	Young adults (18-25)
Digital Interventions	0	2	3	1
Education Interventions	8	1	5	2
Environment / Policy Intervention	1	0	4	0
Media Intervention	1	2	3	1
Other Intervention	0	0	1	0

Harm reduction refers to policies and practices that try to reduce the harm that people do to themselves or others from their drug use. It can be contrasted with primary prevention which tries to prevent people using drugs in the first place, or to stop them using once they've started.

Harm reduction first became a widely used term in the UK in the 1980s in response to the increasing number of cases of HIV among drug injectors and the development of syringe exchange schemes. Harm reduction focuses on 'safer' drug use and has also been developed as a way of educating young people about drug use, rather than telling them to 'Just Say No'.

The National Harm Reduction Coalition (NHRC, 2023) summaries the key aspects of an evidence based approach to harm reduction in the infographic shown as Figure 8. This includes needle exchange, Naloxone, referral to specialist service and pharmacy support as well as wider factors such as housing and access to drug testing services like WEDINOS.

Figure 8. Summary of the evidence for a harm reduction strategy. (NHRC, 2023)



HEALTH ECONOMICS- Return on Investment

The return on investment (ROI) of a public health intervention is a method that monetises the benefits gained, if any, and expresses them compared to the initial investment. For example, for every £1 that is spent on a specific public health intervention, how much of a return can be expected? Some of these benefits are expressed in terms of health, e.g. diagnoses averted, but some are expressed in a social gain context, such as a productivity gain. ROI allows the returns from different interventions to be compared and gives merit to those that are not necessarily cost-saving, but that result in societal benefits.

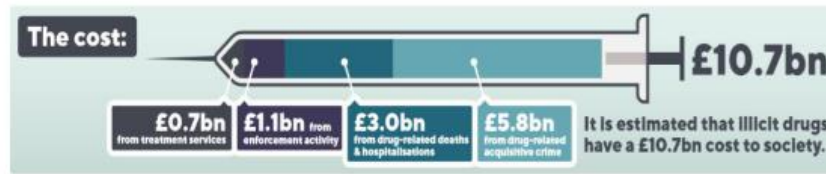
It is important to consider ROI in a public health context alongside other methods of appraisal. Using ROI as a measure of an interventions effectiveness allows consideration to be given to the effectiveness – how well an intervention works in a specific setting, the time period over which the benefits will materialise, the initial cost of setting up the intervention as well as the running costs and the ‘perspective’ of the analysis which details the costs and benefits included and who these are attributed to. This approach can be applied to interventions, prevention and harm reduction work in the arena of drugs and alcohol.

The Cost

The distribution, sale and consumption of illegal drugs causes significant harm to individuals, families and communities. The British Government estimated that around three million people across both England and Wales take illegal drugs at a cost to society of approximately £30billion per year. Above the financial implication, the National Audit Office (2023) states that the drug trade generates significant levels of violence and is believed to be responsible for half of all murders in England and Wales.

Generally, drug related deaths are continuing to rise across the UK including Wales. (Welsh Government, 2021). Dyfed Powys Police (DPP, 2021) however, note that the cost to society due to illicit drugs in Wales alone is £10.7 billion and breaks the spread of that cost down in Figure 9 below suggesting a cost of £0.7 billion annually on treatment costs, £1.1 billion on enforcement activity (e.g., breaking county lines), £3 billion on hospitalisations and drug related deaths and £5.8 billion on drug related acquisitive crime.

Figure 9. Estimated cost of illicit drugs across Welsh society (DPP, 2021)

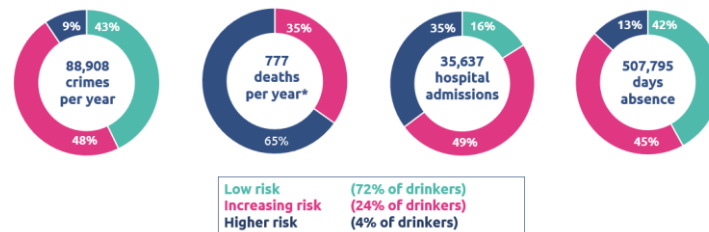


According to the ONS (2022), Scotland and Northern Ireland were the UK constituent countries with the highest alcohol-specific death rates in 2021, with 22.4 and 19.3 deaths per 100,000 persons, respectively.

England and Wales continue to have lower rates of alcohol-specific deaths, with 13.9 and 15.0 deaths per 100,000 persons, respectively. When compared with the 2019 registrations, the last pre-coronavirus (COVID-19) pandemic year, the largest increases in rates were seen in Wales and England (increases of 27.1% and 27.5%, respectively).

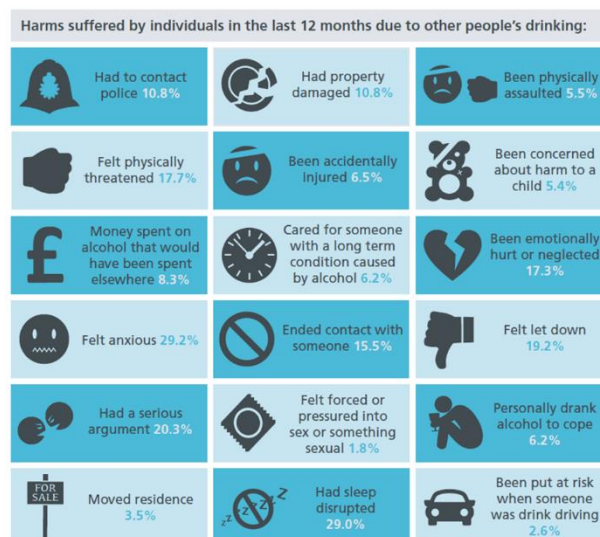
In Wales there are 60,000 admissions to hospital every year, because of alcohol. Alcohol costs the NHS £159 million annually. 45% of men and 34% of women report drinking above the recommended guidelines. Alcohol is the cause of around 1,500 deaths a year, on top of a cost of more than £1 billion of harm to society. Alcohol related deaths are higher in the most deprived areas of Wales. Growing up in families where alcohol or substance misuse is a problem can have negative impacts which persist long into adulthood. 14% of adults have been exposed to alcohol misuse during childhood. Reducing Adverse Childhood Experiences can reduce levels of harmful drinking by 35% (PHW, 2024).

Figure 10. The impact of alcohol on Welsh society (WG, 2021)



There is a wider societal impact of alcohol and PHW (2019) identified these issues without conclusively appropriating any cost to these impacts. Such impacts include the cost to police for time and investigations, personal injury, property damage, drink driving risks and more. The overall societal costs of these factors would be even harder to calculate as many people incur these outcomes but never report them in any way.

Figure 11. Harm suffered in the last 12 months due to others' drinking (PHW 2019)



ROI- Adult Centred Interventions

Minimum unit pricing set a floor price for a unit of alcohol, currently 50pence per unit . This means alcohol can't legally be sold for lower than that. The more alcohol a drink contains, the stronger it is and therefore the higher the minimum unit price.

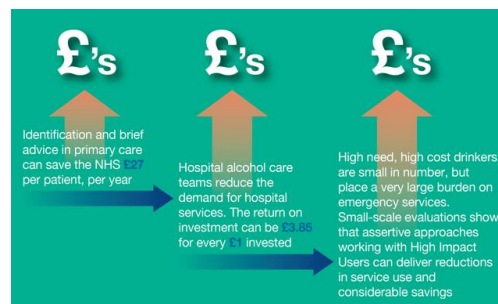
The law supports the Welsh Government's comprehensive work to tackle harmful and hazardous drinking by tackling the availability and affordability of cheap, strong alcohol, which is part of wider efforts to improve and protect the health of the population of Wales.

Research estimates that introducing a 50p minimum unit price (MUP) would:

- result in 66 fewer deaths and 1,281 fewer hospital admissions in Wales per year
- would save the Welsh NHS more than £90 million over 20 years, in direct healthcare costs
- would reduce workplace absence, which is estimated to fall by up to 9,800 days per year
- over a 20 year period, the introduction of a MUP could contribute £783 million to the Welsh economy in terms of the reduction in alcohol-related illness, crime and workplace absence.

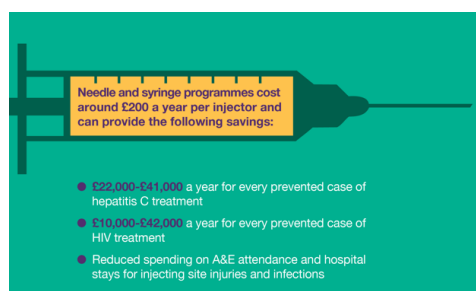
Research by Public Health England (PHE, 2019) found that considerable return on investment (ROI) can be achieved by providing alcohol interventions. For example, identification and brief advice has been estimated to save £27 per patient per year; alcohol care teams in hospital can deliver returns on investment of £3.85 for every £1 invested; and assertive outreach teams that work with 'high impact users' of emergency services have achieved up to 62% cost savings. Identification and brief intervention demonstrates an impactful Numbers Needed to Treat of 1 in 8 (Kaner et al, 2006). This activity is delivered across Hywel Dda by health coaches imbedded in several Primary Care clusters. Current capacity allows for around fifty patients to be seen per month. However, with greater investment in this programme, more early intervention and prevention measures could be put in place for patients, saving money on alcohol related harm in the future.

Figure 12. Investing in alcohol interventions saves money infographic. (PHE 2019)



Needle and syringe programmes in Wales provide sterile injecting equipment for people who inject drugs, and aim to reduce harm by providing advice, information, and referral to other services such as specialist treatment services. There has been a notable reduction in people accessing this service across the UK, and notably across Wales, since the pandemic and the Hywel Dda harm reduction strategy for the coming year will focus on this issue as it supports the work to eradicate hepatitis.

Figure 13. Needle and syringe programme costs and projected savings (PHE, 2019)



The ROI for needle exchange is detailed in the PHE infographic shown as Figure 13. It is impossible to give a realistic ROI for Hywel Dda as measuring how many people did *not* contract a particular condition is difficult, but Hywel Dda's (2023) elimination plan notes the minimum expected number of people treated to be 60 so any reduction on this can be seen as success.

There is a well-established and complex link between drugs, alcohol and crime, and in the recent years there has been a particular emphasis on the links between drug misuse and offending. It is known that people who misuse drugs are more likely to have been involved in crime, but it is also known that drug treatment can help to prevent it.

According research carried out and published by the UK Health Security Agency (2018), showed the societal impact of people being in treatment on offending and re-offending, specifically:

- In the past year, nearly 133,000 people started treatment for drugs and alcohol across England and Wales, 35% of which had a criminal conviction recorded against them in the two years previous
- Overall 44% of people in treatment hadn't offended again two years after starting treatment
- The number of recorded offences by people in treatment fell by a third over the two years, from 129,000 to 86,500
- People who had been in prison before starting treatment, and those who dropped out and came back to treatment, were more likely to reoffend
- People who successfully completed their treatment, or were still in treatment at the end of the two years, were less likely to reoffend

These figures are good news and re-affirm how important drug treatment is in cutting crime, as well as preventing alcohol and drug-related deaths and helping people recover from dependence. However, treatment is only part of the societal solution against re-offending.

These findings are supported by a systematic review by Roscoe et al (2021) that examines the impact of the disinvestment results in reduced success of treatment, an increase in drug related deaths and a significant increase in alcohol related hospital admissions. The report also indicates an increase in acquisitive drug related crime but also suggests that greater research is required in this specific field.

Drug and alcohol treatment results in savings in several areas, such as Crime, QALY improvements and health & social care. According to PHE (2019), alcohol treatment reflects a return on investment of £3 for every pound invested. This outcome rises to £26 over 10 years. Drug treatment reflects a return on investment of £4 for every pound invested increasing to £21 over 10 years. It is further suggested that the overall benefits of a wholistic approach to treatment can result in a societal benefit of £2.4 billion.

Figure 14. Summary of the Return on Investment for drug and alcohol treatment (PHE, 2019)



Buvidal is a medicine used to treat opioid dependence and has demonstrated considerable success notably in Pembrokeshire and Ceredigion. Buvidal is used in adults and adolescents aged over 16 years who are also receiving medical, social and psychological support. Buvidal contains the active substance buprenorphine and is a 'hybrid medicine'. Phillips-Jackson et al (2020) conclude that the introduction of Buvidal to treatment choices was associated with a decrease in costs required for care of a population who use opioids. This was based upon a total population of around 400,000 people with 2000 high risk opioid users and 1000 people entering treatment per year. Scottish Government (2012) also note the broader positive outcomes found during a pilot where the introduction of Buvidal resulted in positive changes in people's emotional wellbeing, leading to positive lifestyle changes, such as people re-engaging with purposeful activities. These initial findings triggered a further investment in current services to try to prevent re-offending.

Naloxone is reverse opioid overdoses. It is an opioid antagonist. This means that it attaches to opioid receptors and reverses and blocks the effects of other opioids. It has long been seen as a cost effective method of harm reduction and Coffin and Sullivan (2013) found that Naloxone distribution was cost-effective in all deterministic and probabilistic sensitivity and scenario analyses, and it was cost-saving if it resulted in fewer overdoses or emergency medical service call-outs. Acharya et al (2020), in a rural American study, concluded that Naloxone distribution in community pharmacies would reduce opioid overdose deaths and be cost-effective at an estimated saving of \$100 000 per QALY. This supports the findings of Langham et al (2023) whose UK based evaluation using the same methodology as Coffin and Sullivan (see above) suggests that the distribution of take-home Naloxone decreased overdose deaths by around 6.6% and was cost-effective with an incremental cost per QALY gained well below a £20,000 willingness-to-pay threshold set by UK decision-makers.

According to Alcohol Change UK (2024) in a population the size of that of the Hywel Dda University Health Board area, there are likely to be around 400 people whose lives are characterised by:

- Alcohol dependency and associated physical and mental ill-health
- A pattern of not engaging (or engaging sporadically) with alcohol treatment
- The burden they place on public services, both directly and via the burden they place on others, such as their neighbours and family.

They are some of the most vulnerable people in our communities. They may cause significant harm to themselves and others, are very open to exploitation and abuse, and place a significant strain on public services. Based on our experience in other Blue Light project sites, Alcohol Change UK estimate that this relatively small cohort of alcohol-dependent drinkers will be costing more than £10 million each year across a range of agencies in the Hywel Dda UHB area. They will be known to local healthcare, social care, housing, and emergency services (and it is their frequent demands on the emergency services that have led to them becoming known as "Blue Light" clients). Many of the costs they generate result from the chaotic and unplanned way in which they access services – lurching from crisis to crisis. What the Blue Light Project offers are ways to engage with this client group in a structured manner, and thereby save money, time, and resources.

Since 2014, the Blue Light project has offered a cost-effective approach to engaging with the most chaotic alcohol-dependent drinkers. A number of areas that have adopted the Blue Light approach have seen a significant return on their investment:

- In Sandwell, West Midlands, data from one year of running the Blue Light project showed a reduction in costs from £244,000 to £93,000: a more than 60% saving
- In one year of Blue Light work, the Nottinghamshire Alcohol-Related Long-Term Conditions Team saved £360,000 for local healthcare services, far exceeding the cost of running the Team.

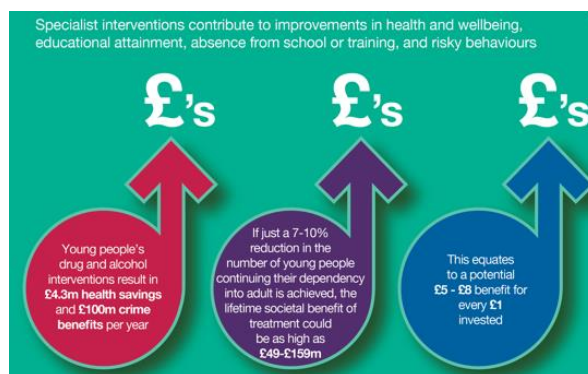
The recent systematic review by Long Khanh-Dao Lee et al (2023), examined a total of 69 studies which met the inclusion criteria for a full economic evaluation or return-on-investment study. Most studies targeted adults or

a combination of age groups, seven studies comprised children/adolescents and one involved older adults. Half of the studies found that alcohol prevention interventions are cost-saving (i.e. more effective and less costly than the comparator). This was especially true for universal prevention interventions designed to restrict exposure to alcohol through taxation or advertising bans; and selective/indicated prevention interventions, which involve screening with or without brief intervention for at-risk adults. School-based interventions combined with parent/carer interventions were cost-effective in preventing alcohol use among those aged under 18 years. No interventions were cost-effective for preventing alcohol use in older adults.

ROI- Interventions for Young People

Research carried out over a number of years by PHE (2019) has shown that specialist interventions for young people are effective and contribute to improvements in health and wellbeing as well as a range of other benefits. As such these interventions represent value for money. In addition to a saving to health services of £4.3 million per year, there was a further £100 million benefits to the criminal justice system annually. Importantly, early identification and intervention results in less young people going on to use drugs and alcohol in adulthood. It is estimated that for every £1 invested, there is a potential future saving of between £5 and £8.

Figure 15. Estimated Return on Investment from Interventions for Young People (PHE, 2019)



Bradley (2013) examined a social return on investment model for substance misuse work carried out by the rural Leicestershire criminal justice team. The social return on investment analysis suggests that the substance misuse work has a positive impact and delivers a return on investment of approximately £4 for every £1 invested within two years. The main stakeholders who appear to benefit initially from the substance misuse work are health and the young people themselves. This is due to significant benefits from reduced substance misuse for those on police referral orders and police pre-referrals, which are unlikely to have occurred without the worker, and improved future prospects, particularly for those on police pre-referral order. Offending also appears to have reduced more than expected for those on a police referral order. This report, although dated, is included due to the rural nature of the geography included in the paper. Holloway (2023) from the University of South Wales notes that not all outcomes are wholly positive or cost-effective. Some patients have been overwhelmed with emotions because the medication made them feel so clear-headed that their past traumas – suppressed by years of illicit opioid use – had begun to resurface. There have also been reports of an increase in crack cocaine use among some patients and concerns about the reduced amount of contact (from daily to monthly) with drug services. This could result in further cost implications to both health and criminal justice partners.

ROI- PROJECTED ESTIMATED SAVINGS

Based on the PHE (2019) findings that alcohol treatment reflects a return on investment of £3 for every pound invested (rising to £26 over 10 years) and that drug treatment reflects a return on investment of £4 for every pound invested (increasing to £21 over 10 years) Figure 16 shows the potential return from drug and alcohol services based on £25,000, £50,000, £100,000 and £250,000 being invested over 1 and 10 years respectively. It is clear that the more money invested, for the longer duration, allows a greater return on the initial investment.

Figure 16. Projected Return on Investment for drug and alcohol services

SUBSTANCE	TOTAL INVESTED	PROJECTED SAVING – YEAR 1	PROJECTED SAVING- YEAR 10
ALCOHOL	£25,000	£75,000	£650,000
ALCOHOL	£50,000	£150,000	£1,300,000
ALCOHOL	£100,000	£300,000	£2,600,000
ALCOHOL	£250,000	£750,000	£6,500,000
ILLICIT DRUGS	£25,000	£100,000	£525,000
ILLICIT DRUGS	£50,000	£200,000	£1,050,000
ILLICIT DRUGS	£100,000	£400,000	£2,100,000
ILLICIT DRUGS	£250,000	£1,000,000	£5,250,000

Alcohol services have their own unique return on investment findings notably for brief advice and reducing hospital admissions. Using PHW (2024) data regarding the percentage of population who drink over the guidelines, Figure 17 estimates the potential savings by engaging with this cohort to reduce their alcohol consumption. Even with minimal financial input, the harm reduction and thus the savings are significant.

Figure 17. Potential ROI across Hywel Dda and the three counties for brief advice and reducing hospital admissions for those who drink above the guidelines

AREA	POPULATION	POPULATION DRINKING OVER THE GUIDELINES	BRIEF ADVICE SAVINGS ON ADULTS DRINKING ABOVE THE GUIDELINES PER YEAR	HOSPITAL SAVINGS ON £1 INVESTMENT PER ADULT DRINKING ABOVE THE GUIDELINES PER YEAR
HYWEL DDA	385,094	66,621 (17.3%)	£1,798,767	£256,490
CARMARTHEN	189,117	28,178 (14.9%)	£760,806	£108,485
CEREDIGION	71,610	11,457 (16%)	£309,339	£44,109
PEMBROKESHIRE	124,367	26,365 (21.2%)	£711,855	£101,505

The capacity to engage in more brief interventions across Hywel Dda (perhaps through the Health Coach programme) has the potential to save close to £2million. It can also be surmised that as little an investment as £4.00 per person drinking above the guidelines could save £1million per year in alcohol related hospital visits.

During the financial year 2023-24, Hywel Dda specialist services assessments completed 1005 assessments where alcohol was the primary substance with a further 235 for cannabis, 169 for heroin, 116 for cocaine and 31 for benzodiazepines. Figure 18 below shows the potential ROI across these substances with £10, £25, £100 and £250 per patient over one year and ten years.

Figure 18.

SUBSTANCE	COUNT	1YR/£10	1YR/£25	1YR/£100	1YR/£250	10YR/£10	10YR/£25	10YR/£100	10YR/£250
ALCOHOL	1005	£30,150	£75,375	£301,500	£753,750	£261,300	£653,250	£2,512,500	£6,532,500
CANNABIS	235	£9,400	£23,500	£94,000	£235,000	£49,350	£123,375	£493,500	£1,233,750
HEROIN	169	£6,760	£16,900	£67,600	£169,000	£35,490	£88,725	£354,900	£887,250
COCAINE	116	£4,640	£11,600	£46,400	£116,000	£24,360	£60,900	£243,600	£609,000
BENZOS	31	£1,240	£3,100	£12,400	£31,000	£6,510	£16,275	£65,100	£162,750

SUMMARY

- Alcohol treatment reflects a return on investment of £3 for every pound invested
- This outcome rises to £26 over 10 years
- Drug treatment reflects a return on investment of £4 for every pound invested
- This increases to £21 over 10 years
- It is further suggested that the overall benefits of a wholistic approach to treatment can result in a UK societal benefit of £2.4 billion
- Specific programmes across Hywel dda University Health Board are both evidence based and provide a return on investment
- These include the provision of Buprenorphine, Naloxone and needle exchange services
- Interventions such as brief interventions delivered by health coaches and the Blue Light Project also provide long term savings to the overall system including to criminal justice partners

CONCLUSION

Drug and alcohol treatment and services save lives. When done effectively, they can also provide a societal return on investment that impacts upon health, criminality and communities.

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